City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

WANDERIST OFFICE & RETAIL

3743 E. INDIAN SCHOOL ROAD, PHOENIX, AZ 85018

ERWIN | ARCHITECTURE DEVELOPMENT

ABBREVIATIONS

A	AIR
A/C	AIR CONDITIONING
ACT	ACOUSTICAL TREATMENT (CEILING TILE OR PANEL)
AD	AREA DRAIN
ADD	ADDENDUM
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AL, ALUM	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT, -URAL
BETW	BETWEEN
BLDG	BUILDING
BOC	BOTTOM OF CURB
BOF	BOTTOM OF FOOTING
CAB	CABINET
CARD	CARD READER
CB	CATCH BASIN
CEM	CEMENT
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR, -ANCE
CM	CENTIMETER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST, CONSTR	CONSTRUCTION
CONT	CONTINUE, -OUS
CORR	CORRIDOR
CTR	CENTER
DEMO	DEMOLISH, DEMOLITION
DEP, DEPR	DEPRESSED
DET, DTL	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DP	DAMPPROOFING
DWG	DRAWING
E	EAST
EA	EACH
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EP	ELECTRICAL PANEL
EPS	EXPANDED POLYSTYRENE
EQ	EQUAL
EQUIP	EQUIPMENT
EX, (E)	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FHC	FIRE HOSE CABINET
FIN	FINISH
FLR, FL	FLOOR, -ING
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FUT	FUTURE
GA	GAUGE
GAL, GALV	GALVANIZED
GFI	GROUND FAULT INTERRUPTER
GL	GLASS, GLAZING, GLAZED
GWB	GYPSUM BOARD
GYP	GYPSUM
HB	HOSE BIB
HGT, HT	HEIGHT
HM	HOLLOW METAL
HOR, HORIZ	HORIZONTAL
HSS	HOLLOW STEEL SHAPE
HVAC	HEATING, VENTILATING, AIR CONDITIONING
ID	INSIDE DIAMETER
INCL	INCLUDE, -D, -ING
INSUL	INSULATE, -ION, -D, -ING
INT	INTERIOR
JT	JOINT
KIT	KITCHEN
LAM	LAMINATE
LAV	LAVATORY
LT	LIGHT
LVL	LEVEL
MANUF	MANUFACTURER
MAS	MASONRY
MAT, MATL	MATERIAL, -S
MAX	MAXIMUM
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANIC, -AL
MED	MEDIUM
MEMB	MEMBRANE
MET	METAL, -LIC
MFD	MANUFACTURED

MICRO	MICROWAVE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MM	MILLIMETER, -S
MTL	METAL
MULL	MULLION
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO, #	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OVERFLOW DRAIN
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFI	OWNER FURNISHED & INSTALLED
OH	OPPOSITE HAND
OPP	OPPOSITE
OSB	ORIENTED STRANDBOARD
OZ	OUNCE
PCF	POUNDS PER CUBIC FEET
PERF	PERFORATE, -D
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
PNT, P	PAINT, -ED
PORC	PORCELAIN
POS	POSTITION
PREFAB	PREFABRICATE, -D
PTN	PARTITION
R	RECEPTACLE
R	RISER
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFERENCE
REFL	REFLECT, -ED, -IVE, -OR
REFR	REFRIGERATOR
REINF	REINFORCE
REM	REMOVE
REQ'D	REQUIRED
REV	REVISE, REVISION
RO	ROUGH OPENING
S	SOUTH
SCHED	SCHEDULE
SEAL	SEALANT
SECT	SECTION
SHT	SHEET
SHTHG	SHEATHING
SHWR	SHOWER
SIL	SILICONE
SIM	SIMILAR
SPEC	SPECIFICATION (S)
SPF	SPRAY POLYURETHANE FOAM
SPK	SPEAKER
SPR	SINGLE-PLY ROOFING
SQ	SQUARE
SST, SS	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STR, STRL	STRUCTURE, STRUCTURAL
SYM	SYMMETRY, -IC(AL)
T	TEL/DATA OUTLET
T STAT	THERMOSTAT
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
THK	THICK, -NESS
THRU	THROUGH
TOC	TOP OF CONCRETE, CURB
TOF	TOP OF FOOTING
TOP	TOP OF PAVEMENT
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS, TPT	TRANSPARENT
TV	TELEVISION
TYP	TYPICAL
UC	UNDER CABINET
UL	UNDERWRITERS' LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WEST
W	WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WP	WATERPROOF, -ING
WP/C	WATERPROOFING, CRYSTALLINE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
XPS	EXTRUDED POLYSTYRENE INSULATION

SHEET INDEX

GENERAL NOTES

IF THERE IS A CONFLICT BETWEEN ANY NOTES, DRAWINGS, OR SPECIFICATIONS, THE MOST RESTRICTIVE SHALL APPLY.

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE GOVERNING EDITION OF THE INTERNATIONAL BUILDING CODE, OR SUCH OTHER LEGAL CODES, AND SHALL CONFORM TO ANY SPECIAL REQUIREMENTS OF ANY LENDING OR GOVERNMENTAL INSTITUTIONS.

CONTRACTOR AND SUBCONTRACTORS SHALL BE LICENSED IN THE STATE OF THE PROJECT SITE AND SHALL BE KNOWLEDGEABLE, SKILLED, AND COMPETENT TO PERFORM THE INTENDED WORK.

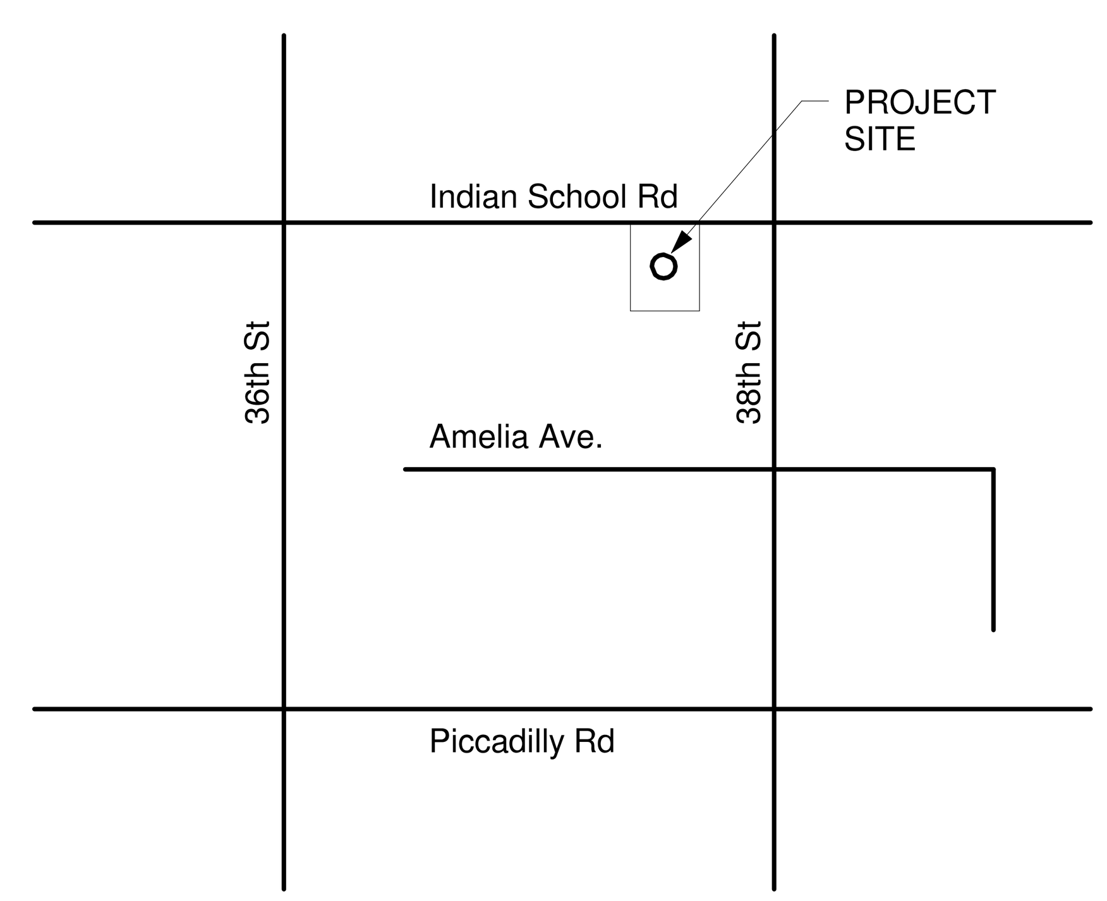
CONTRACTOR AND SUBCONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN A PROFESSIONAL MANER BY SKILLED CRAFTSMAN OR TRADESMAN AND SHALL REPLACE ANY ITEMS DAMAGED BY THE CONTRACTOR OR SUBCONTRACTORS AT NO COST TO THE OWNER. SUBCONTRACTORS SHOULD COOPERATE FULLY WITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHERS WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK IN A TIMELY MANNER.

CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, AND PROCEDURES, AND FOR THE SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK.

CONTRACTOR AND SUBCONTRACTORS SHALL AT ALL TIMES INDEMNIFY AND HOLD THE ARCHITECT HARMLESS AGAINST ALL LIABILITY FOR CLAIMS AND LIENS FOR LABOR PERFORMED OR MATERIALS USED OR FURNISHED TO BE USED ON THE JOB, INCLUDING ANY COSTS AND EXPENSES FOR ATTORNEY FEES AND ALL INCIDENTIAL OR CONSEQUENTIAL DAMAGES RESULTING TO THE ARCHITECT ARISING FROM SUCH CLAIMS.

ALL BIDS SUBMITTED AND ACCEPTED UNDER THIS CONTRACT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE DOCUMENTS.

THE ARCHITECT NEITHER WARRANTS NOR GUARANTEES ANY CONSTRUCTION MATERIAL, EQUIPMENT, APPLIANCE, FIXTURE, HARDWARE, FINISH, OR MEAN/METHOD OF CONSTRUCTION. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY PROJECT SITE GRADING OR DRAINAGE, NOR ANY TOXIC AND HAZARDOUS MATERIAL, GROUND EROSION, CORROSION, SUBSOIL, OR AIR AND WATER CONDITIONS, OR SIMILAR SUCH CONDITIONS OF THE PROJECT.



VICINITY MAP

PROJECT DESCRIPTION

NEW 3,760 SF OFFICE/RETAIL BUILDING CONSTRUCTED ON EXISTING SLAB ON GRADE.

DEFERRED SUBMITTALS

FIRELINE
FIRE SPRINKLER
FIRE ALARM
FIRE ACCESS
GATE ACCESS
KNOX BOX

SEPARATE SUBMITTALS

SIGNAGE
LANDSCAPE
INVENTORY/SALVAGE
GATES

CODE COMPLIANCE

2018 INTERNATIONAL BUILDING CODE
2018 UNIFORM PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2017 NATIONAL ELECTRIC CODE
2018 INTERNATIONAL FUEL AND GAS CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
2012 INTERNATIONAL FIRE CODE

SPECIAL INSPECTIONS

SEE STRUCTURAL S.02

CONTRACTOR & OWNER NOTICE

THIS PROJECT HAS BEEN PERMITTED UNDER THE CITY OF PHOENIX SELF-CERTIFICATION PROGRAM. THE PROJECT IS SUBJECT TO AUDIT AND FIELD INSPECTION BY THE PLANNING & DEVELOPMENT DEPARTMENT. IF THE CONSTRUCTION OF THE PROJECT IS CONTRARY TO, OR DOES NOT MEET THE STANDARD OF THE CITY OF PHOENIX BUILDING CONSTRUCTION CODES, THE OWNER, AT HIS/HER OWN EXPENSE, SHALL REMOVE OR MODIFY ANY AND ALL COMPONENTS THAT DO NOT CONFORM. ANY DEVIATIONS FROM THE APPROVED PLAN MUST BE COORDINATED IN ADVANCE WITH THE CITY INSPECTOR AND REVISED PLANS OR SKETCHES MUST BE PROVIDED BY THE SELF-CERTIFIED PROFESSIONAL.

CERTIFICATION STATEMENT

I HEREBY CERTIFY THAT THESE DRAWINGS ARE PREPARED BY ME, UNDER MY SUPERVISION, OR REVIEWED BY ME AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE CONFORM TO THE PHOENIX BUILDING CONSTRUCTION CODE.

SELF CERTIFIED BY: [signature] DATE: 03/11/19
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT
Self-Certified Plans - Official Construction Set

This set of Self Certified plans shall be kept at the construction site. Acceptance of these plans shall not prevent the City from requiring correction of errors in the plans where such errors are subsequently found to be in violation of any code, law, ordinance, health, safety, or other design issues.

IBC - Stevan Varnell 602-534-8705

IMC-UPC - John Lanoue 602-534-2881

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Expires 6.30.19

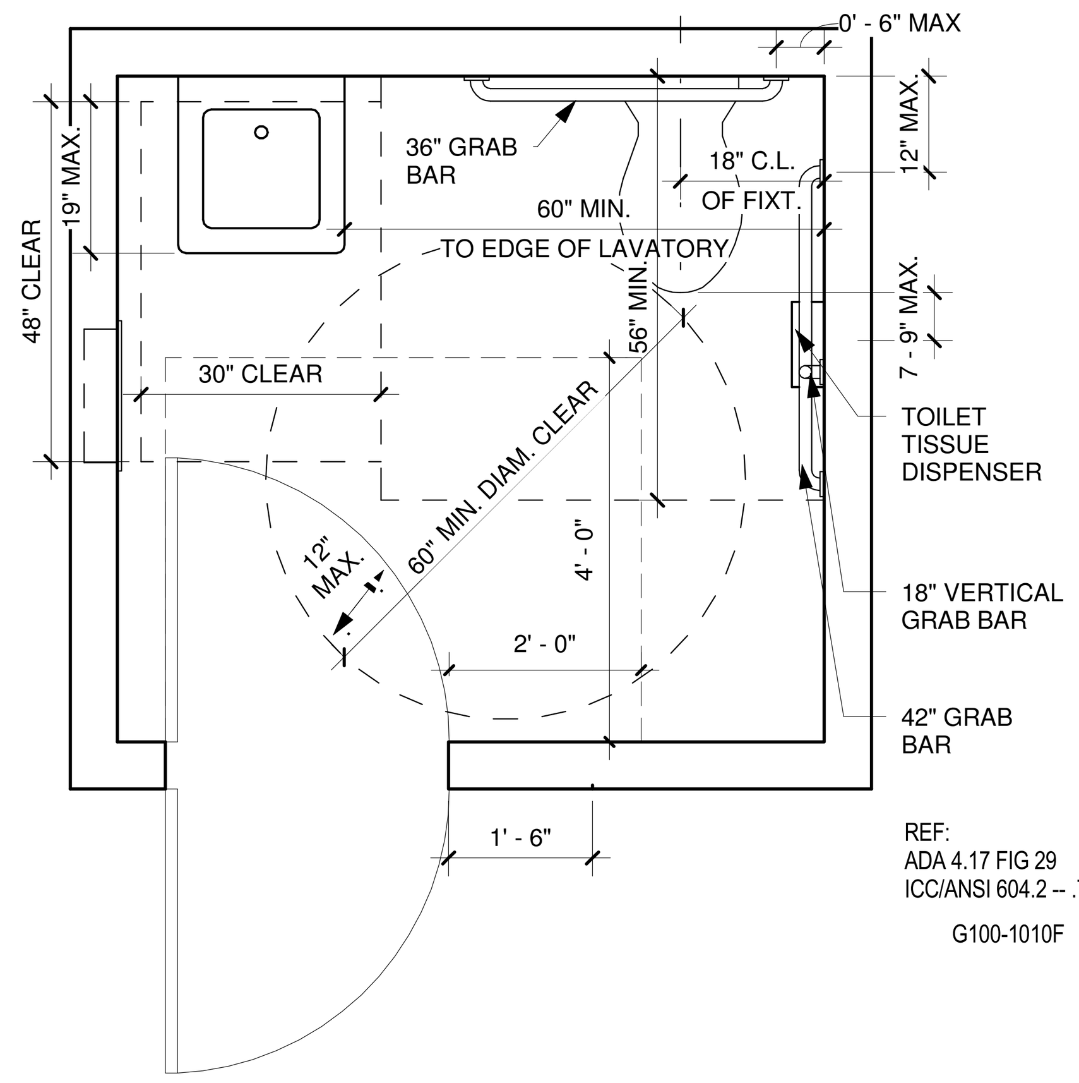
Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

COVER SHEET

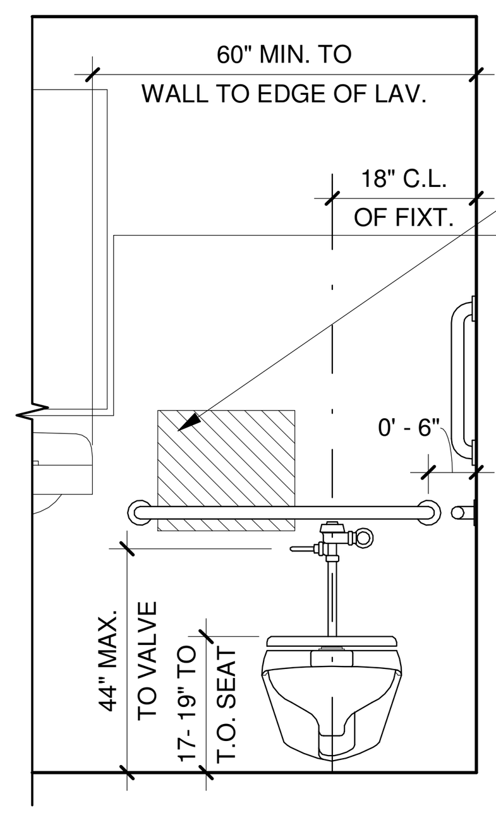
Date 03/06/19

A000

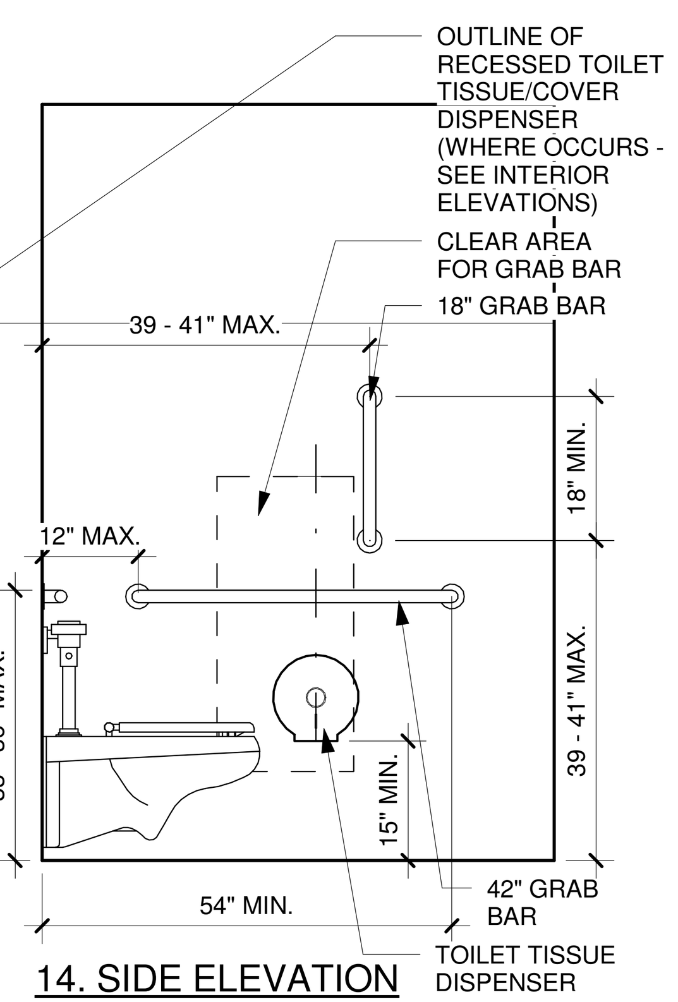
Scale 1/4" = 1'-0"



16. BATHROOM PLAN

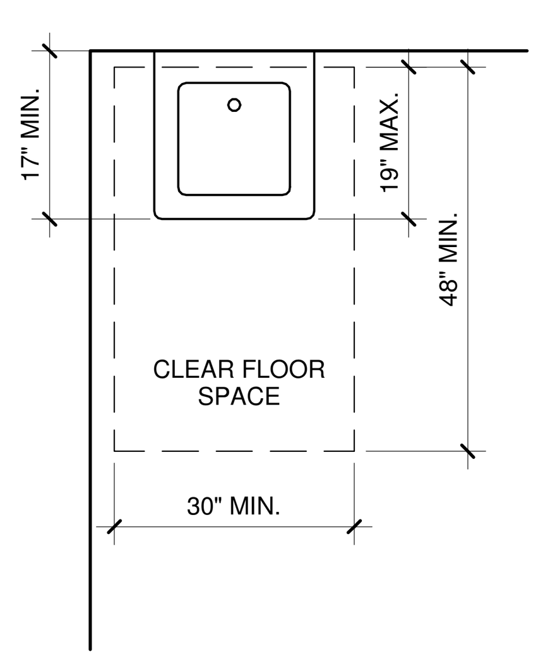


15. FRONT ELEVATION

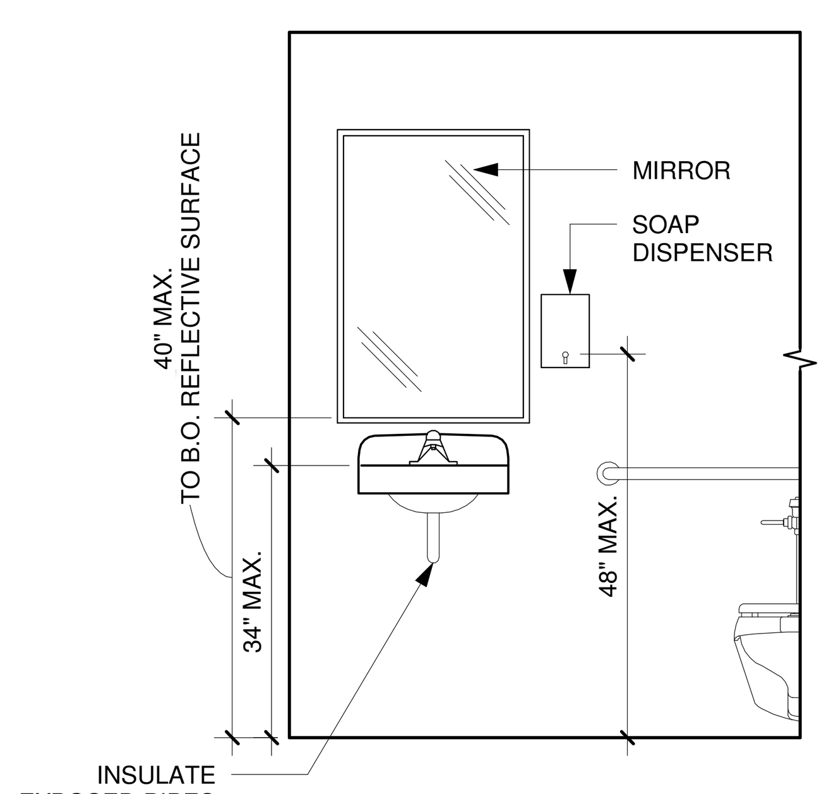


14. SIDE ELEVATION

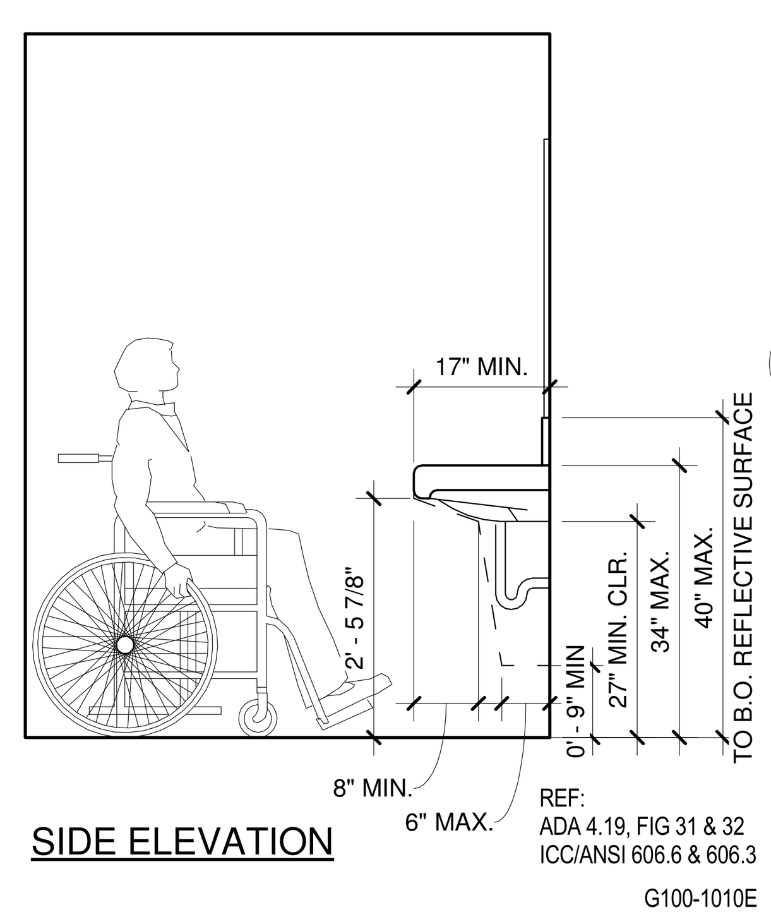
3 SINGLE TOILET ROOM
1/2" = 1'-0"



SINK PLAN



FRONT ELEVATION



SIDE ELEVATION

2 ACCESSIBLE LAVATORY
1/2" = 1'-0"

PLUMBING FIXTURE COUNTS

IBC TABLE 2902.1

CLASSIFICATION	OCCUPANCY	WATER CLOSETS	LAVS	TUB / SHOWERS	DRINKING FOUNTAINS	OTHER
BUSINESS	B	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50 14/50 = .28	1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80 14/40 = .35	-	1 per 100 14/100 = .14	1 Service Sink
MERCANTILE	M	1 per 500 78/500 = .15	1 per 750 78/750 = .10	-	1 per 1000 78/1000 = .078	1 Service Sink

WATER CLOSETS
1 REQUIRED
2 PROVIDED

DRINKING FOUNTAINS
1 REQUIRED
WATER COOLER PROVIDED IN LIEU OF DRINKING FOUNTAIN

SERVICE SINK
1 REQUIRED
1 PROVIDED

NOTE: PER IBC 2902.2 SEPARATE FACILITIES ARE NOT REQ'D FOR EA. SEX IN MERCANTILE OCCUPANCIES W/ MAXIMUM OCCUPANT LOAD OF 100 OR FEWER OR BUSINESS OCCUPANCIES W/ 25 OR FEWER. PROVIDE UNISEX SIGNAGE PER IBC 2902.4

IECC DATA

ALL NEW FENESTRATION MUST MEET REQUIREMENTS OF 2012 IECC TABLE C402.3 CLIMATE ZONE 2

TABLE C402.3
BUILDING ENVELOPE REQUIREMENTS: FENESTRATION

CLIMATE ZONE	1	2	3	4 EXCEPT MARINE	5 AND MARINE 4	6	7	8
Vertical fenestration								
***U*-factor**								
Fixed fenestration	0.50	0.50	0.46	0.38	0.38	0.36	0.29	0.29
Operable fenestration	0.65	0.65	0.60	0.45	0.45	0.43	0.37	0.37
Entrance doors	1.10	0.83	0.77	0.77	0.77	0.77	0.77	0.77
SHGC								
SHGC	0.25	0.25	0.25	0.40	0.40	0.40	0.45	0.45
Skylights								
***U*-factor**	0.75	0.65	0.55	0.50	0.50	0.50	0.50	0.50
SHGC	0.35	0.35	0.35	0.40	0.40	0.40	NR	NR

NR = No requirement.

OCCUPANT LOAD

OCCUPANT LOAD TABLE

AREA NAME	USE GROUP	AREA	NET OR GROSS	LOAD FACTOR	OCCUPANT LOAD
OFFICE & STOCK ROOM	B	1408 SF	GROSS	100 SF	14
RETAIL AREA	M	2336 SF	GROSS	30 SF	78

NO SEPARATION BETWEEN USES REQUIRED PER TABLE 508.4

EXIT ARRANGEMENT

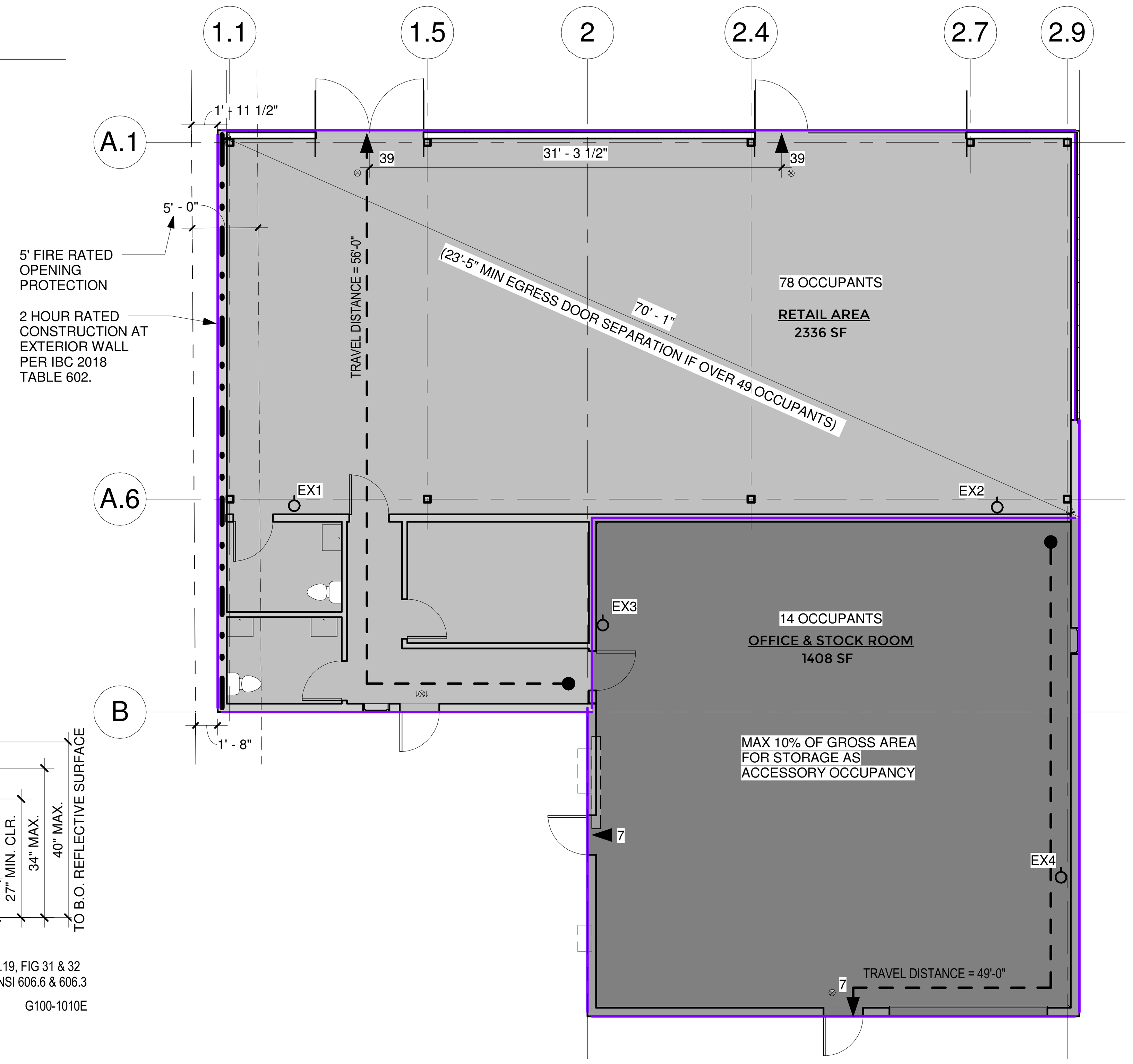
REFERENCE IBC SECTION 1015 & 1021

A MINIMUM OF TWO EXITS WILL BE PROVIDED WHERE EVER THE OCCUPANT LOAD IS GREATER THAN 49 PERSONS IN B AND M USES.

RETAIL AREA
2 EXITS REQUIRED
2 EXITS PROVIDED

PRINT AREA
1 EXIT REQUIRED
2 EXITS PROVIDED

WHERE EVER TWO EXITS ARE REQUIRED FROM ANY PORTION OF THE BUILDING, THE EXITS WILL BE LOCATED A DISTANCE OF NOT LESS THAN ONE-THIRD OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE SPACE.



1 CODE PLAN AND EXITING DIAGRAM
1/8" = 1'-0"

EGRESS COMPONENTS

EXIT SIGNS:
1. EXITS AND EXIT ACCESS DOORS WILL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGN PLACEMENT WILL BE SUCH THAT NO POINT IN A CORRIDOR IS MORE THAN 100 FEET, OR THE LISTED VIEWING DISTANCE FRO THE SIGN, WHICH EVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN.

2. EXIT SIGN LETTERS TO BE NOT LESS THAN 2" WIDE X 6" HIGH (EXCEPT LETTER I). AND THE MINIMUM SPACING BETWEEN THE LETTERS WILL NOT BE LESS THAN (3/4) INCHES. IBC FIGURE 1011.6.1

4. EXIT SIGN LETTERS TO BE IN HIGH CONTRAST WITH THE BACKGROUND AND CLEARLY DISCERNABLE WHEN THE MEANS OF EGRESS ILLUMINATION IS OR IS NOT ENERGIZED.

5. TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MINUTES IN CASE OF PRIMARY POWER LOSS, THE SIGN WILL BE CONNECTED TO AN EMERGENCY POWER SYSTEM PROVIDED FROM AN ONSITE GENERATOR.

DOORS:
1. MINIMUM CLEAR WIDTH SHALL BE .2 INCHES PER OCCUPANT SERVED. MINIMUM CLEAR WIDTH SHALL BE REDUCED TO .15 INCHES PER OCCUPANT SERVED IN BUILDING EQUIPPED THROUGHOUT AUTOMATIC SPRINKLER SYSTEM & EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM, BUT NOT LESS THAN 32 INCHES. IBC, SECTION 1005.3.2 AND TABLE 1008.1.1

2. MINIMUM HEIGHT SHALL BE 80 INCHES. IBC, SECT 1008.1.1

3. MAXIMUM WIDTH OF SWINGING DOOR LEAF IS 48 INCHES. IBC, SECT 1008.1.1

4. DOORS WILL BE SIDE HINGED SWINGING TYPE, AND WILL SWING IN THE DIRECTION OF TRAVEL WHERE THE AREA SERVED HAS AN OCCUPANT OF 50 OR MORE. IBC SECT 1008.1.2

5. DOORS WILL BE SET IN MOTION WHEN SUBJECTED TO A 30 POUND FORCE, AND SWING TO THE FULLY OPEN POSITION WHEN SUBJECTED TO A 15 POUND FORCE. IBC, TABLE 1008.1.3

6. DOORS WILL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR SPECIAL EFFORT.

CORRIDORS:
1. MINIMUM CLEAR WIDTH SHALL BE .15 INCHES PER OCCUPANT SERVED IN BUILDING EQUIPPED THROUGHOUT AUTOMATIC SPRINKLER SYSTEM & EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM, BUT NOT LESS THAN 44 INCHES. IBC, SECT 1005.3.2 & 1018.2

2. MIN CLEAR WIDTH WITH AN OCCUPANT CAP OF 50 OR LESS IS 36 INCHES. IBC SECT 1018.2

3. THE MAXIMUM LENGTH OF DEAD-END CORRIDORS IS 50 FEET FOR GROUP B, M, S, & R-2 AND 20 FEET FOR ALL OTHER OCCUPANCIES. IBC, SECTION 1018.4

INTERVENING ROOMS:
1. EGRESS FROM A ROOM OR SPACE MAY NOT PASS THROUGH ADJOINING OR INTERVENING ROOMS OR AREAS, EXCEPT WHERE SUCH ADJOINING ROOMS OR AREAS ARE ACCESSORY TO THE AREA SERVED, NOT A HIGH-HAZARD OCCUPANCY, AND PROVIDE A DISCERNABLE PATH OF EGRESS TRAVEL TO AN EXIT. IBC SECT 1014.2

2. EGRESS MAY NOT PASS THROUGH STORAGE ROOMS, CLOSETS, OR SPACES USED FOR SIMILAR PURPOSES.

3. EXIT ACCESS MAY NOT PASS THROUGH A ROOM THAT CAN BE LOCKED TO PREVENT EGRESS. IBC, SECTION 1014.2

CODE DATA

2018 CITY OF PHOENIX BUILDING CONSTRUCTION CODE INCLUDING THE FOLLOWING CODES AND AMENDMENTS:
- **2018 IBC (INTERNATIONAL BUILDING CODE)**
- **2018 IECC (INTERNATIONAL ENERGY CONSERVATION CODE)**
- **2018 IFC (INTERNATIONAL FIRE CODE)**
- **2017 NEC (NATIONAL ELECTRIC CODE)**
- **2018 IMC (INTERNATIONAL MECHANICAL CODE)**
- **2018 IPC (INTERNATIONAL PLUMBING CODE**
- **2018 UPC (UNIFORM PLUMBING CODE)**

ACCESSIBILITY:
- **CHAPTER 11 OF THE IBC**
- **2009 ANSI A117.1, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES**
- **2010 ADA STANDARDS FOR ACCESSIBLE DESIGN**

OTHER:
- **VARIOUS NFPA CODES AND STANDARDS AS REFERENCED BY CODES LISTED ABOVE**

FIRE EXTINGUISHERS

EX — PER IBC TABLE SECTION 906 PROVIDE 2-A RATED EXTINGUISHERS. MAX TRAVEL DISTANCE TO EXTINGUISHER 75'-0". MAXIMUM FLOOR AREA PER UNIT OF "A" IS 3,000 SF.

EXIT SIGN

SELF CERTIFIED BY: DATE: 03/11/19
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL.
- PLANS ARE COMPLETE.
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

ZONING DATA

PARCELS: 127-25-120-J & 127-25-122
ZONING: C-1
ADDRESS: 3743 E. INDIAN SCHOOL ROAD, PHOENIX, AZ 85018

CONSTRUCTION TYPE

TYPE VB - SPRINKLERED (UNDER SEPARATE PERMIT)
OCCUPANCY CLASSIFICATION B, M
2018 IECC CLIMATE ZONE - 2B

BUILDING LIMITATIONS

REFERENCE IBC TABLE 504.3, SECTION 504.4, AND SECTION 506.2

GROUP	TYPE 5B	
M	2 / 27,000	HEIGHT
B	3 / 27,000	UL/UL AREA

MAX HEIGHT 60'

THE PROPOSED BUILDING IS A SINGLE STORY

OCCUPANCY CLASSIFICATION

REFERENCE IBC TABLE 1004.1.2

AREA OF USE	OCCUPANCY	LOAD FACTOR
PARKING GARAGE	S-2	200 GROSS
STORAGE	S-1	300 GROSS
MECH/ELEC	S-1	300 GROSS
BUSINESS	***B***	***100 GROSS***
MERCANTILE	***M***	***30 GROSS***
SWIMMING POOL	A-3	50 GROSS
SWIMMING POOL DECK	A-3	15 GROSS
RESIDENTIAL UNIT	R-2	200 GROSS
RES. BALCONY/PATIO	R-2	200 GROSS
CIRCULATION SPACE	N/A	100 GROSS
ASSEMBLY (UNCONCENTRATED)	A-3	15 NET
ASSEMBLY (CONCENTRATED)	A-3	7 NET

FIRE RESISTANCE RATING

BUILDING ELEMENT		TYPE 5B	
STRUCTURAL FRAME		0 HR	TABLE 601
EXTERIOR NON-BEARING WALLS	X<5'	2 HR (M)	TABLE 602
INTERIOR NON-BEARING WALLS		0 HR	
EXTERIOR BEARING WALLS		0 HR	TABLE 601
INTERIOR BEARING WALLS		0 HR	TABLE 601
FLOOR CONSTRUCTION		0 HR	TABLE 601
ROOF CONSTRUCTION		0 HR	TABLE 601

SAFETY GLAZING

GLAZING LOCATION	MINIMUM CATEGORY CLASSIFICATION 9 SF OR LESS	MORE THAN 9 SF
FRAMED SWING DOORS	I	II
UNFRAMED SWING DOORS	I	II
TUB AND SHOWER ENCLOSURE	NR	II
ADJACENT TO DOORS	I	II
INDIVIDUAL PANELS	II	II
ADJACENT WALKING SURFACE	NR	II

SAFETY GLAZING WILL NOT BE PROVIDED WHERE ALLOWED BY IBC 2406.3

EXIT TRAVEL DISTANCE

MAXIMUM EXIT ACCESS TRAVEL DISTANCE — **IBC, TABLE 1016.2**

GROUP M — ***250 FEET***
GROUP B — ***300 FEET***

MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE — **IBC, TABLE 1014.3**

GROUP M — ***75 FEET***
GROUP B — ***100 FEET***

DISTANCES REFLECT THE PRESENCE OF AUTOMATIC SPRINKLER SYSTEM

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

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DAVID MCKERCHER
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PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
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SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

CODE DATA & EGRESS PLAN

Date 03/06/19

A001

Scale As indicated

COMcheck Software Version 4.1.1.0
Envelope Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	Wanderist Office & Retail
Location:	Phoenix, Arizona
Climate Zone:	2b
Project Type:	New Construction
Vertical Glazing / Wall Area:	29%
Skylight / Roof Area	0%

Construction Site:
3743 E. Indian School Road
Phoenix, AZ 85018

Owner/Agent:
Jonathan Pitt
Superluxe Screen Printing
3007 N 73Rd St Ste. E
Scottsdale, AZ 85251
480.247.6653

Designer/Contractor:
William Erwin
Erwin Architecture & Development, LLC
5911 W. Park Ave
Chandler, AZ 85226
602.677.8372
will@erwinarchitecture.com

Additional Efficiency Package(s)

Enhanced Envelope Performance

Building Area	Floor Area
1-Retail with office, print area, and support space (Retail) : Nonresidential	3744

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Retail with office, print area, and support space]	3744	28.0	10.0	0.026	0.027
Skylight 1: Metal Frame with Thermal Break:Glass, With Curb, Perf. Specs.: Product ID 3762, SHGC 0.35, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	5	---	---	0.650	0.650
Floor 1: Slab-On-Grade:Unheated, [Bldg. Use 1 - Retail with office, print area, and support space] (d)	265	---	---	0.730	0.730
NORTH					
Exterior Wall 5: Wood-Framed, 24" o .c., [Bldg. Use 1 - Retail with office, print area, and support space]	980	20.0	0.0	0.062	0.064
Window 4: Other Window:Fixed, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	673	---	---	0.180	0.500
Window 5: Other Window:Fixed, Perf. Specs.: Product ID NA, SHGC 0.33, PF 0.38, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	96	---	---	0.500	0.500
Door 4: Glass (> 50% glazing):Nonmetal Frame, Entrance Door, Perf. Specs.: Product ID NA, SHGC 0.37, PF 0.38, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	99	---	---	0.830	0.830
EAST					
Exterior Wall 1: Wood-Framed, 24" o .c., [Bldg. Use 1 - Retail with	1007	20.0	0.0	0.062	0.064

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
office, print area, and support space]					
Window 1: Other Window:Fixed, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	275	---	---	0.180	0.500
Window 3: Metal Frame:Operable, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	22	---	---	0.650	0.650
SOUTH					
Exterior Wall 1 copy 1: Wood-Framed, 24" o .c., [Bldg. Use 1 - Retail with office, print area, and support space]	980	20.0	0.0	0.062	0.064
Window 2: Metal Frame:Operable, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Retail with office, print area, and support space] (c)	7	---	---	0.650	0.650
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Retail with office, print area, and support space]	42	---	---	0.610	0.610
Door 2: Insulated Metal, Garage door 14% glazing, [Bldg. Use 1 - Retail with office, print area, and support space]	126	---	---	0.310	0.310
WEST					
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Retail with office, print area, and support space]	750	20.0	0.0	0.064	0.064
Exterior Wall 4: Wood-Framed, 24" o .c., [Bldg. Use 1 - Retail with office, print area, and support space]	340	20.0	0.0	0.062	0.064
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Retail with office, print area, and support space]	21	---	---	0.610	0.610

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) 'Other' components require supporting documentation for proposed U-factors.
(c) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
(d) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 12% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

William Erwin, President — Signature — 3/4/19
Name - Title — Date

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

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-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
STATE OF ARIZONA
23356
WILLIAM FRANKLIN ERWIN
Date signed with
ARIZONA, U.S.A.

Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

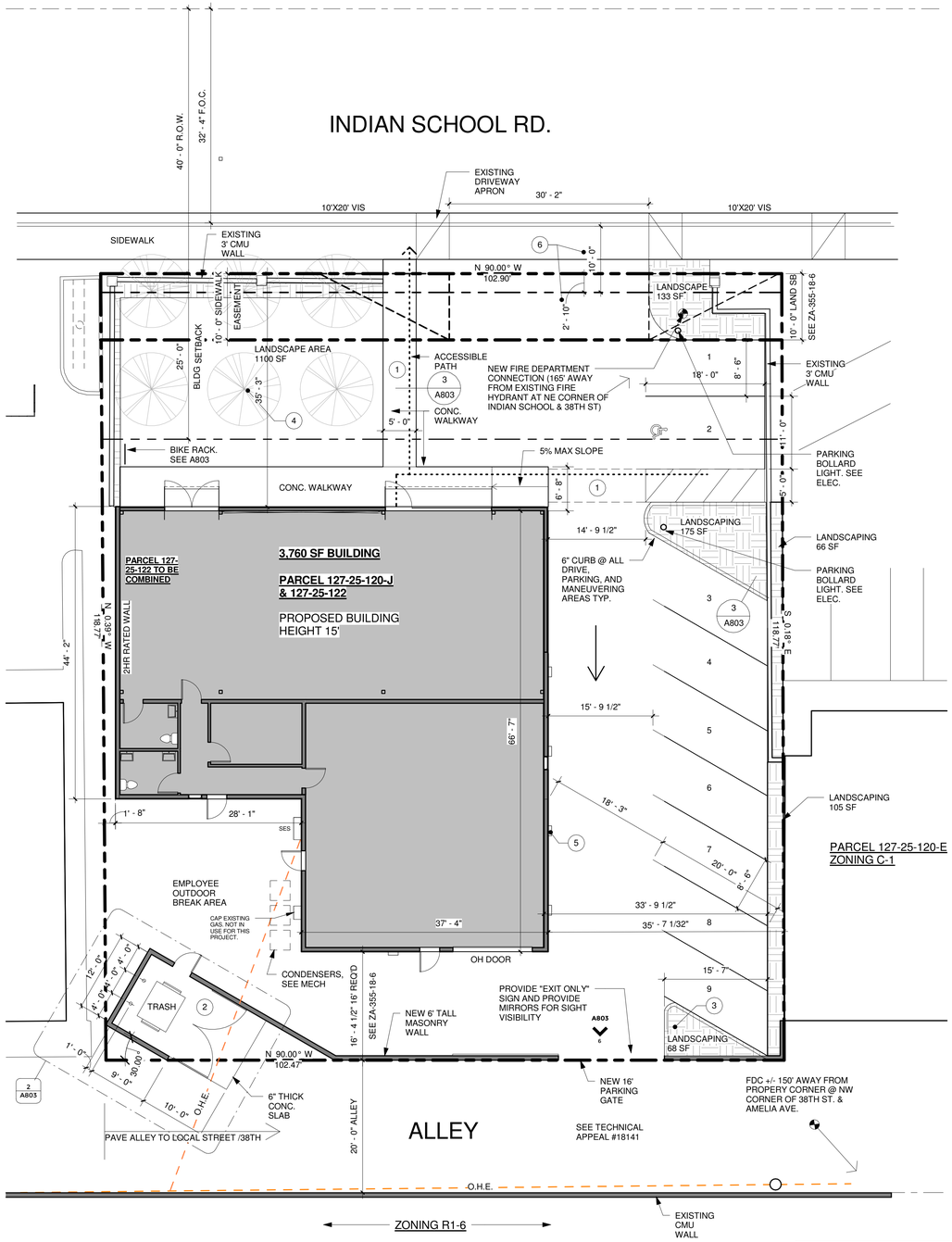
ENVELOPE COMCHECK

Date 03/06/19

A002

Scale

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



OK TO LOG IN
Site Planning Division, Planning and Development Department

SITE - Anthony Chattley 602-534-0155 7 March 2019
Approved By **Date**

030720219145441
P&D Tracking Numbers

Route to: No Review _____ Site X____
Traffic X____ **Civil _____ Fire** X____
Zoning _____ Design Review _____

SITE PLAN KEYNOTES

1. ACCESSIBLE ROUTE. MAX 1:20 SLOPE (5%). ALL SURFACES MUST BE FIRM, STABLE, & SLIP RESISTANT. CLEAR WIDTH 36". MAXIMUM 1/4" VERTICAL EDGE. CHANGES IN LEVEL 1/4" TO 1/2" MUST BE BEVELED.
2. TRASH ENCLOSURE PER COP STANDARD DETAIL. MINIMUM NET ENCLOSURE OPENING OF 12' PER BIN. PROVIDE A 3'-0" PEDESTRIAN ACCESS GATE. BIN ENCLOSURES SHALL HAVE (2) 4" DIA. 6' TALL STEEL SAFETY POSTS INSTALLED AT THE BACK OF THE ENCLOSURE
3. POST LEFT TURN ONLY SIGN PER VARIANCE STIPULATIONS.
4. TREES IN PARKING LOT SHALL BE A MIN. OF 5' WIDE 507TAB A.II.A.6.1.2
5. WALL MOUNTED PARKING LOT LIGHTING. SHALL NOT EXCEED 15' IN HEIGHT W/IN 150' OF RESIDENTIAL DISTRICT.
6. DEDICATE A 10' SIDEWALK EASEMENT ALONG E. INDIAN SCHOOL ROAD (SECTION 31-91)

CIVIL NOTES:

1.) SITE DISTURBANCE (REMOVING THE BASE) WILL BE 2,000 SF OR LESS AND EXISTING F.F. WILL REMAIN UNCHANGED THEREFORE NO G&D IS REQUIRED.

ZA-355-18-6:

VARIANCE REQUESTS:

1.) VARIANCE TO REDUCE THE REQUIRED REAR YARD SETBACK (SOUTH) TO 16'. MIN. 50' REQ'D.
2.) VARIANCE TO REDUCE THE REQUIRED REAR YARD LANDSCAPE SETBACK (SOUTH) TO 0'. MIN. 10' REQ'D.
3.)VARIANCE TO REDUCE THE REQUIRED FRONT YARD LANDSCAPE SETBACK (NORTH) TO 10' AVERAGE 25' REQ'D.
4.) VARIANCE TO REDUCE PARKING AREA LANDSCAPING TO 8%. MIN. 10% PARKING AREA LANDSCAPING REQ'D.
5.) VARIANCE TO REDUCE PARKING TO 10 SPACES. MIN. 11 REQ'D.
6.) VARIANCE TO ALLOW ALLEY MANUEVERING.

VARIANCE STIPULATIONS:

1,2,3,4, & 5 APPROVED WITH THE FOLLOWING STIPULATIONS:

1.) THE NEW REPLACEMENT STRUCTURE SHALL NOT EXCEED 3,760 SF AND MUST BE CONFINED ENTIRELY WITHIN THE EXISTING FOOTINGS AND CONCRETE SLAB. THERE SHALL BE NO ADDITIONS OR OTHER PERMANENT STRUCTURES ON THE SITE.

2.) THE REAR OF THE PROPERTY ALONG THE ALLEY SHALL BE FULLY FENCED WITH MASONRY OR OTHER SOLID MATERIAL TO PREVENT ANY OFF-SITE VEHICLE MANUEVERING AT THE REAR OF THE BUILDING.

3.) A GATE MAY BE INSTALLED TO THE ALLEY FOR PARKING EGRESS (PER 702.E.1.C) AND SHALL BE LOCATED WITHIN THE EASTERN 45' OF THE PROPERTY. A LEFT TURN ONLY SIGN SHALL BE POSTED AT THE EXIT TO THEY ALLEY.

4). THE OWNER/APPLICANT MUST APPLY FOR AN PAY FOR FINAL PERMITS WITHIN 6 MONTHS.

CITY OF PHOENIX NOTES

1. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM WITH ALL APPLICABLE CODES AND ORDINANCES.
2. ALL NEW OR RELOCATED UTILITIES WILL BE PLACED UNDERGROUND.
3. ANY LIGHTING WILL BE PLACED SO AS TO DIRECT LIGHT AWAY FROM ADJACENT RESIDENTIAL DISTRICTS AND WILL NOT EXCEED ONE FOOT CANDLE AT THE PROPERTY LINE. NO NOISE, ODOR, OR VIBRATION WILL BE EMITTED AT ANY LEVEL EXCEEDING THE GENERAL LEVEL OF NOISE, ODOR, OR VIBRATION EMITTED BY USES IN THE AREA OUTSIDE OF THE SITE.
4. OWNERS OF PROPERTY ADJACENT TO PUBLIC RIGHTS-OF-WAY WILL HAVE THE RESPONSIBILITY FOR MAINTAINING ALL LANDSCAPING LOCATED WITHIN THE RIGHTS-OF-WAY, IN ACCORDANCE WITH APPROVED PLANS.

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #5

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

PROJECT INFO

ADDRESS: 3743 E. INDIAN SCHOOL ROAD
CONSTRUCTION TYPE: VB
OCCUPANCY: B & M

PROJECT DESCRIPTION

NEW 3,760 SF T-SHIRT PRINTING PRODUCTION, OFFICE, AND RETAIL BUILDING. STRUCTURE WILL BE BUILT ON EXISTING BUILDING PAD. SEE ZONING CASE ZA-355-18-6.

ZONING DATA

ZONING DISTRICT: C-1
PARCEL: 127-25-120-J & 127-25-122

OWNER: JONATHAN PITT

TYPICAL LOT REQUIREMENTS:

MAX BUILDING HEIGHT	= 56'
FRONT SETBACK	= AVG 25', 20' FOR 50% MAX
REAR SETBACK	= 0' @ C-1 =25' OR 50' @ R1-6
INTERIOR SIDE SETBACK	= 0'

SEE VARIANCE CASE ZA-355-18-6 FOR MODIFIED SETBACKS AND REQUIREMENTS

LOT COVERAGE

MAX LOT COVERAGE PER ZONING = 50%
TOTAL LOT AREA = 12,194 SF

NEW BUILDING	= 3,760 SF
TOTAL	**= 3,760 SF**

LOT COVERAGE = 32% (LESS THAN 50%)

AREAS (NET)

PRODUCTION AREA	= 1,326 SF
OFFICE	= 129 SF
RETAIL	= 1,825 SF
BATHROOM	= 118 SF
HALLWAY	= 112 SF
TOTAL	**= 3,510 SF**

PARKING

PRODUCTION AREA	= 1 SPACE PER 1.5 PRODUCTION WORKERS
OFFICE	= 1 PER 300SF
RETAIL	= 1 PER 300SF

PARKING CALCULATION:

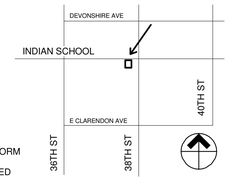
PRODUCTION AREA = 1 EMPLOYEES	= 1 SPACES
OFFICE & RETAIL = 2,337 SF / 300	= 7.79 SPACES
TOTAL	**= 9 SPACES**

PRODUCTION AREA 8'-6" X 18'	**= 1 SPACES**
OFFICE & RETAIL 8'-6" X 18'	**= 8 SPACES (1 of 6 ADA)**

LANDSCAPE AREA

PARKING AREA = 4,910 SF
PARKING AREA LANDSCAPE = 414 SF
PARKING AREA LANDCAPE REQ'D = 8% PER ZA-355-18-6
PARKING AREA LANDSCAPE PROVIDED = 8.4%

VICINITY MAP



I consent to the reproduction of this site plan provided that if modifications are made, the professionals who make such changes assume full responsibility and liability for the modified portions of the plan.

SIGNATURE OF COPYRIGHT OWNER
WILLIAM ERWIN, AIA 1/9/19
PRINTED NAME OF COPYRIGHT OWNER

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

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REGISTERED ARCHITECT
STATE OF ARIZONA
WILLIAM FRANKLIN ERWIN
Date Signed 4/30
ARIZONA, U.S.A.

Expires 6.30.19

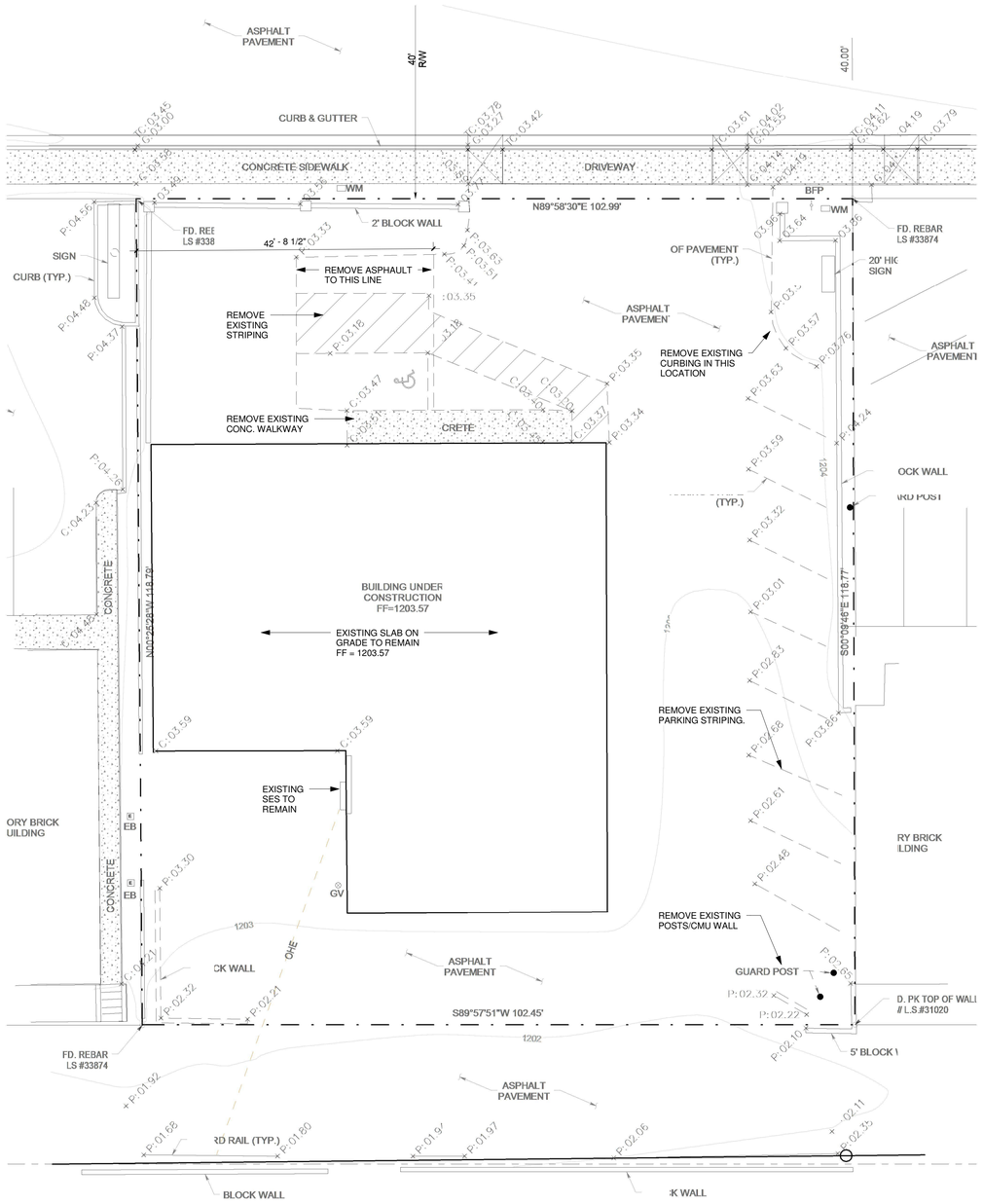
Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

SITE PLAN

Date 03/06/19

A100

Scale As indicated



1 EXISTING SITE PLAN
1" = 10'-0"

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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ERWIN | ARCHITECTURE DEVELOPMENT

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WILLIAM FRANKLIN ERWIN
Date Signed 6/29
ARIZONA, U.S.A.

Expires 6.30.19

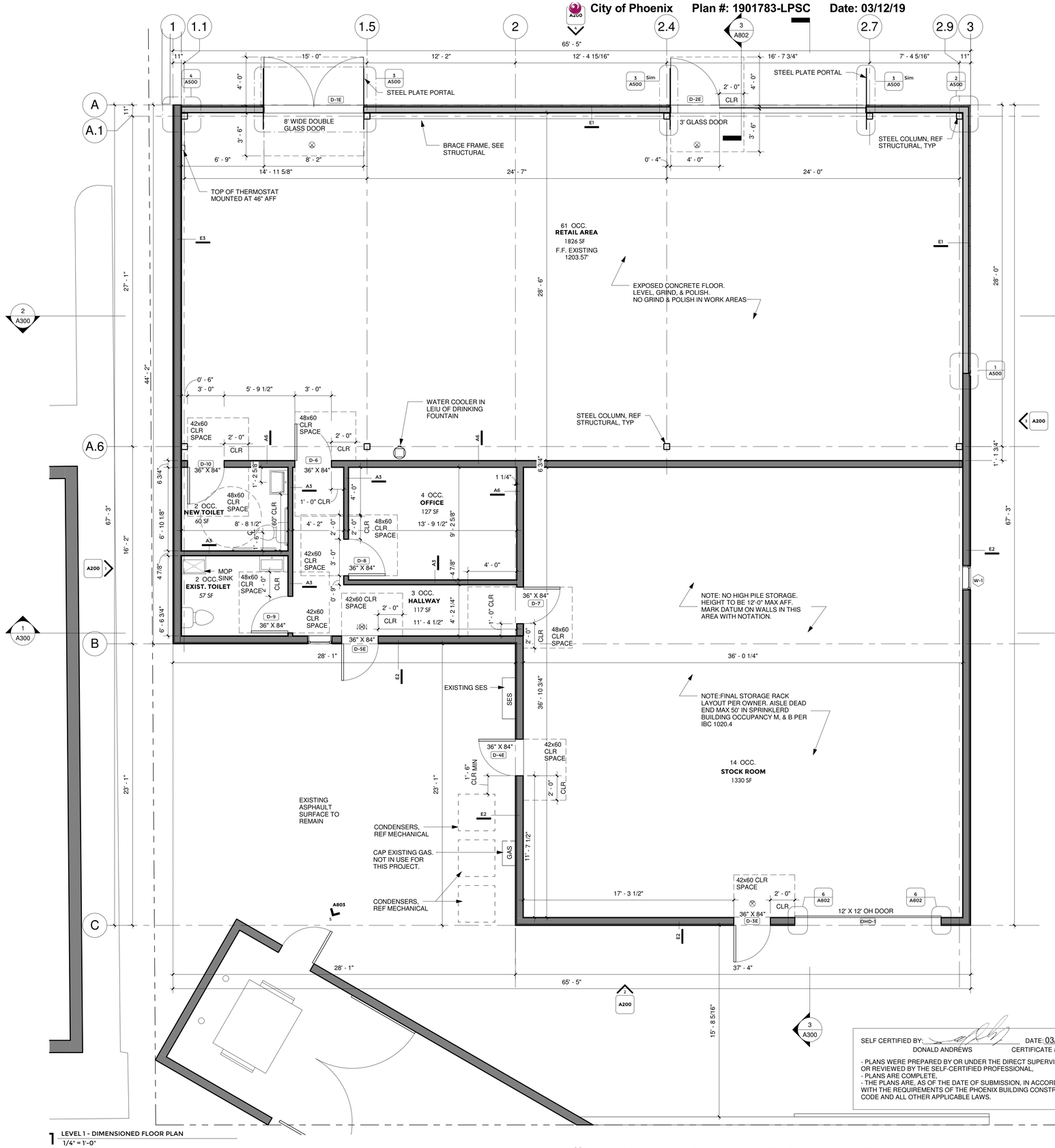
Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

SITE DEMO PLAN

Date 03/06/19

A101

Scale 1" = 10'-0"



1 LEVEL 1 - DIMENSIONED FLOOR PLAN
1/4" = 1'-0"

SYMBOL LEGEND

ELEVATION MARKER — DETAIL NUMBER / SHEET NUMBER

XXX DOOR MARK

XX WINDOW MARK

SECTION MARKER — DETAIL NUMBER / SHEET NUMBER

EXIT SIGN. SIGN ABOVE AT FLOOR PLANS

WALL TYPES

E1 SEE SHEET A103 ASSEMBLY TYPE INFORMATION

FLOOR PLAN NOTES

1. G.C. TO VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS AT THE JOB SITE AND NOTIFY DESIGNER OF ANY OMISSIONS, DISCREPANCIES, AND/OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
2. G.C. TO SUBMIT ALL SUBCONTRACTOR SHOP DRAWINGS AND SUBMITTALS TO DESIGNER AND/OR OWNER FOR APPROVAL BEFORE FABRICATION OR INSTALLATION OF ANY ITEMS. REQUIRED SHOP DRAWING SUBMITTALS INCLUDE, BUT ARE NOT LIMITED TO, MILLWORK, H.V.A.C., PLUMBING, ELECTRICAL, GLASS AND GLAZING, ALL ITEMS ON FINISH LEGEND, DOOR HARDWARE, 2'x2' WALL FINISH SAMPLE, PAINTING AND WALL COVERING. DRAWINGS SHALL NOT BE REPRODUCED FOR SUBMITTALS UNLESS PRIOR WRITTEN PERMISSION HAS BEEN OBTAINED FROM THE DESIGNER AND/OR OWNER. DRAWINGS OR PORTIONS OF DRAWINGS USED FOR SUBMITTALS WILL BE REJECTED AND RETURNED TO THE G.C.
3. DO NOT SCALE DRAWINGS, DIMENSIONS GOVERN. LARGE SCALE DETAILS GOVERN OVER SMALL SCALE.
4. G.C. TO COORDINATE AND INSTALL ALL APPLIANCES AS SHOWN IN DOCUMENTS. COORDINATE LOCATION,SIZE AND ALL REQUIRED PLUMBING AND ELECTRICAL CONNECTIONS. VERIFY SELECTION W/ OWNER/DESIGNER.
5. U.N.O. INTERIOR PARTITIONS ARE DIMENSIONED TO FACE OF FINISH.
6. REFER TO DOOR SCHEDULE FOR DOOR TYPES AND HARDWARE INFORMATION.
7. U.N.O. OR WHEN CLEARANCE DOES NOT PERMIT, EDGE OF DOOR TO BE LOCATED 5" OFF PERPENDICULAR PTN. ROVIDE BACK TO BACK OR NESTED STUDS AT BOTH SIDES OF ALL NEW JAMB LOCATIONS.
8. ALL BLOCKING TO COMPLY WITH APPLICABLE BUILDING AND FIRE ODE REQUIREMENTS. PROVIDE BLOCKING IN PARTITIONS AS REQUIRED O SECURE CABINETS, MARKER BOARDS, ETC. TO PARTITIONS.
9. ALL MATERIALS AND COMPONENTS OF FIRE-RATED ASSEMBLIES SHALL BE APPROVED BY U.L. OR OTHER RECOGNIZED STANDARD FOR USE IN SUCH ASSEMBLIES.
10. PATCH ANY EXISTING WALLS, PARTITIONS, COLUMNS, CONCRETE FLOORS, ETC. AS REQUIRED TO RECEIVE NEW FINISH.
11. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION
12. ISOLATE CONTACT BETWEEN DISSIMILAR METALS
13. PROVIDE CAULKING, SEALANT, & OTHER WEATHERPROOFING AT PENETRATIONS IN WALLS, CLGS, ROOF, & FLOORS FOR PLUMBING, ELEC, & OTHER OPENINGS IN BLDG. ENVELOPE.
14. THE WORD 'ALIGN' AS USED IN THESE DOCUMENTS SUPERCEDES ANY DIMENSIONAL INFORMATION INDICATED. IF DISCREPANCIES OCCUR, NOTIFY ARCHITECT.
15. THE WORD 'PROVIDE' AS USED IN THESE DOCUMENTS MEANS FURNISH AND INSTALL.
16. THE WORD 'CLEAR' AND 'CLR' AS USED IN THESE DOCUMENTS SHALL MEAN THAT THE CONDITION IS NOT ADJUSTABLE WITHOUT THE APPROVAL OF THE DESIGNER. CLEAR DIMENSIONS ARE TYPICALLY TO FINISH FACE OF MAJOR SURFACE. COORDINATE REQUIREMENTS FOR BASE BOARD OR OTHER PROTRUSIONS.
17. THE WORD 'MAXIMUM' AND 'MAX' AS USED IN THESE DOCUMENTS SHALL MEAN THE CONDITION IS SLIGHTLY ADJUSTABLE BUT MAY NOT VARY TO A DIMENSION OR QUANTITY GREATER THAN THAT SHOWN WITHOUT APPROVAL OF THE DESIGNER.
18. THE WORD 'MINIMUM' AND 'MIN' AS USED IN THESE DOCUMENTS SHALL MEAN THE CONDITION IS SLIGHTLY ADJUSTABLE BUT MAY NOT VARY TO A DIMENSION OR QUANTITY LESS THAN THAT SHOWN WITHOUT APPROVAL OF THE DESIGNER.
19. THE WORD 'TYPICAL' AND 'TYP' AS USED IN THESE DOCUMENTS SHALL MEAN THE CONDITION OR DIMENSION IS THE SAME OR REPRESENTATIVE FOR SIMILAR CONDITIONS THROUGHOUT.
20. FIRE RISER TO BE COORDINATED UNDER SEPARATE SUBMITTAL / FIRELINE PLAN.

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45203

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
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MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
CERTIFICATE NO. 45203
WILLIAM FRANKLIN ERWIN
Date Signed 3/6/19
ARIZONA, U.S.A.

Expires 6.30.19

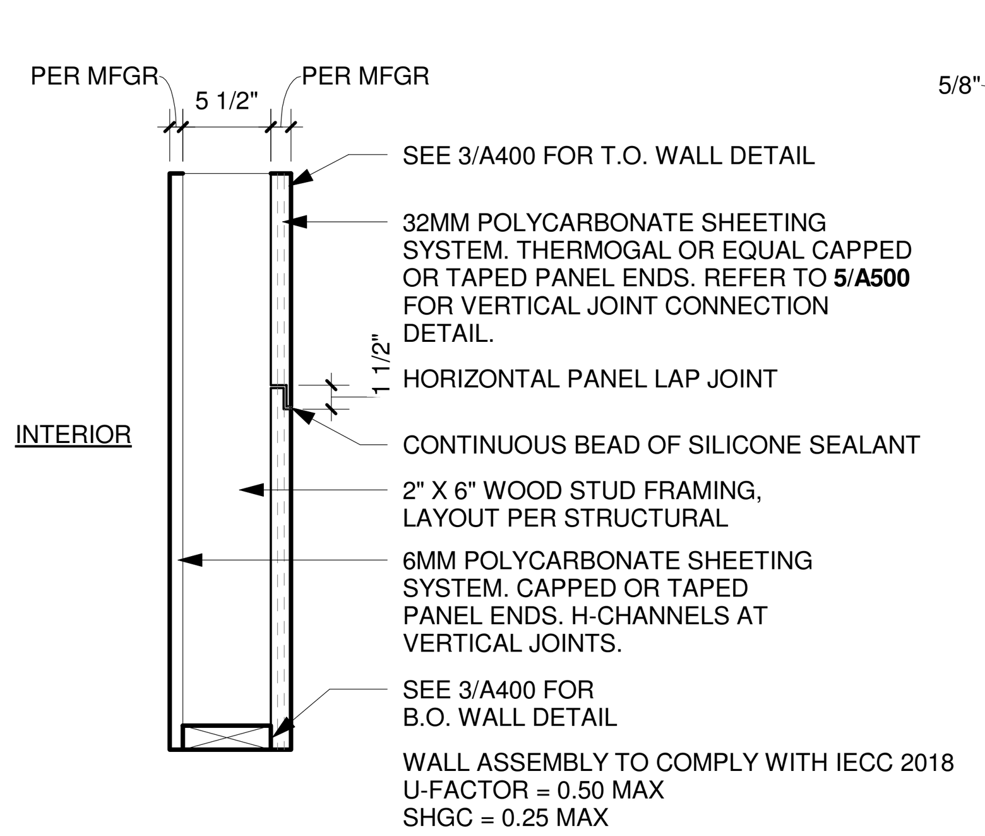
Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

FLOOR PLAN

Date 03/06/19

A102

Scale 1/4" = 1'-0"



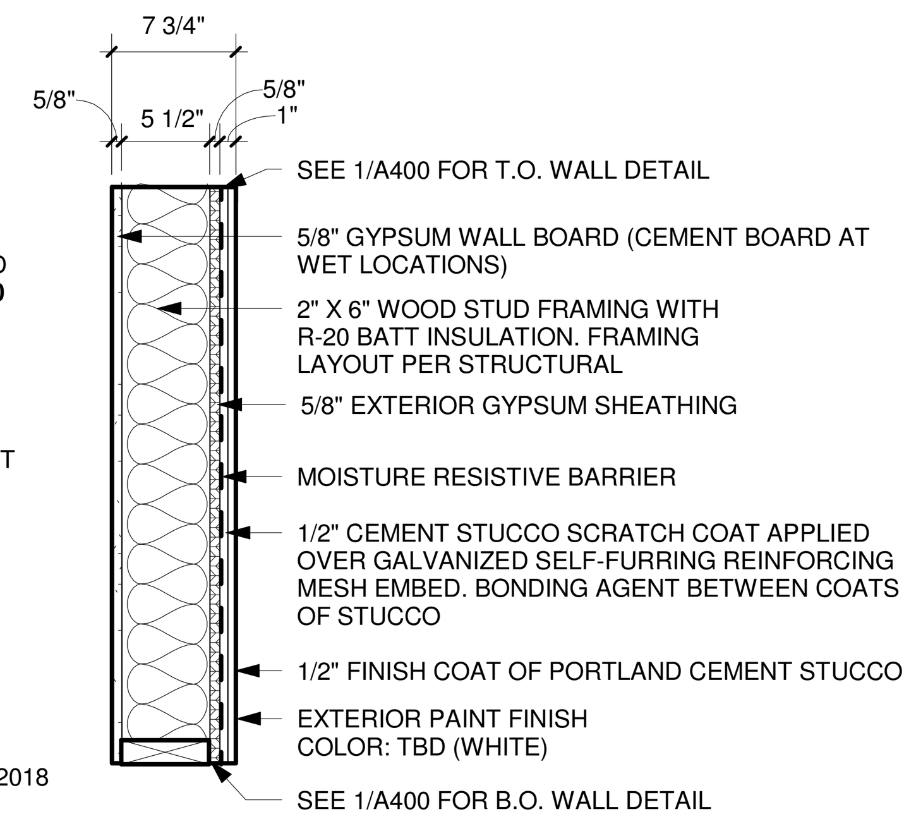
E-1 EXTERIOR WALL

POLYCARBONATE PANEL SYSTEM

FENESTRATION IS LESS THAN 30% OF EXTERIOR ENVELOPE. SEE CALCULATION BELOW

U-FACTOR FOR FIXED FENESTRATION IS 0.50 MAX (TABLE C402.4.1).

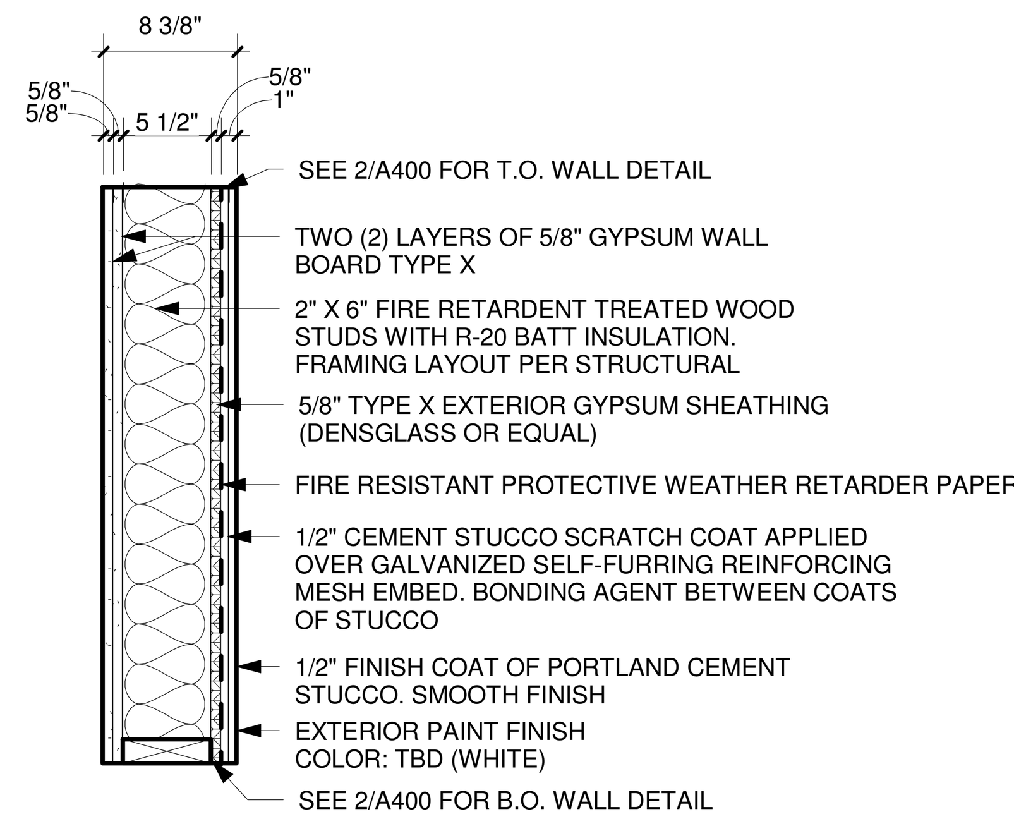
SHGC MAX (TABLE C402.4.1):
0.25 EAST WALL
0.33 NORTH WALL



E-2 EXTERIOR WALL

NON-RATED EXTERIOR STUCCO WALL

R-20 MIN PER IECC TABLE C402.1.3
CLIMATE ZONE 2B

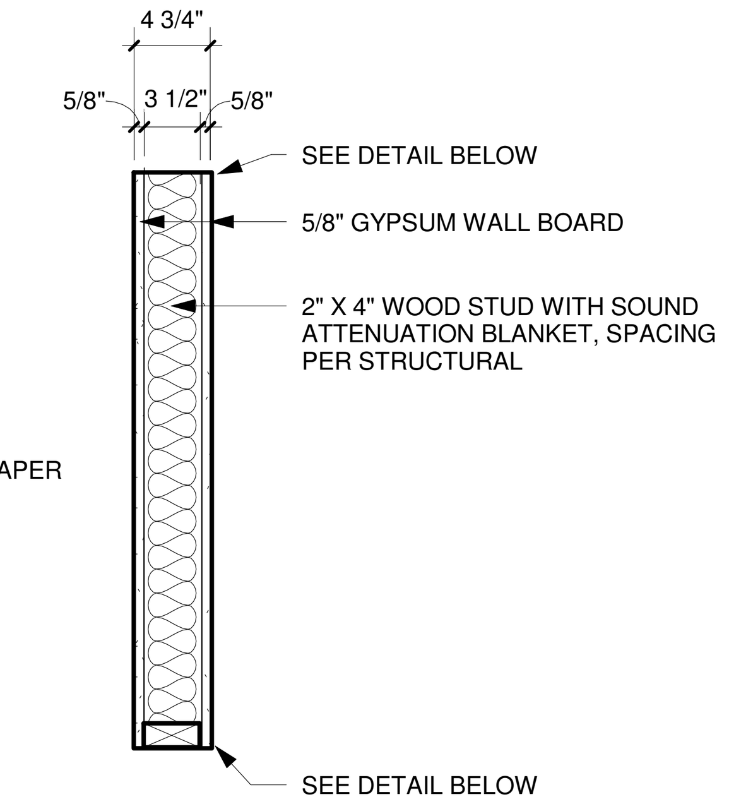


E-3 EXTERIOR WALL

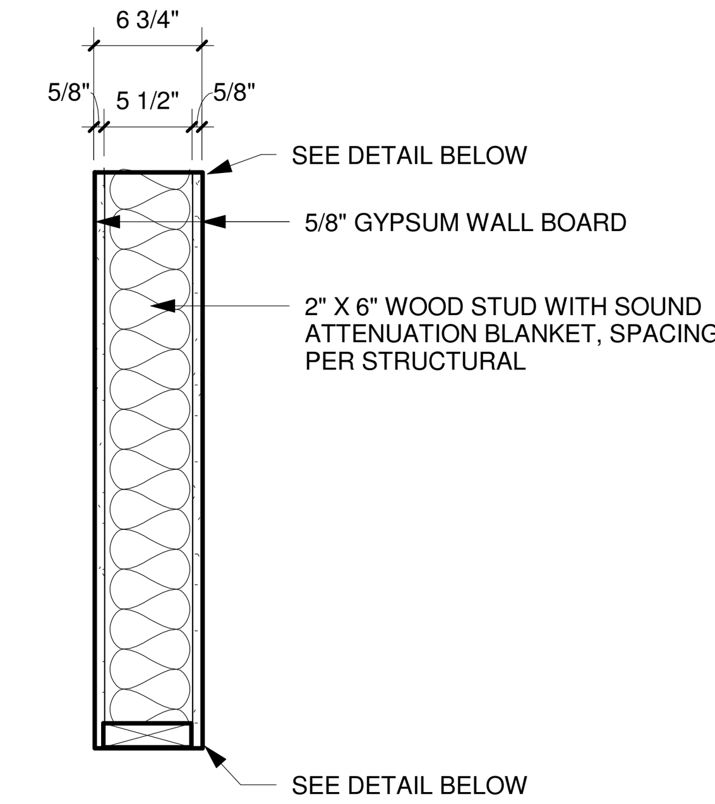
2-HOUR RATED EXTERIOR STUCCO WALL

FIRE TEST REFERENCE:
UC 12-21-67, GA WP 84202
SEE GENERIC ASSEMBLY TYPE INFORMATION BELOW.

R-20 MIN PER IECC TABLE C402.1.3
CLIMATE ZONE 2B



A-3 INTERIOR WALL



A-6 INTERIOR WALL

WALL ASSEMBLY TYPES

EXTERIOR WALLS

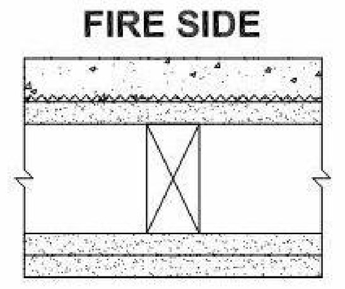
GA FILE NO. WP 8420 | GENERIC | 2 HOUR FIRE

WOOD STUDS, CEMENT STUCCO, WIRE MESH, GYPSUM WALLBOARD

EXTERIOR SIDE: **Base** layer 5/8" type X gypsum sheathing applied parallel to 2 x 6 fire retardant treated wood studs 16" o.c. with 6d coated nails, 1 7/8" long, 0.0915" shank, 1/4" heads, 12" o.c. and covered with a single layer fire resistant protective weather retarder paper stapled along each edge at 16" o.c. Galvanized self-furring wire mesh applied over sheathing with 8d galvanized roofing nails, 2 3/8" long, 0.113" shank, 9/32" heads, 6" o.c. Cement-stucco applied over wire mesh in two 1/2" thick coats with bonding agent applied between coats.

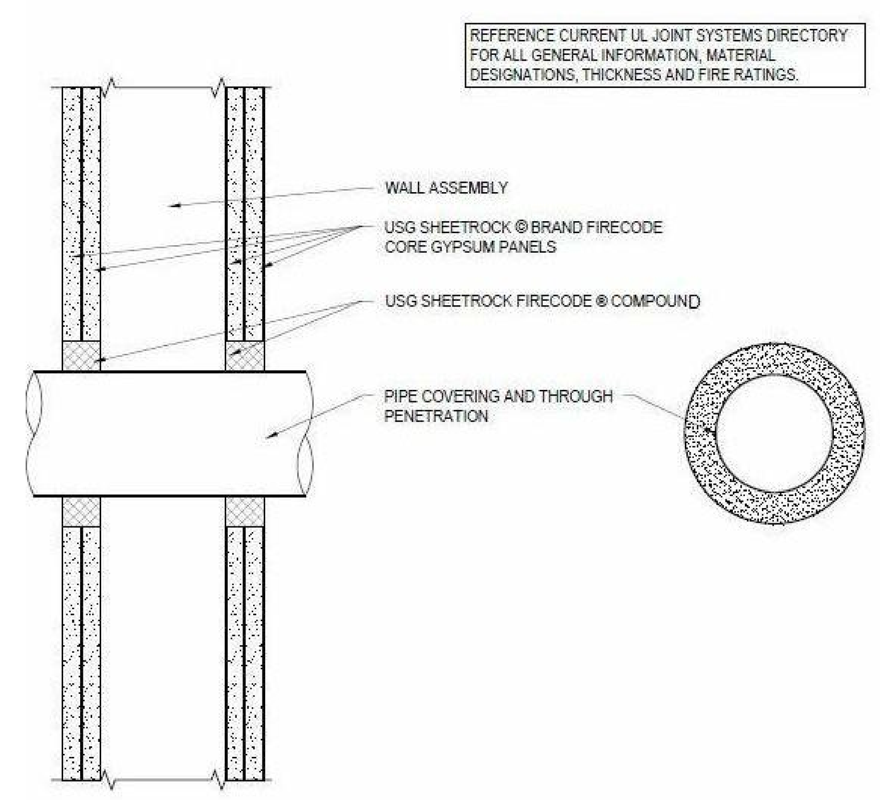
INTERIOR SIDE: **Base** layer 5/8" type X gypsum wallboard or gypsum veneer base applied parallel to studs with 6d coated nails, 1 7/8" long, 0.0915" shank, 1/4" heads, 12" o.c. **Face** layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to studs with 8d coated nails, 2 3/8" long, 0.113" shank, 9/32" heads, 8" o.c. at edges and 12" o.c. at intermediate studs. **(LOAD-BEARING)**

FIRE SIDE



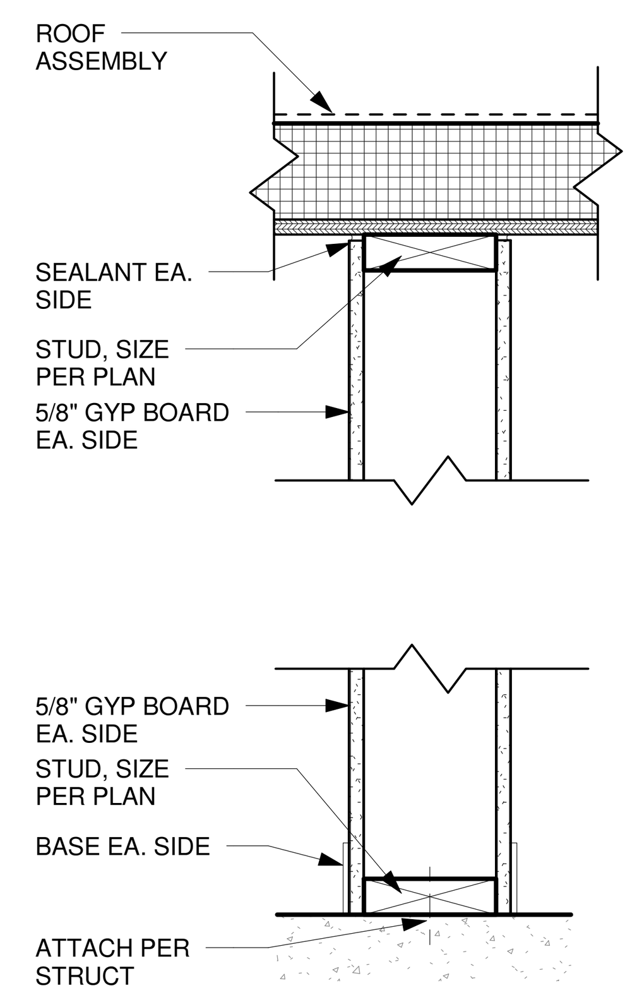
Thickness: 8 5/8"
Fire Test: UC, 12-21-67

FIRE RATED EXTERIOR WALL ASSEMBLY INFORMATION

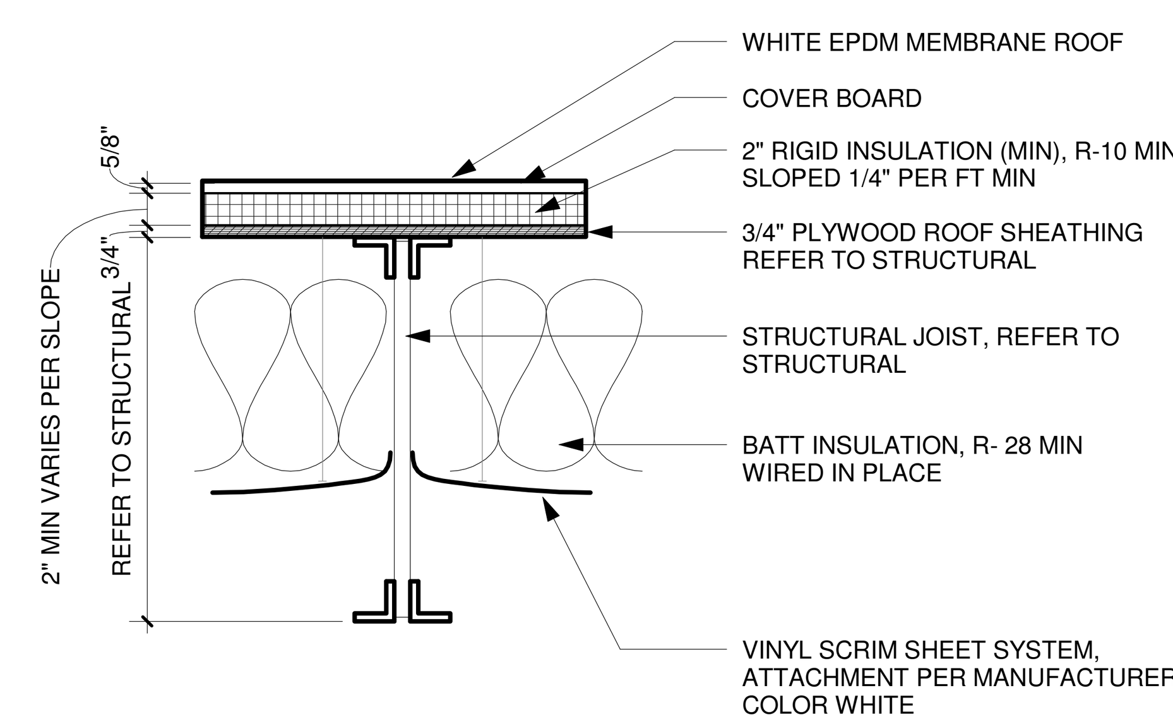


SYSTEM NO. W-L-5044
FIRE RATING 2HR

WALL PENETRATION DETAIL



TOP & B.O. WALL & INTERIOR PARTITION

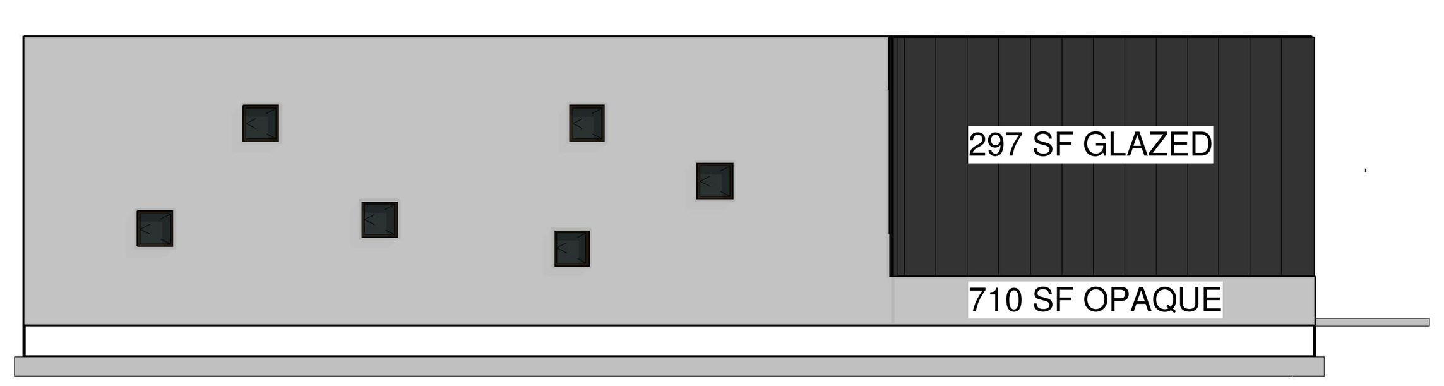


R-25 MIN CONTINUOUS INSULATION OR R-38 MIN FOR OTHER ROOF TYPES PER IECC TABLE C402.1.3 CLIMATE ZONE 2B

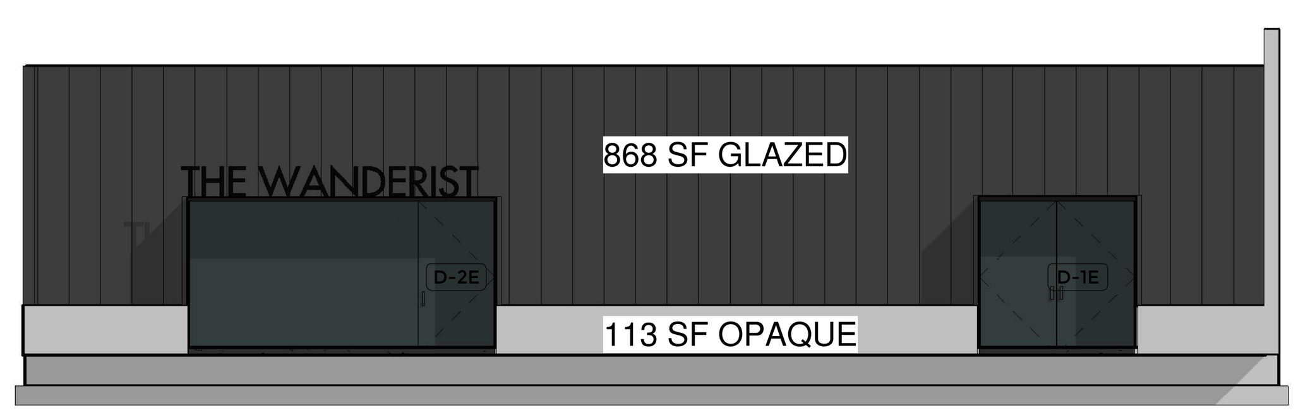
R-1 ROOF ASSEMBLY

NON-RATED

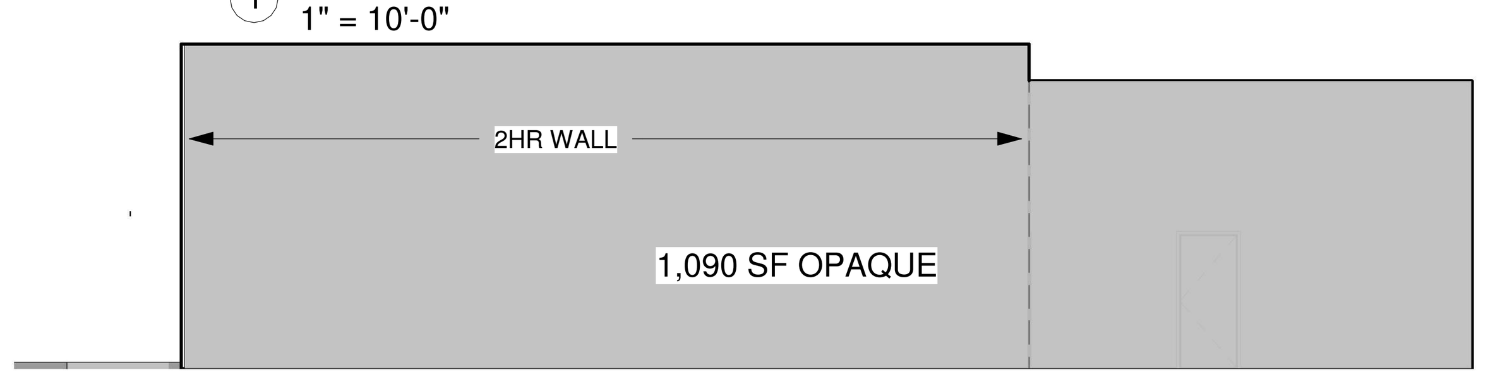
ROOF ASSEMBLY



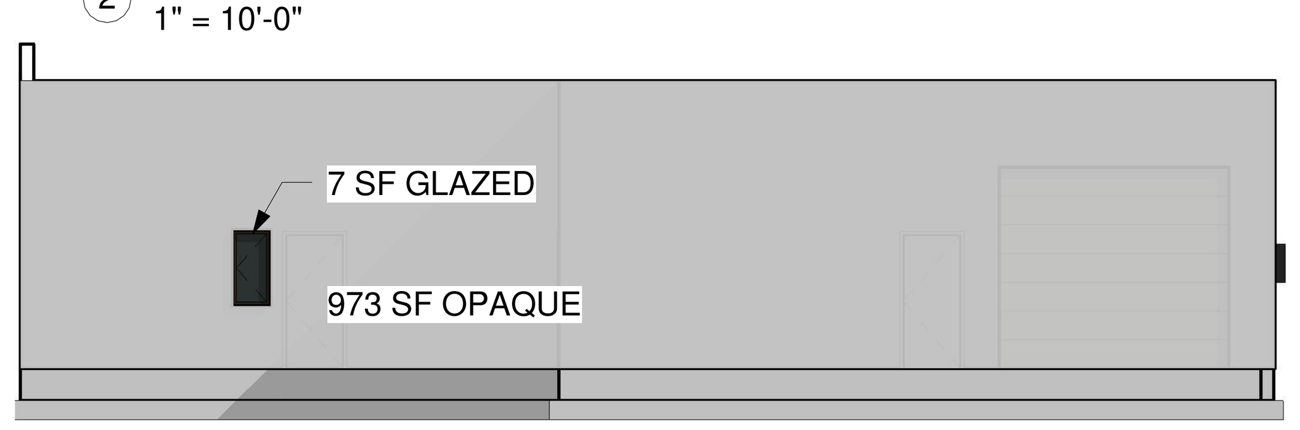
1 EAST ELEV GLAZING CALC 1,007 SF TOTAL
1" = 10'-0"



2 NORTH ELEV GLAZING CALC 980 SF TOTAL
1" = 10'-0"



4 WEST ELEV GLAZING CALC 1,007 SF TOTAL
1" = 10'-0"



3 SOUTH ELEV GLAZING CALC 980 SF TOTAL
1" = 10'-0"

GLAZING CALCULATION FOR IECC C402.4.1 REQUIRES THAT VERTICAL FENESTRATION AREA IS NO MORE THAN 30% MAX OF TOTAL GROSS ABOVE GRADE WALL AREA.

TOTAL BUILDING WALL SF = 4,058 SF

2,886 SF OPAQUE (71.1%)
1,172 SF GLAZED (28.9%)

REQUIREMENT SATISFIED AS GLAZED/ VERTICAL FENESTRATION IS LESS THAN 30%.

SELF CERTIFIED BY: DATE: 03/06/2019
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KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

GLAZING CALCULATION

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
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(E) WILL@ERWINARCHITECTURE.COM
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DON ANDREWS JR.
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CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

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DAVID MCKERCHER
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LANDSCAPE
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-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

ASSEMBLY TYPE INFORMATION

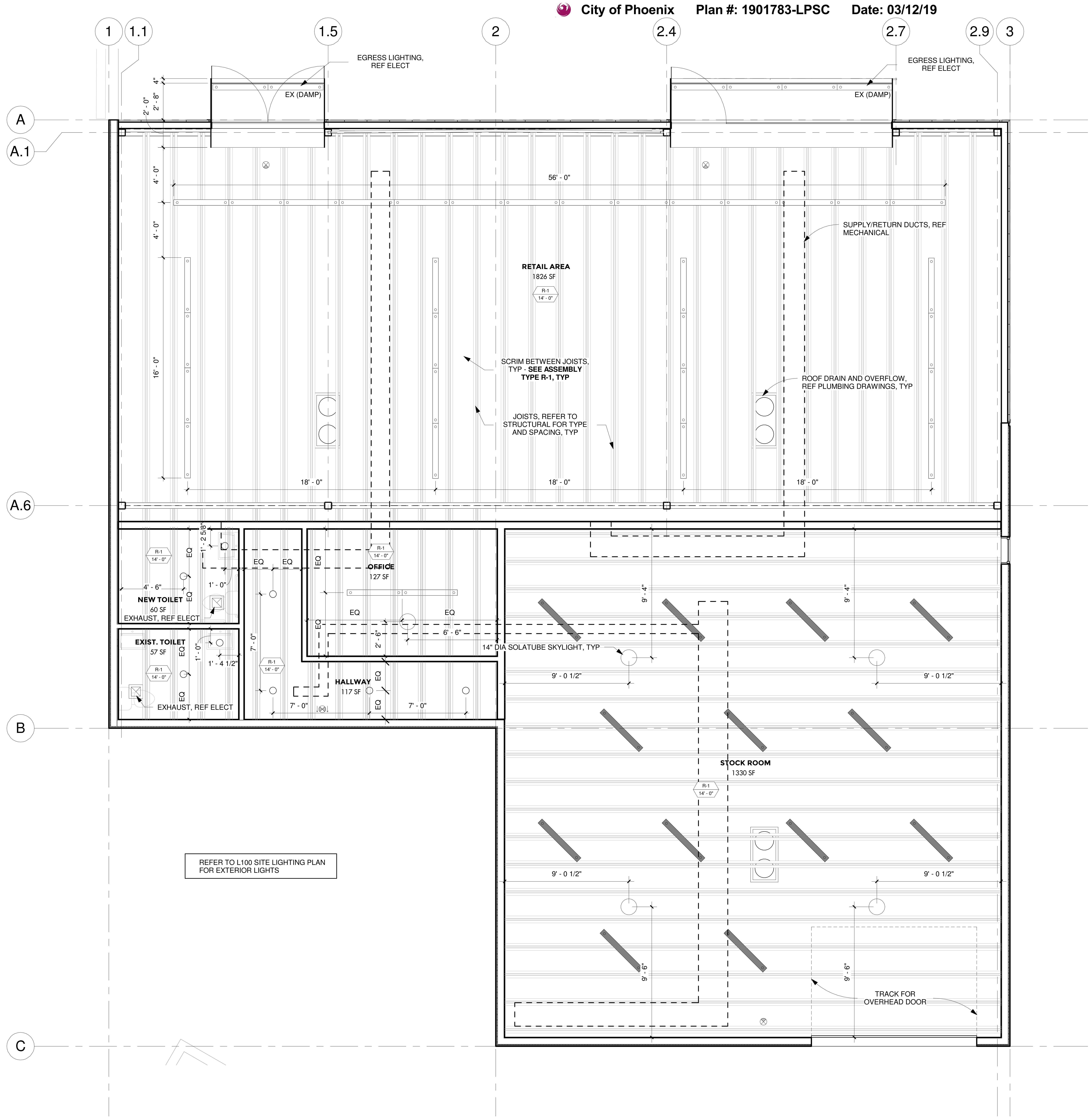
Date 03/06/19

A103

Scale As indicated

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



1 LEVEL 1 - RCP NEW
1/4" = 1'-0"

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	32	Fluxwerx Illumination Inc	APC R D D 35 B XX S E1 M XX	LED LINEAR DIRECT/INDIRECT RUNS (RUN LENGTHS PER PLAN)	200 White LEDs	1	APC-DD35 PRELIMINARY.ies	3956	0.91	34.31
	B	8	Lithonia Lighting	LDN6 CYL 35/15 LO6AR LSS PM	6IN LDN CYLINDER, 3500K, 1500LM, 80CRI, CLEAR, SEMI-SPECULAR REFLECTOR	LED	1	LDN6_35_15_LO6AR_LSS.ies	1526	0.91	20.48
	C	14	Lithonia Lighting	CLX L48 4000LM SEF RDL MVOLT GZ10 35K 80CRI	CLX LED Linear 48" 4,000 lumens, Standard Efficiency, Less louver, Round diffuse lens, General distribution, MVOLT, 0-10V dimming, 3500 CCT, 80 CRI	LED	1	CLX_L48_4000LM_SEF_RDL_MVOLT_GZ10_35K_80CRI.ies	3765	0.91	27.58

FOR MORE INFORMATION, REF L101

SELF CERTIFIED BY: DATE: 03/06/2019
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KIVA #18-1372
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PRLC
QS Q16-36

RCP LEGEND

- TYPE A REFER TO L101 FOR INFORMATION
- TYPE B REFER TO L101 FOR INFORMATION
- TYPE C REFER TO L101 FOR INFORMATION
- EXHAUST FAN
- SUPPLY REGISTER
- RETURN REGISTER
- SD SMOKE DETECTOR
- WL FIXTURE RATED FOR WET LOCATION
- EX FIXTURE RATED FOR EXTERIOR USE
- EXIT SIGN. SIGN ABOVE AT FLOOR PLANS

FIRE SPRINKLER UNDER SEPARATE PERMIT

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
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STRUCTURAL
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(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
CERTIFICATE NO. 54880
WILLIAM FRANKLIN ERWIN
ARIZONA, U.S.A.
Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

REFLECTED CEILING PLAN

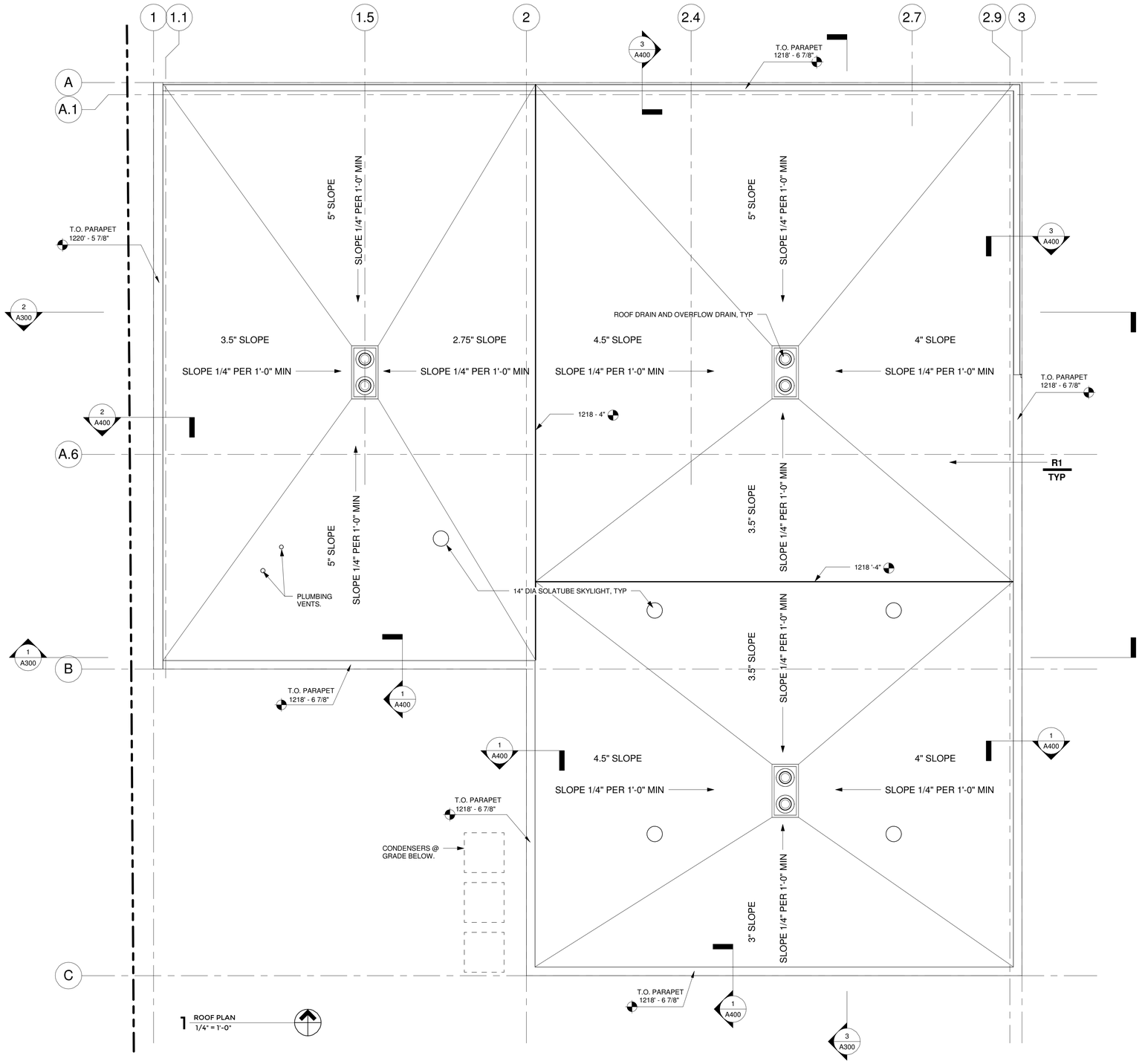
Date 03/06/19

A110

Scale 1/4" = 1'-0"

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



ROOF PLAN NOTES

1. REFER TO A103 FOR ROOF ASSEMBLY TYPE INFORMATION
2. ROOF SLOPE 1/4" PER FOOT MIN.
3. SEE A803 FOR TYP. PLUMBING VENT DETAIL

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

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-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
STATE OF ARIZONA
WILLIAM FRANKLIN ERWIN
Date Signed: 6/30
ARIZONA, U.S.A.

Expires 6.30.19

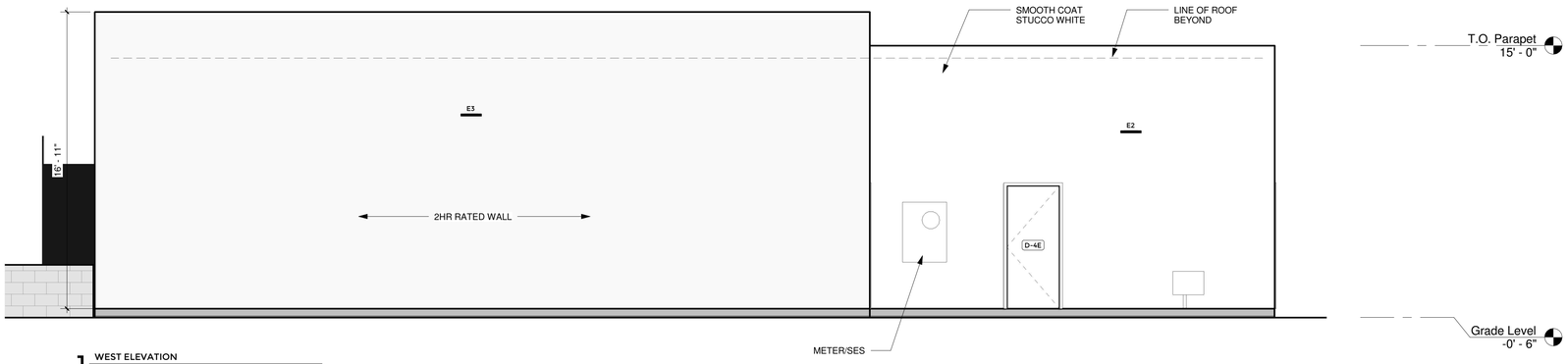
Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

ROOF PLAN

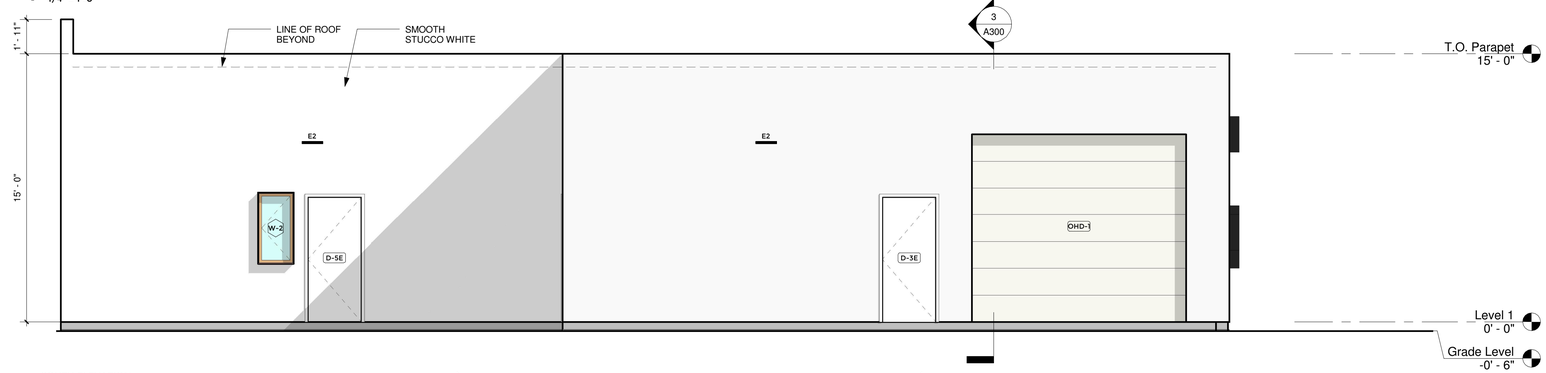
Date 03/06/19

A120

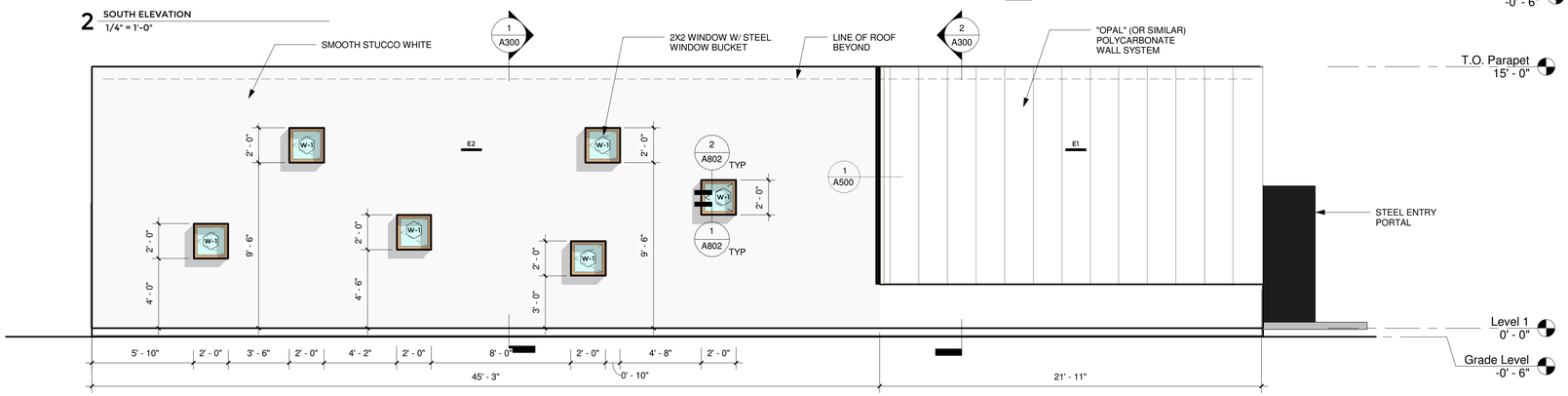
Scale 1/4" = 1'-0"



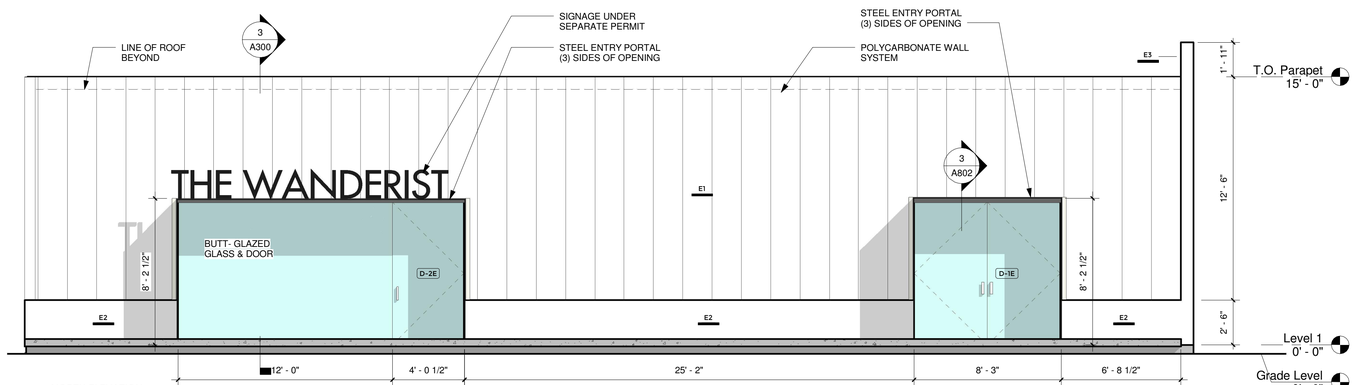
1 WEST ELEVATION
1/4" = 1'-0"



2 SOUTH ELEVATION
1/4" = 1'-0"



3 EAST ELEVATION
1/4" = 1'-0"



4 NORTH ELEVATION
1/4" = 1'-0"

SYMBOL LEGEND

ELEVATION MARKER
X — DETAIL NUMBER
XXX — SHEET NUMBER

XXX DOOR MARK

XX WINDOW MARK

SECTION MARKER
X — DETAIL NUMBER
XXX — SHEET NUMBER

EXIT SIGN. SIGN ABOVE AT FLOOR PLANS

WALL TYPES

E1 SEE SHEET A103 ASSEMBLY TYPE INFORMATION

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
CERTIFICATE NO.
23256
WILLIAM FRANKLIN ERWIN
Date Signed 6/30
ARIZONA, U.S.A.

Expires 6.30.19

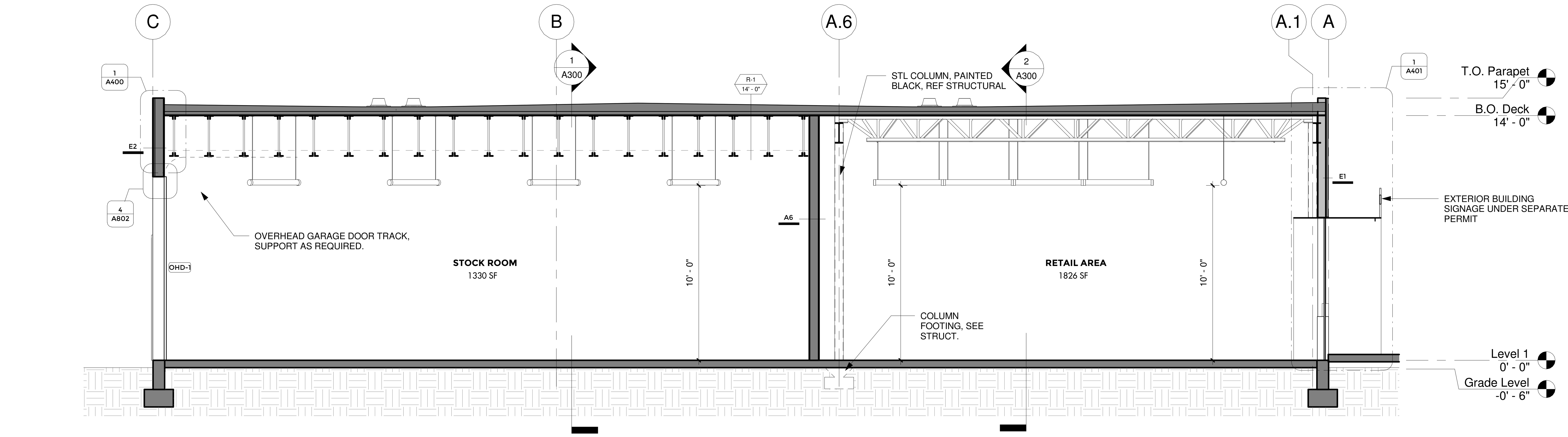
Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

ELEVATIONS

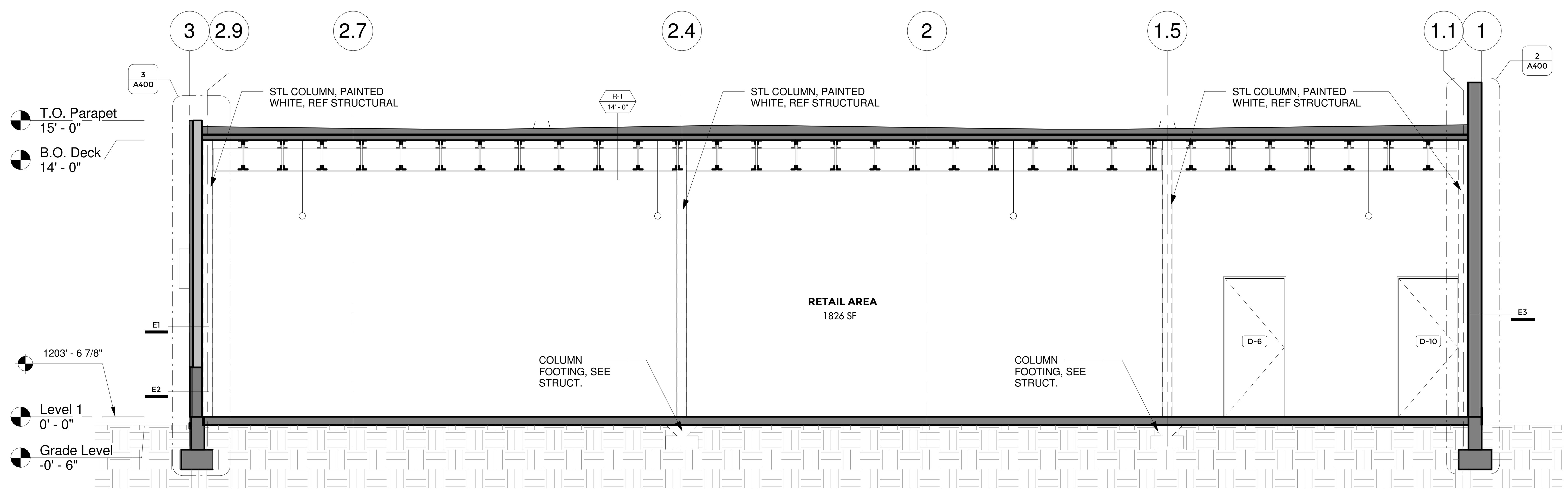
Date 03/06/19

A200

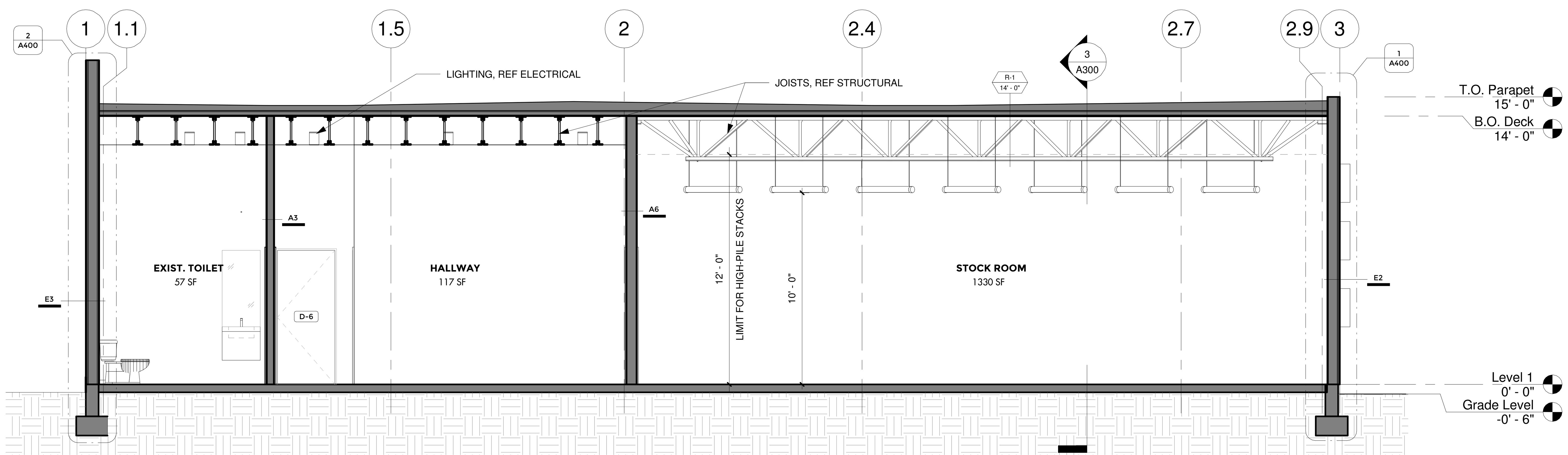
Scale 1/4" = 1'-0"



3 BUILDING SECTION 3
1/4" = 1'-0"



2 BUILDING SECTION 2
1/4" = 1'-0"



1 BUILDING SECTION 1
1/4" = 1'-0"

SELF CERTIFIED BY: DONALD ANDREWS DATE: 03/06/2019 CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL.
- PLANS ARE COMPLETE.
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

SYMBOL LEGEND

ELEVATION MARKER — DETAIL NUMBER / SHEET NUMBER

DOOR MARK

WINDOW MARK

SECTION MARKER — DETAIL NUMBER / SHEET NUMBER

EXIT SIGN. SIGN ABOVE AT FLOOR PLANS

WALL TYPES

E1 SEE SHEET A103 ASSEMBLY TYPE INFORMATION

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
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MESA, AZ 85202
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Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

BUILDING SECTIONS

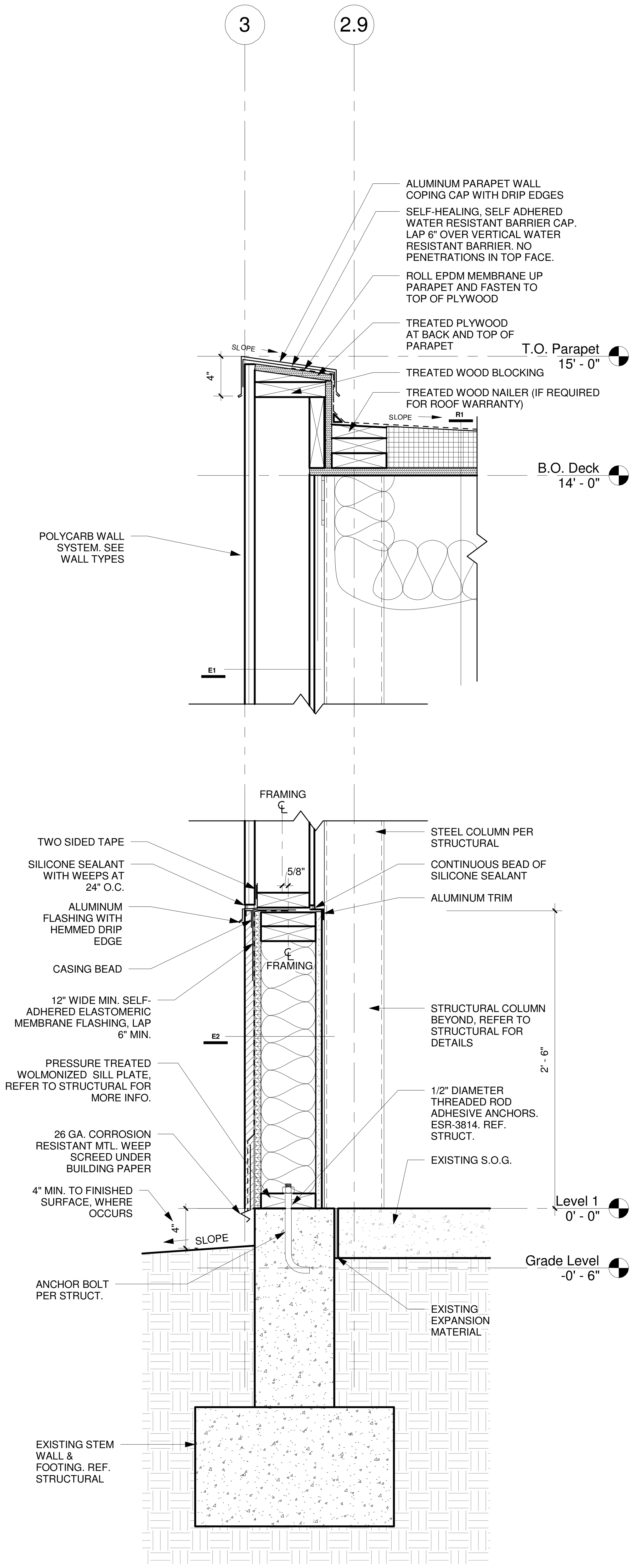
Date 03/06/19

A300

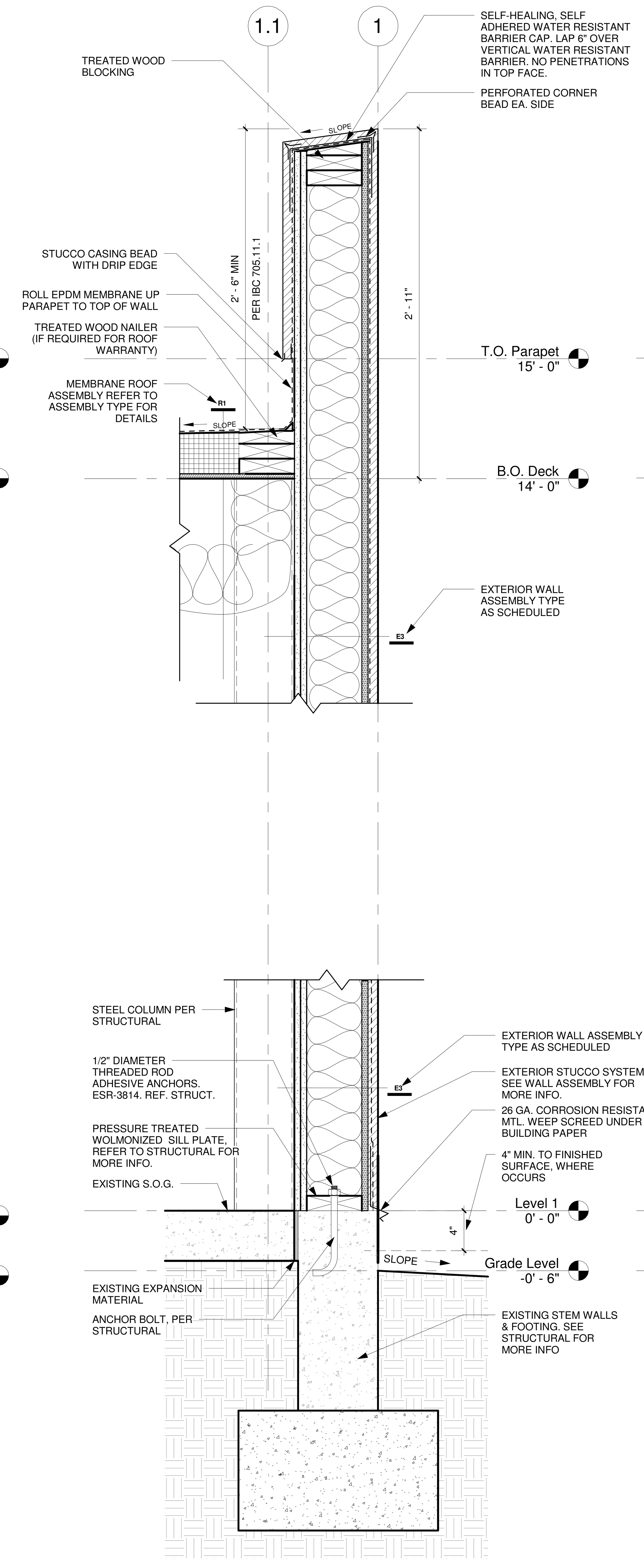
Scale 1/4" = 1'-0"

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

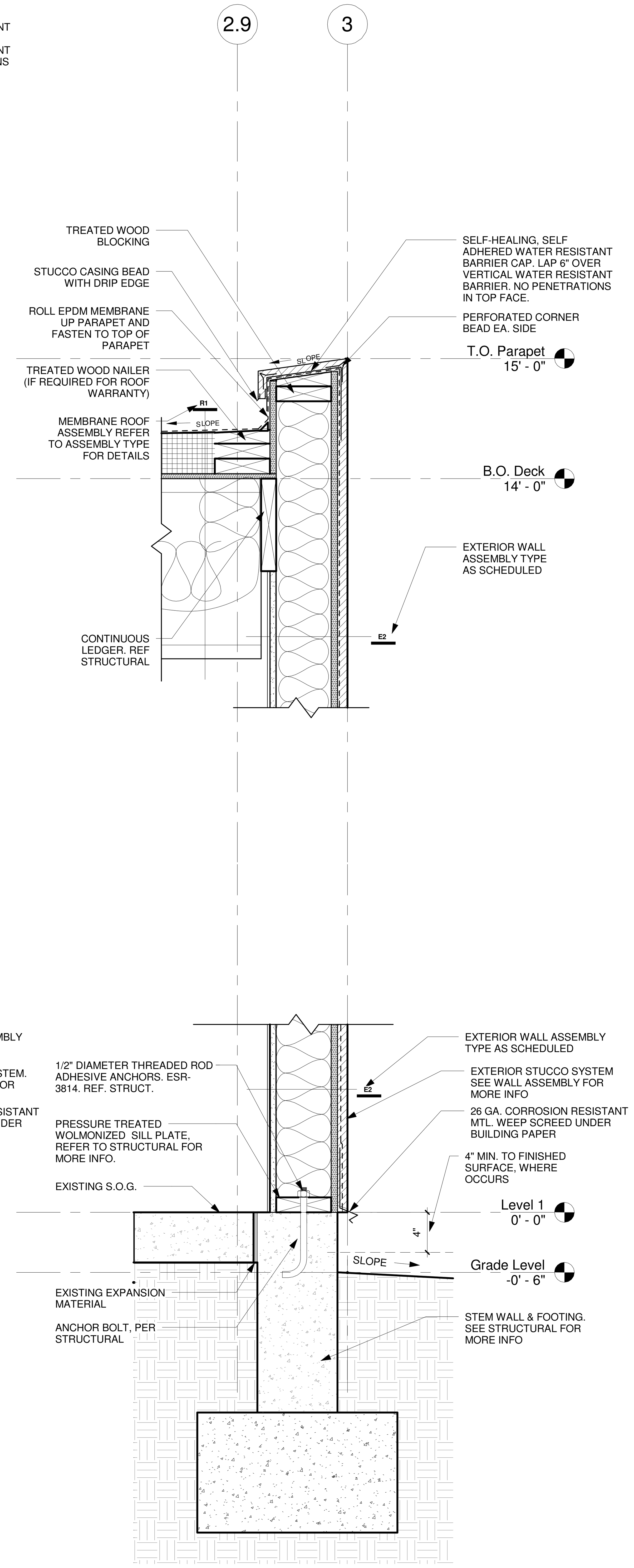
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



3 SECTION AT POLYCARBONATE WALL
1 1/2" = 1'-0"



2 SECTION AT RATED STUCCO WALL
1 1/2" = 1'-0"



1 SECTION AT NON-RATED STUCCO WALL
1 1/2" = 1'-0"

SELF CERTIFIED BY: DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

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(E) JON@THEWANDERIST.COM
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SCOTTSDALE, AZ 85251
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REGISTERED ARCHITECT
CERTIFICATE NO. 41966
WILLIAM FRANKLIN ERWIN
ARIZONA, U.S.A.
Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

SECTION DETAILS

Date 03/06/19

A400

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

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19
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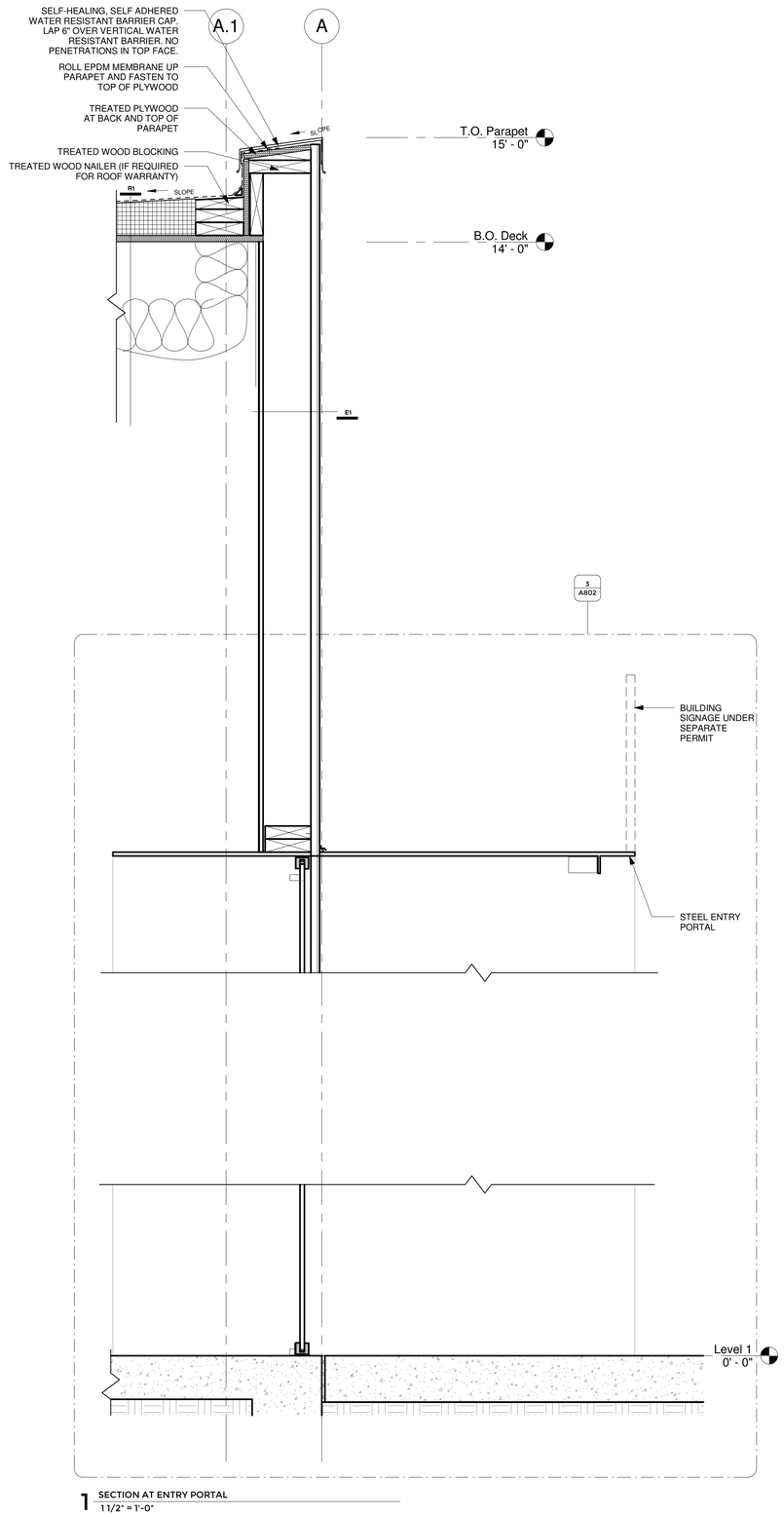
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



1 SECTION AT ENTRY PORTAL
1 1/2" = 1'-0"

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

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JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

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WILLIAM ERWIN, AIA, LEED AP BD+C
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3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
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UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
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-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
CERTIFICATE No.
16856
WILLIAM FRANKLIN ERWIN
Date Signed 3/6/19
ARIZONA, U.S.A.

Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

SECTION DETAILS

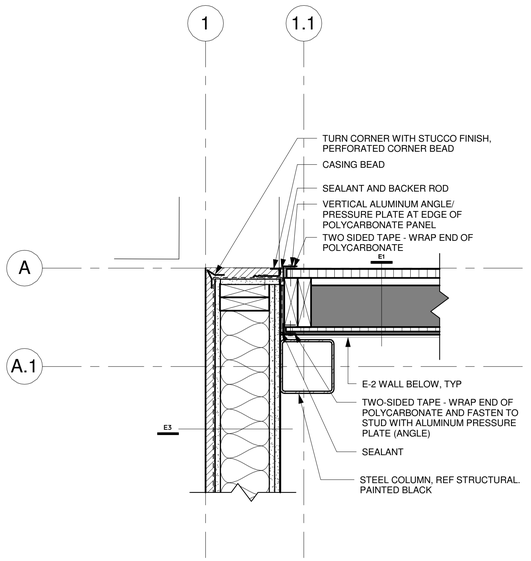
Date 03/06/19

A401

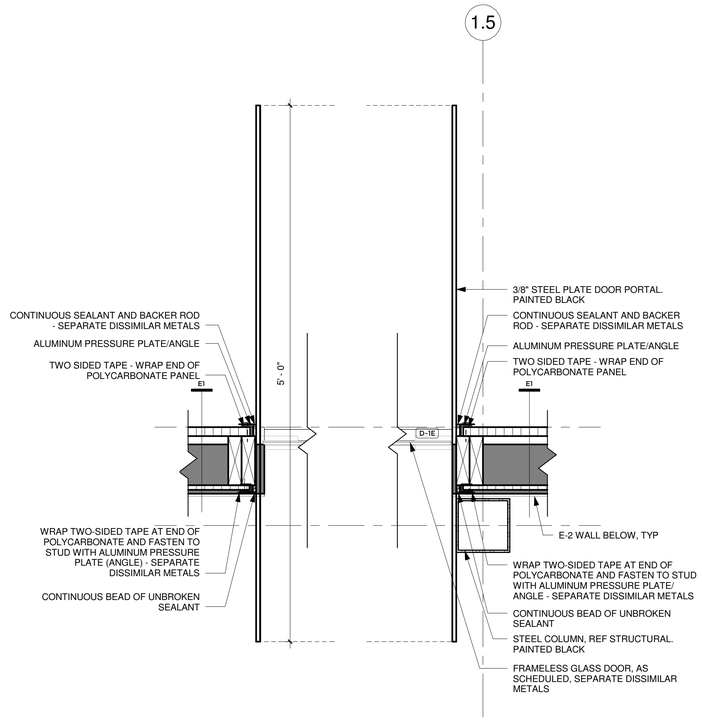
Scale 1 1/2" = 1'-0"

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

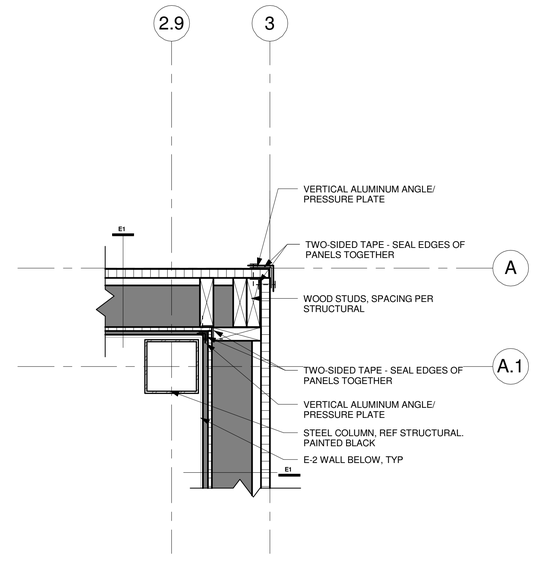
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



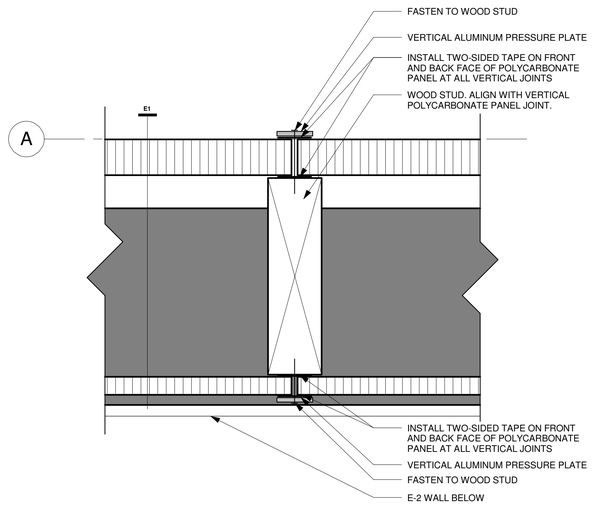
4 NW CORNER PLAN DETAIL
1 1/2" = 1'-0"



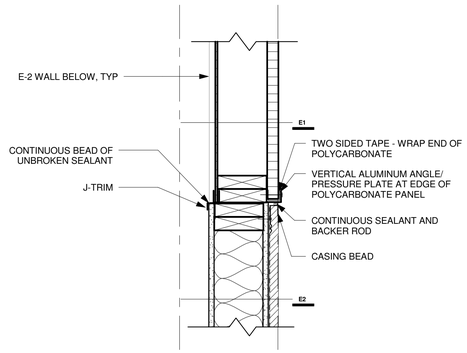
3 NORTH WALL DOOR JAMB/ PORTAL
1 1/2" = 1'-0"



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



5 E-1 WALL VERTICAL JOINT DETAIL
6" = 1'-0"



1 STUCCO TO POLYCARBONATE PLAN DETAIL
1 1/2" = 1'-0"

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

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ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
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3 ENGINEERING
DAN MANN, P.E.
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SCOTTSDALE, AZ 85251
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-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
STATE OF ARIZONA
WILLIAM FRANKLIN ERWIN
Date Signed: 6/29
ARIZONA, U.S.A.

Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

PLAN DETAILS

Date 03/06/19

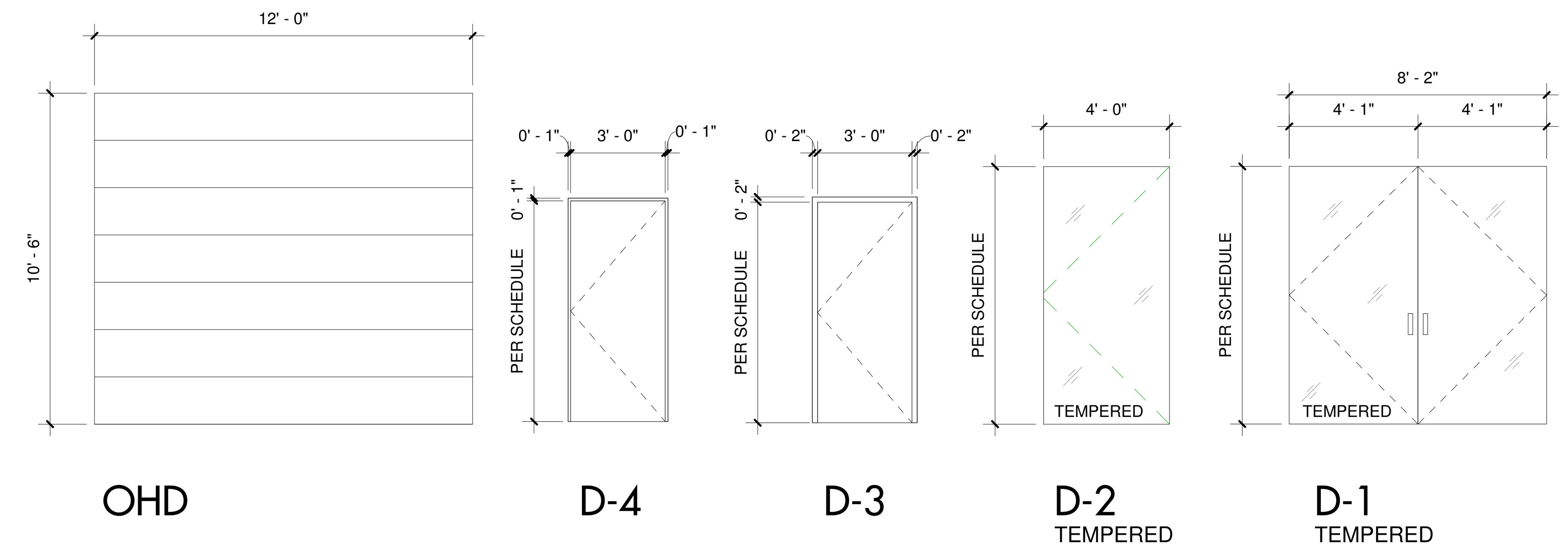
A500

Scale As indicated

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

DOOR SCHEDULE											
DOOR NUMBER	DESCRIPTION	TYPE	HARDWARE FUNCTION	HANDING	MATERIAL	FRAME		WIDTH	HEIGHT	FIRE RATING
						FRAME FINISH	FRAME TYPE			
D-1E	8'-0" WIDE DOUBLE GLASS DOOR	D-1	ENTRY / EGRESS	RHR, LHR	TEMPERED GLASS	-	FRAMELESS	8' - 2"	8' - 0"	NOT RATED
D-2E	3'-0" GLASS DOOR	D-2	ENTRY / EGRESS	RHR	TEMPERED GLASS	-	FRAMELESS	4' - 0"	8' - 0"	NOT RATED
D-3E	EXTERIOR INSULATED FLUSH	D-3	ENTRY / EGRESS	LHR	HM, PAINT BY MFGR	PAINT BY MFGR	HOLLOW METAL	3' - 0"	7' - 0"	NOT RATED
D-4E	EXTERIOR INSULATED FLUSH	D-3	ENTRY / EGRESS	LHR	HM, PAINT BY MFGR	PAINT BY MFGR	HOLLOW METAL	3' - 0"	7' - 0"	NOT RATED
D-5E	EXTERIOR INSULATED FLUSH	D-3	ENTRY / EGRESS	LHR	HM, PAINT BY MFGR	PAINT BY MFGR	HOLLOW METAL	3' - 0"	7' - 0"	NOT RATED
D-6	INTERIOR FLUSH SOLID CORE HARDBOARD	D-4	PASSAGE	RHR	WD, PAINT BY MFGR	-	KERF (FRAMELESS)	3' - 0"	7' - 0"	NOT RATED
D-7	INTERIOR FLUSH SOLID CORE HARDBOARD	D-3	PASSAGE	LH	WD, PAINT BY MFGR	PAINT BY MFGR	SOLID WOOD	3' - 0"	7' - 0"	NOT RATED
D-8	INTERIOR FLUSH SOLID CORE HARDBOARD	D-3	PRIVACY	RH	WD, PAINT BY MFGR	PAINT BY MFGR	SOLID WOOD	3' - 0"	7' - 0"	NOT RATED
D-9	INTERIOR FLUSH SOLID CORE HARDBOARD	D-3	PRIVACY	LH	WD, PAINT BY MFGR	PAINT BY MFGR	SOLID WOOD	3' - 0"	7' - 0"	NOT RATED
D-10	INTERIOR FLUSH SOLID CORE HARDBOARD	D-4	PRIVACY	RH	WD, PAINT BY MFGR	-	KERF (FRAMELESS)	3' - 0"	7' - 0"	NOT RATED
OHD-1	OVERHEAD DOOR	OHD	LOCKABLE, GARAGE OPENER	-	WD, PAINT BY MFGR	PAINT BY MFGR	METAL	12' - 0"	10' - 6"	NOT RATED

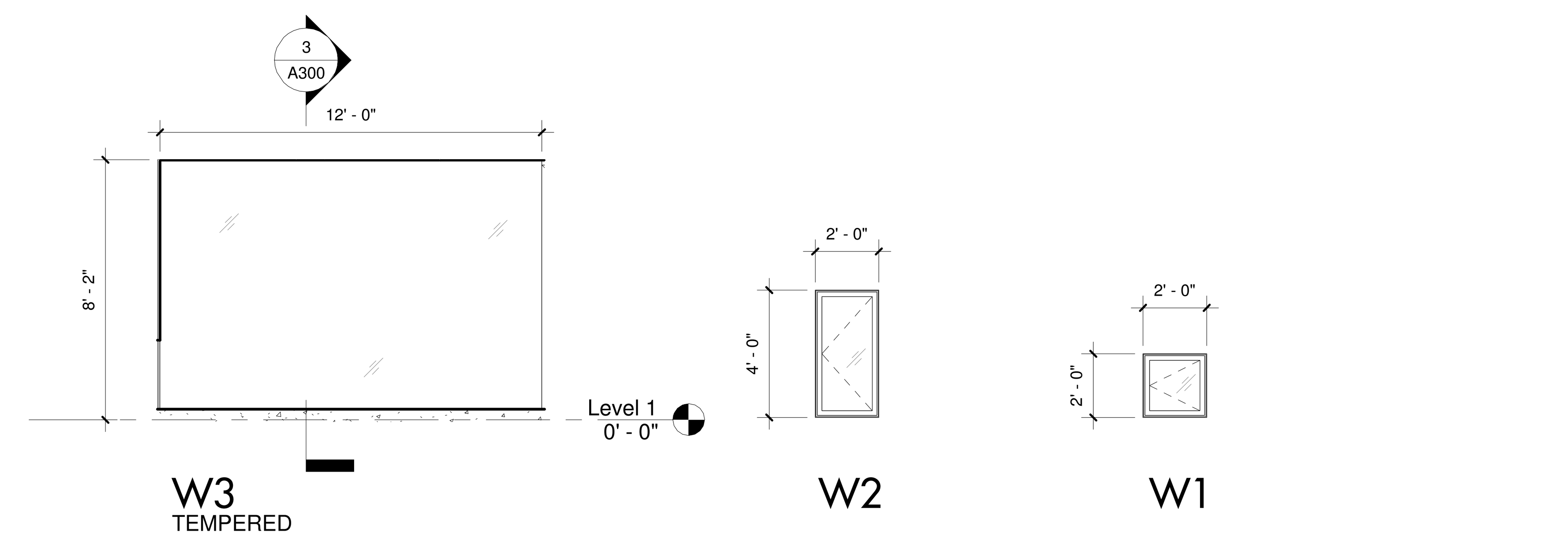
NOTE:
1. ALL DOORS MUST OPERATE USING FIVE LBS OR LESS PRESSURE. HARDWARE TO OPERATE WITHOUT PINCHING, TIGHT GRASPING, OR TWISTING OF THE WRIST. EGRESS DOORS
2. SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
3. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES HALL BE INSTALLED 34" MIN. AND 48" MAX ABOVE THE F.F. LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT.
4. BOLT LOCKS, IF PROVIDED, MUST COMPLY WITH 1010.1.9.5
5. ADD PANIC HARDWARE AT ALL EGRESS DOORS



DOOR SCHEDULE AND ELEVATIONS

WINDOW SCHEDULE					
WINDOW NUMBER	GLASS MATERIAL	WIDTH	HEIGHT	Sill Height	COMMENTS
W-1	CLEAR GLASS	2' - 0"	2' - 0"	4' - 0"	CASEMENT
W-1	CLEAR GLASS	2' - 0"	2' - 0"	9' - 6"	CASEMENT
W-1	CLEAR GLASS	2' - 0"	2' - 0"	9' - 6"	CASEMENT
W-1	CLEAR GLASS	2' - 0"	2' - 0"	3' - 0"	CASEMENT
W-1	CLEAR GLASS	2' - 0"	2' - 0"	6' - 6"	CASEMENT
W-1	CLEAR GLASS	2' - 0"	2' - 0"	4' - 6"	CASEMENT
W-2	CLEAR GLASS	2' - 0"	4' - 0"	3' - 3"	CASEMENT
W-3	CLEAR TEMPERED GLASS	12' - 0"	8' - 0"	0' - 0"	FIXED, FRAMELESS

ALL GLASS MUST MEET CRITERIA OUTLINED IN IECC 2018 AND IBC 2018.



WINDOW ELEVATIONS
1/4" = 1'-0"

WINDOW SCHEDULE AND ELEVATIONS

FINISH KEY AND SCHEDULE

ROOM FINISH SCHEDULE							
ROOM NO.	ROOM NAME	NET AREA	WALL FINISH	FLOOR FINISH	BASE FINISH	CEILING FINISH	COMMENTS
01	RETAIL AREA	1826 SF	PT-1/POLYCARB	CONC-1	WD-1, REF. DETAIL	OPEN TO STRUCTURE/ SCRIM	
02	STOCK ROOM	1330 SF	PT-1	CONC-2	WD-1, REF. DETAIL	OPEN TO STRUCTURE/ SCRIM	
03	OFFICE	127 SF	PT-1	CONC-2	WD-1, REF. DETAIL	OPEN TO STRUCTURE/ SCRIM	
04	NEW TOILET	60 SF	PT-2	CONC-2	WD-1, REF. DETAIL	OPEN TO STRUCTURE/ SCRIM	
05	EXIST. TOILET	57 SF	PT-2	CONC-2	WD-1, REF. DETAIL	OPEN TO STRUCTURE/ SCRIM	
06	HALLWAY	117 SF	PT-1	CONC-2	WD-1, REF. DETAIL	OPEN TO STRUCTURE/ SCRIM	

FINISH KEY

PT-1	PAINT FINISH, INTERIOR, COLOR TBD
PT-2	PAINT FINISH, INTERIOR SEMI-GLOSS, COLOR TBD
CONC-1	EXPOSED CONCRETE FLOOR. LEVEL, GRIND, AND POLISH
CONC-2	EXPOSED CONCRETE FLOOR
WD-1	WOOD, PAINT FINISH
POLYCARB	6MM POLYGAL OR EQUAL. CLASS A PER ASTM E84 W/ FLAME SPREAD OF 10 AND SMOKE DEVELOPED INDEX LESS THAN 450. MINIMUM REQ'D IS CLASS C PER IBC TABLE 803.13

SELF CERTIFIED BY: ______ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

DOOR, WINDOW, AND FINISH SCHEDULES

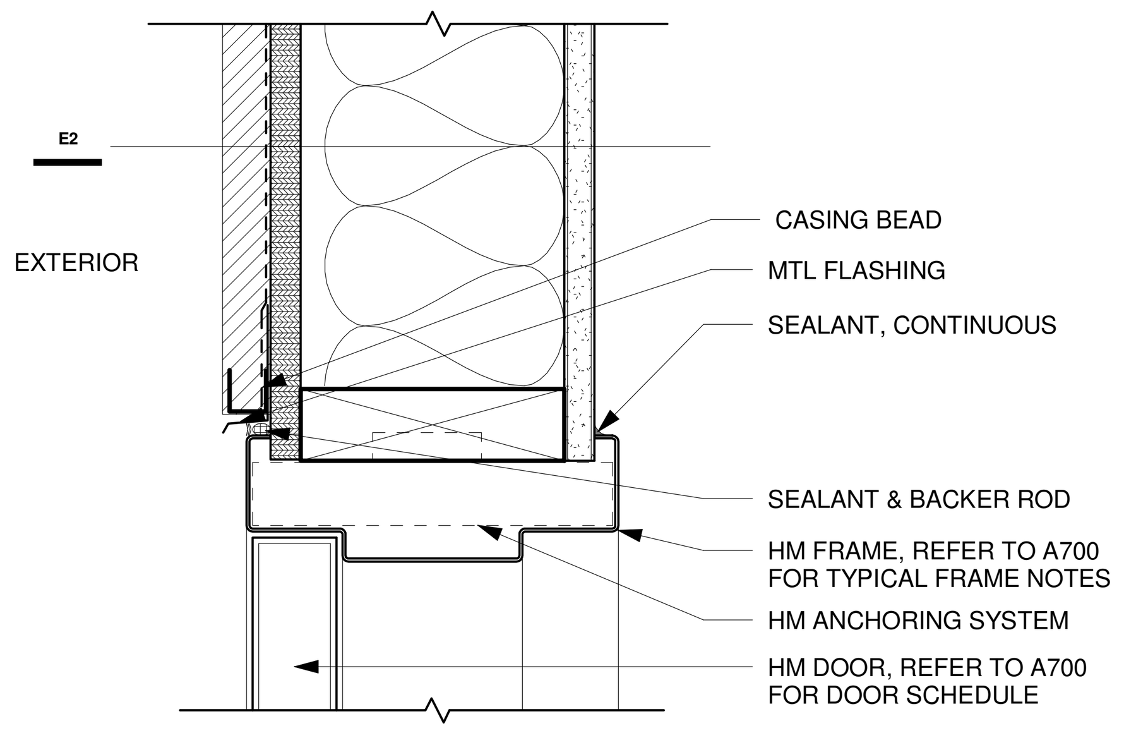
Date 03/06/19

A600

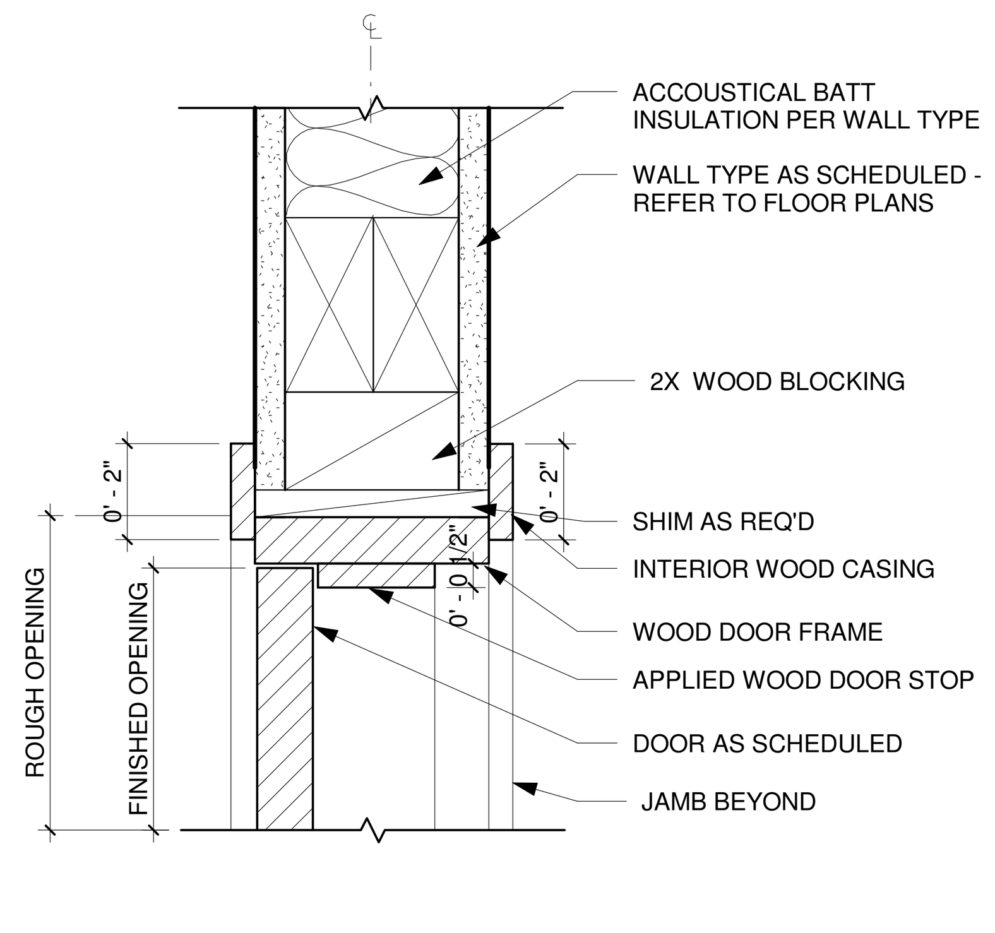
Scale 1/4" = 1'-0"

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

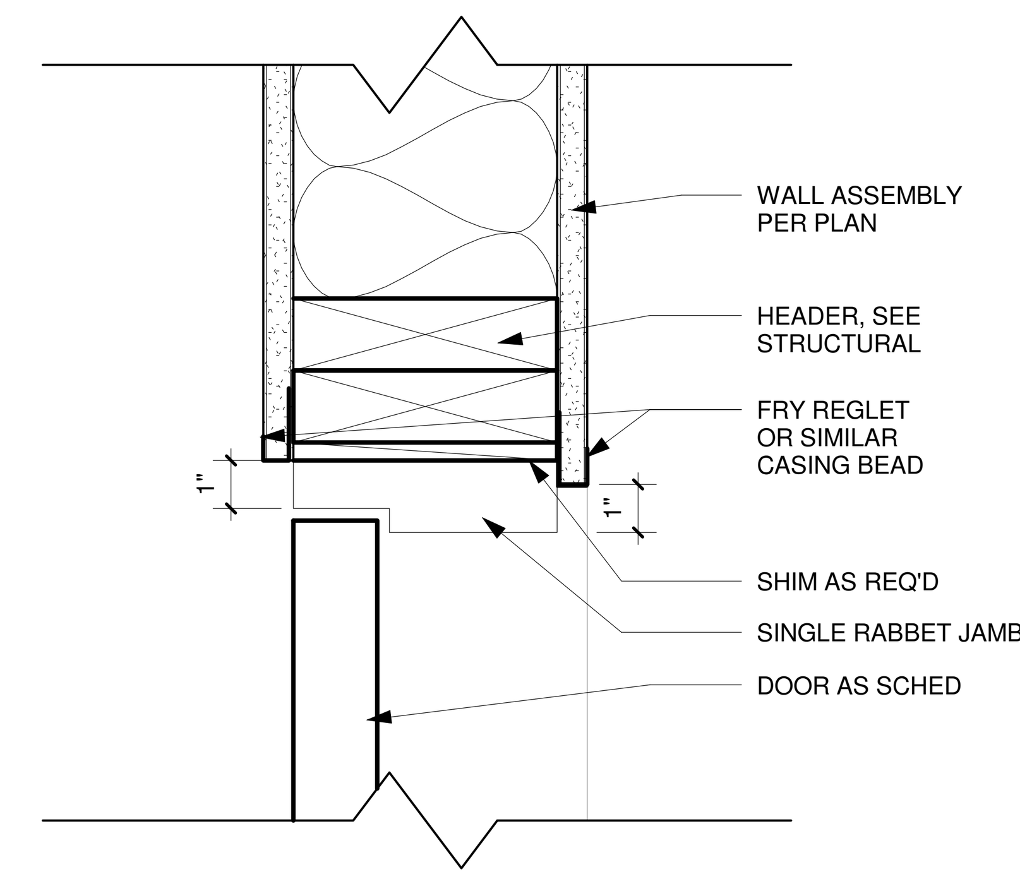
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



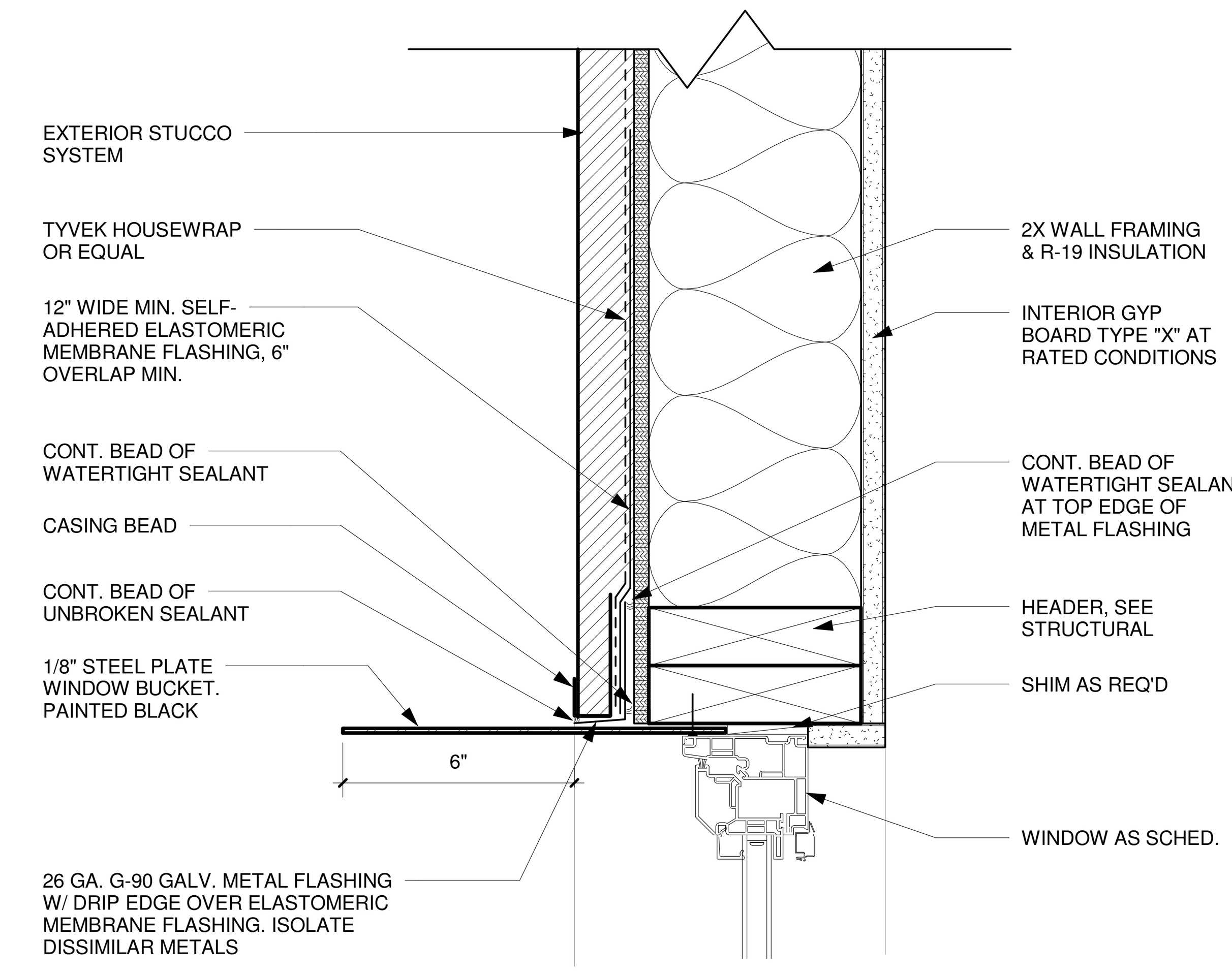
9 EXTERIOR HM DOOR HEAD (JAMB SIM)
3" = 1'-0"



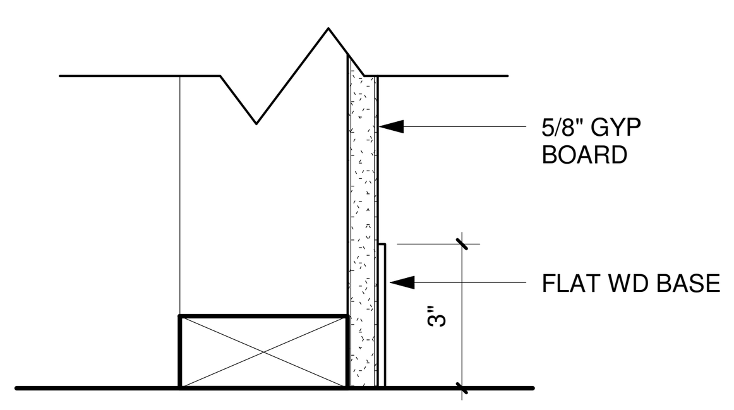
7 WD DOOR HEAD @ GWB (JAMB SIM)
3" = 1'-0"



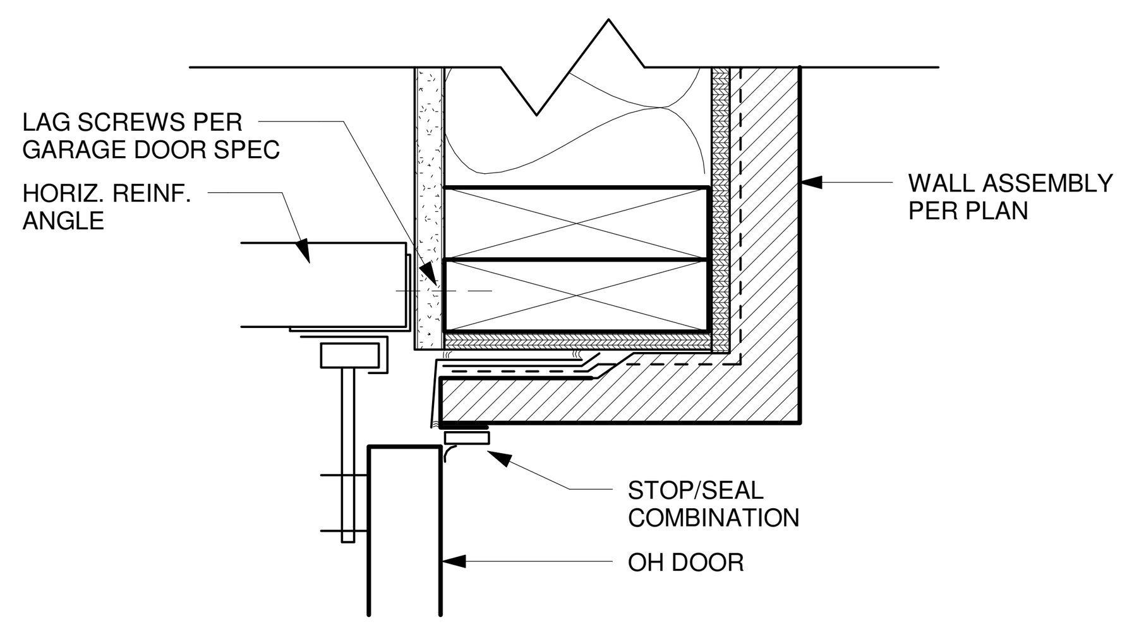
5 FRAMELESS (KERF) INT DOOR HEAD (JAMB SIM)
3" = 1'-0"



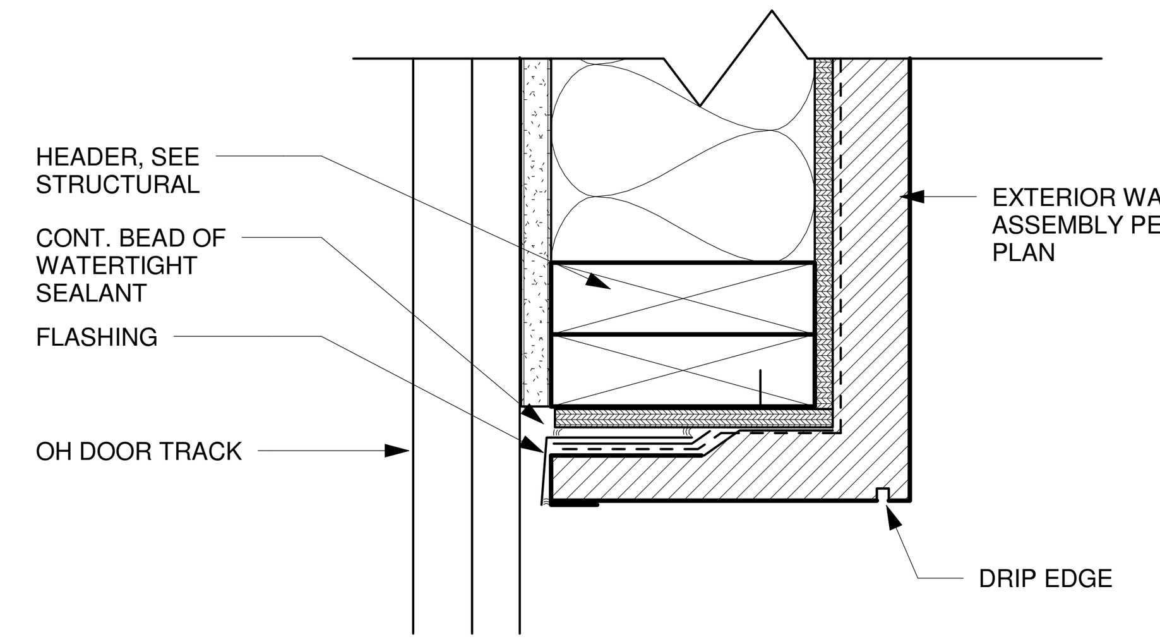
2 EXTERIOR WINDOW HEAD @ STUCCO
3" = 1'-0"



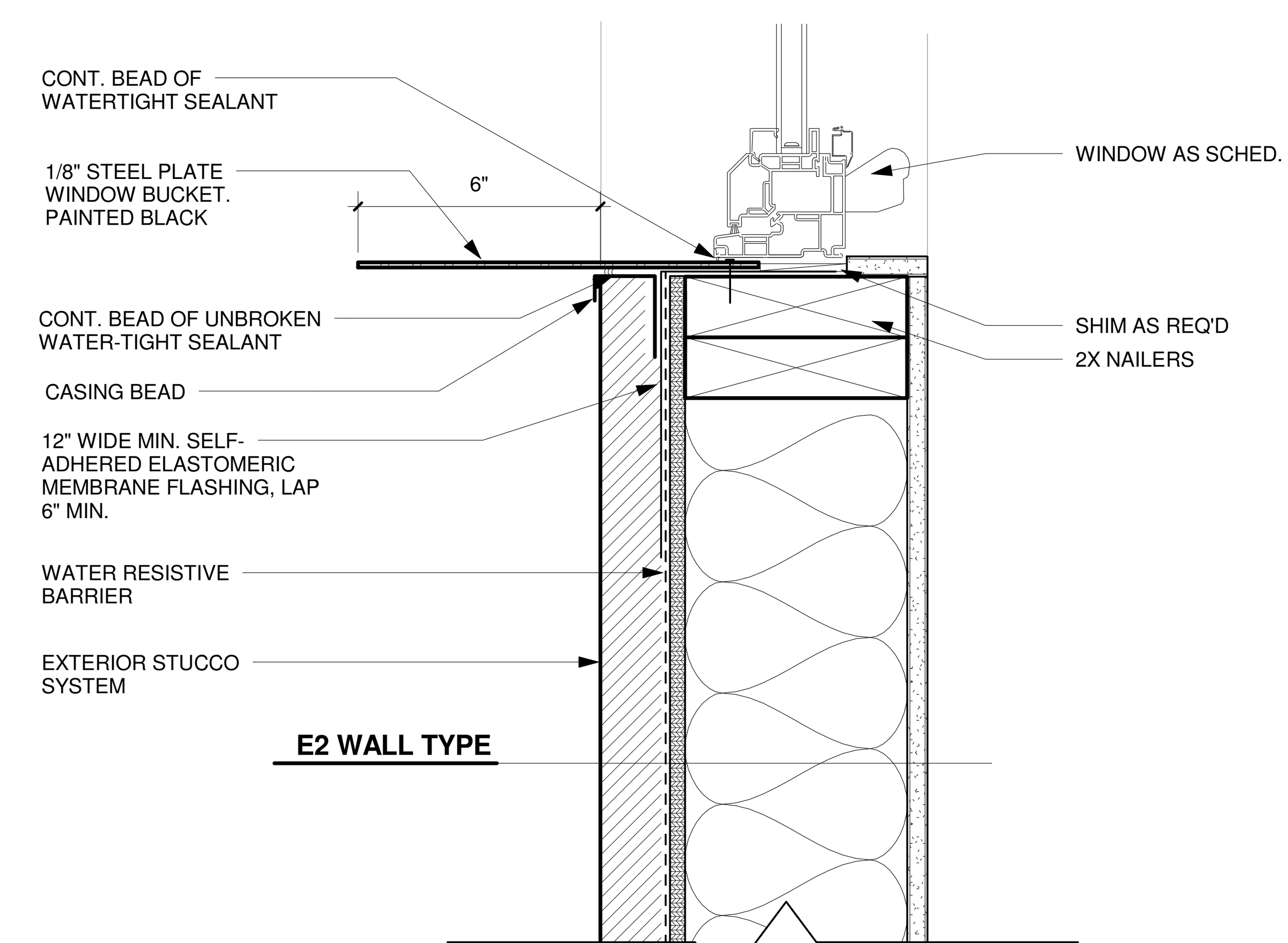
8 TYP BASE DETAIL
3" = 1'-0"



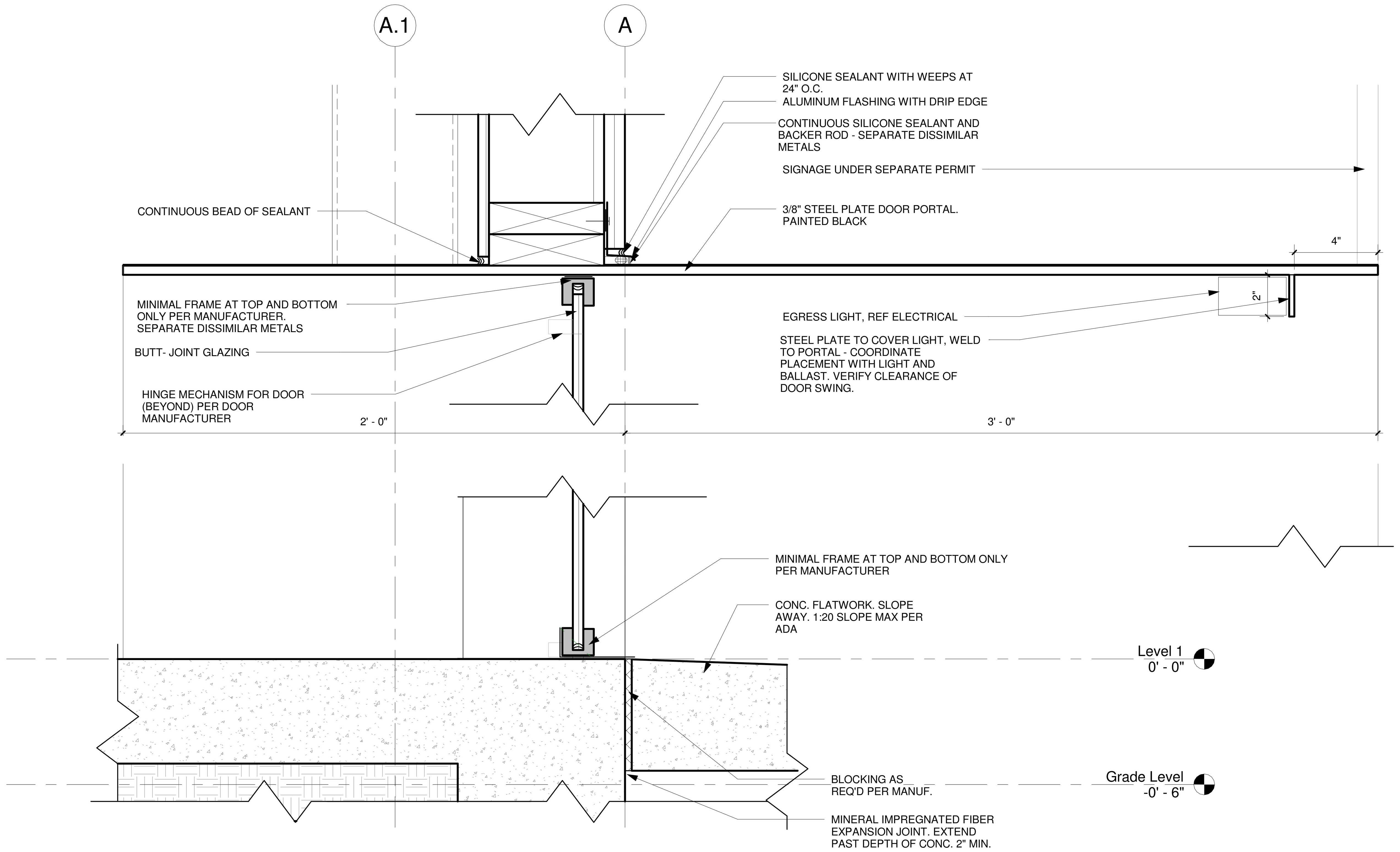
6 OH DOOR DETAIL JAMB
3" = 1'-0"



4 OH DOOR DETAIL HEAD
3" = 1'-0"



1 EXTERIOR WINDOW SILL @ STUCCO
3" = 1'-0"



3 SECTION AT GLAZED ENTRY PORTAL
3" = 1'-0"

SELF CERTIFIED BY: DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL.
- PLANS ARE COMPLETE.
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

REGISTERED ARCHITECT
WILLIAM FRANKLIN ERWIN
ARIZONA, U.S.A.
Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

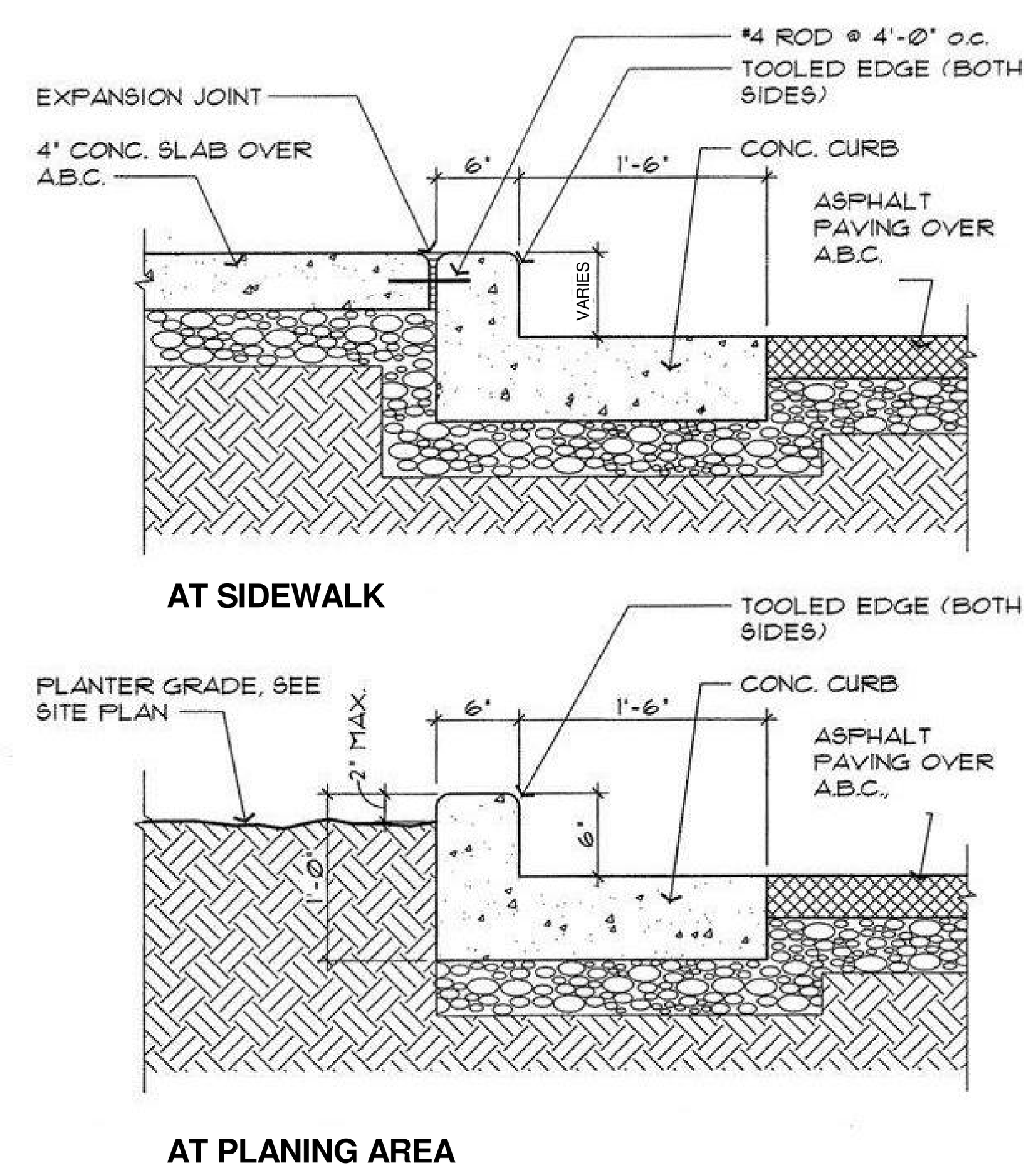
DOOR AND WINDOW DETAILS

Date 03/06/19

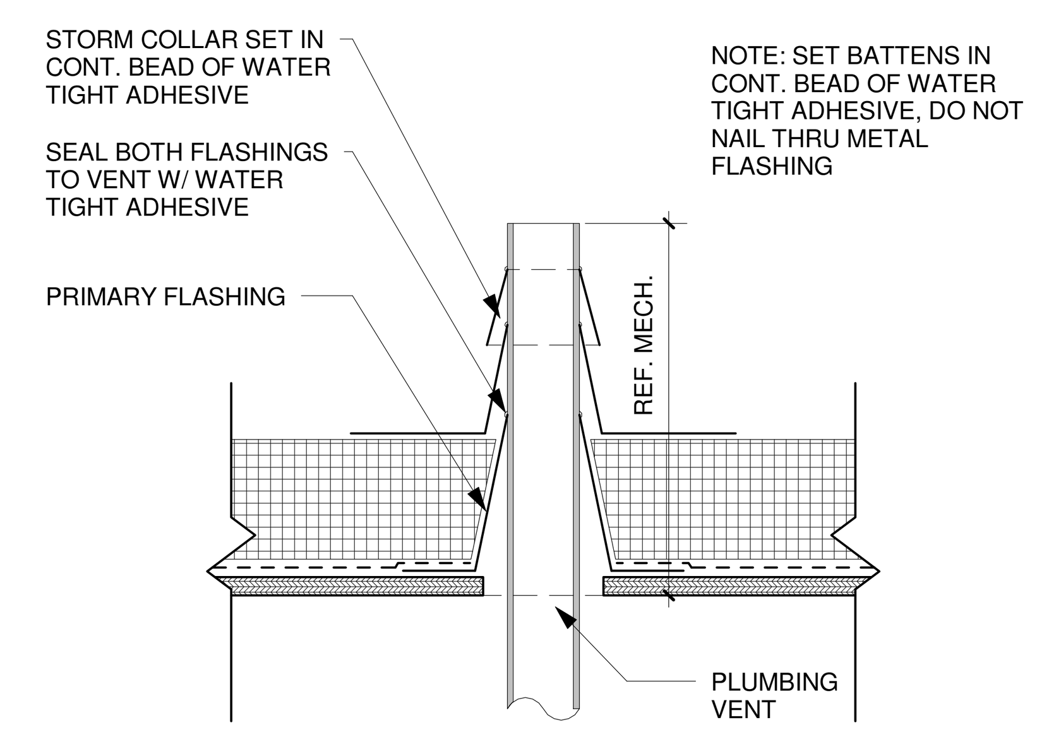
A802

Scale 3" = 1'-0"

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

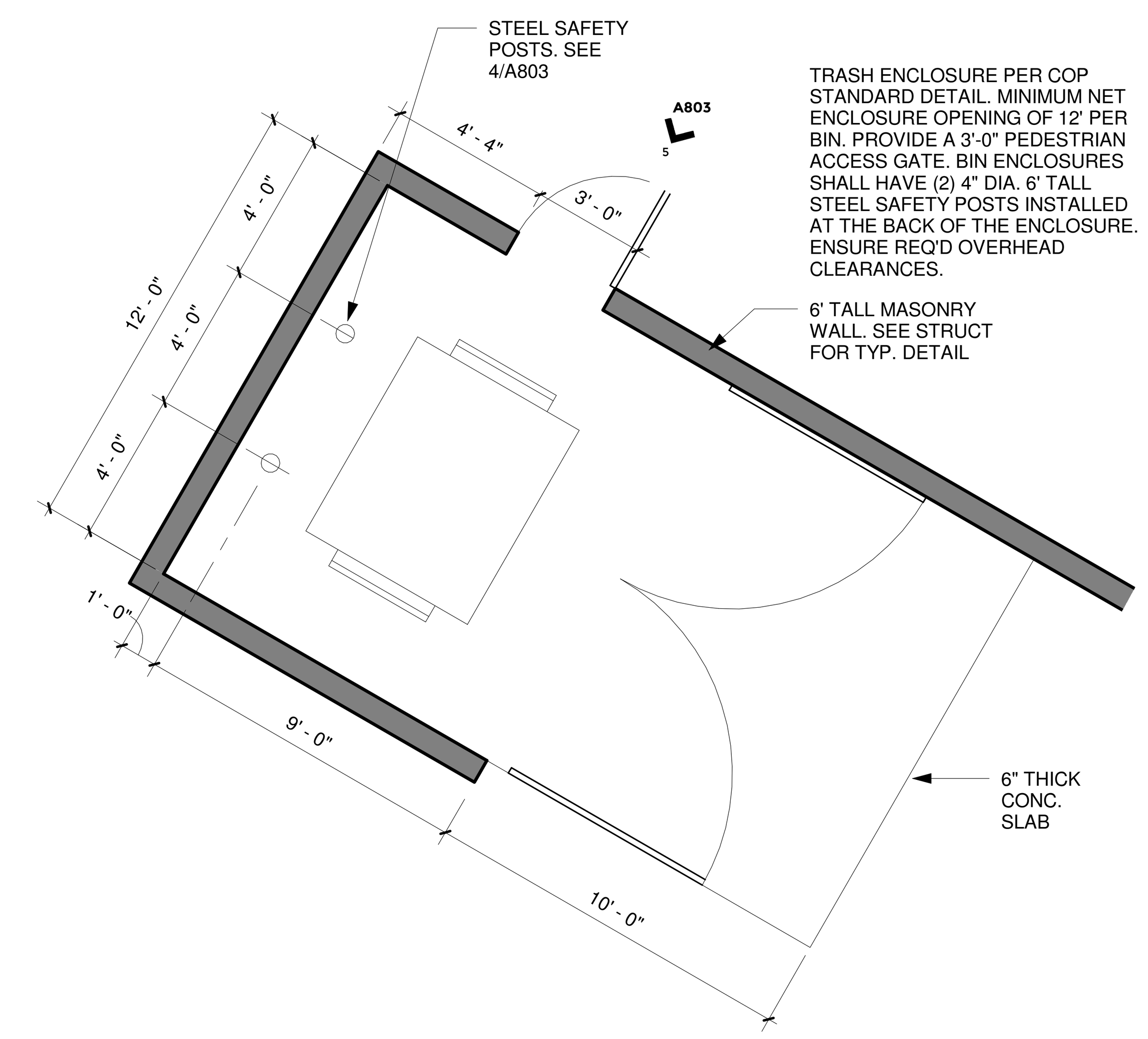


3 CURB DETAILS
1" = 1'-0"

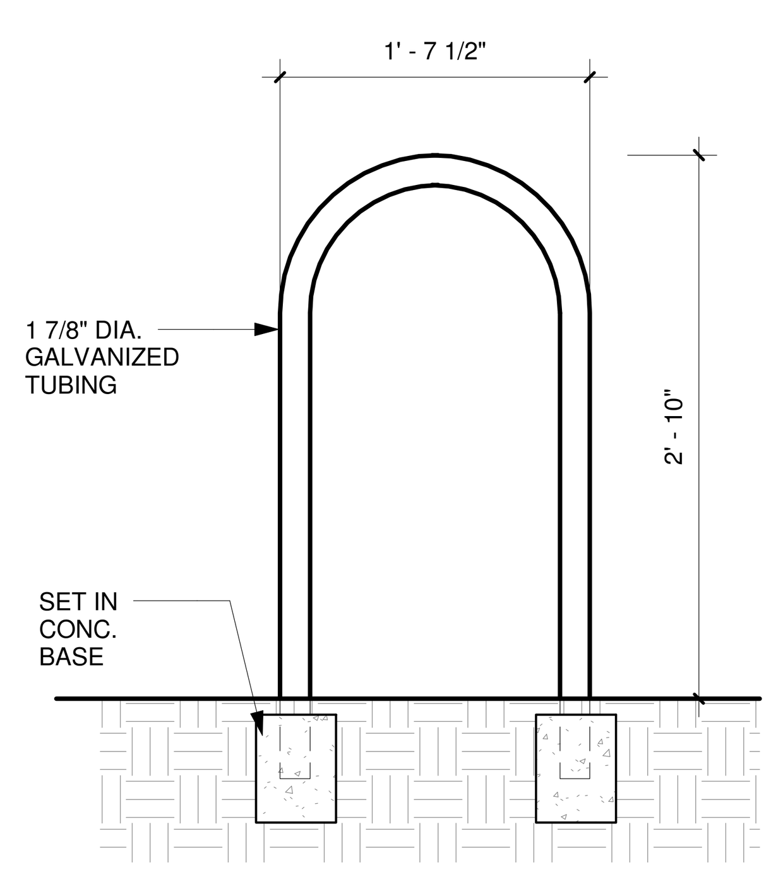


1 PLUMBING VENT DETAIL
1 1/2" = 1'-0"

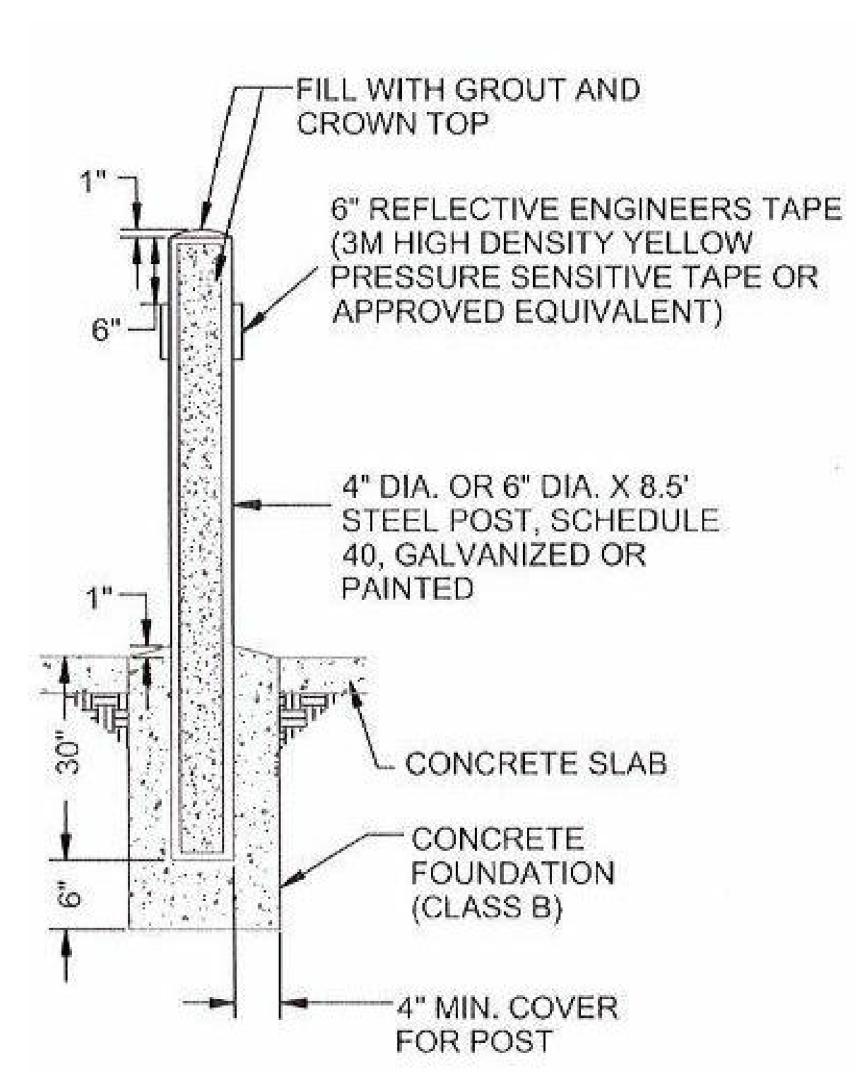
8 ACCESSIBLE PARKING SIGNS
1 1/2" = 1'-0"



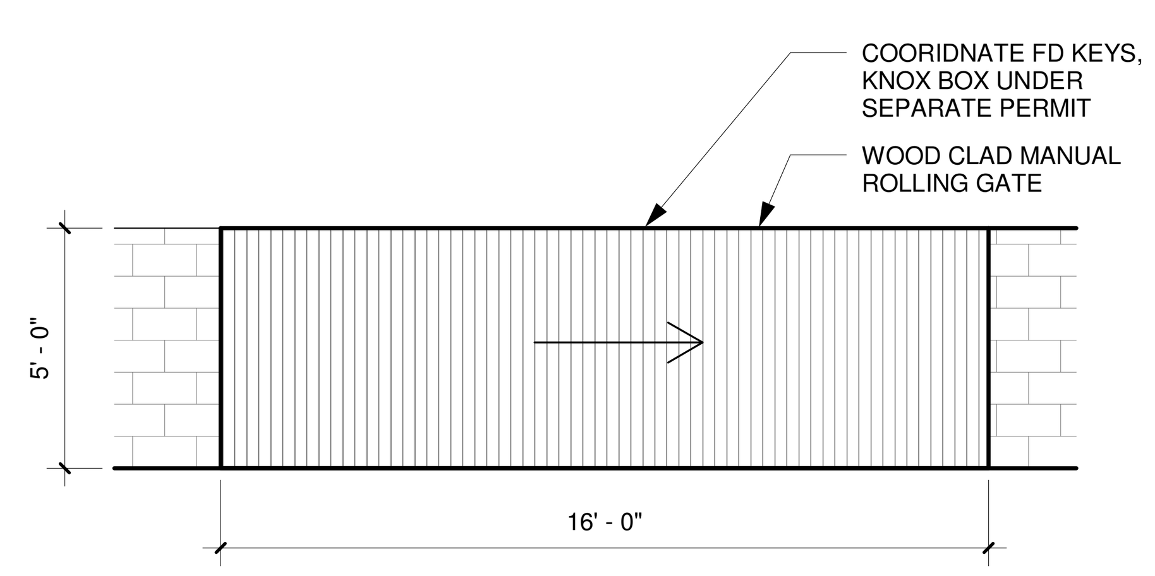
2 EN-FP @ TRASH
1/4" = 1'-0"



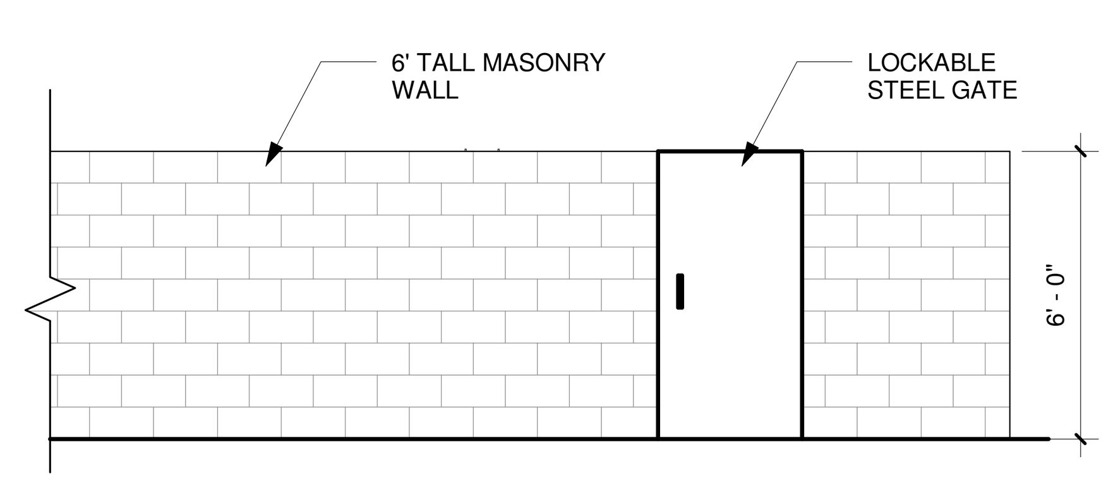
7 BIKE RACK DETAIL
1" = 1'-0"



4 PIPE BOLLARD DETAIL
1" = 1'-0"



6 ROLLING GATE ELEV
1/4" = 1'-0"



5 TRASH ENCLOSURE NORTH ELEV
1/4" = 1'-0"

SELF CERTIFIED BY: [signature] DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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Expires 6.30.19

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

MISC. DETAILS

Date 03/06/19

A803

Scale As indicated

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

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City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

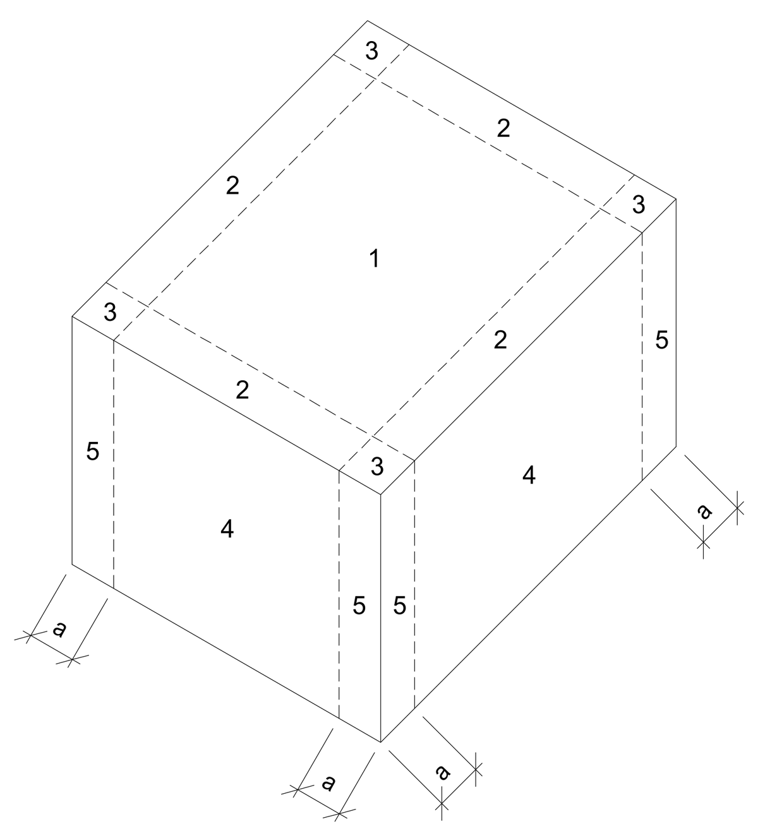
CODE:

2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC)

DESIGN LOADS:

1. ROOF:
   LIVE LOAD______20 PSF (REDUCIBLE)
   DEAD LOAD______18 PSF*
   SUPERIMPOSED DEAD LOAD ON TRUSSES_____16 PSF*
   (13PSF TOP CHORD / 3PSF BOTTOM CHORD)
   *ROOF DEAD LOAD INCLUDES A 1.5 PSF ALLOWANCE FOR FIRE SPRINKLER PIPE BRANCH LINES LESS THAN 3 INCH DIAMETER. DESIGNERS OF STRUCTURAL MEMBERS ENGINEERED BY OTHERS SHALL COORDINATE THE WEIGHTS AND LOCATIONS OF ALL FIRE SPRINKLER BRANCH LINES GREATER THAN 3 INCH DIAMETER AND DESIGN FOR ADDITIONAL LOADS ACCORDINGLY.
2. WIND LOAD:
   RISK CATEGORY______II
   BASIC WIND SPEED, V :______102 MPH
   EXPOSURE CATEGORY:______C
   IMPORTANCE FACTOR, Iw:______1.0
   MEAN ROOF HEIGHT:______15 FT
   INTERNAL PRESSURE COEFFICIENT______+/- 0.18
   G:______0.85
   Kd:______0.85
   Kzt:______1.0
   Kz:______1.12
   ENCLOSURE CLASSIFICATION: ______ENCLOSED BUILDING
3. SEISMIC LOADS:
   RISK CATEGORY______II
   IMPORTANCE FACTOR, Ie :______1.0
   SEISMIC SITE CLASS:______C
   Ss:______0.186
   S1:______0.066
   SDS:______0.297
   SD1:______0.159
   SEISMIC DESIGN CATEGORY:______B
   BASIC SEISMIC FORCE RESISTING SYSTEM:
   STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC AND LIGHT FRAME WOOD SHEAR WALLS WITH STRUCTURAL SHEAR PANELS
   R:______3.0
   Ω:______2.5
   Cd:______3.0
   Cs:______0.01
   BASE SHEAR, V:______0.01W

COMPONENTS AND CLADDING WIND PRESSURE (ULTIMATE):



a = 12 FEET

SURFACE PRESSURE (PSF)			
COMPONENT ZONE	EFFECTIVE WIND AREA (SQ. FT)		
	10 SQ. FT	50 SQ. FT	100 SQ. FT
NEGATIVE PRESSURE: ZONE 1	-36.1 PSF	-30.6 PSF	-28.2 PSF
POSITIVE PRESSURE: ZONE 1	16.0 PSF	16.0 PSF	16.0 PSF
NEGATIVE PRESSURE: ZONE 2	-47.7 PSF	-40.5 PSF	-37.5 PSF
NEGATIVE PRESSURE: ZONE 3	-47.7 PSF	-40 .5PSF	-37.5 PSF
POSITIVE PRESSURE: ZONE 2&3	20.8 PSF	18.6 PSF	17.7 PSF
PARAPET	63.9 PSF	54.3 PSF	50.2 PSF
NEGATIVE PRESSURE: ZONE 4	-20.8 PSF	-20.4 PSF	-19.4 PSF
NEGATIVE PRESSURE: ZONE 5	-38.1 PSF	-21.6 PSF	-19.7 PSF
POSITIVE PRESSURE: ZONE 4&5	20.8 PSF	18.6 PSF	17.7 PSF

NOTES:

1. POSITIVE PRESSURE AND NEGATIVE PRESSURE SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTFULLY.
2. EACH COMPONENT SHALL BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE PRESSURES.

EXISTING DRAWINGS:

1. EXISTING DRAWINGS WERE NOT AVAILABLE AT TIME OF DESIGN. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION.

EXISTING STRUCTURE:

1. EXISTING STRUCTURAL DIMENSIONS AND MEMBER SIZES ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO FABRICATION. THE CONTRACTOR SHALL VERIFY THE ACTUAL CONFIGURATION OF EXISTING CONSTRUCTION AND THE CONDITION OF THE STRUCTURE BEFORE BEGINNING WORK. ANY DISCREPANCIES OR UNSOUND CONDITIONS SHALL BE REPORTED TO THE ARCHITECT FOR RESOLUTION BEFORE BEGINNING WORK. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, EMBEDMENTS, AND OPENINGS NOT SHOWN. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR DUCTS, PIPING, EMBEDMENTS, AND OPENINGS NOT SHOWN.
2. TEMPORARY SHORING AND BRACING MAY BE NECESSARY IN ORDER TO PERFORM THE NECESSARY STRUCTURAL MODIFICATIONS TO THE EXISTING STRUCTURE SHOWN ON THE STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS. THE CONTRACTOR MUST RETAIN A LICENSED STRUCTURAL ENGINEER WHO SHALL INVESTIGATE WHERE THIS TEMPORARY SHORING/BRACING IS REQUIRED, AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING.

FOUNDATIONS:

1. GEOTECHNICAL CONSULTANT: ACS SERVICES LLC
2. REPORT NUMBER: 1901078
3. REPORT DATE:FEBRUARY 11, 2019
4. SPREAD FOOTINGS SHALL BEAR ON COMPACTED FILL. FOR FILL REQUIREMENTS, SEE SOIL REPORT. DESIGN SOIL BEARING VALUE 1,500 PSF. BOTTOM OF FOOTINGS TO BE 2'-0" MINIMUM BELOW FINISHED GRADE. FINISHED GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT FINISHED GRADE WITHIN 5 FEET FOR PERIMETER FOOTINGS. FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
5. SPREAD FOOTINGS SHALL BEAR ON COMPACTED NATIVE SOILS. ASSUMED DESIGN SOIL BEARING VALUE 1,500 PSF AND LATERAL BEARING VALUE OF 150 PSF/FT PER IBC TABLE 1806.2 "PRESUMPTIVE LOAD-BEARING VALUES" WITH ASSUMED SAND, SILTY SAND, CLAYEY SAND, ETC. IF ACTUAL SOIL CONDITIONS DIFFER NOTIFY THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH WORK. BOTTOM OF FOOTINGS SHALL BEAR AT A DEPTH NOT LESS THAN 1.5 FT BELOW LOWEST ADJACENT GRADE WITHIN 5 FEET OF STRUCTURE OR FOUNDATION. FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

GENERAL:

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
2. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK THAT CONFORMS TO THE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY AND HEALTH STANDARDS FOR THE CONSTRUCTION INDUSTRY.
3. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.
4. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
5. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. DO NOT PENETRATE ANY STRUCTURAL ELEMENTS (BEAMS, COLUMNS, WALLS, SLABS, STEEL DECKS, ETC.) WITHOUT PRIOR WRITTEN APPROVAL OF STRUCTURAL ENGINEER THROUGH ARCHITECT OR OWNER.
6. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. HE SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE CHOOSES AN OPTION AND HE SHALL COORDINATE ALL DETAILS.
7. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
8. TYPICAL DETAILS ARE NOT CUT ON DRAWINGS, BUT APPLY UNLESS NOTED OTHERWISE.
9. WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.
10. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. SUPPLIER OF ENGINEERED STRUCTURAL COMPONENTS SHALL BE RESPONSIBLE FOR COMPLETE DESIGN AND SHALL USE ALL CONTRACT DOCUMENTS FROM ALL DISCIPLINES.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND FINISHED GRADE WITH CIVIL DRAWINGS PRIOR TO START OF CONSTRUCTION. ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE TO ASSIST CONTRACTOR IN VERIFICATION. DO NOT SCALE DIMENSIONS FROM DRAWINGS.
12. ITEMS SHOWN BY OTHER DISCIPLINES WITH REFERENCE TO STRUCTURAL DRAWINGS BUT NOT SHOWN ON THESE STRUCTURAL DRAWINGS SHALL BE CONSIDERED DESIGN BUILD ITEMS. CONTRACTOR SHALL SUBMIT DESIGN BY OTHERS FOR REVIEW

SHORING:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING, AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURES IS COMPLETE. SHORING DESIGN SHALL BE PROVIDED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY.

DEMOLITION:

1. DEMOLITION OF EXISTING STRUCTURE TO BE REMOVED SHALL BE PERFORMED BY THE CONTRACTOR USING MEANS NECESSARY TO PREVENT DAMAGE TO THE EXISTING STRUCTURE TO REMAIN. DAMAGE TO THE EXISTING STRUCTURE TO REMAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE USING METHODS REVIEWED BY THE STRUCTURAL ENGINEER. IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN IN THE CONTRACT DOCUMENTS, CONTACT STRUCTURAL ENGINEER THROUGH ARCHITECT PRIOR TO PROCEEDING WITH WORK.

DEFERRED SUBMITTALS:

1. DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF PERMIT APPLICATION AND WHICH ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.
2. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD THROUGH THE ARCHITECT AND GENERAL CONTRACTOR WITHIN 6 WEEKS OF AWARD OF CONTRACT TO THE GENERAL CONTRACTOR. ONCE THE SUBMITTAL DOCUMENTS HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS, THE ENGINEER OF RECORD WILL FORWARD THEM TO THE ARCHITECT WITH A NOTATION INDICATING THAT THEY ARE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE ARCHITECT WILL FORWARD THE DEFERRED SUBMITTAL DOCUMENTS TO THE GENERAL CONTRACTOR WHO WILL MAINTAIN ONE SET ON SITE FOR REFERENCE BY THE CITY INSPECTOR. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
3. ITEMS THAT ARE SUBMITTED FOR CONSIDERATION AS DEFERRED SUBMITTALS ARE AS FOLLOWS:

- PREFABRICATED OPEN WEB (TJL TYP) WOOD TRUSSES
- CURTAIN WALL SYSTEM

SHOP DRAWINGS:

1. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS AND ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS. UNITED STRUCTURAL DESIGN, LLC. ASSUMES NO RESPONSIBILITY FOR THE FAILURE OF THE CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW.
2. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTORS REVIEW
3. THE CONSTRUCTION DOCUMENTS MAY NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS.
4. ELECTRONIC FILES OF CONSTRUCTION DOCUMENTS WILL NOT BE MADE AVAILABLE FOR USE AS SHOP DRAWINGS.
5. VERIFY ALL DIMENSIONS AND FINISHED GRADE WITH ARCHITECTURAL DRAWINGS, CIVIL DRAWINGS, AND FIELD CONDITIONS.
6. THE ENGINEER OF RECORD HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.
7. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO THE CONTRACT DOCUMENTS.
8. SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL ITEMS ARE CONSTRUCTED ACCORDING TO THE CONTRACT DOCUMENTS.

CONCRETE:

1. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. ADDITION OF WATER TO THE BATCH FOR MATERIAL WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED, UNLESS THE SUPPLIER HAS SPECIFICALLY WITHHELD WATER FROM THE BATCH AT THE PLANT. IN SUCH CASE THE MIX DESIGN AND TRUCK TICKET MUST CLEARLY STATE THE MAXIMUM AMOUNT OF WATER THAT CAN BE ADDED TO THE BATCH ON SITE. IN NO CASE SHALL THE DESIGN WATER TO CEMENTITIOUS MATERIAL RATIO BE EXCEEDED.
3. CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE A SLUMP OF 4" +/- 1", TO BE FIELD VERIFIED, PRIOR TO ADDING ADMIXTURE, AND NOT EXCEEDING 8" AT PLACEMENT.
4. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, SLAB EDGES, REINFORCING, KEYS, ETC. MECHANICALLY VIBRATE ONLY THE TOP 5 FEET OF DRILLED PIER CONCRETE. REVIBRATE TOP OF DRILLED PIER 15 MINUTES AFTER PLACING CONCRETE.
5. UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITECT, ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY CONSTRUCTION JOINTS, KEYED OR SAW CUT, SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 150 SQUARE FEET. KEYED CONSTRUCTION JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAW CUT. CONTRACTOR SHALL SUBMIT PROPOSED SAWCUT AND CONSTRUCTION JOINT LAYOUT FOR REVIEW PRIOR TO CONSTRUCTION. CAST CLOSURE POUR AROUND COLUMNS AFTER DEAD LOAD IS APPLIED.
6. TEST DATA FOR CONCRETE SUBMITTALS SHALL BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT OF CONCRETE. REFERENCE ACI 318 CHAPTER 5, TABLE R5.3 FOR SPECIFIC REQUIREMENTS.
7. CLOSURE POUR SHALL BE CAST AROUND COLUMNS AFTER FULL COLUMN DEAD LOAD HAS BEEN APPLIED.
8. IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS, FLY ASH SHALL BE LIMITED TO 25% OF THE TOTAL CEMENTITIOUS MATERIALS BY WEIGHT. FLY ASH PER ASTM C618. FLY ASH SHALL NOT BE USED IN ARCHITECTURALLY EXPOSED CONCRETE OR IN SLABS WITH AN ACID OR BURNISHED FINISH.
9. CONCRETE TESTING SAMPLES SHALL BE CAST FOR EACH CLASS OF CONCRETE PLACED EACH DAY. ONE SAMPLE SHALL BE TAKEN EVERY 150 YD3. CONCRETE SAMPLING PER ASTM C31 AND TESTING OF SAMPLES PER ASTM C39.
10. VAPOR BARRIER IF REQUIRED BY ARCHITECTURAL SPECIFICATION OR SOILS REPORT SHALL CONSIST OF A MINIMUM 15 MIL MATERIAL LAPPED A MINIMUM OF 6 INCHES AND TAPED PER MANUFACTURER RECOMMENDATIONS. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION.
11. AT CONCRETE OVER PRECAST TEES OR STEEL DECK, ACTUAL CONCRETE VOLUMES MAY EXCEED THEORETICAL VOLUMES DUE TO CAMBER AND DEFLECTION. CONTRACTOR SHOULD MAKE ALLOWANCE FOR THIS IN THE BID. NO CLAIMS FOR ADDITIONAL CONCRETE VOLUMES WILL BE ALLOWED.
12. DRILLED PIER CONCRETE SHALL BE CHANNELED TO FREE FALL DOWN THE SHAFT WITHOUT STRIKING THE REINFORCING OR THE SIDES OF THE SHAFT. MAXIMUM HEIGHT OF FREE-FALL IS 10'-0".
13. CONCRETE PROPERTIES:

CONCRETE USE	MINIMUM 28 DAY COMPRESSIVE STRENGTH
UNLESS NOTED OTHERWISE	
ALL CONCRETE SHALL BE	3,000 PSI
SLABS ON GRADE	4,000 PSI
FOOTINGS AND STEM WALLS	3,000 PSI

DRYPACK/FLOWABLE GROUT:

1. THE SPACE BENEATH ALL BASEPLATES AND BEARING PLATES SHALL BE THOROUGHLY CLEANED BEFORE DRYPACKING OR GROUTING. DRYPACK/GROUT SOLID BENEATH ALL BASEPLATES AND BEARING PLATES (MINIMUM 95% BEARING). NO VOIDS ARE PERMISSIBLE. USE OF DRYPACK OR FLOWABLE GROUT IS AT THE CONTRACTORS OPTION UNLESS SPECIFICALLY NOTED ON THE PLANS OR DETAILS. DRYPACK/GROUT PER THE FOLLOWING:

- DRYPACK - PORTLAND CEMENT, ASTM C150, TYPE I; AND CLEAN, NATURAL SAND, ASTM C404, SIZE NO. 2. MIX AT RATIO OF 1 PART CEMENT TO 2 1/2 PARTS SAND, BY VOLUME, WITH MINIMUM WATER REQUIRED FOR PLACEMENT AND HYDRATION. MINIMUM COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C109.
- FLOWABLE GROUT - PREMIXED, NONMETALLIC, NONCORROSIVE, NONSTAINING GROUT CONTAINING SELECTED SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AGENTS, PLASTICIZING AND WATER-REDUCING AGENTS, COMPLYING WITH ASTM C1107, OF CONSISTENCY SUITABLE FOR APPLICATION, AND A 30-MINUTE WORKING TIME. MINIMUM COMPRESSIVE STRENGTH SHALL BE 5000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C1107. GROUT MUST BE CURED WITH WATER OR AN ASTM C309 CURE.

MASONRY:

1. MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 530, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
2. ALL UNITS SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE. VERTICAL ALIGNMENT OF CELLS SHALL MAINTAIN A CONTINUOUS CLEAR, UNOBSTRUCTED CELL NOT LESS THAN 3 INCHES SQUARE. MINIMUM DEPTH OF HORIZONTAL BOND BEAM CHANNEL BELOW TOP OF UNIT SHALL BE 1 1/2", AND CHANNEL SHALL BE 3" WIDE MINIMUM. ALL UNITS SHALL BE FREE OF DUST AND DIRT AT THE TIME OF LAYING.
3. MORTAR SHALL CONFORM TO ASTM C270 AND SHALL BE TYPE S WITH COMPRESSIVE STRENGTH = 1,800 PSI. MASONRY CEMENT AND EXTENDED LIFE MORTAR SHALL NOT BE USED.
4. GROUT SHALL CONFORM TO ASTM C-476. GROUT FOR WALLS CONSTRUCTED WITH HOLLOW CONCRETE MASONRY UNITS OR FOR TWO-WYTHE WALLS SHALL HAVE AN F'g = 2000 PSI. GROUT FOR WALLS CONSTRUCTED WITH HOLLOW BRICK MASONRY UNITS SHALL HAVE AN F'g = 3000 PSI.
5. VERTICAL REINFORCING (UNLESS NOTED OTHERWISE): PLACE #4 (6" WALLS), #5 (8" WALLS), #5 (12" WALL) BAR IN CENTER OF GROUT AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL, WITH ONE BAR AT ALL CORNERS, INTERSECTIONS, WALL ENDS, BEAM BEARING, JAMBS AND EACH SIDE OF CONTROL JOINTS AND AT INTERVALS NOT TO EXCEED 48" O.C. TIE AT 8'-0" VERTICALLY, WITH SINGLE WIRE LOOP TIE BY A.A. PRODUCTS COMPANY. UNLESS NOTED OTHERWISE, LAP SPLICES SHALL BE PER LAP SPLICE SCHEDULE IN TYPICAL DETAILS. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH STANDARD 90 DEGREE HOOKED DOWELS TO MATCH VERTICAL REINFORCING.
6. HORIZONTAL REINFORCING (UNLESS NOTED OTHERWISE): PLACE (2) #4 (6" WALL), (2) #5 (8" WALL), (2) #5 (12" WALL) BARS IN MINIMUM 8" DEEP GROUTED CONTINUOUS BOND BEAM AT ROOF AND ELEVATED FLOOR LINES. PLACE #4 (6" WALL), #5 (8" WALL), #5 (12" WALL) BAR IN MINIMUM 8" DEEP GROUTED CONTINUOUS BOND BEAM AT TOP OF PARAPET OR TOP OF A FREE-STANDING WALL. PLACE THESE BARS CONTINUOUS THROUGH CONTROL JOINT. WRAP MASTIC TAPE FOR 1'-6" EACH SIDE OF CONTROL JOINT. PROVIDE BENT BARS, TO MATCH HORIZONTAL BOND BEAM REINFORCING, AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY. UNLESS NOTED OTHERWISE, LAP SPLICES SHALL BE PER TYPICAL REINFORCING BAR SPLICE DETAIL. STAGGER ALTERNATE SPLICES A MINIMUM OF 4'-0". PROVIDE STANDARD WEIGHT (NO.9 GAGE WIRE) DUR-O-WALL OR DUR-O-WIRE LADDER TYPE JOINT REINFORCING AT 16" O.C. IN MASONRY WALLS. LAP JOINT REINFORCING 6" MINIMUM.
7. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACING AND RECONSOLIDATED AFTER EXCESS MOISTURE HAS BEEN ABSORBED, BUT BEFORE WORKABILITY IS LOST.
8. PROVIDE CLEANOUTS IF GROUT POUR EXCEEDS 5'-0" IN HEIGHT. IF CLEANOUTS ARE PROVIDED, GROUT POUR MAXIMUM HEIGHT = 12'-0", IN LIFTS NOT TO EXCEED 6'-0".
9. UNLESS NOTED OTHERWISE ON THE PLANS, PLACE CONTROL JOINTS IN MASONRY WALLS SUCH THAT NO STRAIGHT RUN OF WALL EXCEEDS 24'-0". CONTROL JOINTS SHALL NOT OCCUR WITHIN 24" OF WALL CORNERS, INTERSECTIONS, ENDS OVER OPENINGS, OR WITHIN 24" OF JAMBS OR CONCENTRATED LOADS. CONTRACTOR SHALL PROVIDE MCJ LAYOUT TO ARCHITECT AND ENGINEER OF RECORD FOR REVIEW PRIOR TO START OF CONSTRUCTION.
10. GROUT ALL CELLS CONTAINING REINFORCING AND ALL MASONRY BELOW GRADE.
11. MASONRY UNIT PROPERTIES:

a. HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 WITH A COMPRESSIVE STRENGTH OF 2,000 PSI AND A DENSITY BETWEEN 105 PCF AND 125 PCF (MEDIUM WEIGHT). F'm FOR DESIGN IS 2000 PSI.

STEEL REINFORCING:

1. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. LATEST ACI CODE AND DETAILING MANUAL APPLY. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. REINFORCING BAR SPACINGS GIVEN ARE MAXIMUM ON CENTERS.
2. ALL REINFORCING TO BE WELDED SHALL BE WELDED IN ACCORDANCE WITH AWS D1.4. NO TACK WELDING OF REINFORCING BARS IS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE BY STRUCTURAL ENGINEER.
3. REINFORCING LAP SPLICES IN CONCRETE SHALL BE PER TYPICAL DETAIL UNLESS NOTED OTHERWISE. ALL SPLICE LOCATIONS ARE SUBJECT TO APPROVAL. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS.
4. LAP IN WELDED WIRE FABRIC SHALL BE MADE SO THAT THE OVERLAP MEASURED BETWEEN THE OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES.
5. TYPICAL REINFORCING BAR STRENGTHS
6. REINFORCING (NON-WELDABLE): ASTM A615, DEFORMED, Fy = 60 KSI
7. REINFORCING (WELDABLE): ASTM A706, DEFORMED, Fy = 60 KSI
8. WELDED WIRE FABRIC: ASTM A185, WIRE PER ASTM A82

6. TYPICAL CLEAR CONCRETE COVERAGES
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
- FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:
  #6 AND LARGER: 2"
  #5 AND SMALLER: 1 1/2"
- FORMED CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
  SLABS, WALLS OR JOISTS:
  #14 AND LARGER: 1 1/2"
  #11 AND SMALLER: 3/4"
- BEAMS, COLUMNS (TO PRIMARY REINF., TIES OR STIRRUPS): 1 1/2"

ALL OTHERS PER LATEST EDITION OF ACI 318.

SHEET LIST	
SHEET NUMBER	SHEET NAME
S0.1	GENERAL STRUCTURAL NOTES
S0.2	GSN, CONT & SPECIAL INSPECTIONS
S0.3	SPECIAL INSPECT./ SCHEDULE SHEET
S1.1	TYPICAL DETAILS
S1.2	TYPICAL DETAILS
S1.3	TYPICAL DETAILS
S1.4	TYPICAL DETAILS
S1.5	TYPICAL DETAILS
S2.1	FOUNDATION PLAN
S3.1	FRAMING PLAN
S4.1	FOUNDATION DETAILS
S4.2	FOUNDATION DETAILS
S5.1	FRAMING DETAILS
S5.2	FRAMING DETAILS

UNITED STRUCTURAL DESIGN LLC

2058 S. Dobson Rd. Suite 10
Mesa, AZ 85202
(480) 454-6408
www.unitedstr.com
USD #:19003

STRUCTURAL STEEL:

1. LATEST AISC AND AWS CODES APPLY. THE WORD APPROVED INSPECTION 4.4 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES IS REDEFINED AS REVIEWED.
2. STEEL SHALL BE FINISHED AT LOCATIONS EXPOSED TO WEATHER WITH A CORROSION RESISTANT COATING APPLICABLE TO WEATHER AND EXPOSURE CONDITIONS OF PROJECT LOCATION.
3. WHEN STRUCTURAL STEEL IS FURNISHED TO A SPECIFIED MINIMUM YIELD POINT GREATER THAN 36 KSI, THE ASTM OR OTHER SPECIFICATION DESIGNATION SHALL BE INCLUDED NEAR THE ERECTION MARK ON EACH SHIPPING ASSEMBLY OR IMPORTANT CONSTRUCTION COMPONENT OVER ANY SHOP COAT OF PAINT PRIOR TO SHIPMENT FROM THE FABRICATORS PLANT.
4. IF IT IS NECESSARY TO SPLICE ANY MEMBER, SPLICE LOCATIONS ARE SUBJECT TO REVIEW BY STRUCTURAL ENGINEER. SPLICES SHALL BE FULL PENETRATION WELDED AND TESTED PER THIS SECTION. INDICATE ALL SPLICE LOCATIONS, AND WELDING PROCEDURES ON SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.
5. ALL BEAMS SHALL BE ERECTED WITH THE NATURAL CAMBER UPWARDS.
6. ALL BOLTS SHALL BE INSTALLED WITH STEEL WASHERS.
7. ALL REFERENCE TO HEADED STUDS SHALL INDICATE AUTOMATIC WELDED HIGH STRENGTH HEADED STUDS (NELSON OR EQUIVALENT). SHEAR CONNECTORS SHALL BE NELSON TYPE S3L OR EQUIVALENT AND SHALL BE MANUFACTURED FROM COLD DRAWN STEEL CONFORMING TO ASTM A 108. STUDS SHALL CONFORM TO ALL REQUIREMENTS OF THE LATEST EDITION OF THE AWS C5.4 "RECOMMENDED PRACTICES FOR STUD WELDING" AND THE AWS D1.1 "STRUCTURAL WELDING CODE" PUBLISHED BY THE AMERICAN WELDING SOCIETY. CONFORMANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL QUALITY CONTROL TESTING PROVISIONS OF THE AFOREMENTIONED PUBLICATIONS.
8. HEADED SHEAR CONNECTOR STUDS ON COMPOSITE STEEL BEAMS SHALL BE 3/4" DIAMETER TYPICAL UNLESS NOTED OTHERWISE AND UNIFORMLY SPACED. FOR LENGTH AND SPACING REQUIREMENTS, SEE TYPICAL DETAIL. USE NOT MORE THAN ONE STUD PER RIB WHERE THE NUMBER OF STUDS REQUIRED IS LESS THAN OR EQUAL TO THE NUMBER OF RIBS AVAILABLE. WHERE THE NUMBER OF STUDS REQUIRED EXCEEDS THE NUMBER OF RIBS AVAILABLE, PLACE A MINIMUM OF ONE STUD PER RIB FULL LENGTH OF THE BEAM. PLACE ADDED STUDS (NO MORE THAN TWO PER RIB TOTAL) IN EACH RIB BEGINNING AT THE SUPPORTS AT EACH END AND MOVING TOWARDS MIDSPAN UNTIL REQUIRED NUMBER OF STUDS ARE SUPPLIED. MAXIMUM LONGITUDINAL STUD SPACING IS 32" CENTER TO CENTER. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION. HEADED STUD LENGTHS AS SPECIFIED SHALL BE INTERPRETED AS THE FINISHED LENGTH AFTER INSTALLATION.
9. ALL WELDING BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES, CERTIFICATES SHALL BE THOSE ISSUED BY AN INDEPENDENT TESTING AGENCY.
10. ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS. USE E90 SERIES FOR ASTM A706 REINFORCING BARS. USE E308 SERIES FOR STAINLESS TO STAINLESS WELDS AND E309 SERIES FOR STAINLESS TO CARBON STEELS.
11. ALL WELDING PER AMERICAN WELDING SOCIETY STANDARDS. ALL WELDS ON DRAWINGS ARE SHOWN AS SHOP WELDS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS OR FIELD WELDS SHALL BE SHOWN ON SHOP DRAWINGS.
12. SLAG SHALL BE REMOVED FROM ALL COMPLETED WELDS, AND THE WELD AND ADJACENT BASE METAL SHALL BE CLEANED BY BRUSHING OR OTHER SUITABLE MEANS. WELDED JOINTS SHALL NOT BE PAINTED UNTIL AFTER WELDING HAS BEEN COMPLETED AND THE WELD ACCEPTED.
13. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED.
14. STEEL FABRICATOR TO COORDINATE ALL BRACING, PLATES, ERECTION BOLTS, ETC. WITH STEEL JOIST MANUFACTURER AND STEEL ERECTOR.
15. ALL STRUCTURAL STEEL SHALL BE FABRICATED BY A FABRICATOR WITH ANY ONE OF THE FOLLOWING MINIMUM QUALIFICATIONS. QUALIFICATIONS SHALL BE IN EFFECT AT TIME OF BID.

- INTERNATIONAL ACCREDITATION SERVICE, INC. (IAS) APPROVED FABRICATOR.
- AISC CERTIFIED FABRICATOR (STD).

16. STEEL PROPERTIES

- WIDE FLANGE COLUMNS, BEAMS AND TEES: ASTM A992 (Fy = 50 KSI)
- CHANNELS, PLATES AND ANGLES: ASTM A36 (Fy = 36 KSI)
- PIPE STEEL: ASTM A53 Gr. B (Fy = 35 KSI)
- HSS RECTANGULAR STEEL: ASTM A500 Gr. B (Fy = 46 KSI)
- BOLTS: ASTM A325 OR ASTM A F1852 TWIST-OFF TYPE
- ANCHOR RODS: ASTM F1554 Gr. 36 (Fy = 36 KSI)

17. STEEL BOLTS SHALL BE PRETENSIONED UNLESS OTHERWISE NOTED AS A SNUG-TIGHT CONNECTION ON THE DRAWINGS OR DETAILS. ONE OF HE FOLLOWING METHODS SHALL BE USED TO ASSURE ADEQUATE PRETENSIONING IS ACHIEVED:
- TURN-OF-NUT METHOD
- DIRECT TENSION INDICATOR WASHERS
- CALIBRATED WRENCH
- TWIST-OFF TYPE BOLT

SELF CERTIFIED BY: DONALD ANDREWS DATE: 03/06/2019 CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

GENERAL STRUCTURAL NOTES

Date 03/06/2019

S0.1

Scale 1/4" = 1'-0"

3/7/2019 8:55:12 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

WOOD:

1. DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF STRUCTURAL ENGINEER THRU THE ARCHITECT.
2. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT I.C.C. APPROVAL. WHERE "TYPE" OF CONNECTOR IS INDICATED ON THE DRAWINGS/DETAILS, THE CONNECTOR AND ATTACHMENT SHALL BE PER THE MAXIMUM MODEL NUMBER BASED ON THE SIZE OF THE MEMBERS CONNECTED. ALL NAIL HOLES IN JOIST HANGERS AND MISCELLANEOUS FRAMING ANCHORS SHALL BE FILLED WITH NAILS PER MANUFACTURERS PUBLISHED NAIL SIZES. ALL BOLTED OR NAILED STRAP/SPLICE CONNECTIONS SHALL HAVE AN EQUAL NUMBER OF BOLTS OR NAILS EACH SIDE OF THE SPLICE JOINT. THE FIRST BOLT OR NAIL FROM EACH SIDE OF THE SPLICED OR STRAPPED MEMBER SHALL BE EQUIDISTANT FROM THE SPLICE.
3. ALL BEAMS AND JOISTS SHALL HAVE FULL UNIFORM BEARING AT SUPPORTS, BEAM SEATS AND COLUMN CAPS.
4. ALL NAILING NOT NOTED SHALL BE ACCORDING TO IBC TABLE 2304.9.1.
5. IN WOOD STUD WALLS, UNLESS NOTED OTHERWISE, DOUBLE UP STUDS AT ALL JAMBS, CORNERS, INTERSECTIONS, AND AT ISOLATED BEARING POINTS OF FRAMING MEMBERS ABOVE. WOOD FRAME BEARING WALLS SHALL HAVE A SIMPSON CONNECTOR/ANCHOR TOP AND BOTTOM OF STUDS AT 32" O.C. MAXIMUM, EXCEPT WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS.
6. AT WOOD STUD WALLS, WOOD PLATE ANCHOR RODS SHALL BE 1/2" DIAMETER PLACED NOT TO EXCEED 4'-0" O.C. UNLESS NOTED OTHERWISE. ANCHOR RODS SHALL BE PLACED AT ALL JAMBS, CORNERS, INTERSECTIONS, AND WALL ENDS. ALL BOTTOM PLATES SHALL HAVE A MINIMUM OF 2 ANCHOR RODS. PROVIDE A MINIMUM OF .229"x 3"x 3" GALVANIZED STEEL PLATE WASHER UNDER EACH NUT AT FOUNDATION ANCHOR BOLTS OF SHEAR WALLS. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDES WITH SHEATHING. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDE A STANDARD CUT WASHER BETWEEN THE PLATE WASHER AND NUT.
7. DOUBLE UP FLOOR JOISTS UNDER PARTITIONS. PROVIDE 1 X 3 OR METAL CROSS BRIDGING AT MIDSPAN OF ALL FLOOR JOISTS. PROVIDE 2" SOLID BLOCKING AT SUPPORT OF ALL JOISTS. PROVIDE BLOCKING UNDER ALL PARTITION WALLS PERPENDICULAR TO FLOOR JOISTS.
8. ALL MECHANICAL SUPPLY AND RETURN OPENINGS TO BE BETWEEN FRAMING U.N.O.
9. ALL WOOD PRODUCTS EXPOSED TO WEATHER SHALL BE TREATED PER THE PROJECT SPECIFICATIONS.

WOOD SHRINKAGE:

1. WOOD STUDS AND TRUSSES SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF DELIVERY TO JOB SITE, AFTER ROOF TRUSSES ARE ERECTED, AND PRIOR TO DRYWALL INSTALLATION.
2. ALL STRAPS AND HOLD-DOWN ANCHORS SHALL BE RETIGHTENED AND CHECKED FOR LOOSE CONNECTIONS.
3. MECHANICAL, PLUMBING, ELECTRICAL, AND DRYWALL SUBCONTRACTORS SHALL ACCOUNT FOR A MAXIMUM DIFFERENTIAL SHRINKAGE OF 1/6 INCH PER FLOOR IN ALL CONDUITS, DUCTS, AND CONNECTIONS.

PRESERVATIVE-TREATED WOOD:

1. ALL FOUNDATION PLATES OR SILLS AND SLEEPERS IN CONTACT WITH CONCRETE, AND WOOD FRAMING MEMBERS ATTACHED TO CONCRETE/MASONRY WALLS BELOW GRADE SHALL BE PRESERVATIVE-TREATED WOOD.
2. ALL WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING THAT ARE LOCATED AT EXTERIOR WALLS THAT ARE LESS THAN 8 INCHES FROM FINISHED GRADE SHALL BE PRESERVATIVE-TREATED.
3. ALL FASTENERS INCLUDING NUTS AND WASHERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED, ZINC-COATED GALVANIZED, OR STAINLESS STEEL. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE PER ASTM 153. FASTENERS OTHER THAN NAILS, WOOD SCREWS, AND LAG SCREWS ARE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS PER ASTM B 695, CLASS 55 MINIMUM. CONTRACTOR SHALL COORDINATE WITH SUPPLIER TO PROVIDE ADEQUATE CORROSION RESISTANT METALS (NAILS, WASHERS, BOLTS, ETC.) BASED UPON THE CHEMICALS USED IN TREATED WOOD.

PREFABRICATED WOOD TRUSS MEMBERS:

1. PREFABRICATED OPEN WEB WOOD TRUSSES SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH A CURRENT I.C.C. REPORT. FRAMING MEMBERS SHALL BE AGENCY STAMPED AND CONFORM TO THE GOVERNING CODE. FABRICATOR SHALL HAVE ISS APPROVAL OR BE APPROVED ACCORDING TO THE BUILDING JURISDICTION. MINIMUM WOOD TRUSS SIZES ARE AS INDICATED ON PLANS.
2. CONNECTIONS AND BEARING MATERIAL TO BE SHOP CONNECTED TO TRUSSES AND DESIGNED AND FURNISHED BY TRUSS FABRICATOR.
3. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT THEIR OWN WEIGHT PLUS SUPERIMPOSED DEAD AND LIVE LOADS STATED IN THE GENERAL NOTES. BRIDGING AND PERMANENT BRACING REQUIRED FOR TRUSSES ARE NOT SHOWN ON STRUCTURAL DRAWINGS. SUPPLY AND INSTALL ALL BRACING PER TRUSS MANUFACTURER'S REQUIREMENTS.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, CONNECTION DESIGN AND DETAILS, ERECTION DRAWINGS, AND SEALED CALCULATIONS FOR REVIEW PRIOR TO MANUFACTURE. CALCULATIONS AND SHOP DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS.
5. PRIOR TO ENCLOSING TRUSSES, CONTRACTOR SHALL GIVE NOTIFICATION TO MANUFACTURER REPRESENTATIVE TO PROVIDE AN OPPORTUNITY FOR REVIEW OF THE INSTALLATION. A MANUFACTURER'S INSTALLATION REVIEW LETTER SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD UPON COMPLETION.
6. ALL WOOD TRUSSES SHALL BE DESIGNED FOR AN ADDITIONAL 350 LB. POINT LOAD ANYWHERE ALONG THE SPAN.
7. ADDITIONAL WOOD TRUSSES TO BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT. VERIFY SIZE, WEIGHT, AND LOCATION OF SUPPORTED EQUIPMENT WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND SPRINKLER DRAWINGS.
8. MULTIPLE FRAMING MEMBERS SHALL BE FASTENED TOGETHER TO ALLOW TRANSFER OF SHEAR AND TENSION FORCES (MINIMUM 200 PLF) AT PLYWOOD SHEATHING JOINTS AND TO PREVENT CROSS GRAIN BENDING OF TOP CHORDS. ATTACHMENT SHALL BE A CONTINUOUS 20 GAGE METAL PLATE OR OTHER APPROVED MEANS. METHOD OF ATTACHMENT SHALL BE INDICATED ON SHOP DRAWINGS FOR REVIEW.
9. TOTAL LOAD DEFLECTIONS OF WOOD TRUSSES SHALL BE LIMITED TO SPAN/360 AT SIMPLE SPAN FLOOR MEMBERS. LIVE LOAD DEFLECTIONS OF WOOD TRUSSES SHALL BE LIMITED TO SPAN/480 AT SIMPLE SPAN FLOOR MEMBERS AND 2X SPAN/480 AT CANTILEVER FLOOR MEMBERS. TOTAL LOAD DEFLECTIONS OF WOOD TRUSSES SHALL BE LIMITED TO SPAN/240 AT SIMPLE SPAN ROOF MEMBERS AND 2X SPAN/240 AT CANTILEVER ROOF MEMBERS. LIVE LOAD DEFLECTIONS OF WOOD TRUSSES SHALL BE LIMITED TO SPAN/360 AT SIMPLE SPAN ROOF MEMBERS. FABRICATOR SHALL DESIGN MEMBERS FOR PONDING WHERE ROOF SLOPES ARE LESS THAN 1/4" PER FOOT. FRAMING MEMBERS SHALL BE CAMBERED FOR 1.0 TIMES THE DEAD LOAD DEFLECTION. MAXIMUM TOTAL LOAD DEFLECTION OF MEMBERS SHALL BE 1". FABRICATOR SHALL DESIGN ADJACENT MEMBERS FOR A MAXIMUM OF 1/4" DIFFERENTIAL DEFLECTION.
10. ALL CONNECTORS SHALL HAVE CURRENT I.C.C. APPROVAL AND SHALL BE DESIGNED AND SIZED FOR TWICE THE CALCULATED LOAD. NO OFF-SETS FOR CONNECTIONS WILL BE PERMITTED. ALL TOP AND BOTTOM CHORD MATERIAL SHALL BE FINGER JOINTED AT SPLICES AND TENSION TESTED TO A MINIMUM OF 1.2 TIMES THE ALLOWABLE TENSION PARALLEL TO THE GRAIN (PER NATIONAL DESIGN SPECIFICATIONS).
11. ALL PREFABRICATED WOOD TRUSSES SHALL BE CAMBERED FOR THE DESIGN DEAD LOAD.
12. PREFABRICATED WOOD TRUSSES ARE A DEFERRED SUBMITTAL ITEM.

PLYWOOD:

1. PLYWOOD SHALL BE APA "CDX" RATED SHEATHING OR BETTER, WITH AN EXTERIOR OR EXPOSURE 1 DURABILITY CLASSIFICATION AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP FLOOR AND ROOF PLYWOOD WITH THE FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER JOINTS. ON ROOFS WHERE PLYWOOD IS LAYED UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD.
2. MAXIMUM MOISTURE CONTENT AT TIME OF INSTALLATION TO BE LESS THAN 16%. PROVIDE PLY CLIPS AT MIDSPAN OF ALL UNSUPPORTED PLYWOOD EDGES. ALL NAILING SHALL BE COMMON NAILS. IF GUN NAILS ARE USED IN LIEU OF COMMON NAILS, REDUCE NAIL SPACING TO 4" AT EDGE NAILING AND 8" AT INTERMEDIATE NAILING. REFER TO TABLE BELOW FOR PLYWOOD PROPERTIES AND ATTACHMENT.
3. SCREWS AT FLOOR SHEATHING SHALL BE #8x2 1/2" LONG FOR SHEATHING LESS THAN 1" THICK. ALL FLOOR SHEATHING SHALL BE GLUED TO SUPPORTING MEMBERS WITH APA AFG-01 QUALIFIED GLUE.
4. NAILS AT FLOOR SHEATHING SHALL BE 0.148 DIA x 2 1/4" LONG SCREW SHANK NAILS FOR SHEATHING LESS THAN 1" THICK. ALL FLOOR SHEATHING SHALL BE GLUED TO SUPPORTING MEMBERS WITH APA AFG-01 QUALIFIED GLUE.
5. ATTACHMENT AT STEEL MEMBERS SHALL BE ITW RAMSET 1500k SERIES, 0.14" DIA. x1 1/2" LONG (3/4" PLYWOOD MAX), POWER-DRIVEN FASTENERS INSTALLED PER ICC ESR-1799, TABLE 4, OR APPROVED ICC EQUIVALENT. SPACING SHALL BE THE SAME AS NAIL SPACING IN SCHEDULE.
6. THE FIRST SHEET OF PLYWOOD SHEATHING ADJACENT AND PARALLEL TO WALLS, PERIMETER MEMBERS OR MEMBERS IDENTIFIED AS CHORD, COLLECTOR OR DRAG MEMBERS (ON ONE OR BOTH SIDES AS APPLICABLE) SHALL BE FULL WIDTH SHEETS. ELSEWHERE MINIMUM SHEET WIDTH 2'-0".
7. ALL SHEATHING SHALL BE GAPPED 1/8" ON THE EDGES AND ENDS. ROOF SHEATHING SHALL HAVE PANEL SHEATHING CLIPS APPROPRIATELY INSTALLED BETWEEN TRUSSES.
8. AT FLOOR PLYWOOD, BLOCK EDGES WITH 2x4 LAID FLAT WHERE NOTED ON THE PLANS AND DETAILS.
9. AT ROOF PLYWOOD, ALL UNSUPPORTED PLYWOOD EDGES TO BE BLOCKED WITH 2x4 LAID FLAT UNO ON THE PLANS.

PLYWOOD PROPERTIES AND ATTACHMENT	ROOF	FLOOR	SHEAR WALL (UNO)
THICKNESS	19/32"	23/32" T&G	15/32"
SPAN/INDEX RATIO	32/16	48/24	24/0
EDGE NAILING (COMMON NAILS)	10d (.148 DIA) AT 6" O.C.	10d RING SHANK AT 6" O.C.	8d (.134 DIA) AT 6" O.C.
INTERMEDIATE NAILING (COMMON NAILS)	10d (.148 DIA) AT 12" O.C.	10d RING SHANK AT 10" O.C.	8d (.134 DIA) AT 12" O.C.
MINIMUM NAIL PENETRATION (IN FRAMING)	1 5/8"	1 5/8"	1 1/2"

POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHOR SYSTEMS SHALL COMPLY WITH THE LATEST REVISION OF ICC-ES ACCEPTANCE CRITERIA AND HAVE A VALID ICC-ES REPORT IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.
2. ANCHORS INSTALLED IN THE BOTTOM OF CONCRETE OVER STEEL DECK SHALL BE INSTALLED IN THE BOTTOM FLUTE ONLY.
3. ANCHORS ARE NOT TO BE INSTALLED UNTIL CONCRETE OR GROUT HAS REACHED ITS DESIGN STRENGTH.
4. FOR ANCHOR EMBEDMENT, SEE DRAWINGS OR TYPICAL DETAIL. USE EMBEDMENT RECOMMENDED BY MANUFACTURER WHERE NO EMBEDMENT IS SHOWN.
5. MANUFACTURER'S INSTALLATION TRAINING AND CERTIFICATION IS REQUIRED ON ALL POST-INSTALLED ANCHORS FOR ANCHOR INSTALLER.
6. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI PER ACI 318. PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
7. ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS PER ACI 318.
8. EXPANSION BOLTS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
9. HILTI KWIK BOLT TZ CARBON AND STAINLESS STEEL ANCHORS (ICC-ES REPORT ESR-1917).
10. SIMPSON STRONG-TIE STRONG-BOLT 2 ANCHOR (ICC-ES REPORT ESR-3037).
11. DEWALT/POWERS POWER-STUD+SD2 CARBON AND STAINLESS STEEL ANCHOR (ICC-ES REPORT ESR-2502).
7. SCREW ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
a. HILTI KWIK HUS-EZ CONCRETE SCREW ANCHOR (ICC-ES REPORT ESR- 3027.)
8. ADHESIVE ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
a. HILTI HIT-HY 200 ADHESIVE ANCHOR (ICC-ES REPORT ESR-3187).
b. HILTI HIT-RE 500 V3 ADHESIVE ANCHOR (ICC-ES REPORT ESR-3814).
c. HILTI HIT-RE 100 ADHESIVE ANCHOR (ICC-ES REPORT ESR-3829).
d. SIMPSON STRONG-TIE SET-XP EPOXY ADHESIVE ANCHOR (ICC-ES REPORT ESR-2508).
9. ANCHORS IN CONCRETE OVER STEEL DECK SHALL BE ONE OF THE FOLLOWING:
a. HILTI KWIK BOLT TZ CARBON AND STAINLESS STEEL ANCHORS (ICC-ES REPORT ESR-1917).
b. HILTI KWIK HUS-EZ CONCRETE SCREW ANCHOR (ICC-ES REPORT ESR-3027).
c. SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR (ICC-ES REPORT ESR-3037).
d. SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR (ICC-ES REPORT ESR-2713).
e. DEWALT/POWERS POWER-STUD+SD2 CARBON AND STAINLESS STEEL ANCHOR)ICC-ES REPORT ESR-2502).
10. EXPANSION BOLTS IN MASONRY SHALL BE ONE OF THE FOLLOWING:
a. HILTI KWIK BOLT 3 (ICC-ES REPORT ESR-1385).
b. HILTI KWIK BOLT TZ CARBON AND STAINLESS STEEL ANCHORS (ICC-ES REPORT ESR-3785).
c. SIMPSON STRONG-TIE WEDGE-ALL ANCHOR (ICC-ES REPORT ESR-1396).
11. ADHESIVE ANCHORS IN MASONRY SHALL BE ONE OF THE FOLLOWING:
a. HILTI HIT HY 70 ADHESIVE ANCHOR (ICC-ES REPORT ESR-2682).
b. SIMPSON STRONG-TIE SET XP ADHESIVE ANCHOR (IAPMO UES ER-265).
12. SCREW ANCHORS IN GROUT FILLED MASONRY SHALL BE ONE OF THE FOLLOWING:
a. HILTI KWIK HUS-EZ CONCRETE MASONRY SCREW ANCHOR (ICC-ES REPORT ESR-3056).
b. SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR (ICC-ES REPORT ESR-1056).

SPECIAL STRUCTURAL INSPECTIONS:

PER IBC SECTION 1704 AND 1705 SPECIAL INSPECTIONS ARE IN ADDITION TO THE REQUIRED INSPECTION CONDUCTED BY THE BUILDING JURISDICTION PER IBC SECTION 110.
THE TYPES OF WORK LISTED BELOW SHALL BE INSPECTED BY A SPECIAL INSPECTOR.

1. ALL SPECIAL INSPECTORS SHALL BE UNDER THE SUPERVISION OF A REGISTERED CIVIL OR STRUCTURAL ENGINEER.
2. THE QUALIFICATIONS OF ALL SPECIAL INSPECTORS SHALL BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
3. THE MINIMUM QUALIFICATIONS FOR THE SPECIAL INSPECTORS ARE AS FOLLOWS:

- CONCRETE INSPECTION - I.C.C. CERTIFICATION IN REINFORCED CONCRETE OR E.I.T. CERTIFICATION.
- STRUCTURAL WELDING INSPECTION
- VISUAL TESTING - I.C.C. CERTIFICATION IN STRUCTURAL STEEL AND WELDING OR A.W.S. CERTIFIED WELD INSPECTOR (C.W.I.).
- NON-DESTRUCTIVE TESTING - A.W.S. C.W.I.

- HIGH STRENGTH BOLTING INSPECTION - I.C.C. CERTIFICATION IN STRUCTURAL STEEL AND WELDING.
- SPECIAL CASES - EXPERIENCE ACCEPTABLE TO THE STRUCTURAL ENGINEER OF RECORD.

4. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL INSPECTION FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO BE KEPT AT THE SITE FOR USE BY THE BUILDING OFFICIAL, THE CONTRACTOR, THE STRUCTURAL ENGINEER OF RECORD, AND THE ARCHITECT OF RECORD. IF SPECIAL INSPECTION IS PROVIDED BY ANYONE OTHER THAN THE STRUCTURAL ENGINEER OF RECORD, INSPECTION REPORTS SHALL BE SUBMITTED TO THE OFFICE OF THE STRUCTURAL ENGINEER ON A WEEKLY BASIS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
- UPON COMPLETION OF THE ASSIGNED WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

5. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:

- NOTIFY THE RESPONSIBLE INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
- ALL WORK REQUIRING SPECIAL STRUCTURAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT IS OBSERVED BY THE SPECIAL STRUCTURAL INSPECTOR.

6. SPECIAL INSPECTION

- INSPECTION OF FABRICATORS
- INSPECTION OF CONCRETE CONSTRUCTION
- INSPECTION OF MASONRY CONSTRUCTION
- INSPECTION OF STRUCTURAL STEEL
- INSPECTION OF STEEL OTHER THAN STRUCTURAL STEEL
- INSPECTION OF POST-INSTALLED ANCHORS
- INSPECTION OF SOILS

SEE TABLES ON GSN FOR ADDITIONAL INFORMATION.

MATERIAL	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	RESPONSIBLE FIRM
EARTHWORK	GRADING, EXCAVATION, AND FILL	X	-	TESTING LAB
	FILL MATERIAL	-	X	TESTING LAB
	SOIL COMPACTION	-	X	TESTING LAB
CAST-IN-PLACE CONCRETE	REINFORCING STEEL	-	X	UNITED
	USE OF REQUIRED CONCRETE DESIGN MIX	-	X	UNITED
	BOLTS INSTALLED IN CONCRETE (INCLUDING ADHESIVE AND EXPANSION ANCHORS)	X	-	UNITED
	CONCRETE PLACEMENT AND CURING TECHNIQUES	X	-	UNITED
	CONCRETE MATERIALS	-	X	TESTING LAB
UNIT MASONRY ASSEMBLIES	MORTAR, GROUT, UNIT MASONRY MATERIALS, AND MASONRY PRISMS	-	X	TESTING LAB
	SITE-MIXED MORTAR	-	X	UNITED
	PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS	-	X	UNITED
	REINFORCEMENT AND CONNECTORS	-	X	UNITED
	GROUT PLACEMENT	X	-	UNITED
	ADHESIVE AND EXPANSION ANCHORS	X	-	UNITED
STRUCTURAL STEEL AND STEEL DECK	STEEL FRAME FOR CONFORMANCE WITH CONSTRUCTION DOCUMENTS	-	X	UNITED
	FIELD WELDED CONNECTIONS	-	X	UNITED
	BOLTED CONNECTIONS	-	X	UNITED
	ULTRASONIC TESTING AND MOMENT CONNECTION FIT UP	X	-	TESTING LAB

2018 IBC, 1705.3 SPECIAL INSPECTION OF CONCRETE CONSTRUCTION

SPECIAL INSPECTION AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY TABLE 1705.3.

EXCEPTIONS: SPECIAL INSPECTIONS SHALL NOT BE REQUIRED FOR:
1. ISOLATED SPREAD CONCRETE FOOTINGS OF BUILDING THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
2. CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK WHERE:
3. THE FOOTINGS SUPPORT WALLS OF LIGHT-FRAME CONSTRUCTION;
4. THE STRUCTURAL DESIGN OF THE FOOTING IS BASED ON A SPECIFIED COMPRESSIVE STRENGTH, f'c, NO GREATER THAN 2,500 PSI REGARDLESS OF THE COMPRESSIVE STRENGTH SPECIFIED.
3. CONCRETE SLABS ON GRADE. STEEL REINFORCING STILL REQUIRES SPECIAL INSPECTION..

2018 IBC, TABLE 1705.3: REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	X	ACI 318: Ch. 20, 25.2, 25.3, 26.5.1-26.5.3	1910.4
2. REINFORCING BAR WELDING.			AWS D1.4 ACI 318: 26.5.4	—
a. VERIFY WELDABILITY OF REINFORCING BARS. OTHER THAN ASTM A706	-	-		
b. INSPECT SINGLE PASS FILLET WELDS, MAXIMUM 5/16".	-	X		
c. INSPECT ALL OTHER WELDS.	X	X		
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	—
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-	ACI 318: 17.8.2.4	
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	X	ACI 318: 17.8.2	
5. VERIFYING USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: Ch 19, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172 ASTM C 31 ACI 318: 26.4, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.4.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:			ACI 318: 26.10	—
a. APPLICATION OF PRESTRESSING FORCES.	X	-		
b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-		
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: Ch 26.8	—
11. VERIFY OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11	—
12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2 (b)	—

1704.2.5 SPECIAL INSPECTION OF FABRICATORS:

SPECIAL INSPECTION OF FABRICATION OF STRUCTURAL STEEL BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP IS REQUIRED.

EXCEPTION: SPECIAL INSPECTIONS OF FABRICATORS WITH ONE OF THE FOLLOWING QUALIFICATIONS IS NOT REQUIRED:
- INTERNATIONAL ACCREDITATION SERVICE, INC. (IAS)APPROVED FABRICATOR.
- AISC CERTIFIED FABRICATOR (STD).

THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.

UNITED STRUCTURAL DESIGN LLC
2058 S. Dobson Rd. Suite 10
Mesa, AZ 85202
(480) 454-6408
www.unitedstr.com
USD #:19003

2018 IBC, 1705.4 SPECIAL INSPECTION FOR MASONRY CONSTRUCTION

SPECIAL INSPECTION OF MASONRY CONSTRUCTION SHALL BE INSPECTED AND VERIFIED IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ ASCE 6 QUALITY ASSURANCE PROGRAM REQUIREMENTS.

LEVEL B QUALITY ASSURANCE PROGRAM PER TABLE 3.1.2. APPLIES

TMS 402/ACI 530 TABLE 3.1.2 - LEVEL B QUALITY ASSURANCE PROGRAM

MINIMUM TESTS

VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.5 B.1.b.3 FOR SELF CONSOLIDATING GROUT

VERIFICATION OF f'm AND f'AAC IN ACCORDANCE WITH SPECIFICATION 1.4 B PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXEMPTED BY CODE.

MINIMUM INSPECTION

VERIFICATION AND INSPECTION NEED TMS 402-16	CONTINUOUS	PERIODIC	REFERENCE TMS 402/ ACI 530/ ASCE 5	REFERENCE TMS 602/ ACI 530.1/ ASCE 6
1. VERIFY COMPLIANCE WITH APPROVED SUBMITTALS.	-	X		Art. 1.5
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
a. PROPORTIONS OF SITE-PREPARED MORTAR	-	X		Art. 2.1, 2.6 A
b. CONSTRUCTION OF MORTAR JOINTS	-	X		Art. 3.3 B
c. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	-	X		Art. 2.4 B, 2.4 H
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	-	X		Art. 3.4, 3.6 A
e. PRESTRESSING TECHNIQUE	-	X		Art. 3.6 B
f. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	X	X		Art. 2.1C
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
a. GROUT SPACE	-	X		Art. 3.2 D, 3.2F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	-	X	Sec. 6.1	Art. 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES.	-	X	Sec. 6.1, 6.2.1, 6.2.6, 6.2.7	Art. 3.2 E, 3.4, 3.6 A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	-	X		Art. 2.6 B, 2.4 G.1.b
e. CONSTRUCTION OF MORTAR JOINTS	-	X		Art. 3.3 B
4. VERIFY DURING CONSTRUCTION:	-	X		
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	-	X		Art. 3.3 F
b. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	-	X	Sec. 1.2.1(e), 6.1.4.3, 6.2.1	
c. WELDING OF REINFORCEMENT.	X	-	Sec. 8.1.6.7.2, 9.3.3.4 (c), 11.3.3.4 (b)	
d. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 DEG F) OR HOT WEATHER (TEMPERATURE ABOVE 90 DEG F)	-	X		Art. 1.8 C, 1.8 D
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	X	-		Art. 3.6 B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	X	-		Art. 3.5, 3.6 C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	X	X		Art. 3.3 B.9, 3.3 F.1.b
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	-	X		Art. 1.4 B.2.a.3 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

SELF CERTIFIED BY: DONALD ANDREWS DATE: 03/06/2019 CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS Date Signed 3/6/2019 EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

GSN, CONT & SPECIAL INSPECTIONS

Date 03/06/2019

S0.2

Scale 1/4" = 1'-0"

3/7/2019 8:55:13 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

SPECIAL CASES: POST-INSTALLED ANCHORS

SPECIAL INSPECTION FOR EXPANSION, SCREW, AND EPOXY/ADHESIVE ANCHORS ARE REQUIRED DURING THE PLACEMENT OF ALL POST-INSTALLED ANCHORS SHOWN ON STRUCTURAL DRAWINGS AND INCLUDE:
- VISUAL VERIFICATION OF HOLE DIAMETER, HOLE DEPTH, AND DRILL BIT CONFORMANCE.
- VISUAL VERIFICATION OF HOLE CLEANING PER SPECIFIED PRODUCT MANUFACTURER'S RECOMMENDATIONS.
- VISUAL VERIFICATION OF ANCHOR INSTALLATION ACCORDING TO SPECIFIED PRODUCT MANUFACTURER'S RECOMMENDATIONS. INSPECTION OF EXPANSION AND SCREW ANCHORS SHALL INCLUDE VERIFICATION OF THE TIGHTENING TORQUE REQUIRED PER SPECIFIED ANCHOR MANUFACTURER.

IBC, 1705.6 SPECIAL INSPECTION OF SOILS

SPECIAL INSPECTION FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT AND LOAD-BEARING REQUIREMENTS SHALL BE AS REQUIRED BY TABLE 1705.6.

IBC, TABLE 1705.6: REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

1705.2.2 SPECIAL INSPECTION OF STRUCTURAL STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

SPECIAL INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH TABLE 1705.2.2

IBC, TABLE 1705.2.2 REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL			
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	-	X	APPLICABLE ASTM MATERIAL STANDARD
b. MANUFACTURER'S CERTIFIED TEST REPORTS.	-	X	
2. INSPECTION OF WELDING:			
a. COLD-FORMED STEEL DECK:			
1) FLOOR AND ROOF DECK WELDS.	-	X	AWS D1.3
b. REINFORCING STEEL:			AWS D1.4 ACI 318: SECTION 3.5.2
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706	-	X	
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCING.	X	-	
3) SHEAR REINFORCEMENT.	X	-	
4) OTHER REINFORCING STEEL.	-	X	

1705.2 SPECIAL INSPECTION OF STRUCTURAL STEEL CONSTRUCTION

SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.

NONDESTRUCTIVE TESTING OF WELDED JOINTS (SEE DESIGN LOADS FOR RISK CATEGORY):
- FOR RISK CATEGORY III OR IV - UT SHALL BE PERFORMED ON ALL CJP GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING.
- FOR RISK CATEGORY II - UT SHALL BE PERFORMED ON 10% OF WELDS IN MATERIALS 5/16" OR THICKER. WHERE MATERIAL IS LESS THAN 5/16", NO UT IS REQUIRED.
- FOR RISK CATEGORY I - UT NOT REQUIRED.

O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS

P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER

AISC 360 TABLE N5.4-1: INSPECTION TASKS PRIOR TO WELDING

WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O
WELDER IDENTIFICATION SYSTEM*	O
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	O
CONFIGURATION AND FINISH OF ACCESS HOLES	O
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O

*THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.

AISC 360 TABLE N5.4-2: INSPECTION TASKS DURING WELDING

USE OF QUALIFIED WELDERS	O
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	O
NO WELDING OVER CRACKED TACK WELDS	O
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	O
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) • PROPER POSITION (F,V,H,OH)	O
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O

AISC 360 TABLE N5.4-3: INSPECTION TASKS AFTER WELDING

WELDS CLEANED	O
SIZE, LENGTH AND LOCATION OF WELDS	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	P
ARC STRIKES	P
K-AREA*	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P
REPAIR ACTIVITIES	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P

*WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 INCHES OF THE WELD.

AISC 360 TABLE N5.6-1: INSPECTION TASKS PRIOR TO BOLTING

MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS.	P
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	O
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	O
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED.	O
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O

AISC 360 TABLE N5.6-2: INSPECTION TASKS DURING BOLTING

FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	O
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING.	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGE.	O

AISC 360 TABLE N5.6-3: INSPECTION TASKS AFTER BOLTING

DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P

AISC 360 TABLE N6.1: INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT

PLACEMENT AND INSTALLATION OF STEEL DECK	P
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P
DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P

UNITED STRUCTURAL DESIGN LLC
2058 S. Dobson Rd. Suite 10
Mesa, AZ 85202
(480) 454-6408
www.unitedstr.com
USD #:19003

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CONTINUOUS FOOTING (WF) SCHEDULE

NOTE:
IF FIELD DIMENSION OF FOOTING IS LARGER THAN SHOWN IN SCHEDULE, CONTRACTOR TO PLACE ADDITIONAL REINFORCING TO MAINTAIN ACI 318 MINIMUM AREA OF STEEL REQUIREMENTS.

MARK	WIDTH	DEPTH	REINFORCING		NOTES
			TRANSVERSE	CONTINUOUS	
WF1	1' - 8"	1' - 0"		(2) #5 TOP AND BOTTOM	

ISOLATED FOOTING (F) SCHEDULE

NOTE:
IF FIELD DIMENSION OF FOOTING IS LARGER THAN SHOWN IN SCHEDULE, CONTRACTOR TO PLACE ADDITIONAL REINFORCING TO MAINTAIN ACI 318 MINIMUM AREA OF STEEL REQUIREMENTS.

MARK	WIDTH	LENGTH	DEPTH	REINFORCING
F1	4' - 0"	4' - 0"	1' - 0"	(5) #5 EACH WAY, BOTTOM
F2	5' - 0"	5' - 0"	1' - 0"	(6) #5 EACH WAY, BOTTOM

STEEL COLUMN (C) SCHEDULE

MARK	SIZE	BASE PLATE AND ANCHORAGE
C1	HSS4X4X1/4	1/2"x11"x11" STEEL BASEPLATE WITH (4) 3/4" DIA. ANCHOR RODS WITH 7" EMBEDMENT

WOOD/STEEL STUD WALL (W) SCHEDULE

MARK	STUD SIZE	STUD SPACING	REMARKS
WS1	6"	16" O.C.	

SHEAR WALL SCHEDULE (*SW*)

NOTE:
- WHERE NAIL SPACING IS LESS THAN 6" ON CENTER ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED TYP.

MARK	SHEATHING MATERIAL	NAILING	SHEATHING SIDES	BOTTOM PLATE TO CONCRETE	ALLOWABLE SHEAR
SW1	3/8" PLYWOOD (OR OSB APA RATED) (ALL EDGES BLOCKED)	8d COMMON NAILS AT 6" O.C. EDGE 12" O.C. FIELD	ONE SIDE	1/2" DIA x 7" LONG ANCHOR BOLTS WITH 1/4"x3"x3" GALVANIZED PLATE WASHERS AT 48" O.C.	372.5 PLF
SW2	3/8" PLYWOOD (OR OSB APA RATED) (ALL EDGES BLOCKED)	8d COMMON NAILS AT 6" O.C. EDGE 12" O.C. FIELD	ONE SIDE	1/2" DIA. X 5" LONG ADHESIVE ANCHOR BOLTS AT 48" O.C. WITH 1/4"x3"x3" GALVANIZED PLATE WASHERS.	372.5 PLF

HOLDOWN SCHEDULE (▲1)

SEE DETAILS XX&XX/SXXX FOR ADDITIONAL INFORMATION

SYMBOL	HOLDOWN	ANCHOR	EMBEDMENT	CAPACITY	POST AT HOLDOWN
▲1	SIMPSON HDU2-SDS2.5	SSTB16	12 5/8"	3.61K	(2) 2x6 STUDS MIN.
▲2	SIMPSON HDU2-SDS2.5	5/8" DIA. ADHESIVE ANCHOR BOLT	7"	2.66K	(2) 2x6 STUDS MIN.

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS Date Signed: 3/6/2019 ARIZONA U.S.A.
EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

SPECIAL INSPECT./ SCHEDULE SHEET

Date 03/06/2019

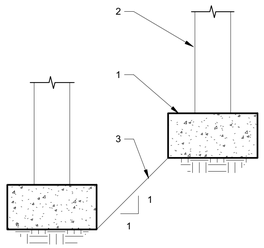
S0.3

Scale 1/4" = 1'-0"

3/7/2019 8:55:14 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

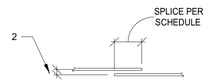
1. CONCRETE WALL FOOTING.
2. CONCRETE OR MASONRY WALL ABOVE.
3. MAXIMUM SLOPE BETWEEN BOTTOMS OF FOOTINGS SHALL BE 45 DEGREES. STEP FOOTINGS AS REQUIRED. SEE TYPICAL STEPPED FOOTING DETAIL.



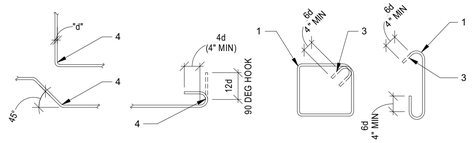
C1 TYPICAL MAXIMUM SLOPE BETWEEN ADJACENT FOOTINGS
NO SCALE 105-12

1. BEND AROUND 1 1/2" PIN FOR #3 BARS. BEND AROUND 2" PIN FOR #4 BARS. BEND AROUND 2 1/2" PIN FOR #5 BARS.
2. MAXIMUM 1/5 LAP LENGTH BUT NOT MORE THAN 6". 1" MIN.
3. 135 DEGREE BENDS
4. RADIUS
   - 3d FOR BARS NOT OVER #8
   - 4d FOR #9, #10, AND #11 BARS
   - 5d FOR #14 AND #18
   - RADIUS = 5d FOR ALL GRADE 40 BARS WITH 180 DEGREE HOOK

BAR OFFSET



SPLICE DETAIL



BEND AND HOOK DETAILS BEND AND HOOK DETAILS

C2 TYPICAL CONCRETE AND MASONRY REINFORCING BAR DETAILS
NO SCALE 103-02

1. CONCRETE WALL FOOTING.
2. CONCRETE OR MASONRY WALL ABOVE.
3. TOP OF WALL FOOTING.
4. WALL FOOTING LONGITUDINAL REINFORCING

B1 TYPICAL STEPPED FOOTING
NO SCALE 105-10

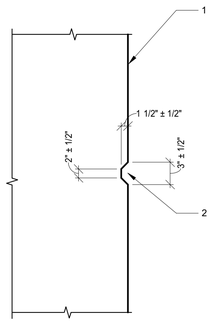
1. TOP BARS ARE ANY HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCING.
2. THIS TABLE IS BASED ON NORMAL WEIGHT CONCRETE.

TYPICAL CONCRETE LAP SPLICE TABLE

		CLASS B TENSION SPLICE LENGTH, INCHES					
CONCRETE STRENGTH		f'c >= 2,500 PSI / 3,000 PSI		f'c >= 4,000 PSI		f'c >= 5,000 PSI	
BAR SIZE	BAR GRADE	BAR LOCATION		BAR LOCATION		BAR LOCATION	
		OTHER	TOP	OTHER	TOP	OTHER	TOP
#3	Gr 60	24"	31"	19"	24"	17"	22"
#4	Gr 60	32"	41"	25"	32"	22"	29"
#5	Gr 60	39"	51"	31"	40"	28"	36"
#6	Gr 60	47"	61"	37"	48"	33"	43"
#7	Gr 60	69"	89"	54"	70"	49"	63"
#8	Gr 60	78"	102"	62"	80"	55"	72"
#9	Gr 60	88"	115"	70"	91"	63"	81"
#10	Gr 60	99"	129"	79"	102"	70"	91"

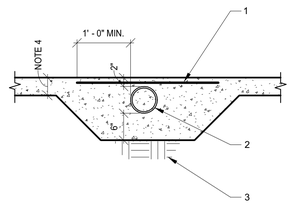
B2 TYPICAL LAP SPLICE IN CONCRETE
NO SCALE 103-01C

1. CONCRETE.
2. REMOVE FORM MATERIAL PRIOR TO PLACING ADJACENT CONCRETE.

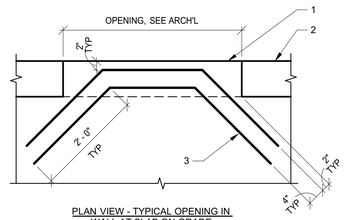


A1 TYPICAL KEY IN CONCRETE
NO SCALE 105-01

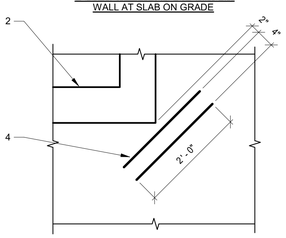
1. 4x4 - W1.4xW1.4 WWF OR #4 AT 12" O.C.
2. PIPE OR CONDUIT.
3. FIRM UNDISTURBED SOIL OR COMPACTED BASE.
4. TYPICAL SLAB THICKNESS.



A2 SLEEVE FOR PIPE AT SLAB ON GRADE
NO SCALE 101-12



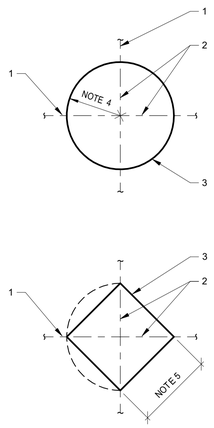
PLAN VIEW - TYPICAL OPENING IN WALL AT SLAB ON GRADE



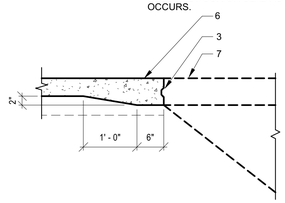
PLAN VIEW - TYPICAL AT REENTRANT CORNERS IN SLAB ON GRADE

1. CONCRETE CONSTRUCTION JOINT OR EDGE OF SLAB.
2. CONCRETE OR MASONRY WALL.
3. (2) #3 CENTERED IN SLAB AT OPENINGS IN WALLS.
4. (2) #3 CENTERED IN SLAB AT ALL REENTRANT CORNERS.

B3 TYPICAL REENTRANT CORNER REINFORCING IN SLAB ON GRADE
NO SCALE 101-10



1. 'CONC CJ' WHERE SHOWN ON PLAN.
2. CENTERLINE OF COLUMN.
3. KEYED JOINT - SEE TYPICAL KEY IN CONCRETE DETAIL.
4. 1'-6" MIN./3'-0" MAX.
5. 2'-0" MIN./4'-0" MAX.
6. CONCRETE SLAB ON GRADE
7. LINE OF CONCRETE CLOSURE POUR OR SLAB AS OCCURS.



NOTE:
- COLUMNS OMITTED FOR CLARITY.
- FOR CONFIGURATION OF SPECIFIC CLOSURE POURS, SEE PLAN.

A3 TYPICAL COLUMN CLOSURE POUR AT CONCRETE SLAB ON GRADE
NO SCALE 101-05

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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USD #:19003

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SUPERLUXE SCREEN PRINTING
JONATHAN PITT
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(P) 480.247.6653

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(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS 03/6/2019 EXPIRES: 03/31/2022

Owner	JONATHAN PITT
Proj. Name	WANDERIST OFFICE & RETAIL

TYPICAL DETAILS

Date	03/06/2019

S1.1

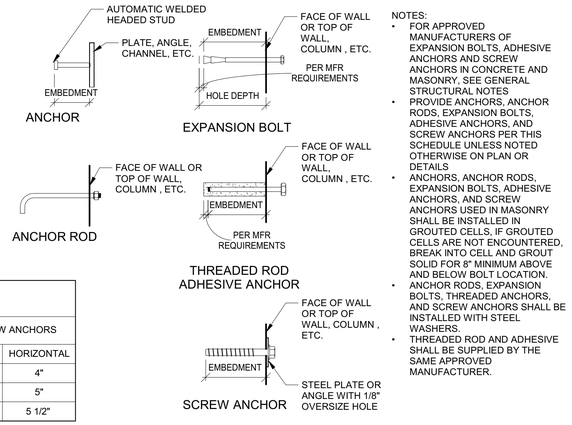
Scale	As indicated

3/7/2019 8:55:15 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

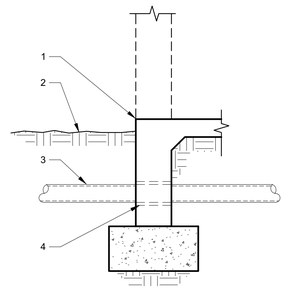
VERTICAL AND HORIZONTAL ANCHOR EMBEDMENT LENGTH FOR ANCHORS IN CONCRETE						
ANCHOR DIAMETER	ANCHOR AND ANCHOR RODS		EXPANSION ANCHORS	THREADED ROD ADHESIVE ANCHORS	REBAR ADHESIVE ANCHORS	SCREW ANCHORS
	VERTICAL	HORIZONTAL				
1/2" (#4)	5"	4"	5"	4"	4"	4"
5/8" (#5)	6 1/2"	4 1/2"	6 1/8"	5"	5"	4 3/8"
3/4" (#6)	7"	5"	7 1/2"	6"	6"	6 1/4"
7/8" (#7)	8"	6"	-	7"	7"	-
1" (#8)	9"	7"	9 3/4"	8"	8"	-
1 1/4"	11"	9"	-	-	-	-
1 1/2"	12"	10"	-	-	-	-

VERTICAL AND HORIZONTAL ANCHOR EMBEDMENT LENGTH FOR ANCHORS IN MASONRY								
ANCHOR DIAMETER	ANCHOR AND ANCHOR RODS		EXPANSION ANCHORS		THREADED ROD ADHESIVE ANCHORS		SCREW ANCHORS	
	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL
1/2" (#4)	5"	4"	3"	3 1/2"	4 1/2"	4 1/2"	4 1/2"	4"
5/8" (#5)	6 1/2"	4 1/2"	3 1/2"	4 3/8"	5 5/8"	5 5/8"	4 1/2"	5"
3/4" (#6)	7"	5"	-	5 1/4"	-	6 3/4"	-	5 1/2"



NOTES:
- FOR APPROVED MANUFACTURERS OF EXPANSION BOLTS, ADHESIVE ANCHORS AND SCREW ANCHORS IN CONCRETE AND MASONRY, SEE GENERAL STRUCTURAL NOTES
- PROVIDE ANCHORS, ANCHOR RODS, EXPANSION BOLTS, ADHESIVE ANCHORS, AND SCREW ANCHORS PER THIS SCHEDULE UNLESS NOTED OTHERWISE ON PLAN OR DETAILS
- ANCHORS, ANCHOR RODS, EXPANSION BOLTS, ADHESIVE ANCHORS, AND SCREW ANCHORS USED IN MASONRY SHALL BE INSTALLED IN GROUTED CELLS, IF GROUTED CELLS ARE NOT ENCOUNTERED, BREAK INTO CELL AND GROUT SOLID FOR 8" MINIMUM ABOVE AND BELOW BOLT LOCATION.
- ANCHOR RODS, EXPANSION BOLTS, THREADED ANCHORS, AND SCREW ANCHORS SHALL BE INSTALLED WITH STEEL WASHERS.
- THREADED ROD AND ADHESIVE SHALL BE SUPPLIED BY THE SAME APPROVED MANUFACTURER.

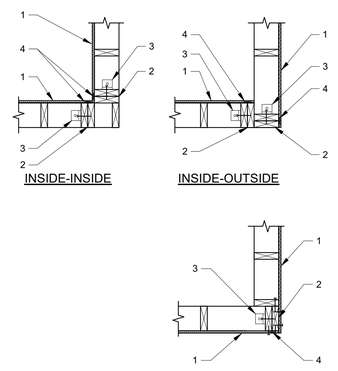
C1 TYPICAL ANCHOR, ANCHOR ROD, EXPANSION BOLT, ADHESIVE ANCHORS, AND SCREW ANCHOR SCHEDULE
NO SCALE 401-01



1. FOUNDATION WALL BELOW GRADE AND WALL ABOVE WHERE OCCURS.
2. FINISHED GRADE AS OCCURS
3. PIPE OR CONDUIT SLEEVE. PIPE SLEEVE TO HAVE AN INSIDE DIAMETER 1" LARGER THAN PIPE PASSING THROUGH WALL TO ALLOW FOR 1/2" ALL AROUND.
4. PIPE OR CONDUIT PASSING THROUGH WALL ABOVE FOOTING.

NOTE:
- NO PIPES SHALL PASS THROUGH FOOTING

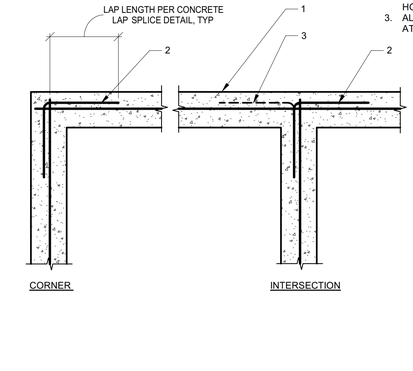
B1 TYPICAL PIPE PASSING THROUGH FOUNDATION STEM WALL
NO SCALE 105-19



1. SHEARWALL SHEATHING AS OCCURS..
2. POST AT END OF SHEARWALL PER HOLDOWN SCHEDULE.
3. HOLDOWN ATTACHED TO POST PER HOLDOWN SCHEDULE.
4. STRAP TYPE HOLDOWN AS OCCURS.

NOTE:
- VERIFY DISTANCE FROM FACE OF POST TO CENTER OF BOLT WITH HOLDOWN MFR.

B2 PLAN - SHEARWALL HOLDOWNS AT CORNER
NO SCALE 614-02



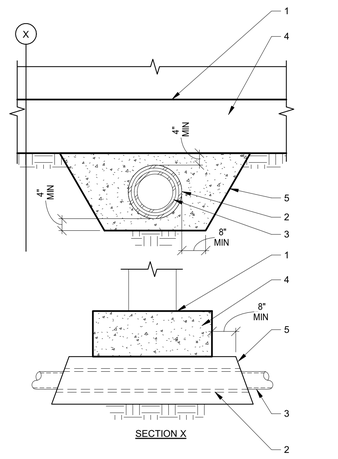
1. CONCRETE FOOTING OR CONCRETE WALL.
2. CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.
3. ALTERNATE LEG DIRECTION AT INTERSECTING WALLS.

B3 PLAN - TYPICAL CORNER REINFORCING IN CONCRETE FOOTING AND STEM WALL
NO SCALE 105-15

NOMINAL BEAM DEPTH "D"	NUMBER OF 3/4" DIAMETER BOLTS (ASTM F1852)
UP TO 7"	2
8" - 11"	2
12" - 14"	3
15" - 17"	4
18" - 20"	5
21" - 23"	6
24" - 29"	7
30" - 32"	8
33" - 35"	9
36"	10

1. THE TYPICAL STEEL BEAM TO STEEL COLUMN OR STEEL BEAM TO STEEL BEAM CONNECTION CONSISTS OF 3/8" SINGLE SHEAR PLATES WITH BOLTS PER SCHEDULE. USE 5/8" SHEAR PLATES WHERE "D" = 27" OR GREATER.
2. FABRICATOR SHALL TAKE NECESSARY PRECAUTIONS AGAINST BOLT SHANK OUT.
3. FABRICATOR'S OPTION:
4. PROVIDE THICKER SHEAR PLATE.
5. PROVIDE MULTIPLE WASHERS AT EITHER END OF BOLT (2 MAXIMUM PER END).

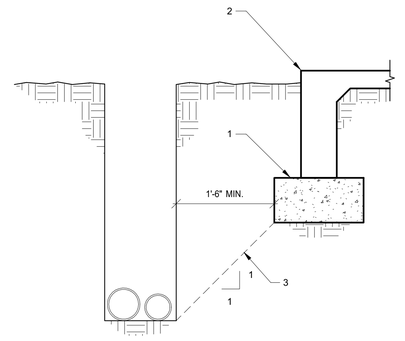
A1 TYPICAL BOLT SCHEDULE FOR TYPICAL STEEL CONNECTIONS
NO SCALE 401-03



1. CONCRETE FOOTING.
2. PIPE SLEEVE TO ALLOW FOR 1/2" CLEARANCE ALL AROUND PIPE PASSING UNDER FOOTING.
3. PIPE PASSING UNDER FOOTING.
4. NO PIPES ARE TO PASS THROUGH FOOTING.
5. CONCRETE FILL. PLACE ALL FILL PRIOR TO POURING FOOTINGS. FILL MUST REACH DESIGN STRENGTH PRIOR TO POURING FOUNDATIONS. (MINIMUM f'c = 500 PSI)

NOTE:
- NO PIPES SHALL PASS THROUGH FOOTING OR UNDER COLUMN FOOTINGS.

A2 TYPICAL PIPE PASSING BELOW WALL FOOTING
NO SCALE 105-18



1. CONCRETE WALL FOOTING.
2. BUILDING SLAB ABOVE AS OCCURS.
3. DO NOT EXCAVATE A TRENCH CLOSER THAN A 45 DEGREE ANGLE BELOW BOTTOM OF FOOTING OR FOUNDATION.

A3 TYPICAL TRENCH PARALLEL TO FOUNDATION
NO SCALE 105-13

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

UNITED STRUCTURAL DESIGN LLC
2058 S. Dobson Rd. Suite 10
Mesa, AZ 85202
(480) 454-6408
www.unitedstr.com
USD #:19003

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS 3/6/2019 EXPIRES: 03/31/2022

Owner	JONATHAN PITT
Proj. Name	WANDERIST OFFICE & RETAIL

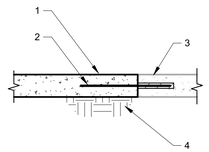
TYPICAL DETAILS

Date	03/06/2019
	S1.2
Scale	As indicated

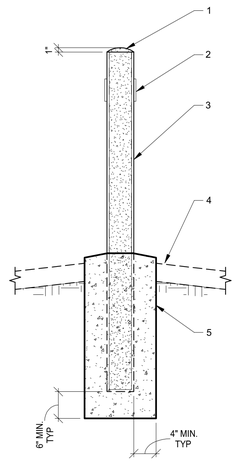
3/7/2019 8:55:16 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

1. CONCRETE SLAB ON GRADE
2. #4 x 1'-8" LONG EMBEDDED 6" INTO EXISTING CONCRETE SLAB AND SET IN EPOXY. SPACE AT 24" O.C.
3. EXISTING CONCRETE SLAB ON GRADE.
4. FOR SUBASE REQUIREMENTS SEE GSN AND SOILS REPORT.



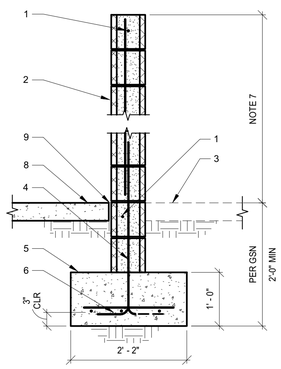
C3 TYPICAL CONCRETE SLAB AT EXISTING CONCRETE SLAB
NO SCALE 912-01



1. FILL WITH GROUT AND CROWN TOP.
2. REFLECTIVE ENGINEERS TAPE PER ARCH'L DRAWINGS.
3. 4" OR 6" STD x 8'-6" STEEL POST. SCHEDULE 40; GALVANIZED.
4. FINISHED GRADE, CONCRETE SLAB, OR ASPHALT AS OCCURS.
5. CONCRETE FOOTING (CLASS B) F'c = 2,500

NOTES:
- SAFETY POST SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF CITY OR AHJ

B3 STEEL SAFETY POST (BOLLARD)
NO SCALE 192-01

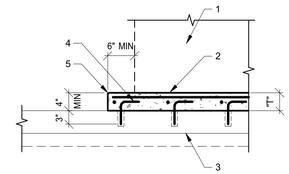


1. (1) #5 IN 8" DEEP CONTINUOUS GROUTED BOND BEAM.
2. 8" MASONRY WALL WITH #5 VERTS AT 8" O.C. GROUT SOLID.
3. FINISHED GRADE OR CONCRETE SLAB AS OCCURS.
4. DOWELS TO MATCH AND LAP VERTICAL WALL REINFORCING. LAP PER TYPICAL LAP SCHEDULE.
5. CONCRETE FOOTING WITH (3) #5 CONTINUOUS AND #5 AT 48" O.C. TRANSVERSE.
6. STANDARD 90 DEGREE HOOK. ALTERNATE BENDS.
7. FOR TOP OF WALL ELEVATION SEE ARCHITECTURAL, 6'-0" MAXIMUM.
8. 6" THICK CONCRETE SLAB ON GRADE WITH W2.9xW2.9 6x6 WWF CENTERED IN SLAB OVER A.B.C. FILL.
9. EXPANSION FILLER.

NOTES:
- TRASH ENCLOSURE SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF CITY OR AHJ

A3 6'-0" MAXIMUM FREE STANDING TRASH ENCLOSURE MASONRY WALL AND FOOTING
NO SCALE 198-05

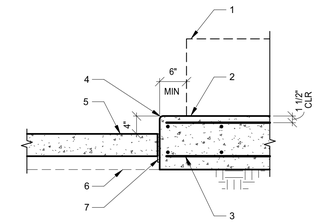
"T"	RIENFORCING
4"	#3 AT 18" O.C. EACH WAY
6"	#4 AT 16" O.C. EACH WAY
8"	#4 AT 12" O.C. EACH WAY
1'-2"	#5 AT 12" O.C. EACH WAY
1'-6"	#4 AT 16" O.C. EACH WAY TOP AND BOTTOM



1. EQUIPMENT.
2. CONCRETE HOUSEKEEPING PAD.
3. EXISTING CONCRETE SLAB ON GRADE.
4. #3 WITH 4" HOOK AT 18"O.C. EACH WAY. SET IN EPOXY.
5. TOOLED EDGE.

NOTE:
- FOR EQUIPMENT PAD THICKNESS, SIZE AND LOCATION, SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
- EXACT DIMENSIONS AND LOCATIONS ARE SUBJECT TO VERIFICATION PRIOR TO CONSTRUCTION DUE TO VENDER SPECIFIC INFORMATION.

B4 TYPICAL HOUSEKEEPING PAD AT SLAB ON GRADE
NO SCALE 101-21A



1. EQUIPMENT.
2. MINIMUM 12" THICK CONCRETE SLAB ON SUBGRADE.
3. #4 AT 12" O.C. EACH WAY TOP AND BOTTOM.
4. TOOLED EDGE.
5. CONCRETE SLAB.
6. FOR SUBBASE REQUIREMENTS, SEE PLANS.
7. 1/2"x6" EXPANSION MATERIAL - TYPICAL ALL SIDES.

NOTE:
- COORDINATE EQUIPMENT PAD EDGE DIMENSION AND DIMENSION ABOVE FINISHED FLOOR REQUIREMENTS WITH MECHANICAL DRAWINGS.

A4 THICKENED SLAB AT EQUIPMENT PAD
NO SCALE 101-18

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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Mesa, AZ 85202
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USD #:19003

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
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(E) JON@THEWANDERIST.COM
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MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

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DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

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61523
DAVID GRAPSAS
Date Signed 3/6/2019
EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

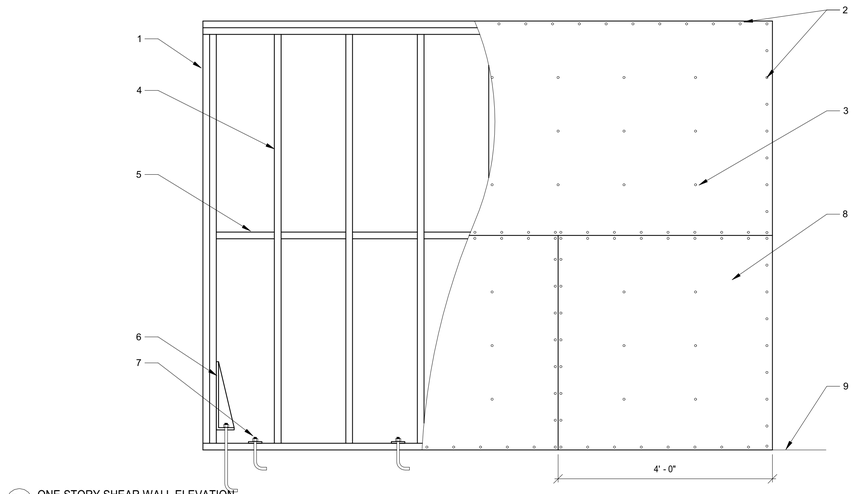
TYPICAL DETAILS

Date 03/06/2019

S1.3

Scale 3/4" = 1'-0"

3/7/2019 8:55:16 AM



C1 ONE STORY SHEAR WALL ELEVATION
NO SCALE 612-05

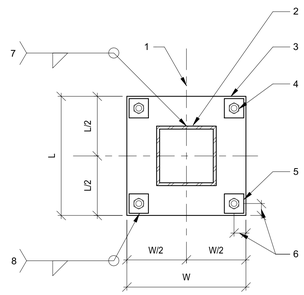
1. MULTIPLE STUDS AT END OF PANEL NAILED AT BUILT-UP POST. (MIN. 2 U.N.O.) - TYP.
2. EDGE NAILING - SEE SHEAR WALL SCHEDULE AND GSN.
3. INTERMEDIATE NAILING - SEE SHEAR WALL SCHEDULE AND GSN.
4. WOOD STUDS.
5. BLOCKING REQUIRED AT SHEATHING PANEL JOINTS.
6. HOLDOWN - FOR SIZE AND LOCATION, SEE FOUNDATION PLAN AND SHEAR WALL SCHEDULE.
7. ANCHOR RODS - FOR SIZE AND SPACING, SEE GENERAL STRUCTURAL NOTES.
8. SHEATHING MATERIAL
9. FINISHED FLOOR.

NOTE:
- WHEN SHEATHING TYPE MATERIAL IS GYPSUM BOARD, INTERMEDIATE NAILING IS THE SAME SIZE AND SPACING AS EDGE NAILING.

TYPICAL NAILING SCHEDULE	
DESCRIPTION OF BUILDING ELEMENTS	CONNECTION*
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	(3)8d COMMON; EACH END, TOENAIL; (3)10d BOX; EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	(2)8d COMMON; EACH END, TOENAIL (2)16d COMMON; END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON @ 6" O.C.; FACE NAIL
2. CEILING JOISTS TO TOP PLATE	(3)8d COMMON; EACH END, TOENAIL (3)10d BOX; EACH END, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST)	(3)16d COMMON; FACE NAIL (4)10d BOX; FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	PER IBC TABLE 2308.7.3.1
5. COLLAR TIE TO RAFTER	(3)10d COMMON; FACE NAIL (4)10d BOX; FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE	(3)10d COMMON; FACE NAIL (3)16d BOX; FACE NAIL (4)10d BOX; FACE NAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	(2)16d COMMON; END NAIL (3)10d BOX; END NAIL (3)10d COMMON; TOENAIL (3)16d BOX; TOENAIL (4)10d BOX (3" × 0.128")
8. STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON; 24" O.C. FACE NAIL 10d BOX; 16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON; 16" O.C. FACE NAIL 16d BOX; 12" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON; 16" O.C. EACH EDGE, FACE NAIL 16d BOX; 12" O.C. EACH EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	(4)8d COMMON; TOENAIL (4)10d BOX; TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON; 16" O.C. FACE NAIL 10d BOX; 12" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	(8)16d COMMON OR (12)10d BOX;EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON; 16" O.C. FACE NAIL 16d BOX; 12" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	(2)16d COMMON; 16" O.C. FACE NAIL (3)16d BOX; 16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	(4)8d COMMON; TOENAIL (4)10d BOX; TOENAIL (2)16d COMMON; END NAIL (3)10d BOX; END NAIL
17. TOP OR BOTTOM PLATE TO STUD	(2)16d COMMON; END NAIL (3)10d BOX; END NAIL
18. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	(2)16d COMMON; FACE NAIL (3)10d BOX; FACE NAIL
19. 1" BRACE TO EACH STUD AND PLATE	(2)8d COMMON; FACE NAIL (2)10d BOX; FACE NAIL
20. 1" × 6" SHEATHING TO EACH BEARING	(2)8d COMMON; FACE NAIL (2)10d BOX; FACE NAIL
21. 1" × 8" AND WIDER SHEATHING TO EACH BEARING	(3)8d COMMON; FACE NAIL (3)10d BOX; FACE NAIL
22. JOIST TO SILL, TOP PLATE, OR GIRDER	(3)8d COMMON; TOENAIL (3)10d BOX; TOENAIL
23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON; 6" O.C. TOENAIL 10d BOX; 6" O.C. TOENAIL
24. 1" × 6" SUBFLOOR OR LESS TO EACH JOIST	(2)8d COMMON; FACE NAIL (2)10d BOX; FACE NAIL
25. 2" SUBFLOOR TO JOIST OR GIRDER	(2)16d COMMON; FACE NAIL
26. 2" PLANKS (PLANK & BEAM FLOOR & ROOF)	(2)16d COMMON; EACH BEARING, FACE NAIL
27. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON; 32" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES. 10d BOX; 24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES. AND; (2)20D COMMON; ENDS AND AT EACH SPLICE, FACE NAIL. (3)10d BOX; ENDS AND AT EACH SPLICE, FACE NAIL.
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	(3)16d COMMON; EA JOIST OR RAFTER, FACE NAIL (4)10d BOX; EA JOIST OR RAFTER, FACE NAIL
29. JOIST TO BAND JOIST OR RIM JOIST	(3)16d COMMON; END NAIL (4)10d BOX; END NAIL
30. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	(2)8d COMMON; EACH END TOENAIL (2)10d BOX; EACH END TOENAIL

*CONTRACTOR TO PICK ONE OF THE ATTACHMENTS LISTED.

A1 NAILING SCHEDULE - U.N.O. INTERNATIONAL BUILDING CODE
NO SCALE 601-06

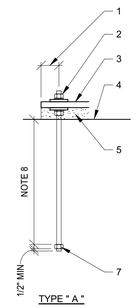


1. CENTERLINE OF STEEL COLUMN AND BASE PLATE.
2. STEEL COLUMN.
3. STEEL BASE PLATE.
4. ANCHOR RODS WITH DOUBLE NUTS.
5. STEEL PLATE WASHERS PER TYPICAL DETAIL.
6. EDGE DISTANCE PER TYPICAL DETAIL.
7. 3/16" FILLET WELD AT WALL THICKNESS 1/4" OR LESS, 1/4" FILLET WELD AT WALL THICKNESS 5/16" AND 3/8", AND 5/16" FILLET WELD AT WALL THICKNESS GREATER THAN 3/8".
8. WELD TOP STEEL PLATE WASHERS ALL AROUND AT MOMENT FRAME AND BRACED FRAME COLUMNS WHERE NOTED ON PLAN.

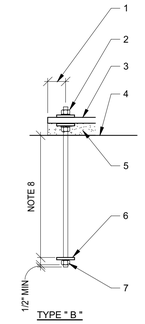
B2 PLAN - TYPICAL TUBE STEEL COLUMN BASE PLATE
NO SCALE 405-06

STEEL COLUMN BASE PLATES (GRADE 36 ANCHOR RODS WHERE SPECIFICALLY INDICATED)					
F1554, GRADE 36 ANCHOR ROD DIA	STEEL PLATE WASHER (A36)	HOLE SIZE AT STEEL PLATE WASHER	OVERSIZED HOLE DIA AT STEEL BASE PLATE	EDGE DISTANCE OF BASE PLATE TO CENTERLINE OF HOLE	THICKNESS OF GROUT
3/4"	1/2"x2 1/2"x2 1/2"	13/16"	1 5/16"	1 1/2"	2"
7/8"	5/8"x2 3/4"x2 3/4"	15/16"	1 9/16"	1 3/4"	2"
1"	3/4"x3 1/4"x3 1/4"	1 1/16"	1 13/16"	2"	3"
1 1/4"	1"x3 1/2"x3 1/2"	1 5/16"	2 1/16"	2 1/4"	3"
1 1/2"	1"x3 3/4"x3 3/4"	1 9/16"	2 5/16"	2 1/2"	3"
1 3/4"	1 1/4"x4 1/4"x4 1/4"	1 13/16"	2 3/4"	3"	4"
2"	1 1/4"x5"x5"	2 1/16"	3 1/4"	3 1/2"	4"
2 1/2"	1 1/2"x5 1/2"x5 1/2"	2 9/16"	3 3/4"	4"	5"

A2 TYPICAL PLATE WASHERS, HOLE SIZES AND EDGE DISTANCES AT STEEL COLUMN BASE PLATES
NO SCALE 405-01



TYPE " A "

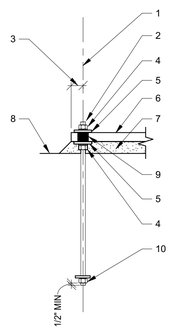


TYPE " B "

1. EDGE DISTANCE PER TYPICAL DETAILS.
2. ANCHOR ROD.
3. STEEL BASE PLATE.
4. TOP OF CONCRET
5. DRY-PACK/FLOWABLE GROUT
6. SQUARE STEEL PLATE WASHER - SIZE TO MATCH BASE PLATE WASHERS - SEE TYPICAL PLATE WASHER DETAIL.
7. HEAVY HEX NUT-TACK WELD.
8. EMBEDMENT DEPTH PER COLUMN OR BASE PLATE SCHEDULE.

NOTE:
- CONTRACTOR SHALL COORDINATE ANCHOR ROD EXTENSIONS AND THREADED LENGTHS

B3 TYPICAL ANCHOR BOLT EMBEDMENT
NO SCALE 405-02



1. CENTERLINE OF ANCHOR RODS AND HOLES
2. ANCHOR ROD
3. EDGE DISTANCE
4. HEAVY HEX NUT
5. SQUARE STEEL PLATE WASHER
6. STEEL BASE PLATE
7. DRY-PACK/FLOWABLE GROUT
8. TOP OF CONCRETE
9. OVERSIZED HOLES AT BASE PLATE
10. HEAVY HEX NUT-TACK WELD

NOTE:
- CONTRACTOR SHALL COORDINATE ANCHOR ROD EXTENSIONS AND THREAD LENGTHS.

SELF CERTIFIED BY: _____ DATE:03/06/2019
DONALD ANDREWS CERTIFICATE #45

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(E) DON@ADGARCH.NET
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DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

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PETERSON ENGINEERING
DAVID MCKERCHER
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PHOENIX, AZ 85020
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NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Specialty)
CERTIFICATE NO.
61523
DAVID
GRAPSAS
Date Signed 3/6/2019
EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

TYPICAL DETAILS

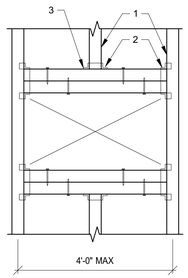
Date 03/06/2019

S1.4

Scale As indicated

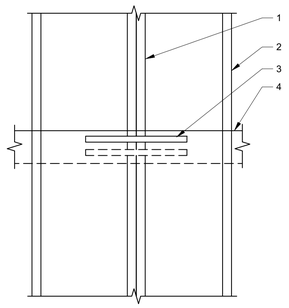
3/7/2019 8:55:17 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



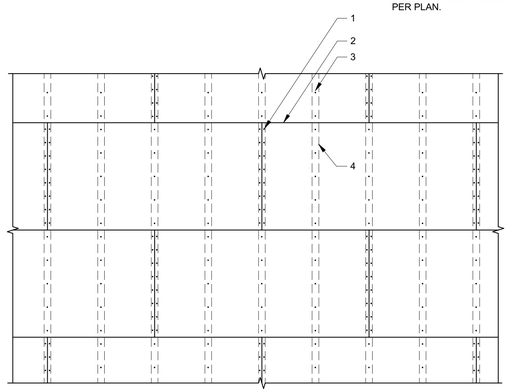
1. PREFAB WOOD TRUSS. NOTE: MANUFACTURER TO VERIFY TRUSS CAPACITY FOR MECHANICAL LOADS. MODIFY TOP AND BOTTOM CHORDS AS REQUIRED (MAINTAIN DEPTH).
2. DOUBLE 2X12 WITH SIMPSON HUS212-2TF HANGERS EACH END AND 16d AT 12" O.C. - STAGGERED.
3. TRUSS HANGER AS REQUIRED. MIN. HUTF TYPE HANGER.

C1 TYPICAL ROOF OPENING
NO SCALE
635-21



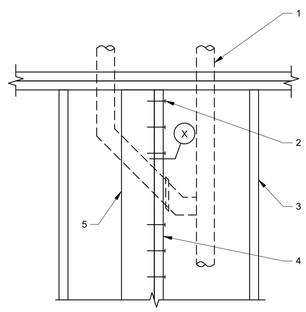
1. DOUBLE STUD AT SPLICE.
2. WOOD STUD WALL.
3. SIMPSON CMST12 STRAP (DOUBLE STRAP WHERE NOTED ON PLANS)
4. WOOD LEDGER.

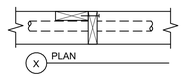
C2 TYPICAL LEDGER SPLICE
NO SCALE
614-04



1. EDGE NAILING - PER GSN.
2. PLYWOOD SHEATHING.
3. INTERMEDIATE NAILING - PER GSN.
4. PREFAB WOOD TRUSSES PER PLAN.

B1 TYPICAL ROOF PLYWOOD AT PREFAB WOOD TRUSSES
NO SCALE
695-01





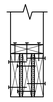
1. PLUMBING PIPE AT TOP PLATE PER TYPICAL DETAIL.
2. 16d NAILS AT 12" O.C.
3. 2x6 STUDS, TYP.
4. 2x6 STUDS WITH NOTCH/HOLE.
5. 2x6 STUD TURNED 90° - STRONG AXIS TO EXISTING STUD.

NOTE:
- JOIST/RIMBOARD/BLOCKING NOT SHOWN FOR CLARITY.

B2 ELEVATION - PIPE AT 2x6 WOOD STUD WALL
NO SCALE
614-05

1. WOOD STUD WALL AND PLATE.
2. 16d NAILS AT 12" O.C. STAGGERED BOTH SIDES.
3. 16d FACE NAILS THRU FIRST KING STUD INTO HEADER PER SCHEDULE.
4. (2) 16d TOENAILS - EACH SIDE, EACH END.
5. RUN VERTICAL STUD UP PAST HEADER AS SHOWN.
6. 16d NAILS AT 12" O.C.
7. WOOD HEADER WITH PLYWOOD.
8. DOUBLE TRIMMER STUDS UNDER HEADER BEARINGS FOR OPENING WIDTHS GREATER THAN 6'-0", PROVIDE TRIPLE TRIMMER STUDS.
9. ADDITIONAL FULL HEIGHT JAMB STUD PER BELOW WITH SAME NAILING PER NOTE #6.
10. BEARING STUDS TO TOP PLATE AT MULTI-STORY WALLS.

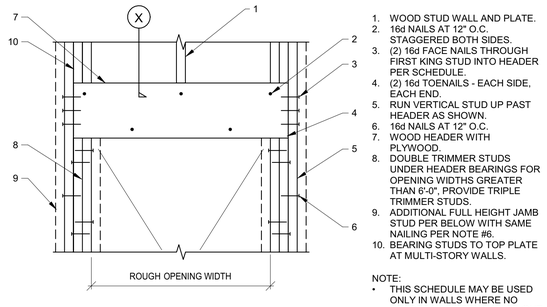
NOTE:
- THIS SCHEDULE MAY BE USED ONLY IN WALLS WHERE NO HEADER HAS BEEN CALLED OUT ON PLANS OR DETAIL.
- SINGLE 6x HEADERS MAY BE USED IN LIEU OF (3) 2x AT CONTRACTOR'S OPTION.



X SECTION

ROUGH OPENING WIDTH	HEADER AT BEARING OR SHEAR WALL	HEADER AT OTHER WALLS	ADD'L JAMB STUDS EACH SIDE	(#) OF FACE NAILS AT HEADER
0'-0" TO 3'-0"	(3) 2x6	(3) 2x4	--	(2)
3'-1" TO 6'-0"	(3) 2x8	(3) 2x6	(1)2x	(3)
6'-1" TO 8'-0"	(3) 2x12	(3) 2x8	(2) 2x	(4)
8'-1" TO 10'-0"	(3) 2x14	(3) 2x10	(3) 2x	(5)

A1 2x6 WOOD STUD WALL HEADER SCHEDULE
NO SCALE
682-22



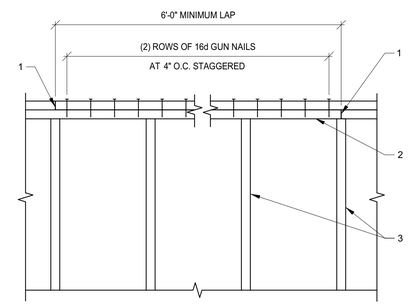
1. WOOD STUD WALL AND PLATE.
2. 16d NAILS AT 12" O.C. STAGGERED BOTH SIDES.
3. (2) 16d FACE NAILS THROUGH FIRST KING STUD INTO HEADER PER SCHEDULE.
4. (2) 16d TOENAILS - EACH SIDE, EACH END.
5. RUN VERTICAL STUD UP PAST HEADER AS SHOWN.
6. 16d NAILS AT 12" O.C.
7. WOOD HEADER WITH PLYWOOD.
8. DOUBLE TRIMMER STUDS UNDER HEADER BEARINGS FOR OPENING WIDTHS GREATER THAN 6'-0", PROVIDE TRIPLE TRIMMER STUDS.
9. ADDITIONAL FULL HEIGHT JAMB STUD PER BELOW WITH SAME NAILING PER NOTE #6.
10. BEARING STUDS TO TOP PLATE AT MULTI-STORY WALLS.

NOTE:
- THIS SCHEDULE MAY BE USED ONLY IN WALLS WHERE NO HEADER HAS BEEN CALLED OUT ON PLANS OR DETAIL.
- SINGLE 6x HEADERS MAY BE USED IN LIEU OF (3) 2x AT CONTRACTOR'S OPTION.

X SECTION

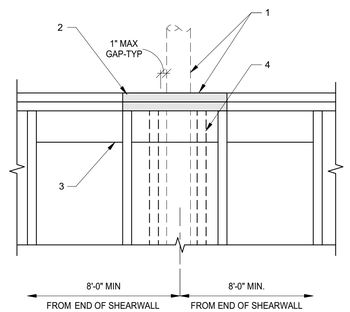
ROUGH OPENING WIDTH	HEADER AT BEARING OR SHEAR WALL	HEADER AT OTHER WALLS	ADD'L JAMB STUDS EACH SIDE	(#) OF FACE NAILS AT HEADER
0'-0" TO 3'-0"	(2) 2x6	(2) 2x4	--	(2)
3'-1" TO 6'-0"	(2) 2x8	(2) 2x6	(1)2x	(3)
6'-1" TO 8'-0"	(2) 2x12	(2) 2x8	(2) 2x	(4)
8'-1" TO 10'-0"	(2) 2x14	(2) 2x10	(3) 2x	(5)

A2 2x4 WOOD STUD WALL HEADER SCHEDULE
NO SCALE
682-21



1. TOP PLATE SPLICE OVER STUD ONLY.
2. DOUBLE TOP PLATE.
3. WOOD STUDS.

B3 TYPICAL SPLICE OF TOP PLATES
NO SCALE
614-03



1. OVERBORED (NOTCHED OR GAP) PLATED PIPE.
2. (2) SIMPSON CTS218 EACH SIDE.
3. 2x BLOCKING - ADD AT PIPE AND EACH STUD BAY EACH SIDE (3 BAYS MIN)
4. WHERE WALL IS A BEARING WALL, ADD STUD SUPPORT WITHIN 6" OF NOTCHED TOP PLATES.

NOTES:
- SEE PLANS FOR MORE INFORMATION AND NOTES NOT SHOWN.
- ATTACH SHEATHING MATERIAL TO TOP PLATES AND BLOCKING PER SHEARWALL NOTES AND DRAWINGS.

A3 PIPE IN SHEARWALL
NO SCALE
612-22

SELF CERTIFIED BY: _____ DATE 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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OWNER
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ARCHITECT
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CIVIL
3 ENGINEERING
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7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
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SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS 3/6/2019 EXPIRES: 03/31/2022

Owner	JONATHAN PITT
Proj. Name	WANDERIST OFFICE & RETAIL

TYPICAL DETAILS

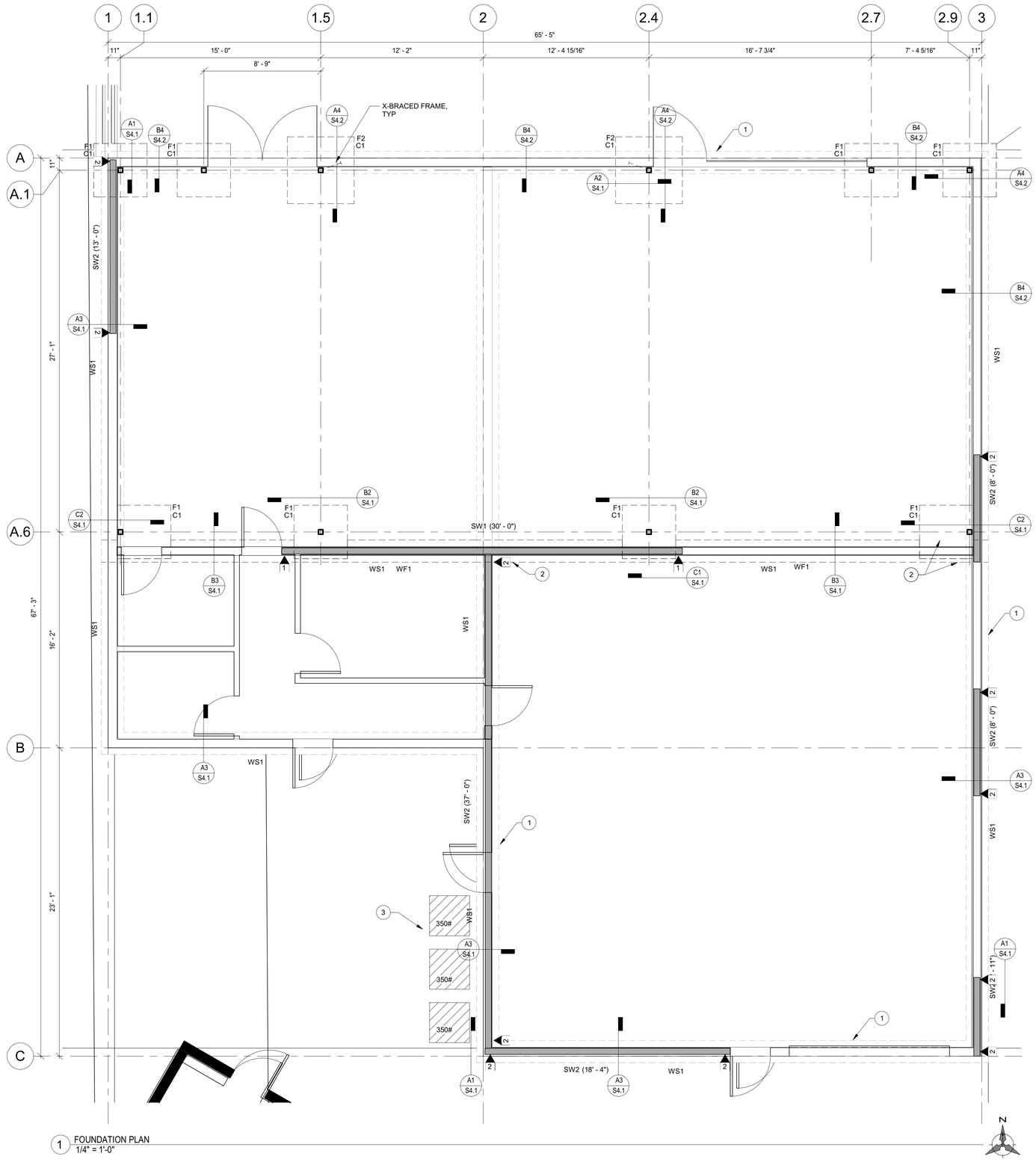
Date	03/06/2019

S1.5

Scale	As indicated

3/7/2019 8:55:18 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



1 FOUNDATION PLAN
1/4" = 1'-0"

FOUNDATION NOTES

A. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DIMENSIONS, ELEVATIONS WHERE SHOWN ARE TO BE USED AS AN AID AND SHALL BE COORDINATED WITH THE ARCHITECT OR GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. DO NOT USE CONC C.J. FOR LOCATING BUILDING ELEMENTS.
B. FOR ADDITIONAL INFORMATION, REFERENCE GENERAL STRUCTURAL NOTES
C. ANY REFERENCE TO ELEVATIONS ARE BASED ON A PROJECT DATUM OF 0'-0" AT FINISH FLOOR OF 1ST FLOOR. FOR MORE INFORMATION SEE ARCHITECTURAL DRAWINGS.
D. WF1, WF2, ETC. AS SHOWN ON PLAN INDICATES CONTINUOUS WALL FOOTING. SEE SCHEDULE ON SHEET S0.3. FOOTING SHALL BE CENTERED UNDER WALL U.N.O.
E. F1, F2, ETC. AS SHOWN ON PLAN INDICATES ISOLATED FOOTING. SEE SCHEDULE ON SHEET S0.3. FOOTING SHALL BE CENTERED UNDER COLUMN U.N.O.
F. FOUNDATION ELEVATIONS NOTED ON PLANS AND IN GSN ARE MINIMUMS. FOUNDATION CONTRACTOR SHALL COORDINATE WITH SOIL REPORT AND ALL TRADES TO ENSURE FOUNDATION ELEVATIONS ARE ADEQUATE. SEE TYPICAL DETAILS FOR ADDITIONAL REQUIREMENTS.
G. C1, C2, ETC. AS SHOWN ON PLAN INDICATES STEEL COLUMN. SEE SCHEDULE ON SHEET S0.3.
H. WS1, WS2, ETC. AS SHOWN ON PLAN INDICATES WALL TYPES. SEE SCHEDULE ON SHEET S0.3. SEE ARCHITECTURAL DRAWINGS FOR EXACT WALL LOCATIONS.
I. CONC. C.J. AS SHOWN ON PLAN INDICATES LOCATION OF CONCRETE CONTROL JOINT. CONTROL JOINTS MAY BE KEYED OR SAWCUT AT CONTRACTORS OPTION. CONC. C.J.'S SHALL BE PLACED WITHIN 24 HOURS OF FINISHING. SEE GSN AND TYPICAL DETAILS.
J. BUILDING CONCRETE SLAB ON GRADE SHALL BE AS NOTED ON PLAN. VERIFY EXACT SIZE AND LOCATION OF ALL DEPRESSED, RAISED, OR SLOPED CONCRETE SLABS WITH ARCHITECTURAL DRAWINGS. SEE GSN AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

KEYNOTES

1 EXISTING CONTINUOUS 20" WIDE x 12" THICK CONCRETE FOOTING. TYPICAL AROUND PERIMETER OF BUILDING. BOTTOM OF EXISTING FOOTING AT 32" BELOW FINISHED FLOOR. CONTRACTOR TO FIELD VERIFY. TYP.
2 BOTTOM OF FOOTING TO MATCH BOTTOM OF EXISTING FOOTING. TYP.
3 APPROXIMATE LOCATION OF MECHANICAL EQUIPMENT. REFER TO TYPICAL DETAILS A4 & B4/S1.3 FOR EQUIPMENT PAD REQUIREMENTS.

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SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS 3/6/2019
EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

FOUNDATION PLAN

Date 03/06/2019

S2.1

Scale 1/4" = 1'-0"

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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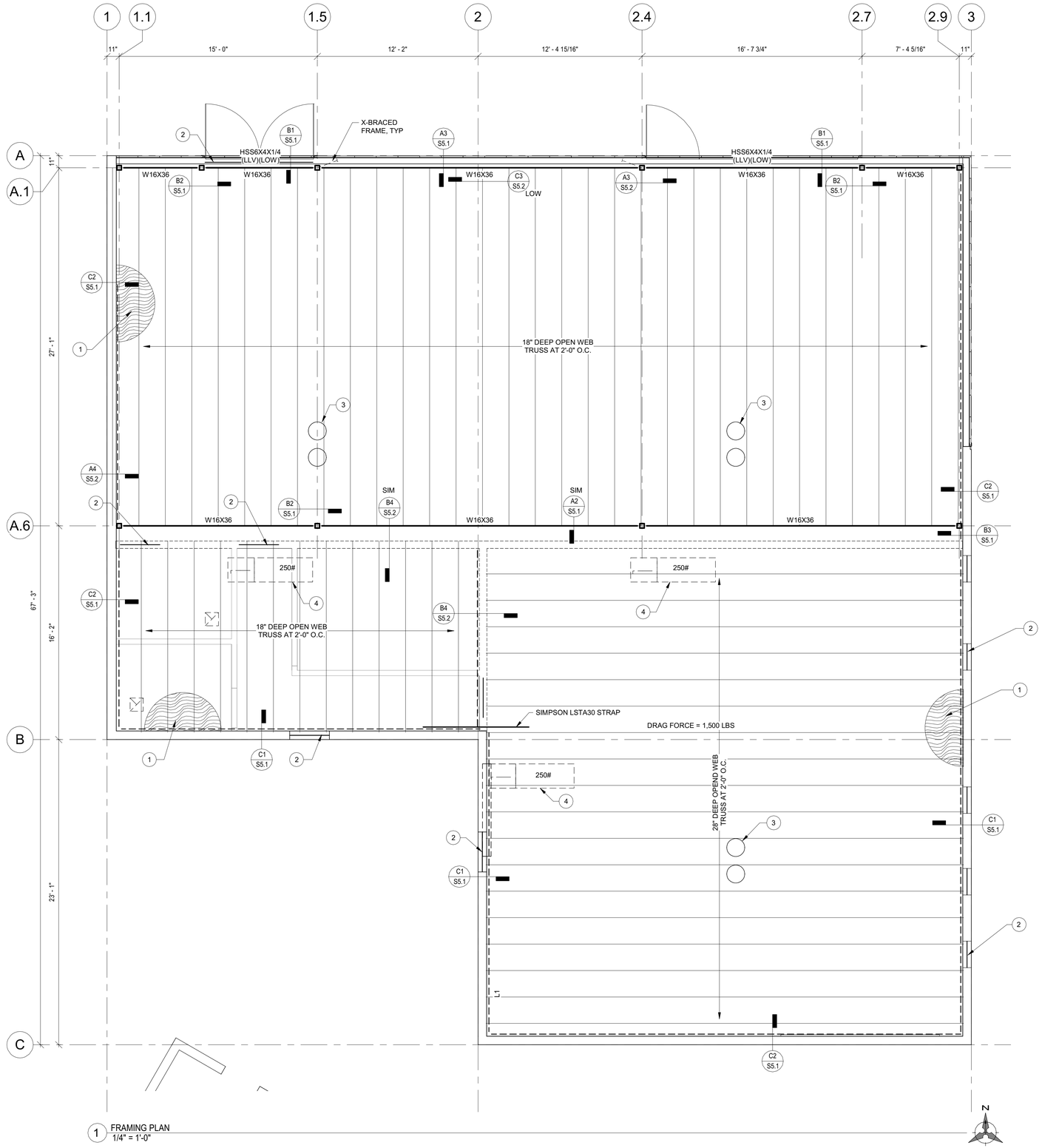

1 FRAMING PLAN
1/4" = 1'-0"

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ROOF FRAMING NOTES

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B. FOR ADDITIONAL INFORMATION, REFERENCE GENERAL STRUCTURAL NOTES.
C. ANY REFERENCE TO ELEVATIONS ARE BASED ON A PROJECT DATUM OF 0'-0" AT FINISH FLOOR OF 1ST FLOOR. FOR MORE INFORMATION SEE ARCHITECTURAL DRAWINGS.
D. L1, L2, ETC. AS SHOWN ON PLAN INDICATES LEDGER. SEE SCHEDULE ON SHEET S.03
E. FOR CLARITY, ALL ROOF OPENINGS MAY NOT BE SHOWN ON FRAMING PLAN. FOR EXACT SIZE, NUMBER AND LOCATION SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL DETAILS.
F. VERIFY EXACT SIZE, WEIGHT AND LOCATION OF MECHANICAL UNITS, EQUIPMENT AND SUPPORTS INDICATED ON PLAN WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS.
G. FOR CLARITY, DETAILS MAY ONLY SHOW ONE SIDE OF CONNECTION.

KEYNOTES

1 19/32" PLYWOOD SHEATHING ATTACH PER GSN.
2 OPENING IN WOOD STUD WALL. REFER TO TYPICAL WOOD STUD WALL HEADER SCHEDULE DETAIL A1/S1.5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT SIZE AND LOCATION.
3 APPROXIMATE LOCATION OF ROOF DRAINS. FOR FRAMING AROUND ROOF DRAINS, REFER TO TYPICAL DETAILS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT SIZE AND LOCATION.
4 APPROXIMATE LOCATION OF MECHANICAL UNIT. FOR FRAMING AT MECHANICAL UNITS REFER TO DETAIL A1/S5.1. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT SIZE AND LOCATION.

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
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SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural)
CERTIFICATE NO.
61523
DAVID
GRAPSAS
Date Signed 3/6/2019
EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

FRAMING PLAN

Date 03/06/2019

S3.1

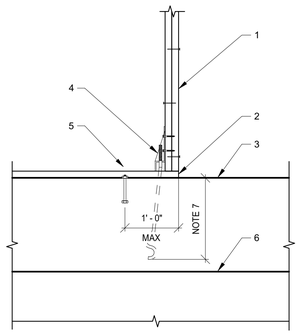
Scale 1/4" = 1'-0"

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

3/7/2019 8:55:20 AM

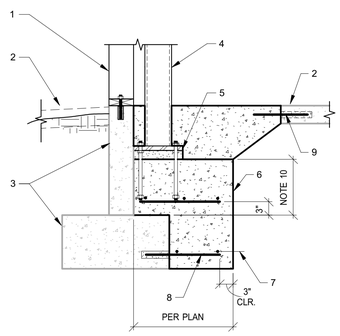
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



1. DOUBLE STUDS AT END OF PANEL. - NAIL AS POST WITH 16d AT 12" O.C. MINIMUM.
2. 2x CONTINUOUS WOOD PLATE.
3. CONCRETE STEM WALL AND FOOTING.
4. SIMPSON 'HTT' HOLDOWN.
5. ANCHOR BOLT.
6. TOP OF FOOTING.
7. EMBEDMENT PER HOLDOWN SCHEDULE.

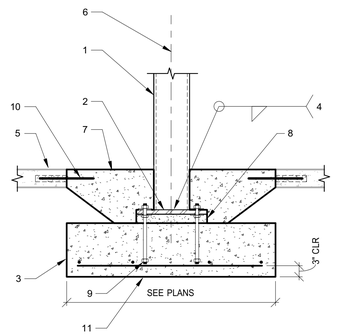
NOTE:
- ANCHOR BOLT FOR SIMPSON HOLDOWN NOT TO BE CONSIDER AS ANCHOR BOLT FOR SILL PLATE.

C1 SIMPSON 'HTT' HOLDOWN
NO SCALE 134-04 S2.1



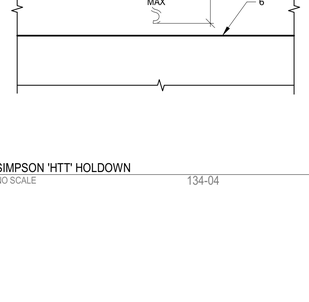
1. STUD WALL.
2. CONCRETE SLAB OR FINISHED GRADE AS OCCURS.
3. EXISTING CONCRETE FOOTING AND STEM WALL.
4. STEEL COLUMN PER PLAN.
5. STEEL BASEPLATE WITH ANCHOR RODS AND DOUBLE NUTS: REFER TO SCHEDULE.
6. CONCRETE FOOTING AND REINFORCEMENT PER SCHEDULE.
7. (2) #5 PARALLEL TO EXISTING WALL FOOTING.
8. DRILL AND EPOXY (3) #3 BARS INTO EXITING FOOTING; MIN. 6" EMBEDMENT.
9. 1/2"x16" LONG GREASED DOWEL, TYP.
10. FOOTING THICKNESS PER FOOTING SCHEDULE.

C2 NEW STEEL COLUMN FOOTING AT EXISTING WALL FOOTING
NO SCALE S2.1



1. STEEL COLUMN.
2. STEEL BASEPLATE WITH ANCHOR RODS AND DOUBLE NUTS. REFER TO SCHEDULE.
3. CONCRETE FOOTING PER PLANS.
4. FOR WELD SIZE - SEE TYPICAL STEEL COLUMN AT BASE PLATE DETAIL.
5. EXISTING SLAB ON GRADE.
6. CENTERLINE OF STEEL COLUMN, BASEPLATE AND FOOTING.
7. CONCRETE CLOSURE POUR. PROVIDE 3" COVER AROUND ALL STEEL BELOW GRADE.
8. ±1 1/2" DRYPACK.
9. HEAVY HEX NUT - TACK WELD.
10. 1/2"x16" LONG GREASED DOWEL, TYP.
11. BOTTOM OF FOOTING TO MATCH BOTTOM OF EXISTING FOOTING.

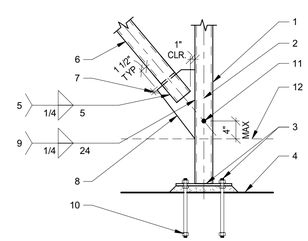
B2 INTERIOR STEEL COLUMN AT FOOTING
NO SCALE 912-11 S2.1



1. DOUBLE STUDS AT END OF PANEL. - NAIL AS POST WITH 16d AT 12" O.C. MINIMUM.
2. PROVIDE ADDITIONAL STUDS AT JAMBS TO COVER OF HOLDOWN BOLTS.
3. 2x CONTINUOUS WOOD PLATE.
4. EXSITING CONCRETE STEM WALL AND FOOTING.
5. SIMPSON 'HD' HOLDOWN.
6. ANCHOR BOLT.
7. EMBEDMENT PER HOLDOWN SCHEDULE.
8. TOP OF FOOTING.

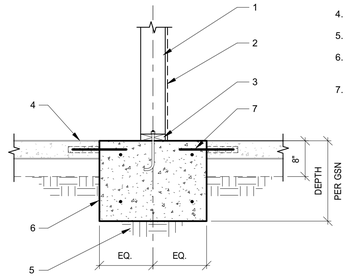
NOTE:
- ANCHOR BOLT FOR SIMPSON HOLDOWN NOT TO BE CONSIDER AS ANCHOR BOLT FOR SILL PLATE.

A1 SIMPSON 'HD' HOLDOWN
NO SCALE 134-03M S2.1



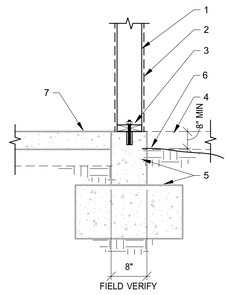
1. STEEL COLUMN.
2. CENTERLINE OF STEEL COLUMN.
3. FOR COLUMN BASE PLATE AND ANCHOR RODS, SEE COLUMN SCHEDULE.
4. TOP OF COLUMN FOOTING.
5. BRACE TO GUSSET PLATE. WELD EACH SIDE OF PLATE.
6. DIAGONAL BRACE MEMBER.
7. 1/2" MAXIMUM OVERSLOT
8. 1/2" THICK STEEL KNIFE PLATE ON CENTERLINE OF STEEL COLUMN.
9. GUSSET PLATE TO COLUMN.
10. HEAVY HEX NUT - TACK WELD.
11. WORKPOINT.
12. FINISHED FLOOR ELEVATION.

A2 BRACED FRAME CONNECTION AT STEEL COLUMN
NO SCALE 431-03M S2.1



1. WOOD STUD WALL.
2. SHEATHING MATERIAL AS OCCURS.
3. 2x CONTINUOUS PLATE WITH 1/2" DIA. ANCHOR BOLTS AT 48" O.C. - INSERT OR EXPANSION BOLTS MY BE USED IN LIEU OF ANCHOR BOLTS.
4. EXISTING CONCRETE SLAB ON GRADE.
5. FOR SUBASE REQUIREEMTNS SEE GSN.
6. CONCRETE FOOTING AND REINFORCEMENT PER PLAN AND SCHEDULE.
7. 1/2"x16" LONG GREASED DOWEL, TYP.

B3 TURNDOWN AT INTERIOR BEARING WALL
NO SCALE 134-13M S2.1



1. WOOD STUD WALL.
2. SHEATHING MATERIAL AND ATTACHEMNT AS OCCURS.
3. 2x CONTINUOUS WOOD PLATE WITH 1/2" DIA. ADHESIVE ANCHORS AT 48" O.C. - U.N.O.
4. CONCRETE SLAB WHERE OCCURS.
5. EXISTING CONCRETE STEM WALL AND FOOTING.
6. FINISHED GRADE.
7. EXISTING CONCRETE SLAB ON GRADE.

A3 EXTERIOR WOOD STUD WALL FOOTING
NO SCALE 134-01.1M S2.1

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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UNITED STRUCTURAL DESIGN LLC
2058 S. Dobson Rd. Suite 10
Mesa, AZ 85202
(480) 454-6408
www.unitedstr.com
USD #:19003

ERWIN | ARCHITECTURE DEVELOPMENT

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DAVID MCKERCHER
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PHOENIX, AZ 85020
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(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

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Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS Expires: 3/6/2019 STATE OF ARIZONA
EXPIRES: 03/31/2022

Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

FOUNDATION DETAILS

Date 03/06/2019

S4.1

Scale 3/4" = 1'-0"

3/7/2019 8:55:21 AM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

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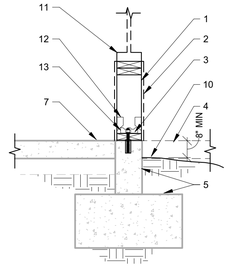
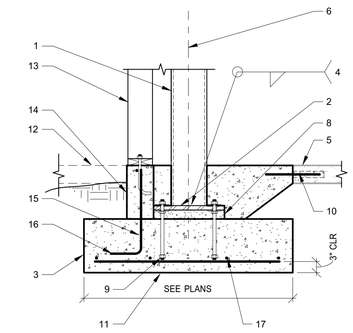


1. WOOD STUD WALL.
2. SHEATHING MATERIAL AND ATTACHEMNT AS OCCURS.
3. 2x CONTINUOUS WOOD PLATE WITH 1/2" DIA. ADHESIVE ANCHORS AT 16" O.C. - U.N.O.
4. CONCRETE SLAB WHERE OCCURS.
5. CONCRETE STEM WALL AND FOOTING.
6. #4 HOOKED DOWELS AT 48" O.C. - ALTERNATE BENDS.
7. CONCRETE SLAB ON GRADE.
8. (1) #4 CONTINUOUS.
9. THICKNESS OF CONCRETE STEM WALL TO MATCH NOMINAL THICKNESS OF WALL.
10. FINISHED GRADE.
11. CURTAIN WALL SYSTEM PER ARCH'L. DESIGNED BY OTHERS.
12. SIMPSON H3 EACH SIDE OF STUD AT EACH STUD.
13. SIMPSON A35 AT EACH STUD.

B4 WOOD STUD WALL FOOTING AT WINDOW SILL
NO SCALE 134-01.2 S2.1



1. STEEL COLUMN PER PLAN.
2. STEEL BASEPLATE WITH ANCHOR RODS AND DOUBLE NUTS. REFER TO SCHEDULE.
3. CONCRETE FOOTING PER PLANS.
4. FOR WELD SIZE - SEE TYPICAL STEEL COLUMN AT BASE PLATE DETAIL.
5. EXISTING SLAB ON GRADE.
6. CENTERLINE OF STEEL COLUMN, BASEPLATE AND FOOTING.
7. CONCRETE CLOSURE POUR. PROVIDE 3" COVER AROUND ALL STEEL BELOW GRADE.
8. ±1 1/2" DRYPACK.
9. HEAVY HEX NUT - TACK WELD.
10. 1/2"x16" LONG GREASED DOWEL, TYP.
11. BOTTOM OF FOOTING TO MATCH BOTTOM OF EXISTING FOOTING.
12. CONCRETE SLAB OR FINISHED GRADE AS OCCURS.
13. WOOD STUD WALL PER PLAN.
14. CONCRETE STEM WALL TO MATCH EXISTING. MINIMUM 8" WIDTH.
15. (1) #5 CONTINUOUS TOP AND BOTTOM. DRILL AND EPOXY INTO EXISTING CONCRETE STEM WALL. MINIMUM 5" EMBEDMENT.
16. #5 HOOK BARS. PROVIDE (1) EACH END AND AT 16" O.C. MAX. (2) MINIMUM.
17. DRILL AND EPOXY BARS EXISTING CONCRETE FOOTING . MINIMUM 5" EMBEDMENT.

A4 INTERIOR STEEL COLUMN AT FOOTING
NO SCALE 912-11M S2.1

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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Owner JONATHAN PITT
Proj. Name WANDERIST OFFICE & RETAIL

FOUNDATION DETAILS

Date 03/06/2019

S4.2

Scale 3/4" = 1'-0"

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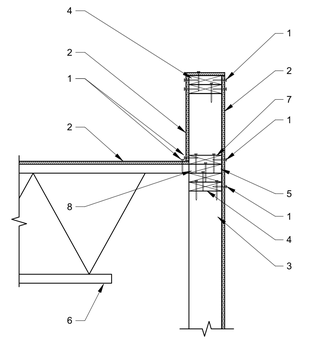
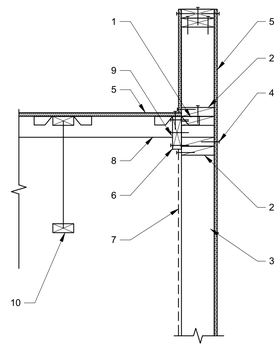
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



1. EDGE NAILING.
2. PLYWOOD SHEATHING; ATTACH PER GSN.
3. WOOD STUD WALL PER PLAN.
4. DOUBLE TOP PLATE.
5. PRE NOTCHED PLATE WITH 16d NAILS AT 12" O.C.
6. PREFABRICATED WOOD TJL TRUSS BY OTHERS.
7. 2x PLATE WITH 16d NAILS AT 12" O.C. - STAGGERED.
8. 2x BLOCKING WITH (3) 16d NAILS PER BLOCK.

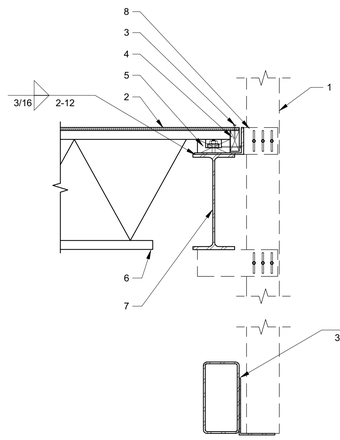
NOTE:
- FOR NUMBER OF REQUIRED PRE NOTCHED PLATES SEE DETAIL B3/S5.2.

C1 PREFAB WOOD TJL TRUSS AT WOOD STUD WALL
NO SCALE 628-06M S3.1



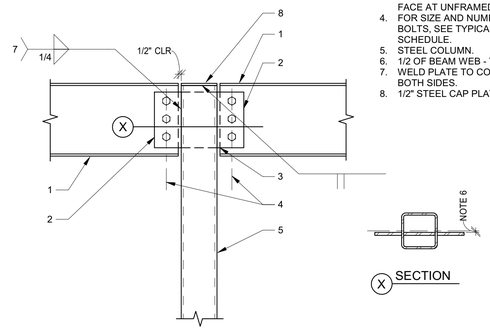
1. SIMPSON H2.5 AT EACH STUD.
2. (2) 2x BLOCKING WITH (3) 16d NAILS PER BLOCK.
3. WOOD STUD WALL PER PLAN.
4. EDGE NAILING.
5. PLYWOOD SHEATHING.
6. MIN 2x8 CONTINUOUS LEDGER WITH (2) 16d NAILS EACH STUD AND (3) EACH BLOCK.
7. SHEATHING MATERIAL AS OCCURS.
8. 2x BLOCKING AT 24" O.C. FOR 3 BAYS WITH EDGE NAILING TO ROOF SHEATHING AND H2.5 EACH END. ALIGN BLOCKING AT TRUSS CHORDS AND STAGGER H2.5 CLIPS.
9. MIN. SIMPSON ST6224 STRAP CENTERED AT LEDGER SPLICE LOCATIONS.
10. PREFAB WOOD TRUSS.

C2 PREFAB WOOD TJL TRUSS AT WOOD WALL
NO SCALE 637-21M S3.1



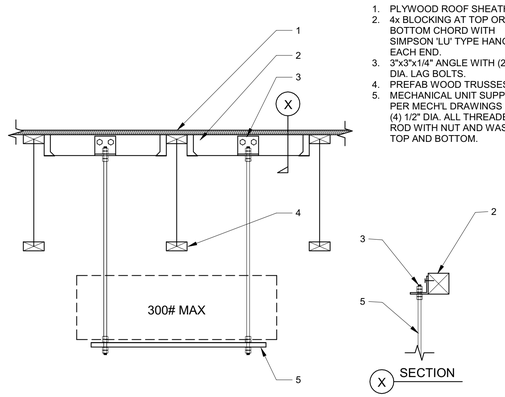
1. CURTAIN WALL SYSTEM BY OTHERS. PROVIDE DEFLECTION CLIPS AT STEEL BEAM AND BENT PLATE AS SHOWN.
2. PLYWOOD SHEATHING; ATTACH PER GSN.
3. EDGE ATTACHMENT.
4. CONTINUOUS 2x BLOCKING; ATTACH TO TOP PLATE WITH 16d NAILS AT 6" O.C.
5. CONTINUOUS 3x TOP PLATE WITH 3/4" DIA. THREADED STUDS AT 48" O.C. COUNTERSUNK.
6. PREFABRICATED WOOD TJL TRUSS BY OTHERS.
7. STEEL BEAM PER PLAN.
8. CONTINUOUS 1/4" STEEL BENT PLATE.

B1 PREFAB WOOD TRUSS AT STEEL BEAM
NO SCALE S3.1



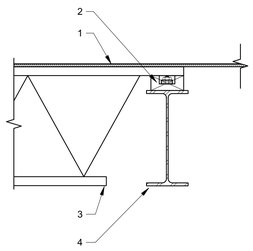
1. STEEL BEAM.
2. 3/8" STEEL KNIFE PLATE. 5/8" STEEL KNIFE PLATE WHERE "D"=27" OR MORE.
3. WHERE BEAM OCCURS 1 SIDE ONLY, EXTEND KNIFE PLATE 1/2" FROM COLUMN FACE AT UNFRAMED SIDE.
4. FOR SIZE AND NUMBER OF BOLTS, SEE TYPICAL BOLT SCHEDULE.
5. STEEL COLUMN.
6. 1/2 OF BEAM WEB - TYP.
7. WELD PLATE TO COLUMN BOTH SIDES.
8. 1/2" STEEL CAP PLATE.

B2 TYPICAL STEEL BEAM TO STEEL COLUMN
NO SCALE 415-17 S3.1



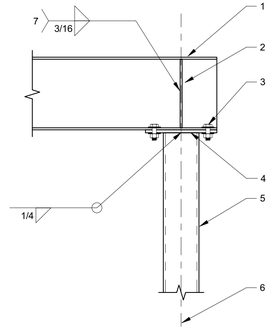
1. PLYWOOD ROOF SHEATHING.
2. 4x BLOCKING AT TOP OR BOTTOM CHORD WITH SIMPSON 'LU' TYPE HANGER EACH END.
3. 3"x3"x1/4" ANGLE WITH (2) 1/2" DIA. LAG BOLTS.
4. PREFAB WOOD TRUSSES.
5. MECHANICAL UNIT SUPPORTS PER MECH'L DRAWINGS MIN. (4) 1/2" DIA. ALL THREADED ROD WITH NUT AND WASHER TOP AND BOTTOM.

A1 MECHANICAL SUPPORT AT ROOF TRUSSES
NO SCALE 635-02M



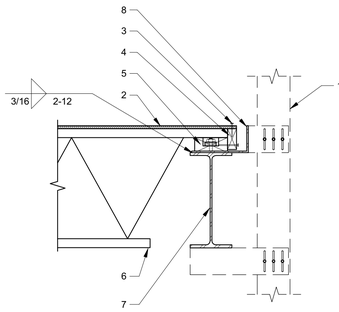
1. PLYWOOD SHEATHING; ATTACH PER GSN.
2. CONTINUOUS 3x TOP PLATE WITH 3/4" DIA. THREADED STUDS AT 48" O.C. COUNTERSUNK.
3. PREFABRICATED WOOD TRUSS BY OTHERS.
4. STEEL BEAM PER PLAN.

A2 PREFAB WOOD TJL TRUSS AT STEEL BEAM AT WOOD STUD WALL
NO SCALE 628-06M S3.1



1. STEEL BEAM.
2. 3/8" STEEL STIFFENER PLATE EACH SIDE OF BEAM - EXTEND TO EDGE OF FLANGE. TYP.
3. (4) 3/4" DIA BOLTS ON BEAM GAGE.
4. 1/2" STEEL CAP PLATE.
5. STEEL COLUMN.
6. CENTERLINE OF COLUMN.
7. WELD 3 SIDES - TYPICAL.

B3 STEEL BEAM CONNECTION STEEL COLUMN
NO SCALE 415-03 S3.1



1. CURTAIN WALL SYSTEM BY OTHERS. PROVIDE DEFLECTION CLIPS AT STEEL BEAM AND BENT PLATE AS SHOWN.
2. PLYWOOD SHEATHING; ATTACH PER GSN.
3. EDGE ATTACHMENT.
4. CONTINUOUS 2x BLOCKING; ATTACH TO TOP PLATE WITH 16d NAILS AT 6" O.C.
5. CONTINUOUS 3x TOP PLATE WITH 3/4" DIA. THREADED STUDS AT 48" O.C. COUNTERSUNK.
6. PREFABRICATED WOOD TJL TRUSS BY OTHERS.
7. STEEL BEAM PER PLAN.
8. CONTINUOUS 1/4" STEEL BENT PLATE.

A3 PREFAB WOOD TJL TRUSS AT STEEL BEAM AT WOOD STUD WALL
NO SCALE 628-06M S3.1

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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UNITED STRUCTURAL DESIGN LLC
2058 S. Dobson Rd. Suite 10
Mesa, AZ 85202
(480) 454-6408
www.unitedstr.com
USD #:19003

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS 3/6/2019 ARIZONA U.S.A.
EXPIRES: 03/31/2022

Owner	JONATHAN PITT
Proj. Name	WANDERIST OFFICE & RETAIL

FRAMING DETAILS

Date	03/06/2019

S5.1

Scale	1" = 1'-0"

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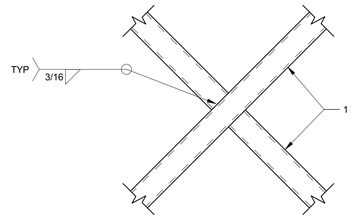
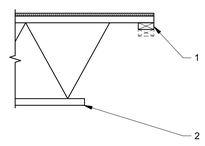
1. HSS BRACE



C3 HSS BRACE AT HSS BRACE
NO SCALE S3.1

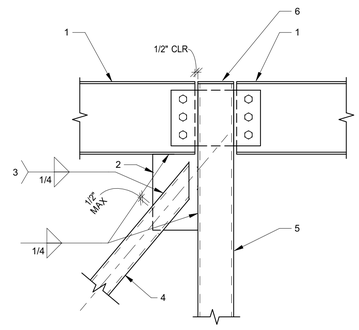
1. 2x PRENOTCHED PLATES.
2. PREFAB OPEN WEB TJL TRUSS.



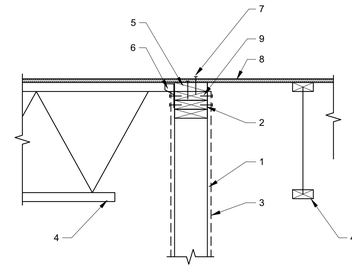
PRE-NOTCHED PLATE SCHEDULE		
NUMBER OF PRE-NOTCHED PLATES	PREFAB WOOD ROOF TRUSS DEPTH	PREFAB WOOD FLOOR TRUSS DEPTH
1	14" TO 22"	14" TO 18"
2	23" TO 34"	19" TO 34"
3	35" TO 40"	35" TO 40"

B3 TJL OPEN WEB TRUSS PRE-NOTCHED PLATES
NO SCALE

1. STEEL BEAM. SEE OTHER DETAILS FOR BEAM TO COLUMN CONNECTION.
2. 3/8" STEEL GUSSET PLATE.
3. BRACE TO GUSSET PLATE. WELD EACH SIDE OF PLATE. 5" MINIMUM EACH SIDE.
4. HSS4x4x1/4 DIAGONAL BRACE MEMBER. SLOT OVER GUSSET PLATE.
5. STEEL COLUMN.
6. 1/2" STEEL CAP PLATE.



A3 TYPICAL STEEL BEAM TO STEEL COLUMN
NO SCALE 415-17M S3.1

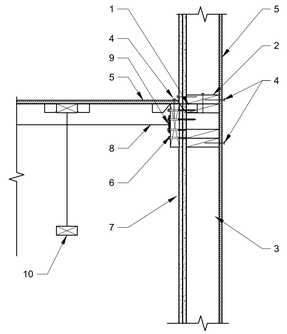


1. WOOD STUD WALL.
2. (2) 2x CONTINUOUS WOOD TOP PLATES.
3. SHEATHING MATERIAL AS OCCURS PER PLAN. FINISH PER ARCH'L.
4. PREFABRICATED WOOD TRUSS.
5. CONTINUOUS BLOCKING WITH 16d TOE NAILS AT 6" O.C. (3) MINIMUM BETWEEN TRUSSES.
6. SIMPSON H3 CONNECTOR AT EVERY OTHER STUD. CONNECTOR NOT REQUIRED IF PLYWOOD IS NAILED DIRECTLY TO CONTINUOUS TOP AND BOTTOM PLATES.
7. EDGE NAILING TO RIM BOARD.
8. PLYWOOD ROOF SHEATHING PER PLANS.
9. PRE-NOTCHED PLATE WITH 16d NAILS AT 12" O.C.

NOTE:
- FOR NUMBER OF REQUIRED PRE NOTCHED PLATES SEE DETAIL B3/S5.2.

B4 WOOD JOIST AT WOOD STUD WALL
NO SCALE 625-06 S3.1

1. SIMPSON H2.5 AT EACH STUD.
2. (2) 2x BLOCKING WITH (3) 16d NAILS PER BLOCK.
3. WOOD STUD WALL PER PLAN.
4. EDGE NAILING.
5. PLYWOOD SHEATHING.
6. MIN 3x8 CONTINUOUS LEDGER CONNECTED DIRECTLY TO STUDS WITH (2) 16d NAILS EACH STUD AND (3) 16d EACH BLOCK. AT FIRE RATED WALL PROVIDE 3x12 LEDGER ON FACE OF FIRE ASSEMBLY SHEATHING AS SHOWN WITH (4) 1/4"x4 1/2" SIMPSON SDS SCREWS AT EACH STUD.
7. SHEATHING MATERIAL AS OCCURS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATING REQUIREMENTS.
8. 2x BLOCKING AT 24" O.C. FOR 3 BAYS WITH EDGE NAILING TO ROOF SHEATHING AND H2.5 EACH END. ALIGN BLOCKING AT TRUSS CHORDS AND STAGGER H2.5 CLIPS.
9. MIN. SIMPSON ST6224 STRAP CENTERED AT LEDGER SPLICE LOCATIONS.
10. PREFAB WOOD TJL TRUSS.



A4 CONTINUOUS WOOD LEDGER AT WOOD STUD WALL
NO SCALE 637-02M S3.1

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE

Registered Professional Engineer (Structural) CERTIFICATE NO. 61523 DAVID GRAPSAS 03/6/2019 EXPIRES: 03/31/2022

Owner	JONATHAN PITT
Proj. Name	WANDERIST OFFICE & RETAIL

FRAMING DETAILS

Date	03/06/2019

S5.2

Scale	As indicated

3/7/2019 8:55:22 AM

PLUMBING CONSTRUCTION NOTES

1. EXACT LOCATION OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS.
2. BEFORE SUBMITTING BID, THE PLUMBING CONTRACTOR SHALL REVIEW THE ARCHITECTURAL DRAWINGS AND INCLUDE IN HIS BID AN AMOUNT TO FURNISH AND INSTALL ANY FIXTURES WHICH ARE SHOWN IN ADDITION TO FIXTURES SHOWN ON THE PLUMBING DRAWINGS.
3. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW WASTE LINES ARE TO BE CONNECTED BEFORE MAKING UP OR INSTALLATION OF NEW WASTE SYSTEM.
4. CONTRACTOR SHALL VERIFY AND COORDINATE LOCATION OF ALL PLUMBING LINES WITH DUCTWORK AND ELECTRICAL SERVICES.
5. THE INSTALLATION OF ALL VALVES, UNIONS, THERMOMETERS, GAUGES, OR OTHER INDICATING OR RECORDING EQUIPMENT, OR SPECIALTIES REQUIRING FREQUENT READING, REPAIRS, ADJUSTMENT, INSPECTION, REMOVAL OR REPLACEMENT SHALL BE CONVENIENTLY AND ACCESSIBLY LOCATED WITH REFERENCE TO THE FINISHED BUILDING.
6. ALL VENTS THROUGH ROOF SHALL BE 10'–0" REMOVED FROM ALL AIR INTAKES, EVAPORATIVE COOLERS, ETC.
7. WHERE POSSIBLE, TIE VENTS TOGETHER SO THAT A MINIMUM NUMBER TERMINATE THROUGH THE ROOF.
8. CONTRACTOR SHALL NOT CUT HOLES IN STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
9. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
10. CONTRACTOR SHALL ROUGH–IN ALL WASTES AND SUPPLIES FOR SPECIAL EQUIPMENT ACCORDING TO MANUFACTURERS SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED.
11. VERTICAL STRAIGHT RUNS OR PVC DWV SHALL BE PROTECTED FROM EXPANSION AND CONTRACTION UTILIZING ONE OR MORE OF THE FOLLOWING METHODS:
    - PROVIDE A MINIMUM OF 24 INCHES, 45 DEGREE OFFSETS EVERY 30 FEET.
    - PROVIDE CERTIFIED AND LISTED EXPANSION FITTINGS AS MANUFACTURED BY CANPLAS INDUSTRIES, LTD., OR EQUAL, IN VERTICAL RUNS IN EXCESS OF 30 FEET PROVIDED THAT THEY ARE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
12. WHEN WATER PIPE AND SEWERS ARE LAID PARALLEL TO EACH OTHER, ONE OF THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
    - THE HORIZONTAL DISTANCE BETWEEN THE WATER PIPE AND SEWER SHALL NOT BE LESS THAN SIX (6) FEET. EACH LINE SHALL BE LAID IN A SEPARATE TRENCH OR THE SPACE IN BETWEEN FILLED WITH COMPACT FILL.
    - THE WATER SERVICE PIPE MAY BE PLACED IN THE TRENCH WITH TH BUILDING DRAIN AND/OR BUILDING SEWER, PROVIDED THE BOTTOM OF THE WATER SERVICE PIPE, AT ALL POINTS SHALL BE AT LEAST TWELVE (12) INCHES ABOVE THE TOP OF THE SEWER LINE, AND SHALL BE PLACED ON A SOLID SHELF EXCAVATED AT ONE SIDE OF THE COMMON TRENCH. SAID WATER SERVICE AND SEWER SHALL BE CONSTRUCTED OF MATERIALS APPROVED FOR USE WITHIN A BUILDING AND PRESSURE TESTED TO ASSURE WATER TIGHTNESS BEFORE BACKFILLING.
    - WATER SERVICE SHALL BE COPPER TO A MINIMUM 10'–0" OUTSIDE OF BUILDING FOR ELECTRICAL GROUNDING PURPOSES.

PLUMBING LEGEND

SYMBOL	ABBR.	DESCRIPTION
	W	DRAIN OR WASTE PIPING
	V	VENT PIPING
	CW	COLD WATER PIPING
	HW	HOT WATER PIPING
	HWR	HOT WATER RETURN PIPING
G	G	NATURAL GAS PIPING
LPG	LPG	LIQUIFIED PETROLEUM GAS PIPING
RDL	RDL	ROOF DRAIN LEADER
ODL	ODL	OVERFLOW DRAIN LEADER
A	A	COMPRESSED AIR PIPING
RO	RO	REVERSE OSMOSIS WATER PIPING
F	F	FIRE SPRINKLER PIPING
	GV	GATE VALVE
	GBV	GLOBE VALVE
	CV	CONTROL VALVE (TWO & THREE–WAY)
	BFV	BUTTERFLY VALVE (MANUAL & MOTORIZED)
	BV	BALL VALVE
	CKV	CHECK VALVE
	BLV	BALANCE & FLOW CONTROL VALVE W/TAPS
	NV	NEEDLE VALVE
	MAV	MANUAL AIR VENT
D	AAV	AUTOMATIC AIR VENT (PIPE DRAIN TO F.S.)
	ITW	INSTRUMENT THERMOMETER WELL
T	PP	PETE'S PLUG WITH P.T. ATTACHMENT
	PG	PRESSURE GAUGE & COCK (STEAM SIPHON)
	TH	THERMOMETER
	ST	STRAINER W/FULL SIZE BLOW DOWN VALVE.
	FLG	FLANGE
A B	–	REDUCERS: A = ECCENTRIC; B = CONCENTRIC
	–	GAS COCK, GAS STOP VALVE
	U	UNION
	HB	HOSE BIBB
	NFHB	NON–FREEZE HOSE BIB
	FS	FLOOR SINK
	FD	FLOOR DRAIN
	FCO	FLOOR CLEANOUT
	SCO	SURFACE CLEANOUT
	WCO	WALL CLEANOUT
	RD	ROOF DRAIN
	OFD	OVERFLOW DRAIN
	VTR	VENT THRU ROOF
SW	SW	SOFT WATER
IW	D	INDIRECT WASTE
	POC	POINT OF CONNECTION BETWEEN NEW AND EXISTING
	TP	TRAP PRIMER
	AP	ACCESS PANEL
	WHA	WATER HAMMER ARRESTOR
	AAV	AIR ADMITTANCE VALVE

LOW FLOW REQUIREMENTS

ALL PLUMBING FIXTURES SHALL HAVE FLOW REDUCERS OR BE SO CONSTRUCTED TO MEET THE FOLLOWING REQUIREMENTS:

WATER CLOSET (TANK TYPE)	1.6 GALLONS PER FLUSH
WATER CLOSETS (FLOOR MOUNT–FLUSHMETER)	1.6 GALLONS PER FLUSH
URINALS	1.0 GALLONS PER FLUSH
SHOWER HEADS	3 GPM AT 80 PSI
LAVATORY FAUCETS (PUBLIC)	.5 GPM AT 80 PSI
RESIDENTIAL KITCHEN SINK FAUCETS	2.5 GPM AT 80 PSI
RESIDENTIAL BAR SINK FAUCETS	2.5 GPM AT 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	.5 GPM AT 80 PSI

PUBLIC RESTROOMS: IN ADDITION TO THE MAXIMUM RATE OF FLOW, LAVATORY FAUCETS IN PUBLIC RESTROOMS SHALL BE OF THE METERING, SELF CLOSING TYPE.

PIPE AND FITTINGS

SERVICE	PIPE	FITTINGS
SANITARY DRAIN, WASTE AND VENT, AND RAINWATER INTERIOR, ABOVE GRADE	CAST IRON, HUBLESS, SERVICE WEIGHT, CISPI 301	CAST IRON, WITH NEOPRENE GASKETED JOINTS & STAINLESS STEEL CLAMP–AND–SHIELD ASSEMBLIES.
WATER PIPING BELOW GRADE	TYPE "K" SOFT TEMPER COPPER TUBING	NO JOINTS PERMITTED BELOW FLOOR
ALL WATER PIPING ABOVE GRADE	TYPE "L" HARD DRAWN COPPER, ASTM B88	WROUGHT COPPER SOLDER TYPE CONFORMING TO ASME B16.22
NATURAL GAS PIPING ABOVE GRADE	SCHEDULE 40 BLACK STEEL PIPE	ASME B16.3 MALLEABLE IRON OR ASTM A234/A234M WROUGHT STEEL WELDING TYPE
SANITARY DRAIN, WASTE AND VENT, AND RAINWATER INTERIOR, BELOW GRADE WITHIN 5 FEET OF BUILDING	CAST IRON, HUBLESS, SERVICE WEIGHT, CISPI 301 PVC PIPE ASTMD2665 OR ASTM D3034	CAST IRON, WITH NEOPRENE GASKETED JOINTS & STAINLESS STEEL CLAMP–AND–SHIELD ASSEMBLIES. PVC FITTINGS, SOLVENT WELDED WITH ASTM D2564 SOLVENT CEMENT.

FIELD VERIFICATION NOTES:

1. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID. THE FOLLOWING ITEMS SHALL BE VERIFIED:
   A. EXACT PLACEMENT, SIZE AND INVERT ELEVATION OF ALL EXISTING WASTE PIPING.
   B. EXACT PLACEMENT AND SIZE OF ALL EXISTING COLD WATER PIPING.
   C. EXACT PLACEMENT AND SIZE OF ALL EXISTING VENT PIPING.
2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING WASTE, WATER AND VENT PIPING IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDE IN HIS BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.
3. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS.
4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTORS BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION.

PLUMBING FIXTURE SCHEDULE

WC–1	TANK TYPE WATER CLOSET (HANDICAPPED): AMERICAN STANDARD 215AA.104 "CADET PRO" 16–1/2" HIGH FLOOR MOUNTED, VITREOUS CHINA, ELONGATED BOWL, SIPHON JET BOWL, EVERCLEAN ANTIMICROBIAL SURFACE, 1.28 GPF CONSUMPTION, WHITE IN COLOR OR AS SELECTED BY ARCHITECT. PROVIDE AMERICAN STANDARD 5901.100SS WHITE OPEN FRONT SEAT WITH SELF–SUSTAINING CHECK HINGE WITHOUT COVER. SUPPLY: WATTS BV894012K 5/8"X 3/8"OD CHROME PLATED LOOSE KEY QUARTER TURN BALL VALVE STYLE COMPRESSION ANGLE STOP WITH 12"FLEXIBLE RISER TUBE AND ESCUTCHEON.
L–1	WALL HUNG LAVATORY (HANDICAPPED): AMERICAN STANDARD 0355.012 "LUCERNE", 20" X 18", VITREOUS CHINA, WALL HUNG LAVATORY WITH FRONT OVERFLOW, SELF–DRAINING DECK AREA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS AND CONCEALED WALL HANGER. SHALL INCLUDE 4TH HOLE DRILLING TO RIGHT FOR SOAP DISPENSER. SUPPLY FITTING: SYMMONS MODEL S–60–G–H 4"CENTER SET SLOW–CLOSING LAVATORY FAUCET, WITH BLADE HANDLE, 0.5 GPM FLOW RATE AND WATTS 629203C CAST BRASS DRAIN WITH INTEGRAL PERFORATED GRID AND 1–1/4" TAILPIECE. WATTS 519–173R 1–1/4" X 1–1/2" SEMI–CAST BRASS P–TRAP WITH CLEANOUT. PROVIDE WATTS LFBV894016K 5/8"X 3/8"OD LOW LEAD CHROME PLATED LOOSE KEY QUARTER TURN BALL VALVE STYLE COMPRESSION ANGLE STOPS WITH 16"FLEXIBLE RISER TUBES AND ESCUTCHEONS. CERTIFIED TO NSF/ANSI STANDARD 61–G SECTION 9. INSULATION: PLUMBEREX 2003 "HANDY–SHIELD MAXX" UNDERSINK PROTECTIVE PIPE COVER ADA–CONFORMING, WHEELCHAIR ACCESSIBLE LAVATORY P–TRAP AND ANGLE VALVE ASSEMBLIES SHALL BE COVERED WITH MOLDED, ANTI–MICROBIAL, UPC/IAPMO LISTED, ASTM E84–07/UL723 CLASS A COMPLIANCE. (COLOR SELECTED BY ARCHITECT).
HB–1	HOSE BIBB: "WOODFORD" MODEL 24P–3/4" ANTI–SIPHON VACUUM BREAKER. WALL FAUCET

PLUMBING FIXTURE CONNECTION SCHEDULE

MARK	DESCRIPTION	TRAP SIZE	WASTE	VENT	COLD WATER	HOT WATER	REMARKS
WC–1	WATER CLOSET TANK TYPE	INTEGRAL	4"	2"	1/2"	–	(HDCP)
L–1	LAVATORY	1–1/2"	2"	1–1/2"	1/2"	1/2"	(WALL MOUNT)
HB–1	HOSE BIBB	–	–	–	3/4"	–	W/ VACUUM BREAKER

INSTANTANEOUS WATER HEATER SCHEDULE

MARK	MODEL	TYPE	ELECTRICAL KW	ELECTRICAL VOLTS	ELECTRICAL PHASE	TEMP. RISE –	REMARKS
IWH–1&2	CHRONOMITE M–30L	DOMESTIC HOT WATER	3.6	120	1	57° F.	SET TEMPERATURE FOR 105°

WATER CALCULATION - UPC 2018

FIXTURE NAME	NO.	F.U.	TOT.
WATER CLOSET (F.T.)	2	x 2.5 =	5
LAVATORY	2	x 1.0 =	2
HOSE BIBB	2	x 2.5 =	5
TOTAL FIXTURE UNITS			12

12 FIXTURE UNITS = 9 GALLONS PER MINUTE (G.P.M.)

PIPE LENGTH TAP TO METER	30 FT.
PIPE LENGTH METER TO LAST FIXTURE	185 FT.
VERTICAL PIPE LENGTH TO HIGHEST FIXTURE	13 FT.
TOTAL PIPE LENGTH	228 FT.
FITTING LOSS (25%)	57 FT.
TOTAL DEVELOPED LENGTH	285 FT.

WATER PIPE SIZING CRITERIA

STREET PRESSURE (FIELD VERIFY)	60.00 PSI
WATER METER LOSS (EXISTING 5/8" METER)(FIELD VERIFY)	8.00 PSI
STATIC LOSS (13' x 0.43)	5.59 PSI
PRESSURE RESERVED FOR FIXTURES	20.00 PSI
REDUCED PRESSURE BACKFLOW PREVENTER (RPBP)	12.00 PSI
PRESSURE AVAILABLE FOR PIPING	14.41 PSI

14.41 PSI / 285 FEET x 100 = 5.0 MAXIMUM PSI DROP ALLOWABLE PER 100 FEET PIPE LENGTH

BRANCH PIPE SIZING CHART FOR 5 PSI LOSS

PIPE SIZE	G.P.M.	F.U.(TANK)	F.U.(F.V.)
1/2"	1–2	0–2	–
3/4"	3–6	3–7	–
1"	7–13	8–19	–

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7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

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UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

PLUMBING SCHEDULES & NOTES

Date	10/08/18

P001

Scale	AS SHOWN

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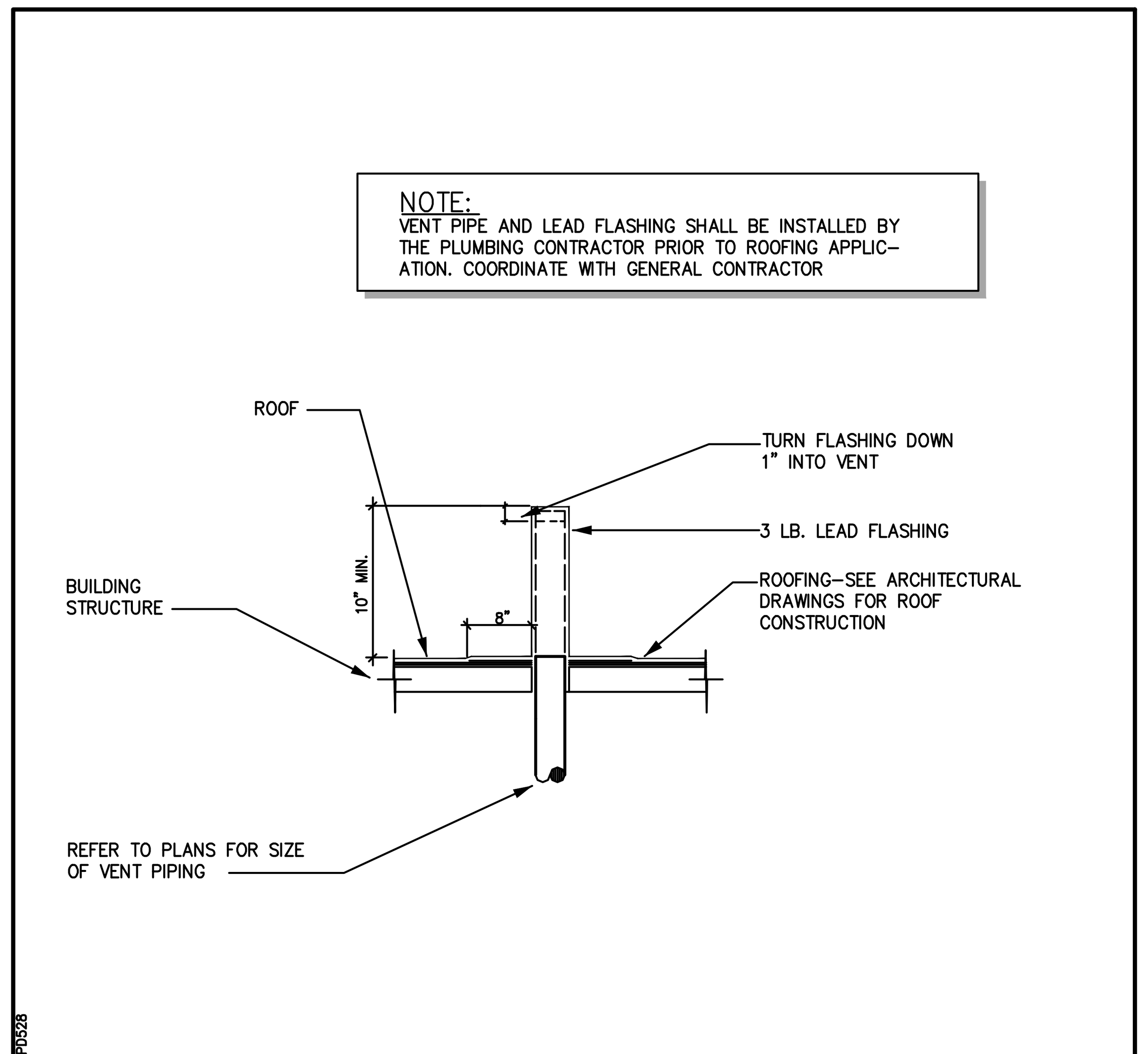
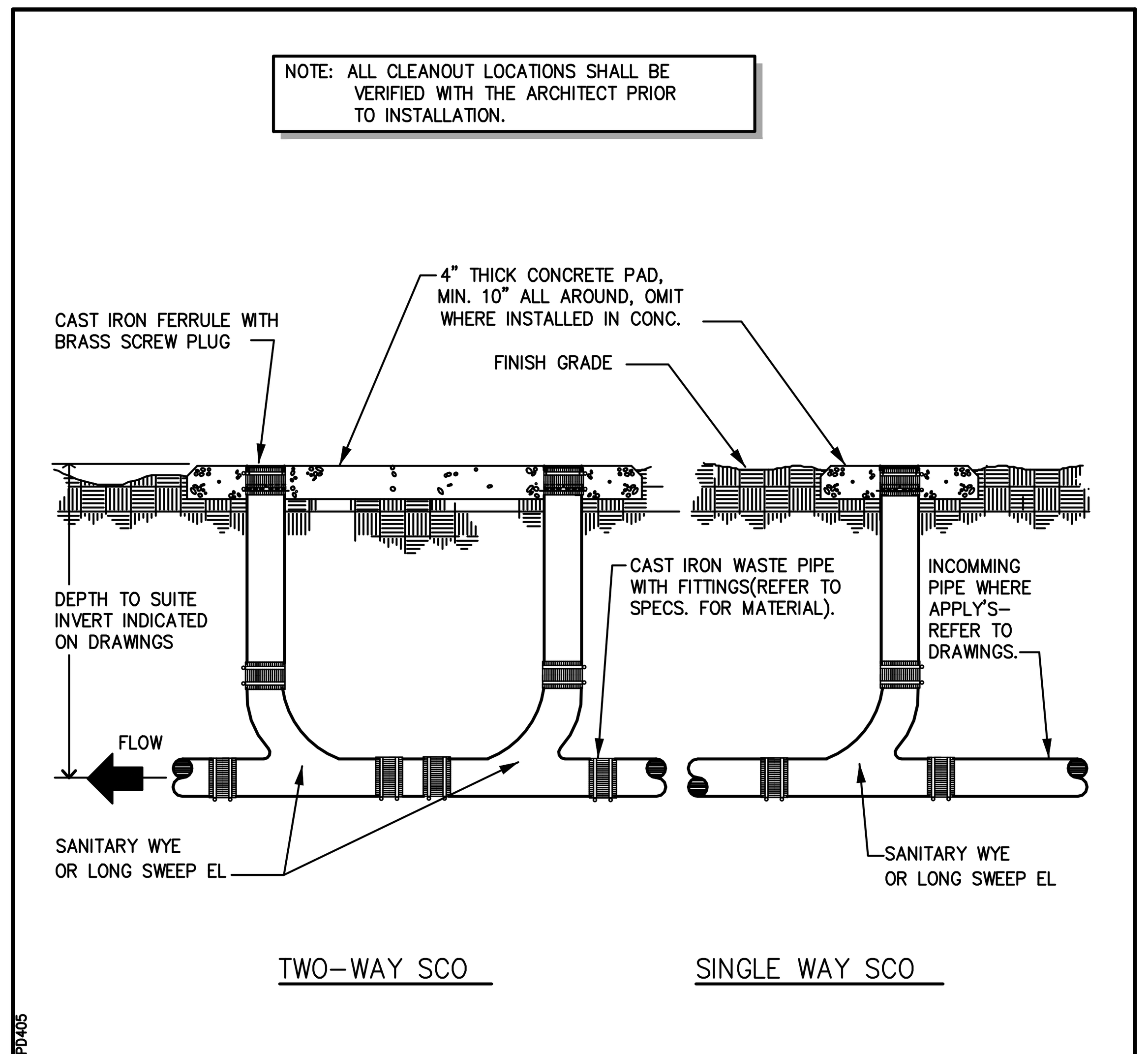


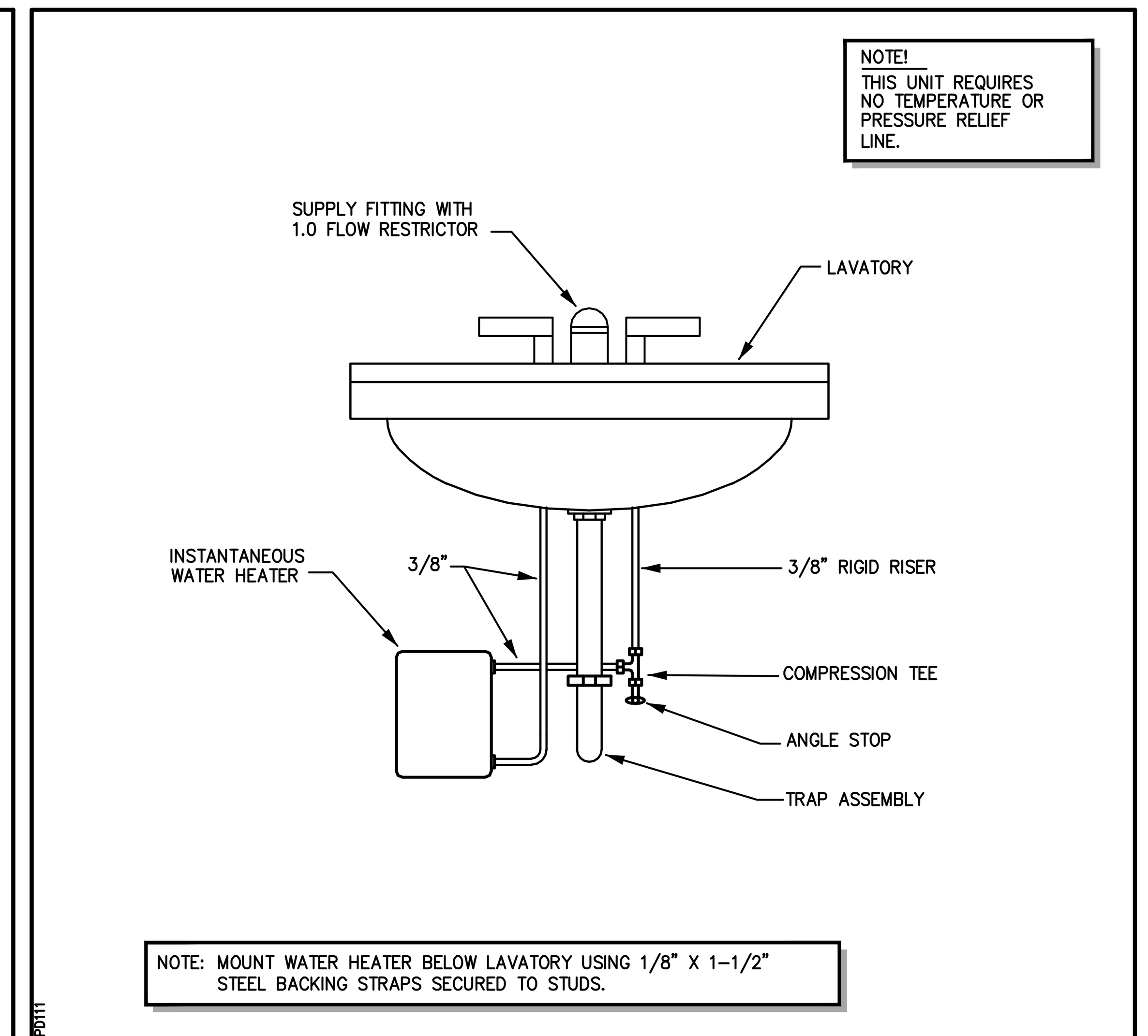
VENT THROUGH ROOF

NTS



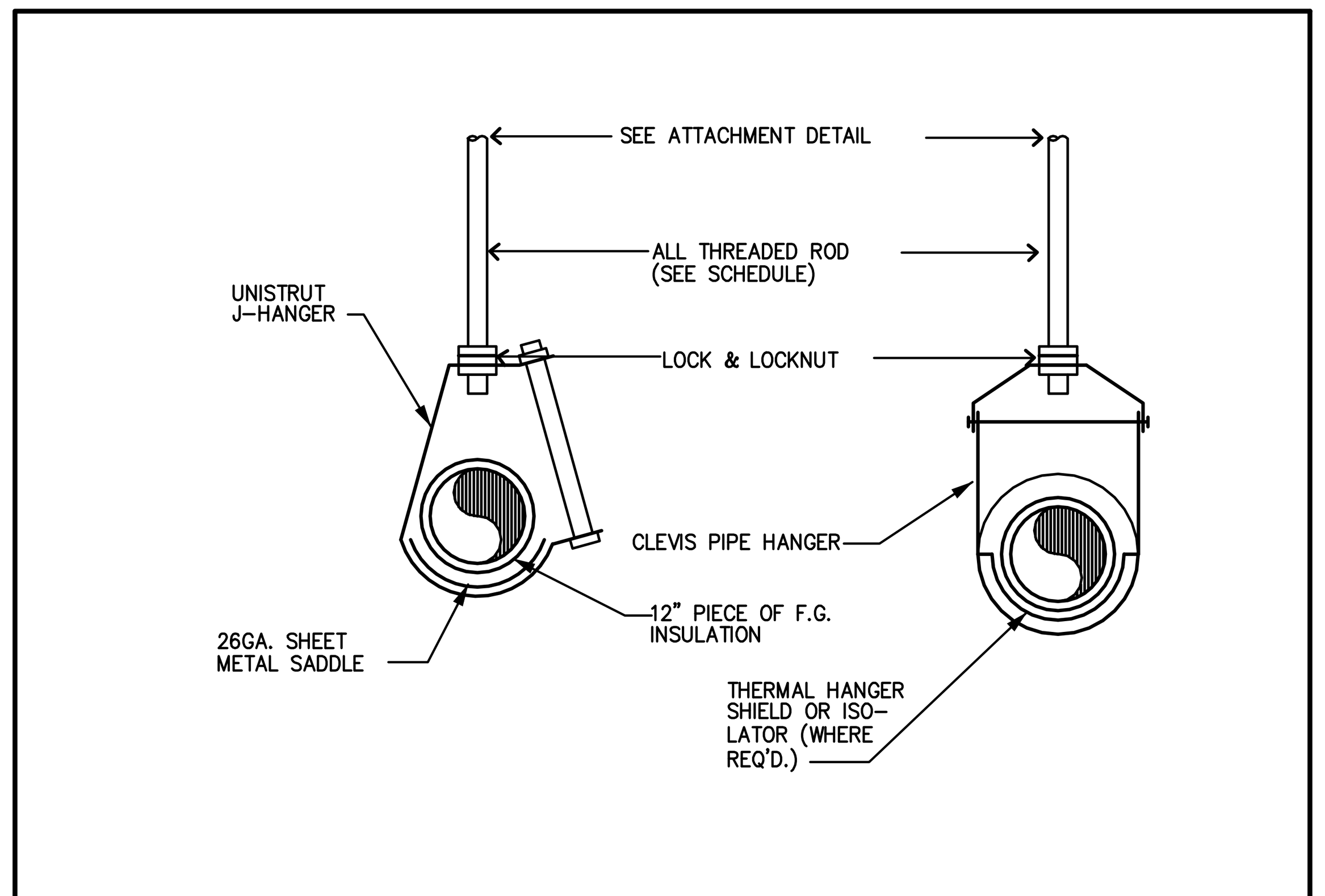
SURFACE CLEANOUTS

NTS



INSTANTANEOUS WATER HEATER

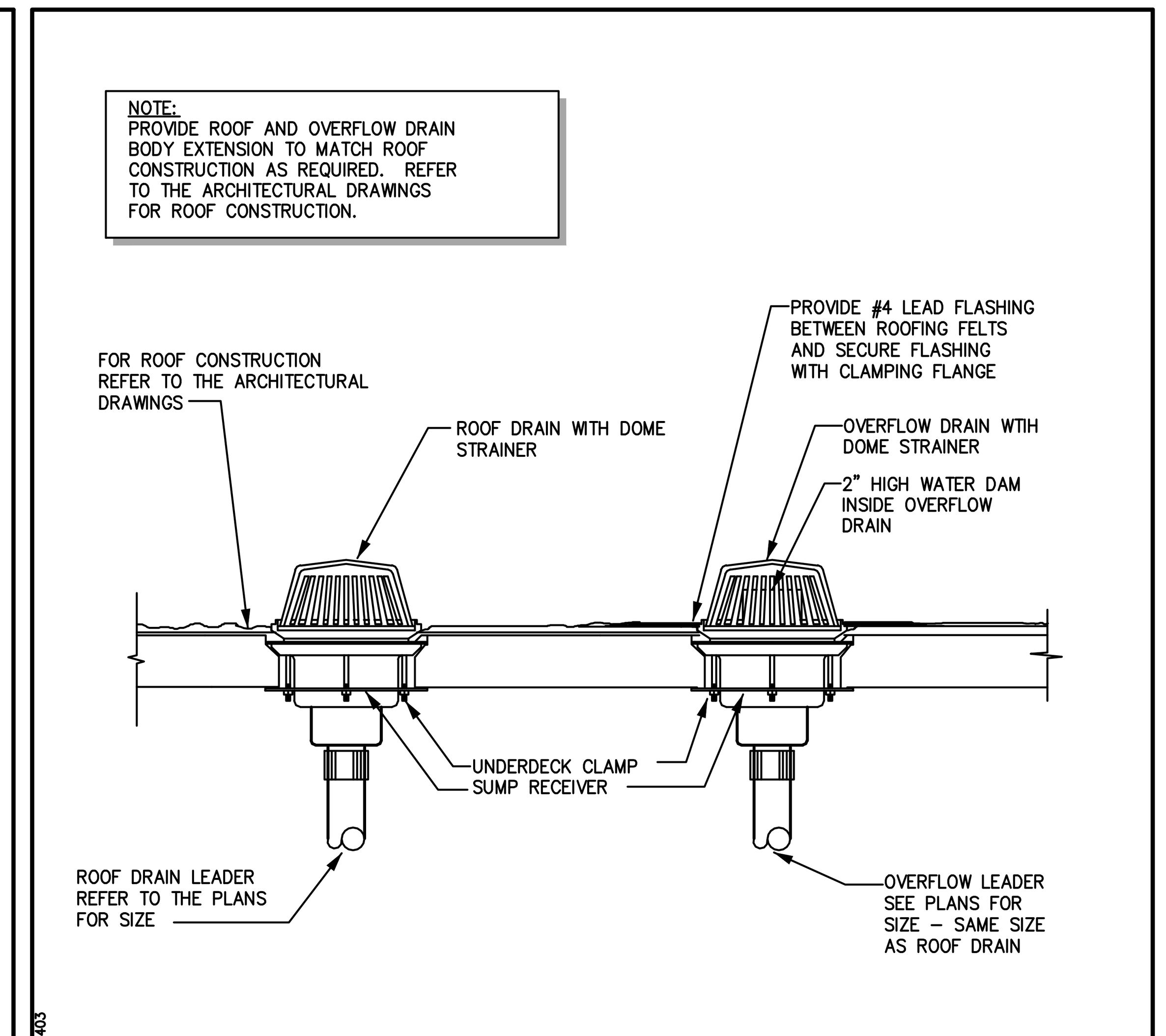
NTS



PIPE SIZE (IN)	MAX SUPPORT SPAN (FT)	MIN. ROD SIZE (IN)
UP TO 1"	6	3/8"
1 1/2"	6	3/8"
2 TO 1 1/2"	10	3/8"
3"	10	1/2"
3 1/2"	9	1/2"
4"	7	1/2"

SINGLE PIPE HANGERS

NTS



ROOF & OVERFLOW DRAINS

NTS

SELF CERTIFIED BY: DONALD ANDREWS DATE: 03/06/2019 CERTIFICATE #45

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PETERSON ASSOCIATES CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive Suite 200 Phoenix, Arizona 85020 (602) 943.4116 Facsimile (602) 943.2507 www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
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(P) 602.334.4387

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(P) 602.388.1716

LANDSCAPE
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(P) 512.900.7888

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-	CITY SUBMITTAL	03.06.19

MARK J. PETERSON 12968 Date Signed 3/5/19 ARIZONA, U.S.A.

Owner JONATHAN PITT
Proj. Nam WANDERIST OFFICE & RETAIL

PLUMBING DETAILS

Date 10/08/18

P002

Scale AS SHOWN

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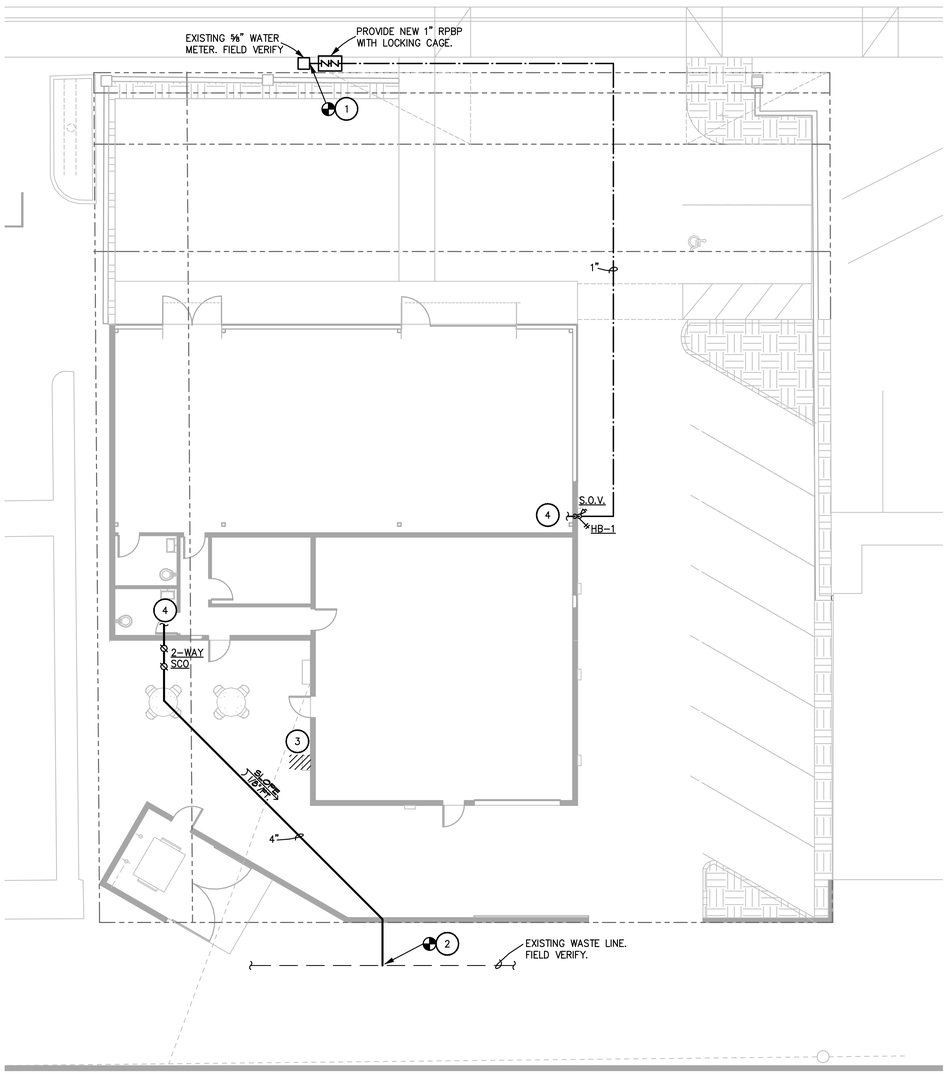

PLUMBING SITE PLAN
1"=10'-0"

KEY NOTES:

1. EXTEND AND CONNECT 1" CW LINE TO EXISTING ⅝" WATER METER. PRVIDE NEW 1" RPBP WITH LOCKING CAGE. FIELD VERIFY EXACT POINT OF CONNECTION, AND SIZE. PRIOR TO ANY WORK.
2. EXTEND AND CONNECT 4" WASTE LINE TO EXISTING WASTE MAIN IN ALLEY. FIELD VERIFY EXACT POINT OF CONNECTION, SIZE, FLOW, AND INVERT ELEVATION. PRIOR TO ANY WORK.
3. REMOVE EXISTING GAS METER. STUB EXISTING SOUTHWEST GAS SERVICE LINE FOR FUTURE CONNECTION.
4. SEE SHEET P200 FOR CONTINUATION.

FIELD VERIFICATION NOTES:

1. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID. THE FOLLOWING ITEMS SHALL BE VERIFIED:
   A. EXACT PLACEMENT, SIZE AND INVERT ELEVATION OF ALL EXISTING WASTE PIPING.
   B. EXACT PLACEMENT AND SIZE OF ALL EXISTING COLD WATER PIPING.
   C. EXACT PLACEMENT AND SIZE OF ALL EXISTING VENT PIPING.
2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING WASTE, WATER AND VENT PIPING IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDE IN HIS BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.
3. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS.
4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTORS BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION.

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

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CONSULTING ENGINEERS INC.
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ERWIN | ARCHITECTURE DEVELOPMENT

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JONATHAN PITT
(E) JON@THEWANDERIST.COM
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SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
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MESA, AZ 85202
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PHOENIX, AZ 85020
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Registered Professional Engineer (Mechanical)
CERTIFICATE NO.
20968
MARK J.
PETERSON
Date Signed 1/3/19
ARIZONA, U.S.A.

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

PLUMBING SITE PLAN

Date	10/08/18

P100

Scale	AS SHOWN

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City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19
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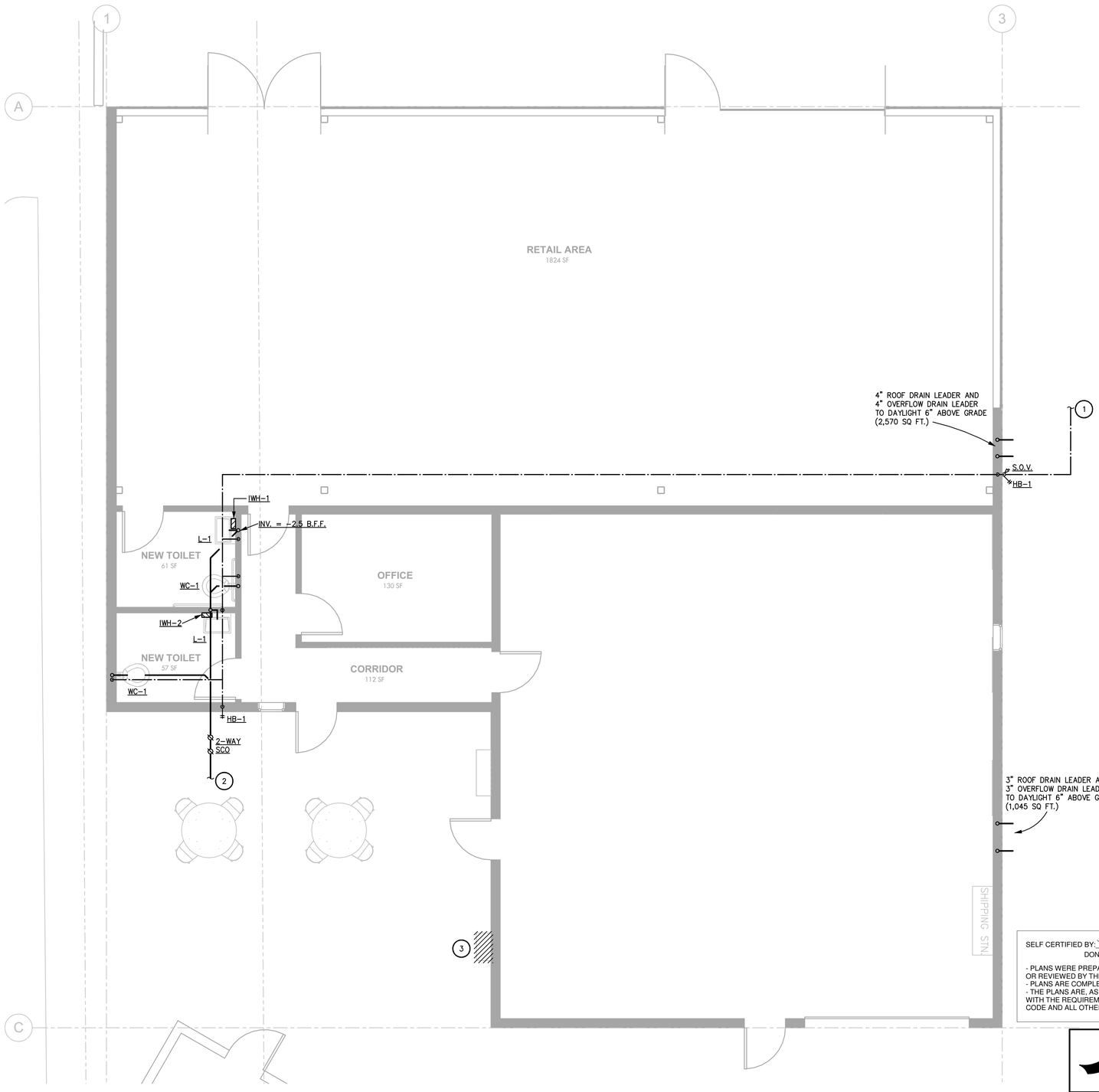
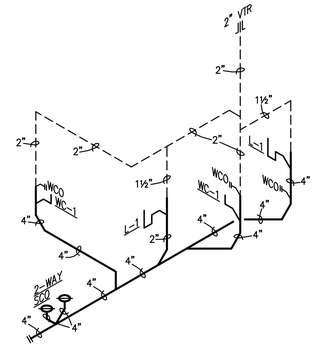


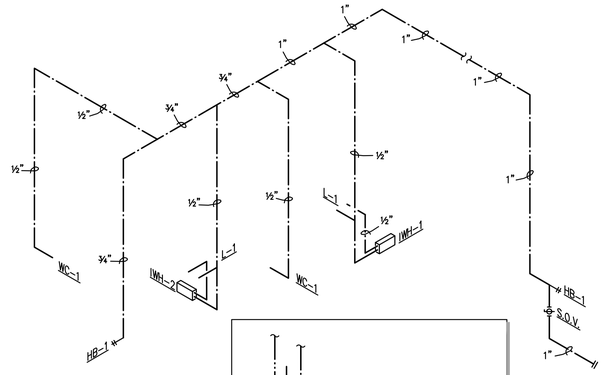
PLUMBING PLAN
1/4"=1'-0"

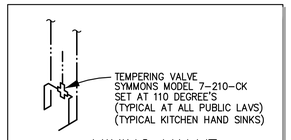
KEY NOTES:

1. SEE SHEET P100 FOR CONTINUATION
2. SEE SHEET P100 FOR CONTINUATION
3. REMOVE EXISTING GAS METER. STUB EXISTING SOUTHWEST GAS SERVICE LINE FOR FUTURE CONNECTION.



WASTE AND VENT DIAGRAM
N.T.S.





WATER PIPING DIAGRAM
N.T.S.

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www.mpeconsult.com
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ERWIN | ARCHITECTURE DEVELOPMENT

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JONATHAN PITT
(E) JON@THEWANDERIST.COM
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DAN MANN, P.E.
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Registered Professional Engineer (Mechanical)
No. 32968
MARK J. PETERSON
Date Signed 3/5/19
ARIZONA, U.S.A.

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

PLUMBING PLAN

Date	10/08/18

P200

Scale	AS SHOWN

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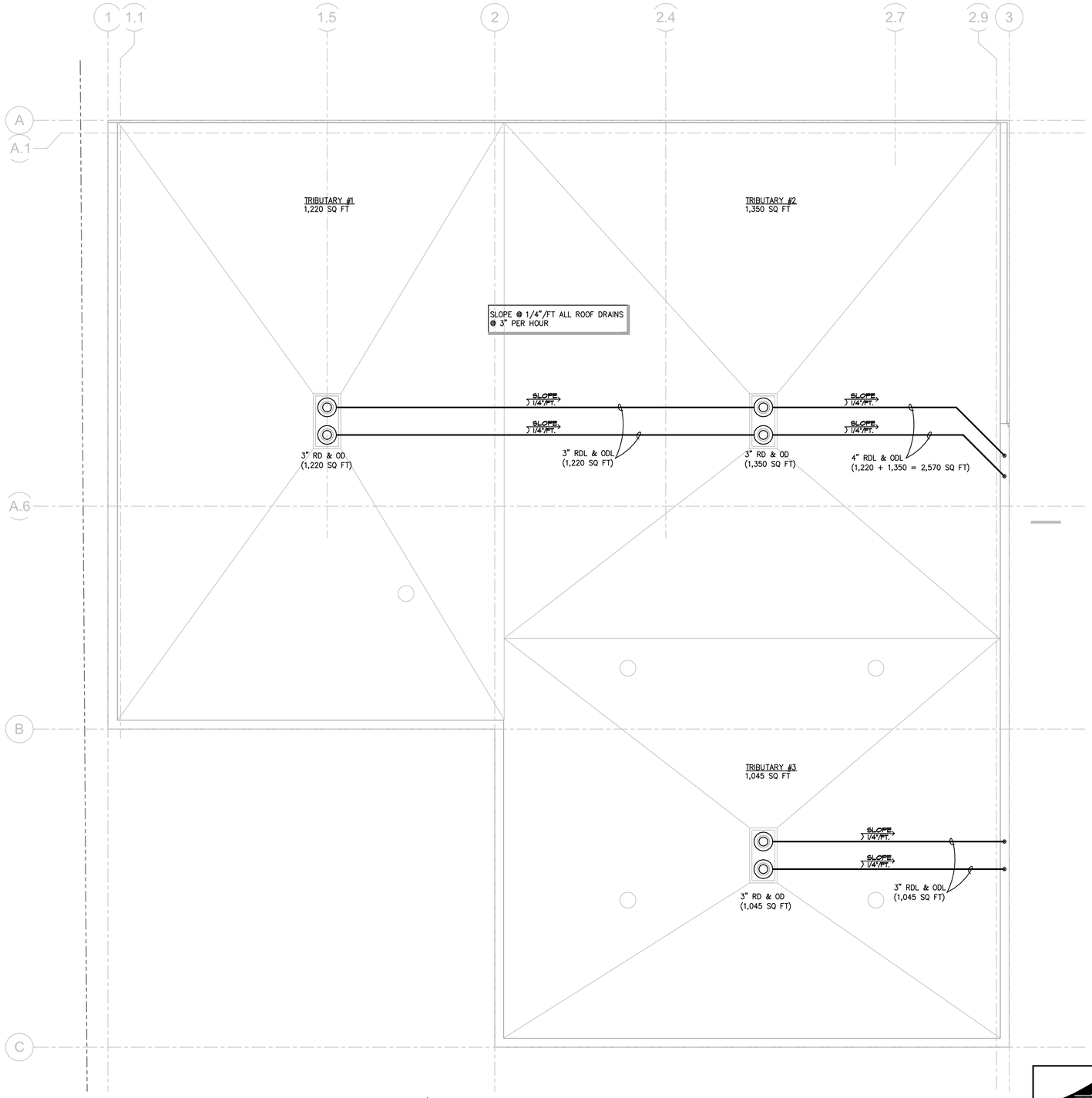

PLUMBING ROOF PLAN
1/4"=1'-0"

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
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PLUMBING ROOF PLAN

Date 10/08/18

P300

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SECTION 22 0010

PLUMBING SHEET SPECIFICATION (NEW BLDG - NAT GAS)

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Perform all labor and furnish all materials, fixtures and equipment required to provide a complete plumbing installation as indicated on the drawings. Include furnishing and installing all miscellaneous items required for the operation of the systems, whether specifically called for or not. Connect all equipment furnished under other trades as required. Determine in advance the shut-down of existing utilities.

1.02 INSPECTION AND TESTS

A. Furnish Architect with certificate of inspection and approval by local authorities and required test reports prior to final acceptance of the project by the Architect. All work must be inspected and tested per local code requirements.

1.03 PROJECT COORDINATION

A. All Contractors shall be responsible for coordinating Work with other trades and for cutting and re-finishing of existing walls, floors, solid and suspended ceilings, etc., where required by Work shown and noted herein. Install all Work to clear new and existing architectural and structural members. Items such as pipe, fittings, etc., shall not be installed in conflict with equipment. Coordinate all cutting and patching with the General Contractor. Subcontractor shall be responsible for all cutting and patching of his Work. Obtain written permission of Architect before proceeding with any cutting or patching of structural systems.

B. Any discrepancies which may affect the Contractor's bid shall be brought to the attention of the Engineer and Architect.

C. During construction, coordinate use of site and facilities and work sequence to meet the project requirements.

D. The Contractor shall coordinate with Electrical Subcontractor to insure proper electrical hookup for all plumbing equipment.

E. The Contractor shall coordinate with Mechanical Subcontractor to insure gas hookup for gas fired equipment.

F. Final location, quantity and type of fixtures shall be determined from the Architectural plans.

G. Final positioning of water heaters shall be per manufacturers installation instructions.

1.04 SUBMITTALS

A. See Architectural Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on pipe materials, pipe fittings, plumbing fixtures, plumbing specialties, valves, insulation, and accessories. Provide manufacturers' catalog information. Indicate valve data and ratings.

C. Project Record Documents: Provide two (2) sets of Record Documents and two (2) bound sets of all operation manuals, diagrams, service contracts, guarantees, etc. for Owner's use. Record actual locations of all piping, valves or equipment and incorporate into the Record Documents to show the final "Installed" conditions.

D. Submit only those manufacturers listed on the drawings or in the specific section unless prior approval was obtained.

E. Submit shop drawings and product data grouped to include complete submittals of related systems, products, and accessories in a single submittal. Partial submittals will not be reviewed by the Engineer.

F. Mark dimensions and values in units to match those specified.

G. Clearly identify specific components on multi-item equipment or data sheets.

H. The Installing Contractor shall review all submittals for compliance with plans and specifications. The contractor shall stamp each item in the submittal indicating that the review process has been completed.

I. Any discrepancies in the submittals from the requirements of the plans and specifications shall be noted by the Installing Contractor. If major discrepancies, errors, or product omissions are found, the Installing Contractor shall correct the submittals before forwarding for review by the Engineer.

1.05 REQUEST FOR INFORMATION

A. Requests for information are to be submitted to the Architect/Engineer by the General Contractor.

B. Sufficient back-up information shall be included to describe the situation. Where possible a suggested solution shall be included to facilitate response time.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of experience.

B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years of experience.

C. Valves: Manufacturer's name and pressure rating marked on valve body.

D. Welding Materials and Procedures: Conform to ASME (BPV IX) and applicable state labor regulations.

E. Welders Certification: In accordance with ASME (BPV IX).

F. Identify pipe with marking including size, ASTM material classification, ASTM specification, potable water certification, water pressure rating.

1.07 REGULATORY REQUIREMENTS

A. All materials, equipment and installation must comply with all applicable laws, codes, rules, and regulations, required by City, County and State, as well as Federal requirements.

B. Conform to applicable code for installation of backflow prevention devices.

C. Provide certificate of compliance from authority having jurisdiction indicating approval of installation of backflow prevention devices.

1.08 DELIVERY, STORAGE, AND PROTECTION

A. Accept valves on site in shipping containers with labeling in place. Inspect for damage.

B. Provide temporary protective coating on cast iron and steel valves.

C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.

D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system.

1.09 WARRANTY

A. Contractor shall guarantee all materials, equipment and workmanship from defect and shall replace or repair, without additional cost to the Owner, all defective material, equipment and workmanship for a period of one year after Date of Substantial Completion.

B. Submit manufacturers' warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

PART 2 PRODUCTS

2.01 APPROVED MANUFACTURERS

A. Manufacturers as indicated in these documents are approved for use in this project under the terms and conditions shown on the plans and in these specifications. Deviations from the drawings and specifications will not be allowed.

B. Substitutions of materials or products shown herein shall be at the Owner's, Architect's or Engineer's written approval only and must be made in accordance with the Architect's requirements.

2.02 SANITARY SEWER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Cast Iron Pipe: CISPI 301, hubless.
1. Fittings: Cast iron.
2. Joints: CISPI 310, neoprene gasket and stainless steel clamp and shield assemblies.

B. PVC Pipe: ASTM D 2665 or ASTM D 3034.
1. Fittings: PVC.
2. Joints: Solvent welded, with ASTM D 2564 solvent cement.

2.03 SANITARY SEWER PIPING, ABOVE GRADE

A. Cast Iron Pipe: CISPI 301, hubless, service weight.
1. Fittings: Cast iron.
2. Joints: CISPI 310, neoprene gaskets and stainless steel clamp-and-shield assemblies.

2.04 WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Copper Pipe: ASTM B 42, hard drawn. Type K.
1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22 wrought copper and bronze.
2. Joints: ASTM B 32, alloy Sn95 solder.

2.05 WATER PIPING, ABOVE GRADE

A. Copper Tube: ASTM B 88 (ASTM B 88M), Type L (B), Drawn (H).
1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper and bronze.
2. Joints: ASTM B 32, alloy Sn95 solder.

2.06 STORM WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Cast Iron Pipe: CISPI 301, hubless, service weight.
1. Fittings: Cast iron.
2. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies.

B. PVC Pipe: ASTM D 2665 or ASTM D 3034.
1. Fittings: PVC.
2. Joints: Solvent welded, with ASTM D 2564 solvent cement.

2.07 STORM WATER PIPING, ABOVE GRADE

A. Cast Iron Pipe: CISPI 301, hubless, service weight.
1. Fittings: Cast iron.
2. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies.

2.08 NATURAL GAS PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Steel Pipe: ASTM A 53/A 53M Schedule 40 black.
1. Fittings: ASTM A 234/A 234M, wrought steel welding type, with AWWA C105/A21.5 polyethylene jacket or double layer, half-lapped 10 mil (0.25 mm) polyethylene tape.
2. Joints: ASME B31.9, welded.
3. Jacket: AWWA C105/A21.5 polyethylene jacket or double layer, half-lapped 10 mil polyethylene tape.

2.09 NATURAL GAS PIPING, ABOVE GRADE

A. Steel Pipe: ASTM A 53/A 53M Schedule 40 black.
1. Fittings: ASME B16.3, malleable iron, or ASTM A 234/A 234M, wrought steel welding type.
2. Joints: NFPA 54, threaded or welded to ASME B31.9.

2.10 FLANGES, UNIONS, AND COUPLINGS

A. Unions for Pipe Sizes 2 inches and Under:
1. Ferrous pipe: Class 150 malleable iron threaded unions.
2. Copper tube and pipe: Class 150 bronze unions with soldered joints.

B. Flanges for Pipe Size Over 2 inches:
1. Ferrous pipe: Class 150 malleable iron threaded or forged steel slip-on flanges; preformed neoprene gaskets.
2. Copper tube and pipe: Class 150 slip-on bronze flanges; preformed neoprene gaskets.

C. Dielectric Connections: Union with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

2.11 PIPE HANGERS AND SUPPORTS

A. Plumbing Piping - Drain, Waste, and Vent:
1. Conform to ASME B31.9.
2. Hangers for Pipe Sizes 1/2 Inch to 1-1/2 Inches: Malleable iron, adjustable swivel, split ring.
3. Hangers for Pipe Sizes 2 Inches and Over: Carbon steel, adjustable, clevis.
4. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.
5. Wall Support for Pipe Sizes to 3 Inches: Cast iron hook.
6. Wall Support for Pipe Sizes 4 Inches and Over: Welded steel bracket and wrought steel clamp.
7. Vertical Support: Steel riser clamp.
8. Floor Support: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
9. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

B. Plumbing Piping - Water:
1. Conform to ASME B31.9.
2. Hangers for Pipe Sizes 1/2 Inch to 1-1/2 Inch: Malleable iron, adjustable swivel, split ring.
3. Hangers for Cold Pipe Sizes 2 Inches and Over: Carbon steel, adjustable, clevis.
4. Hangers for Hot Pipe Sizes 2 Inches to 4 Inches: Carbon steel, adjustable, clevis.
5. Multiple or Trapeze Hangers: Steel channels with welded supports or spacers and hanger rods.
6. Multiple or Trapeze Hangers for Hot Pipe Sizes 6 Inches and Over: Steel channels with welded supports or spacers and hanger rods, cast iron roll.
7. Wall Support for Pipe Sizes to 3 Inches: Cast iron hook.
8. Wall Support for Pipe Sizes 4 Inches and Over: Welded steel bracket and wrought steel clamp.
9. Vertical Support: Steel riser clamp.
10. Floor Support for Cold Pipe: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
11. Floor Support for Hot Pipe Sizes to 4 Inches: Cast iron adjustable pipe saddle, locknut, nipple, floor flange, and concrete pier or steel support.
12. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

2.12 BALL VALVES

A. Manufacturers: Apollo, Nibco, Milwaukee Valve Company

B. Construction, Up to and including 1 Inch (25 mm): MSS SP-110, Class 150, 400 psi (2760 kPa) CWP, bronze, two piece body, chrome plated brass ball, full port, teflon seats and stuffing box ring, blow-out proof stem, lever handle, solder or threaded ends.

C. Construction, 1-1/2 Inch (38 mm) to 3 Inches (75 mm): MSS SP-110, Class 150, 400 psi (2760 kPa) CWP, bronze, two piece body, chrome plated brass ball, standard port, teflon seats and stuffing box ring, blow-out proof stem, lever handle, solder or threaded ends.

2.13 BUTTERFLY VALVES

A. Manufacturers: Crane Valve, Milwaukee Valve Company

B. Construction 4 Inch (100 mm) and Larger: MSS SP-67, 200 psi (1380 kPa) CWP, cast or ductile iron body, nickel-plated ductile iron disc, resilient replaceable EPDM seat, wafer ends, extended neck, 10 position lever handle.

2.14 FLOW CONTROLS

A. Manufacturers: Griswold Controls

B. Construction: Class 125, Brass or bronze body with union on inlet , temperature and pressure test plug on inlet , blowdown/backflush drain.

C. Calibration: Control flow within 5 percent of selected rating, over operating pressure range of 10 times minimum pressure required for control, maximum minimum pressure.

2.15 SWING CHECK VALVES

A. Manufacturers: Nibco, Milwaukee Valve Company

B. Up to 2 Inches (50 mm):
1. MSS SP-80, Class 125, bronze body and cap, bronze swing disc with rubber seat, solder or threaded ends.

C. Over 2 Inches (50 mm):
1. MSS SP-71, Class 125, iron body, bronze swing disc, renewable disc seal and seat, flanged or grooved ends.

2.16 SPRING LOADED CHECK VALVES

A. Manufacturers: Crane Valve, Milwaukee Valve Company

B. Class 125, iron body, bronze trim, stainless steel springs, bronze disc, Buna N seals, wafer style ends.

2.17 WATER PRESSURE REDUCING VALVES

A. Manufacturers: Amtrol, Cla-Val, Watts

B. Up to 2 Inches:
1. MSS SP-80, bronze body, stainless steel and thermoplastic internal parts, fabric reinforced diaphragm, strainer, threaded double union ends.

C. Over 2 Inches:
1. MSS SP-85, cast iron body, bronze fitted, elastomeric diaphragm and seat disc, flanged.

2.18 RELIEF VALVES

A. Temperature and Pressure Relief:
1. Manufacturers: Cla-Val, Henry Valve, Watts
2. AGA Z21.22 certified, bronze body, teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, temperature relief maximum 210 degrees F, capacity ASME (BPV IV) certified and labeled.

2.19 CLEANOUTS

A. Manufacturers: Jay R. Smith, Josam, Zurn

B. Cleanouts at Exterior Surfaced Areas::
1. Round cast nickel bronze access frame and non-skid cover.
Class 150, threaded bronze body 300 psi (2070 kPa) CWP, Y pattern with 1/32 inch (0.8 mm) stainless steel perforated screen.

C. Cleanouts at Exterior Unsurfaced Areas:
1. Line type with lacquered cast iron body and round epoxy coated gasketed cover.

D. Cleanouts at interior Finished Floor Areas:
1. Lacquered cast iron body with anchor flange, threaded top assembly, and round gasketed scored cover in service areas and gasketed depressed cover to accept floor finish in finished floor areas.

E. Cleanouts at Interior Finished Wall Areas:
1. Line type with lacquered cast iron body and round epoxy coated gasketed cover, and round stainless steel access cover secured with machine screw.

F. Cleanouts at Interior Unfinished Accessible Areas: Calked or threaded type. Provide bolted stack cleanouts on vertical rainwater leaders.

2.20 WATER HAMMER ARRESTORS

A. Manufacturers: Jay R. Smith, Josam, Zurn

B. Water Hammer Arrestors:
1. Copper construction bellows type sized in accordance with PDI-WH 201, precharged suitable for operation in temperature range; 34 to 250 degrees F and maximum 150 psi working pressure.

2.21 PIPE INSULATION

A. Glass Fiber
1. Manufacturers: Knauf, Johns Manville, Owens Corning
2. Insulation: ASTM C 547 ; rigid molded, noncombustible.
a. 'K' ('Ksi') value: ASTM C 177, 0.24 at 75 degrees F (0.035 at 24 degrees C).
b. Maximum service temperature: 850 degrees F (454 degrees C).
c. Maximum moisture absorption: 0.2 percent by volume.
3. Insulation: ASTM C 547 ; semi-rigid, noncombustible, end grain adhered to jacket.
a. 'K' ('Ksi') value: ASTM C 177, 0.24 at 75 degrees F (0.035 at 24 degrees C).
b. Maximum service temperature: 650 degrees F (343 degrees C).
c. Maximum moisture absorption: 0.2 percent by volume.
4. Vapor Barrier Jacket: White kraft paper with glass fiber yarn, bonded to aluminized film, secured with self sealing longitudinal laps and butt strips or AP jacket with outward clinch expanding staples coated with vapor barrier mastic as needed.

B. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E 84, NFPA 255, or UL 723.

C. Insulate all hot water supply and return piping with 1 inch insulation for pipe sizes under 1-1/2". Insulate all hot water supply and return piping with 1-1/2 inch insulation for pipe sizes of 1-1/2" and over.

D. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.

PART 3 EXECUTION

3.01 PREPARATION

A. Ream pipe and tube ends. Remove burrs.

B. Remove scale and dirt, on inside and outside, before assembly.

C. Prepare piping connections to equipment with flanges or unions.

3.02 INSTALLATION

A. Drawings (plans, schematics and diagrams) indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing and other design considerations. Install piping as indicated, except where deviations to layout are approved on coordination drawings.

B. Install in accordance with manufacturer's instructions.

C. Provide non-conducting dielectric connections wherever jointing dissimilar metals.

D. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.

E. Install piping to maintain headroom, conserve space, and not interfere with use of space.

F. Group piping whenever practical at common elevations.

G. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.

H. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings.

I. Provide access where valves and fittings are not exposed.

J. All vent piping penetrating roofed areas to maintain 10'-0" from all air intakes.

K. Combine vents where possible to minimize number of roof penetrations.

L. Install vent piping penetrating roofed areas to maintain integrity of roof assembly.

M. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.

N. Provide support for utility meters in accordance with requirements of utility companies.

O. Install valves with stems upright or horizontal, not inverted.

P. Pipe vents from gas pressure reducing valves to outdoors and terminate in weatherproof hood.

Q. Install water piping to ASME B31.9.

R. Sleeve pipes passing through partitions, walls and floors.

S. Pipe Hangers and Supports:
1. Install in accordance with ASME B31.9.
2. Support horizontal piping as scheduled.
3. Install hangers to provide minimum 1/2 inch (15 mm) space between finished covering and adjacent work.
4. Place hangers within 12 inches (300 mm) of each horizontal elbow.
5. Use hangers with 1-1/2 inch (40 mm) minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe.
6. Support vertical piping at every floor. Support riser piping independently of connected horizontal piping.
7. Where several pipes can be installed in parallel and at same elevation, provide multiple or trapeze hangers.
8. Provide copper plated hangers and supports for copper piping.
9. Prime coat exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.
10. Provide hangers adjacent to motor driven equipment with vibration isolation.
11. Support cast iron drainage piping at every joint.

T. Pipe Hanger Spacing:
1. Metal Piping:
a. Pipe size: 1/2 inches (15 mm) to 1-1/4 inches (32 mm):
1) Maximum hanger spacing: 6.5 ft (2 m).
2) Hanger rod diameter: 3/8 inches (9 mm).
b. Pipe size: 1-1/2 inches (40 mm) to 2 inches (50 mm):
1) Maximum hanger spacing: 10 ft (3 m).
2) Hanger rod diameter: 3/8 inch (9 mm).
c. Pipe size: 2-1/2 inches (65 mm) to 3 inches (75 mm):
1) Maximum hanger spacing: 10 ft (3 m).
2) Hanger rod diameter: 1/2 inch (13 mm).
d. Pipe size: 4 inches (100 mm) to 6 inches (150 mm):
1) Maximum hanger spacing: 10 ft (3 m).
2) Hanger rod diameter: 5/8 inch (15 mm).

U. Encase exterior cleanouts in concrete flush with grade.

V. Install floor cleanouts at elevation to accommodate finished floor.

W. Install water hammer arrestors complete with accessible isolation valve on hot and cold water supply piping to each group of fixtures.

X. All piping passing through walls, floors and ceilings that are fire rated must be adequately sealed. The Contractor has the responsibility of reviewing the Architectural Drawings and determining the location of all fire rated walls, partitions, ceilings and floors and to provide the required sealants at penetrations.

Y. Install each fixture with trap, easily removable for servicing and cleaning.

Z. Provide chrome plated rigid or flexible supplies to fixtures with stops, reducers, and escutcheons.

AA. Install components level and plumb.

AB. Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

AC. Review millwork shop drawings. Confirm location and size of fixtures and openings before rough-in and installation.

AD. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

AE. At the completion of the Work and prior to final acceptance, all parts of the Work installed under this specification shall be thoroughly cleaned. All equipment, fixtures, pipe, valves and fittings shall be cleaned of grease, metal cuttings and sludge which may have accumulated by operation of the system for testing or from other causes.

3.03 APPLICATION

A. Use grooved mechanical couplings and fasteners only in accessible locations.

B. Install unions downstream of valves and at equipment or apparatus connections.

C. Install brass male adapters each side of valves in copper piped system. Solder adapters to pipe.

D. Install ball or butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.

E. Install ball or butterfly valves for throttling, bypass, or manual flow control services.

F. Provide spring loaded check valves on discharge of water pumps.

G. Provide gas ball valves in natural gas systems for shut-off service.

H. All plumbing fixtures shall be provided with water saving flow control devices to meet all Federal, State, and local water conservation laws.

3.04 INVERT ELEVATIONS

A. Drainage Piping: Establish invert elevations within 1/2 inch (10 mm) vertically of location indicated and slope to drain at minimum of 1/4 inch per foot (1:50) slope.

B. Drainage Piping: Verify invert elevations of all existing sewer lines to which new lines are to be connected prior to installation of any new work.

3.05 TESTING OF GAS PIPING

A. Air pressure test system to 75 PSI and maintain for a period of eight (8) hours with no pressure drop.

B. Purge line with nitrogen at junction with main line at gas meter to remove all air. Clear complete line by attaching a test pilot fixture at capped stub-in line at building location and let gas flow until test pilot ignites. CAUTION, failure to purge system may result in explosion within line when air-to-gas is at correct mixture.

C. Test and obtain approval on all underground piping before covering work. Provide written testing report to Architect.

3.06 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

A. Prior to starting work, verify system is complete, flushed and clean.

B. Inject disinfectant, free chlorine in liquid, powder, tablet or gas form, throughout system to obtain 50 to 80 mg/L residual.

C. Bleed water from outlets to ensure distribution and test for disinfectant residual at minimum 15 percent of outlets.

D. Maintain disinfectant in system for 24 hours.

E. If final disinfectant residual tests less than 25 mg/L, repeat treatment.

F. Flush disinfectant from system until residual equal to that of incoming water or 1.0 mg/L.

G. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C651.

END OF SECTION

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) JON@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

PLUMBING SPECIFICATIONS

Date	10/08/18

P400

Scale	AS SHOWN

02/07/2019 5:48:06 PM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

MECHANICAL LEGEND

SINGLE	DOUBLE	ABBR.	DESCRIPTION
		○	RECTANGULAR DUCT (NEW)
		○	TRANSITION
		○	ROUND DUCT (NEW) (OR OVAL) Ø RD ⌀ OVAL
		○	RECTANGULAR DUCT (EXISTING)
		○	ROUND DUCT (EXISTING)
		○	45 DEG. TAP: USE AT BRANCH DUCTS ONLY
		○	DUCT SPLIT W/DAMPER: USE AT ELBOWS AND TEES: PROPORTION DUCT AREAS BY CFM'S
		○	CURVED ELBOW–MIN. RADIUS R: 1.5 WIDTH
		○	90 DEG. ELBOW WITH SINGLE RADIUS TURNING VANES
		○	FLEXIBLE DUCT CONNECTION
		VD	VOLUME DAMPER W/LOCKING QUADRANT
		○	SPIN–IN FLEX DUCT TAKE–OFF W/DAMPER
		S&Q	SPLITTER DAMPER WITH LOCKING QUADRANT
○		SA	SUPPLY AIR
○		EXH	EXHAUST AIR
○		RA	RETURN AIR
○		REL	RELIEF AIR
○		OSA	OUTSIDE AIR
○		○	NEW CONNECTION TO EXISTING
○	○	TA	TRANSFER AIR
○	○	ER	EXHAUST REGISTER
○	○	ED	EXHAUST DUCT
○	○	AFF	ABOVE FINISHED FLOOR
○	○	BFF	BELOW FINISHED FLOOR
○	○	NTS	NOT TO SCALE
○	○	EH	EXHAUST HOOD
○	T	T	THERMOSTAT
		F/S	COMBINATION FIRE/SMOKE DAMPER
		SD	SMOKE DUCT DETECTOR
F	F	○	FIRE STAT SET AT 165°
⊘	⊘	○	OUTSIDE AIR STAT
S	S	○	SENSOR

MECHANICAL NOTES

1. 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 GUIDE, AND ALL LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS.
2. DUCTS SHALL BE FABRICATED OF PRIME GALVANIZED LOCK FORMING QUALITY STEEL SHEETS, OR A GAUGE IN ACCORDANCE WITH THE FOLLOWING TABLE:
   - DUCTS WITH LONGEST SIDE NOT MORE THAN 12" IN WIDTH..26 GA
   - DUCTS WITH LONGEST SIDE 13" TO 30" IN WIDTH.....24 GA
   - DUCTS WITH LONGEST SIDE 31" TO 40" IN WIDTH.....22 GA
   - DUCTS WITH LONGEST SIDE OVER 40".....20 GA
3. PROVIDE RADIUS ELBOWS, TURNING VANES, AND SPLITTER DAMPERS IN BRANCHES AND EXTRACTORS WHERE APPLICABLE.
4. DUCT SIZES SHOWN ARE "CLEAR INSIDE" DIMENSIONS.
5. PREFORM A TOTAL TEST AND BALANCE OF SYSTEM. TESTING COMPANY MUST BE CERTIFIED BY AABC OR NEBB. SUBMIT A CERTIFIED REPORT TO ARCH. 10 DAYS PRIOR TO C OF O WITH A COPY TO CITY INSPECTOR.
6. ALL DUCTWORK TO BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH "ASHRAE GUIDE AND SMACNA OR IMC (2012) STANDARDS". SEAL ALL DUCTWORK, LONGITUDINAL AND LATITUDINAL JOINTS WITH DP–1010 SEALANT (PER 2018 IECC).
7. EXACT PLACEMENT OF DIFFUSERS AND REGISTERS TO BE COORDINATED WITH ARCHITECTURAL – REFLECTED CEILING PLAN.
8. CONTRACTOR TO VERIFY LOCATION OF ALL AIR EQUIPMENT SO THAT NO INTERFERENCE ARE ENCOUNTERED WITH OTHER EQUIPMENT OR WITH STRUCTURAL ELEMENTS.
9. MECHANICAL CONTRACTOR TO VERIFY THAT ALL DUCTWORK WILL FIT WHERE INDICATED WITHOUT INTERFERENCE.
10. CONTRACTOR AND ARCHITECT TO VERIFY T–STAT LOCATIONS.
11. THERMOSTATS MUST BE LOCATED 48" ABOVE FINISHED FLOOR. (TO CENTERLINE OF THERMOSTAT) T–STATS SHALL BE 7 DAY PROGRAMMABLE WITH SET–BACK CAPABILITIES (PER 2018 IECC).
12. MECHANICAL CONTRACTOR SHALL INSULATE ALL NEW SUPPLY AND RETURN AIR DUCTWORK LOCATED WITHIN AN ATTIC SPACE WITH MIN. R–6 INSULATION, ALL NEW SUPPLY AIR DUCTWORK LOCATED WITHIN A PLENUM SPACE WITH MIN. R–6 INSULATION AND/OR ANY DUCTWORK EXPOSED TO THE EXTERIOR WITH MIN. R–8 INSULATION (PER 2012 IECC). INSULATION NOT REQUIRED FOR SUPPLY/RETURN AIR DUCTWORK LOCATED WITHIN A PLENUM SPACE WHERE THE ENVELOPE INSULATION IS MIN. R–8 OR ANY EXHAUST DUCT.
13. HVAC CONTRACTOR SHALL REPLACE ALL FILTERS UPON COMPLETION OF CONSTRUCTION. THIS INCLUDES FILTERS AT ALL NEW UNITS AND FILTERS AT ALL EXISTING UNITS AFFECTED BY CONSTRUCTION.

SPLIT SYSTEM HEAT PUMP – 208/1 – HIGH EFFICIENCY (15+ SEER)

MARK	MANUF./ MODEL #		INDOOR UNIT					OUTDOOR UNIT			EER/ SEER	CYCLE	HEATING/COOLING CAPACITIES						UNIT WEIGHT LBS		REMARKS
	INDOOR	OUTDOOR	TOTAL CFM	OA CFM	ESP IWG	HP	VOLT/ø	MCA	MOCP	VOLT/ø			ENT AIR		AMBIENT		BTUH		INDOOR	OUTDOOR	
													DB	WB	DB	WB	TOTAL	SENS.			
1,2	CARRIER FX4DNF049	CARRIER 25HBC548	1600	–	0.5	3/4	230/1	28.5	40	230/1	15.0/12.5	COOL	80	63	115	71	39.6	38.0	185	260	
												HEAT	70	–	30	–	35.9	–			
3	CARRIER FX4DNF061	CARRIER 25HBC560	1880	–	0.5	3/4	230/1	34.2	50	230/1	15.0/12.5	COOL	80	63	115	71	47.8	45.8	201	294	
												HEAT	70	–	30	–	43.2	–			

1. PROVIDE WITH 1" FACTORY FILTER RACK AND 1" PLEATED 'FARR' 30/30 TYPE FILTERS.
2. PROVIDE WITH 7 DAY PROGRAMMABLE THERMOSTAT, SUB–BASE AND LOCKING COVER.
3. A 24V DUCT MOUNTED SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. FIRE ALARM SYSTEM WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR. LOW VOLTAGE SHUTDOWN WIRING TO UNIT SHALL BE BY MECHANICAL CONTRACTOR. CEILING MOUNTED STATUS LED SHALL BE FURNISHED, INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS FOR DETAILS.

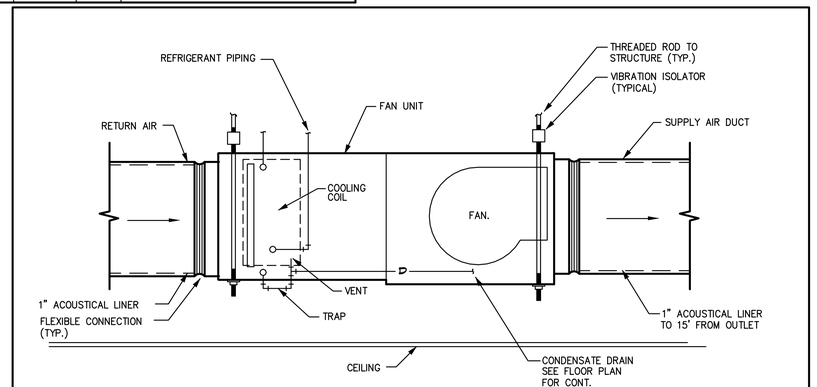
CITY OF PHOENIX CODES ADOPTED AT THIS TIME ARE THE 2018 IMC AND 2018 IECC.

EXHAUST FAN SCHEDULE

MARK	MANUF./ MODEL #	TYPE	CFM	E.S.P.	HP	VOLT ø	B.D.D.	DRIVE	OPER. WT.	REMARKS
1	GREENHECK SPA–50	CLG.	50	0.25	77W	120/1	YES	DIRECT	25	

GRILLE, REGISTER & DIFFUSER SCHEDULE

MARK	MANUF./ MODEL #	DESCRIPTION	FRAME	STYLE	FINISH	MATERIAL	DAMPER	MAX. NC	REMARKS
CD–1	PRICE SMD	DIFFUSER	DUCT MTD	LOUVER	WHITE	STEEL	OBD	30	
RG–1	PRICE 535	RETURN GRILLE	SURF.	LOUVER	WHITE	STEEL	–	30	
SR–1	PRICE 525DL	SIDE WALL SUPPLY GRILLE	DUCT MTD	BAR	WHITE	STEEL	OBD	30	SIZE PER PLAN



FAN COIL MOUNTING DETAIL NTS

2018 IECC MECHANICAL COMPLIANCE NOTES:

HVAC SYSTEM(S)

1. MINIMUM HEATPUMP EFFICIENCY 13 SEER.
2. ALL HEAT PUMPS WITH SUPPLEMENTAL STRIP HEATERS MUST UTILIZE HEAT PUMP THERMOSTAT TO PREVENT STRIP HEATERS FROM ENERGIZING IF HEAT PUMP CAN ACCOMMODATE THE LOAD.

GENERAL REQUIREMENTS

1. ALL THERMOSTATS PROVIDED MUST BE FULLY PROGRAMMABLE WITH SETBACK OPERATIONS.
2. ALL EXHAUST SYSTEMS SHALL HAVE BAROMETRIC DAMPERS TO CLOSE WHEN NOT IN OPERATION.
3. OSA SYSTEMS IN EXCESS OF 3000 CFM SHALL AUTOMATICALLY CLOSE WHEN NOT IN OPERATION.
4. OSA SYSTEM DESIGNED TO COMPLY WITH MINIMUM OSA REQUIREMENTS PER CHAPTER 4 OF THE 2018 IMC.
5. INSULATE ALL SUPPLY AND RETURN DUCTS LOCATED WITHIN ATTIC SPACE WITH MINIMUM R–5 INSULATION, ALL SUPPLY DUCTS LOCATED WITHIN PLENUM SPACE WITH MINIMUM R–5 INSULATION AND/OR ANY DUCTWORK EXPOSED TO EXTERIOR TO BE INSULATED WITH MINIMUM R–8 INSULATION. EXHAUST DUCTS DO NOT REQUIRE ANY INSULATION.
6. ALL JOINTS SEAMS AND CONNECTIONS IN DUCTWORK SYSTEM TO BE SECURELY SEALED USING WELDMENTS, MECHANICAL FASTENERS WITH SEALS, GASKETS, MASTICS OR TAPES. TAPES AND MASTICS MUST BE UL 181(A) OR (B) LISTED.
7. MECHANICAL FASTENERS AND SEALS, MASTICS OR GASKETS MUST BE USED WHEN CONNECTING DUCTS TO FANS OF OTHER AIR DISTRIBUTION EQUIPMENT.
8. OPERATION AND MAINTENANCE DOCUMENTATION TO BE PROVIDED TO OWNER AT COMPLETION OF PROJECT. OWNER MAY WITHHOLD FINAL PAYMENT PENDING RECEIPT OF DOCUMENTATION.
9. EACH SUPPLY AIR OUTLET, DIFFUSER OR VAV BOX SHALL HAVE ITS OWN BALANCING DEVICE.

LOAD CALCULATIONS WERE PERFORMED USING
THE CARRIER HAP PROGRAM BASED ON ASHRAE FUNDAMENTALS
THE SPLIT SYSTEM UNITS HAVE FIXED HEATING
CAPAPCITY, UNIT SIZES ARE BASED ON UNIT COOLING SENSIBLE CAPACITY
REDUCED LIGHTING POWER IS THE ADDITIONAL ENERGY SAVING FEATURE USED.

UNIT	SENSIBLE LOAD	UNIT CAPACITY
FC/CU–1,2	72	76
FC/CU–3	43	46

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PETERSON ASSOCIATES CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

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CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
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2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
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(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

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-	CITY SUBMITTAL	03.06.19

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

MECHANICAL SCHEDULES

Date	03/06/19

M001

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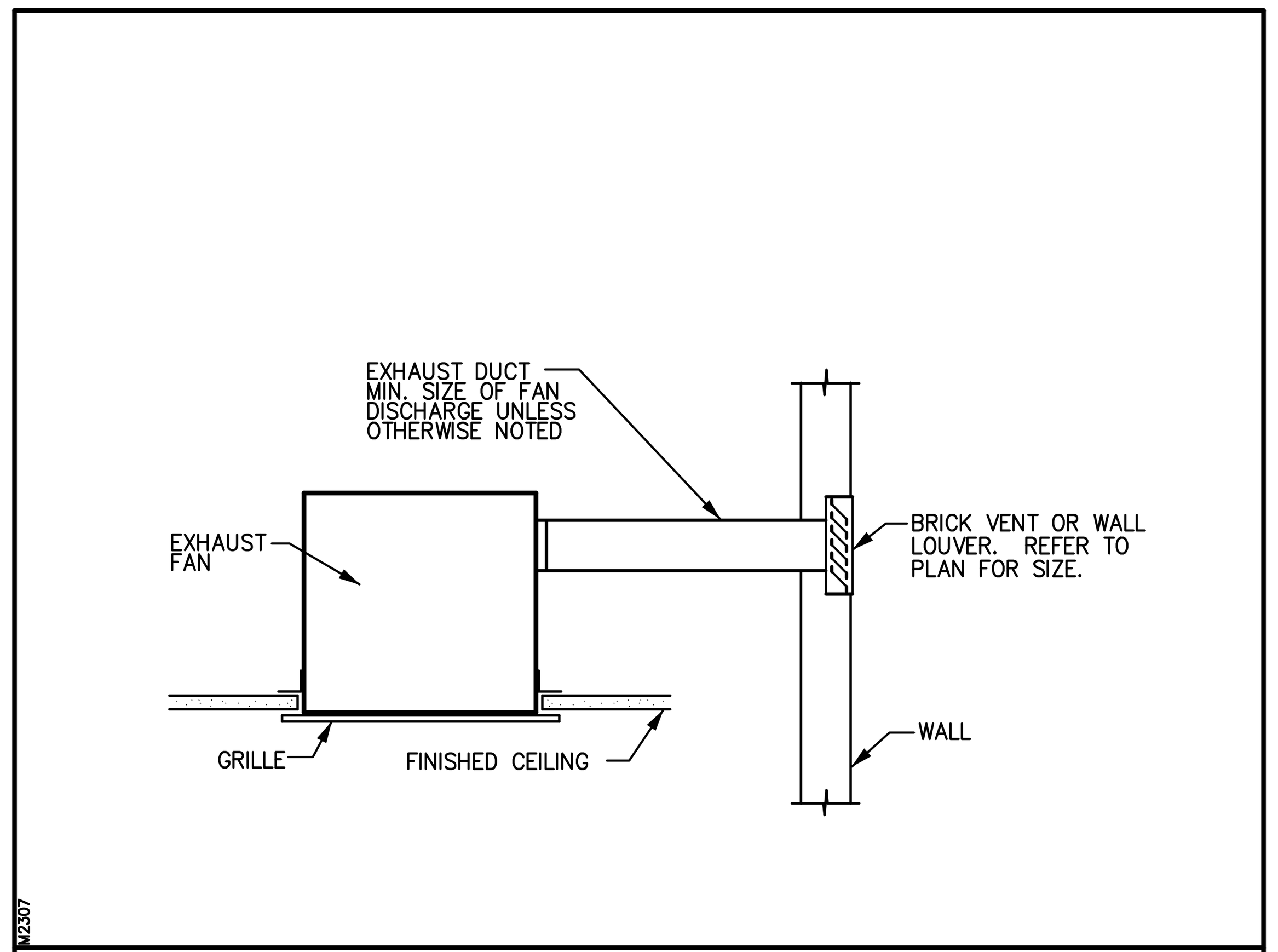

EXHAUST FAN DETAIL

NTS

COMcheck Software Version 4.1.1.0
Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Wanderist
Location: Phoenix, Arizona
Climate Zone: 2b
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Mechanical Systems List

Quantity	System Type & Description
2	FC/CU 1,2 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 36 kBtu/h, Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 38 kBtu/h, Proposed Efficiency = 15.00 SEER, Required Efficiency: 14.00 SEER Fan System: None
1	FC/CU 3 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 43 kBtu/h, Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 46 kBtu/h, Proposed Efficiency = 15.00 SEER, Required Efficiency: 14.00 SEER Fan System: None

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COM*check* Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date 03.04.2019

Project Title: Wanderist
Data filename: W:\Large\2019\197090 Wanderist Building\ComCheck\mech.cck

Report date: 03/04/19
Page 1 of 10

OUTSIDE AIR CALCULATION (PER 2018 IMC, TABLE 403.3)

Ez = .8 Ez = .8

ZONE #	OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY #/1,000 FT²	SYSTEM #	# OF FIXTURES	AREA (A_z)		PRIMARY AIR FLOW (V_pz)		OCCUPANTS (P_z)		OSA CFM/FT² (R_A)	OSA CFM/PERSON (R_P)	EXHAUST RATE CFM/FT²	EXHAUST RATE PER/FIXTURE	O.S.A. REQUIRED (V_BZ)	EXHAUST REQUIRED	TOTAL O.S.A. & EXH. MAKEUP REQUIRED	COOLING (V_OZ)	HEATING (V_OZ)	ZONE OUTDOOR AIR FLOW: OUTDOOR AIR FRACTION (COOLING)	ZONE OUTDOOR AIR FLOW: OUTDOOR AIR FRACTION (HEATING)	PRIMARY OUTDOOR AIR FRACTION (Z_P)	SYSTEM VENTILATION EFFICIENCY (E_V)	UNCORRECTED OUTDOOR AIR INTAKE (V_OU)		OUTDOOR AIR INTAKE FLOW RATE (V_OT)		OUTDOOR AIR INTAKE FLOW RATE (V_OT) + EXHAUST MAKEUP AIR	
1	Corridors	0	1		115	FT²	200	CFM	0	People	0.06	0	0	0	7	0	7	9	9	4.50%	4.50%	4.50%	1	126	CFM	126	CFM	126	CFM
2	Office	5	1		126	FT²	200	CFM	1	People	0.06	5	0	0	13	0	13	16	16	8.00%	8.00%	8.00%	1						
3	Warehouses	0	1		1,340	FT²	1,600	CFM	0	People	0.06	0	0	0	80	0	80	101	101	6.31%	6.31%	6.31%	1						
Balance FC-3 to 130 cfm															CFM O.S.A. REQUIRED		126												
															CFM O.S.A. PROVIDED		130												

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Proj. Nam WANDERIST OFFICE & RETAIL

MECHANICAL SCHEDULES

Date 03/06/19

M002

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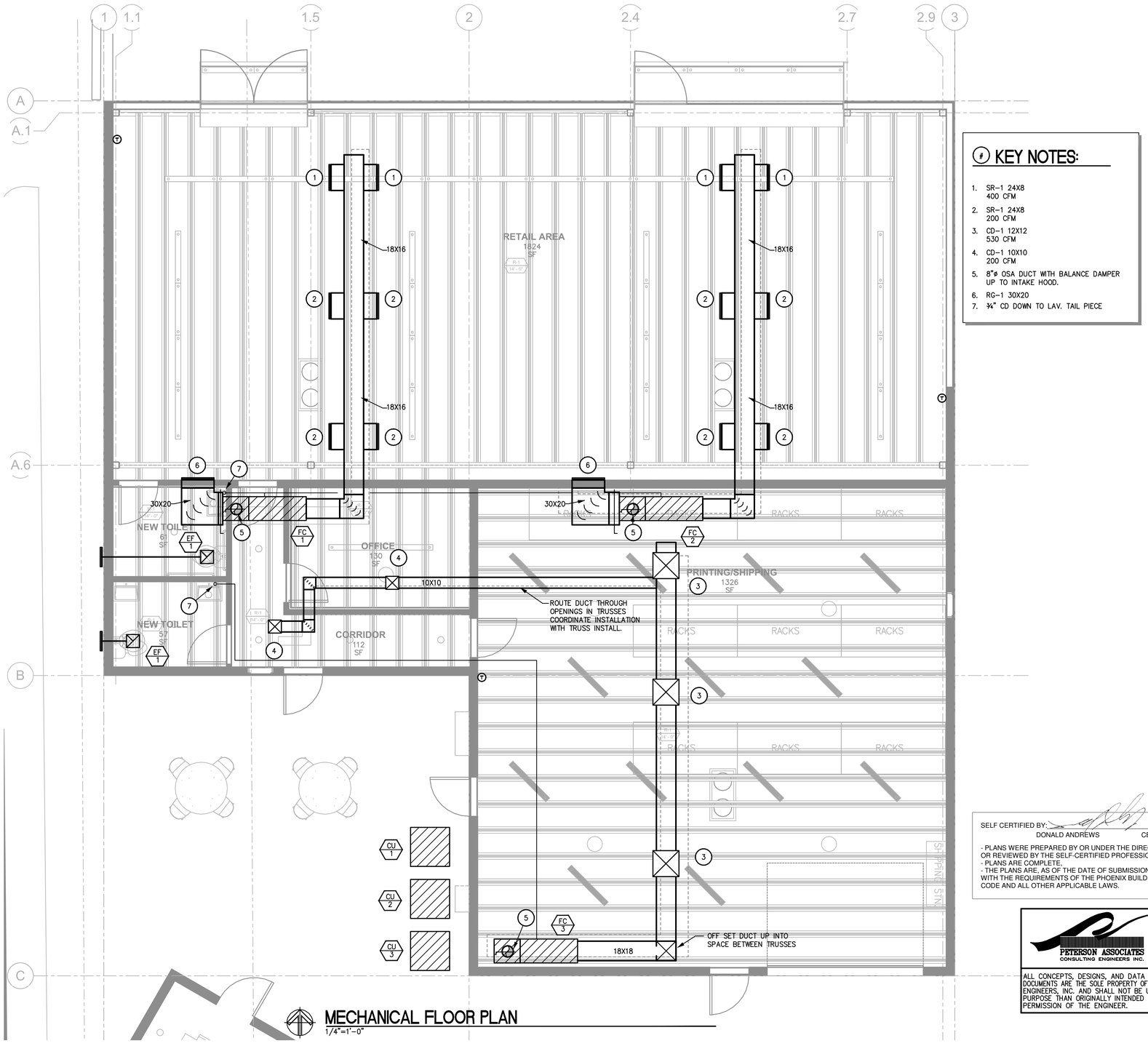
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

RETAIL SALES
15 PEOPLE PER 1000 SQ.FT. AT 7.5 CFM PER SQ. FT. PLUS .12 CFM PER SQ.FT.
= 15 X 1.8 + .12 X 1800
= 27 + 216
= 243 CFM
= Ez = .8
= 243/8
= 304 CFM
BALANCE FC-1 AND 2 EACH TO 155 CFM
= 310 CFM PROVIDED.



KEY NOTES:

1. SR-1 24X8
   400 CFM
2. SR-1 24X8
   200 CFM
3. CD-1 12X12
   530 CFM
4. CD-1 10X10
   200 CFM
5. 8"ø OSA DUCT WITH BALANCE DAMPER UP TO INTAKE HOOD.
6. RG-1 30X20
7. ¾" CD DOWN TO LAV. TAIL PIECE

MECHANICAL FLOOR PLAN
1/4"=1'-0"

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Registered Professional Engineer Mechanical STATE OF ARIZONA 22968 MARK J. PETERSON Date Signed 3/6/19 ARIZONA, U.S.A.

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

MECHANICAL FLOOR PLAN

Date	03/06/19

M200

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SECTION 23 0010

MECHANICAL SHEET (T.I. PACKAGES/SPLITS)

PART 1 GENERAL

1.01 SCOPE OF WORK

A. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complimentary, and what is required by one shall be as binding as if required by all. The Performance by the Contractor shall be required only to the extent consistent with the Contract Documents as reasonably inferable from them as necessary to produce the intended results.

1. The Contractor shall refer to all project drawings and specifications prior to submission of bid and include monies to provide a complete and functioning system. Reference drawings include, but are not necessarily limited to, Civil, Architectural, Structural, Electrical, Plumbing and Fire Protection.
2. Work Included: Unless specified otherwise, provide all labor, materials and equipment necessary for completely finished and operational mechanical systems. Provide all minor incidental items such as offsets, fittings, etc. required as part of the Work even though not specified or indicated. All materials used shall be of domestic manufacturers. No foreign material will be allowed.
3. Description of Systems: The work includes but is not limited to:
   a. Heating, Ventilating and Air Conditioning System(s).
4. Drawings are diagrammatic. Refer to Civil, Electrical, Plumbing, Fire Protection, Architectural and Structural Drawings and specifications for information on equipment furnished and installed by others which may conflict with rough-in or equipment locations. Coordinate Mechanical system components with all other Disciplines' Work. No adjustment in contract price will be made for failure to review or coordinate work prior to fabrication and/or installation.
5. Inconsistencies. In the case of any inconsistency between drawings and specifications or within either document not clarified by addendum, the better quality or greater quantity of work shall be provided in accordance with the Engineer's interpretation.

1.02 INSPECTION AND TESTS

A. Furnish Architect with certificate of inspection and approval by local authorities and required test reports prior to final acceptance of the project by the Architect. All work must be inspected and tested per local code requirements.

1.03 PROJECT COORDINATION

A. All Contractors shall be responsible for coordinating Work with other trades and for cutting and re-finishing of existing walls, floors, solid and suspended ceilings, etc., where required by Work shown and noted herein. Install all Work to clear new and existing architectural and structural members. Items such as pipe, fittings, etc., shall not be installed in conflict with equipment. Coordinate all cutting and patching with the General Contractor. Subcontractor shall be responsible for all cutting and patching of his Work. Obtain written permission of Architect before proceeding with any cutting or patching of structural systems.

B. Any discrepancies which may affect the Contractor's bid shall be brought to the attention of the Engineer and Architect for direction.

C. During construction, coordinate use of site and facilities and work sequence to meet the project requirements.

D. Contractor shall coordinate with Electrical Subcontractor to insure proper electrical voltage requirements for all mechanical equipment.

E. Coordinate exact location of ceiling outlets with lighting plan and Architectural Drawings.

1.04 FIELD VERIFICATION

A. Contractor shall visit the job site and familiarize himself with all existing conditions which may affect his bid. All existing equipment, ductwork, air distribution devices, thermostats, controls and piping are shown on the drawings for reference only. No allowances will be made after the bid for existing conditions or the Contractor's failure to verify existing conditions.

B. The following items shall be verified:

1. Exact placement, size, capacity, manufacturer and condition of all existing HVAC equipment within the scope of work whether specifically shown on the drawings or not.
2. Size and location of all existing ductwork.
3. Structural members which may be in conflict with new work.
4. Size and location of all existing grilles, registers, louvers and diffusers.
5. Type and location of all thermostatic control devices.
6. Size and location of all existing hydronic piping, valves and controls.

C. Any discrepancies which may affect the Contractors bid shall be brought to the attention of the Engineer and Architect for direction.

1.05 SUBMITTALS

A. See Architectural Administrative Requirements, for submittal procedures.

B. Product Data: Provide shop drawings and manufacturers' product data and catalog information on the following:

1. All HVAC equipment, including roof curbs, controls, etc.
2. Air distribution systems, including ductwork, fittings, insulation, fire dampers, diffusers, grilles, balancing dampers, sound attenuators, etc.

C. Project Record Documents: Provide two (2) sets of Record Documents and two (2) bound sets of all operation manuals, diagrams, service contracts, guarantees, etc. for Owner's use. Record actual locations of all ductwork, piping, valves or equipment and incorporate into the Record Documents to show the final "Installed" conditions.

D. Submit only those manufacturers listed on the drawings or in the specific section unless prior approval was obtained.

E. Submit shop drawings and product data grouped to include complete submittals of related systems, products, and accessories in a single submittal. Partial submittals will not be reviewed by the Engineer.

F. Mark dimensions and values in units to match those specified.

G. Clearly identify specific components on multi-item equipment or data sheets.

H. The Installing Contractor shall review all submittals for compliance with plans and specifications. The contractor shall stamp each item in the submittal indicating that the review process has been completed.

I. Any discrepancies in the submittals from the requirements of the plans and specifications shall be noted by the Installing Contractor. If major discrepancies, errors, or product omissions are found, the Installing Contractor shall correct the submittals before forwarding for review by the Engineer.

1.06 REQUEST FOR INFORMATION

A. Requests for information are to be submitted to the Architect/Engineer by the General Contractor.

B. Sufficient back-up information shall be included to describe the situation. Where possible a suggested solution shall be included to facilitate response time.

1.07 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years of experience.

C. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.

1.08 REGULATORY REQUIREMENTS

A. All materials, equipment and installation must comply with all applicable laws, codes, rules, and regulations, required by City, County and State, as well as Federal requirements.

1.09 WARRANTY

A. Contractor shall guarantee all materials, equipment and workmanship from defect and shall replace or repair, without additional cost to the Owner, all defective material, equipment and workmanship for a period of one year after Date of Substantial Completion.

B. Submit manufacturers' warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Manufacturer's names and catalog numbers are scheduled or specified for the purpose of establishing standard of design, quality, appearance, performance and serviceability, and not to limit competition. Scheduled products (as may be modified by detailed specifications) are those selected as the basis for system design with respect to physical size and space arrangements, required capacity and performance characteristics, and the product quality intended.

B. The Drawings indicate specified products physically arranged in the spaces, as cataloged by specific manufacturers, generally as listed in the Equipment Schedules.

C. Listed "Acceptable Manufacturers" are those considered capable of manufacturing products conforming to detailed Specifications, as as such, are invited to compete on an equal basis provided the offering is comparable in every respect to scheduled or specified products and actually conforms to the detailed Specifications and Schedule requirements. Listing herein as "acceptable manufacturers" does not imply "accepted", "approved", "prior approval", or any other such connotation. All product offerings must be submitted for approval after Contract award.

D. Acceptable Manufacturers:

1. Unitary Packaged or Split System Equipment: Trane, Carrier, York
2. Evaporative Coolers: United Metal Products, Mastercool
3. Exhaust and Supply Fans: Greenheck, Cook, Twin City
4. Grilles, Registers and Diffusers: Titus, Krueger, Price

E. Substitutions of materials or products shown herein shall be at the Owner's, Architect's or Engineer's written approval only and must be made in accordance with the Architect's requirements.

2.02 FLAME SPREAD AND SMOKE DEVELOPED PROPERTIES OF MATERIALS

A. Material and adhesives used throughout the mechanical systems for insulation, acoustical lining, filters, ducts, flexible connections, and jackets or coverings regardless of kind, or for piping or continued combustion and with a smoke developed rating not higher than 50. If such materials are to be applied with adhesives, they shall be tested as applied with such adhesives, or the adhesives used shall have a flame spread rating not over 25 and a smoke developed rating not higher than 50.

B. "Flame Spread Rating" and "Smoke Developed Rating" shall be as determined by the "Method of Test of Surface Burning Characteristics of Building Materials, NFPA No. 255, ASTM E84, Underwriters Laboratories, Inc., Standard". Such materials are listed in the Underwriters Laboratories, Inc. "Building Materials List" under the heading "Hazard Classifications (Fire)".

2.03 IDENTIFICATION OF EQUIPMENT

A. Identify mechanical equipment with a nameplate bearing the equipment name, number and area served, 1/16-inch thick, 1 1/2-inch white laminated bakelite with engraved black letters and beveled edges, 1/2-inch (single line) or 7/8-inch (double line) high, permanently mounted on the equipment in a conspicuous place with screws.

2.04 ELECTRIC MOTORS

A. Shall conform to the requirements of IEEE, NEMA, and shall have voltage, phase, frequency and service as scheduled.

B. Each item of motor driven equipment shall be furnished complete with the motors, drives and control equipment, including remote pilot devices as required to perform the specific function for which it is intended.

C. Motors shall be sleeve or ball bearing type selected for quiet operation, shall be manufactured for general purpose duty, with each bearing accessible for lubrication, and designed for the load imposed by the drive.

D. Motors 1/2 horsepower and larger shall have bearings with pressure grease lubrication.

E. Motors connected to drive equipment by belt shall be furnished with adjustable slide rail bases except for fractional horsepower motors which shall have slotted bases. Motor leads shall be permanently identified and supplied with connectors.

F. Each motor shall be suitable for the brake horsepower of the driven unit, rated with 1.15 minimum service factor, with the temperature rise not to exceed NEMA standards and shall be capable of withstanding momentary overloads of 25 percent without injurious overheating.

2.05 MOTOR STARTERS

A. Except where otherwise specified or scheduled, each starter shall be furnished by the supplier who furnishes the equipment it controls.

B. Provide a manual or magnetic starter for each motor. They shall be as recommended by the equipment manufacturer.

2.06 ACCESS DOORS

A. Furnish, for installation under appropriate Section of the Work, access doors at each point required to provide access to concealed valves, dampers, damper operators, and other devices requiring operation, adjustment, or maintenance.

B. Access doors shall be 16 gage steel, with mounting straps, concealed hangers, and screwdriver locks, designed for the doors to open 180 degrees, minimum.

C. Access doors installed in fire walls or partitions shall be UL labeled to maintain the fire rating of the wall or partition.

2.07 SLEEVES, INSERTS, ANCHORS AND SUPPORTS

A. Provide in concrete, carpentry or masonry construction, hangers, sleeves, expansion bolts, inserts, supporting steel, or other fixtures necessary for the support of pipe, equipment and devices furnished under each Section of the Specifications.

B. Provide each pipe, conduit, or duct passing through fire, smoke or sound control walls, floors, ceilings or partitions with sleeves having internal dimension approximately 1-inch larger than the outside dimension (including insulation) of pipes, conduits or ducts.

C. Sleeves (when required) through interior partitions and floors shall be no less than 22 gage galvanized steel, set flush with the finished surfaces.

2.08 FIRESTOPPING

A. Seal annular spaces between sleeves and penetrating materials in fire rated floors, ceilings, and walls with fireproof and waterproof silicone elastomer applied in accordance with the manufacturer's published instructions. Multiple penetrations shall be sealed with silicone calking. Seal material shall be UL classified for use in fire rated penetration seals, and shall be

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Registered Professional Engineer (Mechanical) CERTIFICATE NO. 2968 MARK J. PETERSON Date Signed 3/6/19 ARIZONA, U.S.A.

Owner JONATHAN PITT
Proj. Nam WANDERIST OFFICE & RETAIL

MECHANICAL FLOOR SPECIFICATIONS

Date 03/06/19

M300

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City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19
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applied in the manufacturer's recommended thickness for the fire rating of the penetrated structure in accordance with ASTM E-814 requirements.

2.09 FLASHINGS

A. Furnish weatherproof flashings for mechanical system related openings through the roof for installation under roofing specification.

B. Furnish roof flashing for round and rectangular openings, pipes, vents machinery, devices, or ducts. The flashings shall be constructed to terminate not less than 12-inches above the roof. Provide suitable counterflashing constructed from the same material as the flashing.

C. Furnish flashings for mechanical curbs, and furnish and install counterflashing at each.

2.10 THERMOSTATS

A. Electric Room Thermostats:
1. Type: NEMA DC 3, 24 volts , with setback/setup temperature control.
   a. Automatic switching from heating to cooling.
   b. Seven day programmable with set-back capabilities per current IECC.
   c. Locking cover.
   d. Preferential rate control and short cycle protection.
2. Service: cooling and heating.

B. Thermostats must be located 48" above finished floor to centerline of device. Verify exact location with Architect.

2.11 DUCTWORK

A. Fabricate and support in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, International Mechanical Code and as indicated. Provide duct material, gages, reinforcing, and seal all longitudinal and transverse joints with DP-1010, for operating pressures of 2.0" static pressure and below.

B. Each duct system shall be complete with all required ductwork fittings, turning vanes, splitter dampers and supports.

C. Galvanized Steel Ducts: Hot-dipped galvanized steel sheet, ASTM A 653/A 653M FS Type B, with G90 coating.

D. Joint Sealers and Sealants: Non-hardening, water resistant, mildew and mold resistant.
1. Type: Heavy mastic or liquid used alone or with tape, suitable for joint configuration and compatible with substrates, and recommended by manufacturer for pressure class of ducts.
2. Surface Burning Characteristics: Flame spread of zero, smoke developed of zero, when tested in accordance with ASTM E 84.

E. Crossbreak all sides of all ducts. Ductwork shall have no objectionable noise, and Contractor shall provide any additional stiffeners required.

F. All longitudinal seams shall be Pittsburgh lock seam, hammered flat, with all transverse joints sealed airtight.

G. Construct T's bends, and elbows with radius of not less than 1-1/2 times width of duct on centerline. Where not possible and where rectangular elbows must be used, provide air foil turning vanes of perforated metal with glass fiber insulation.

H. All round duct branch takeoffs shall be provided with spin-in type fittings with balancing damper with locking quadrants.

I. Ductwork shall conform to dimensions on the drawings unless locations of structural members prohibit. In case of changes in dimensions, cross sectional areas shall be maintained. Attach hangers to the top cord of trusses.

J. All duct sizes shown on the drawings are clear inside dimension. Increase size of duct as required to accommodate duct liner.

K. All ducts shall be substantially supported with hangers to the structure or otherwise depending on location conditions. Hangers shall conform to all SMACNA and IMC requirements.

L. Flexible Ducts: UL 181, Class 1, aluminum laminate and polyester film with latex adhesive supported by helically wound spring steel wire.
1. Insulation: Fiberglass insulation with polyethylene vapor barrier film. Minimum R-5.
2. Pressure Rating: 10 inches WG (2.50 kPa) positive and 1.0 inches WG (250 Pa) negative.
3. Maximum Velocity: 4000 fpm (20.3 m/sec).
4. Temperature Range: -20 degrees F to 210 degrees F (-28 degrees C to 99 degrees C).

M. Insulated Flexible Ducts shall not exceed 8'-0" in length. Provide rigid duct takeoffs from the main duct (length as required) to accommodate maximum flexible duct length.

N. Increase duct sizes gradually, not exceeding 15 degrees divergence wherever possible; maximum 30 degrees divergence upstream of equipment and 45 degrees convergence downstream.

O. Fabricate continuously welded round and oval duct fittings two gages heavier than duct gages indicated in SMACNA Standard. Joints shall be minimum 4 inch cemented slip joint, brazed or electric welded. Prime coat welded joints.

P. Provide standard 45 degree lateral wye takeoffs unless otherwise indicated where 90 degree conical tee connections may be used.

Q. Where ducts are connected to exterior wall louvers and duct outlet is smaller than louver frame, provide blank-out panels sealing louver area around duct. Use same material as duct, painted black on exterior side, seal to louver frame and duct.

2.12 DUCTWORK PRESSURE CLASS

A. Low Pressure Supply (Heating and Cooling Systems): 2 inch w.g. (500 Pa) pressure class, galvanized steel.

B. Medium and High Pressure Supply: 6 inch w.g. (1500 Pa) pressure class, galvanized steel.

C. Return and Relief: 2 inch w.g. (500 Pa) pressure class, galvanized steel.

D. General Exhaust: 1 inch w.g. (250 Pa) pressure class, galvanized steel.

E. Outside Air Intake: 1 inch w.g. (250 Pa) pressure class, galvanized steel.

2.13 DUCTWORK INSULATION

A. Glass Fiber, Flexible
1. Insulation: ASTM C 553; flexible, noncombustible blanket.
2. Vapor Barrier Jacket:
   a. Kraft paper with glass fiber yarn and bonded to aluminized film.
   b. Moisture Vapor Permeability: when tested in accordance with
      1) ASTM E 96.
      2) Secure with Pressure sensitive tape.

B. Duct Liner
1. Insulation: Incombustible glass fiber complying with ASTM C 1071; flexible blanket; impregnated surface and edges coated with poly vinyl acetate polymer or acrylic polymer shown to be fungus and bacteria resistant by testing to ASTM G 21.
2. Liner Fasteners: Galvanized steel, self-adhesive pad; impact applied; or welded with integral; or press-on head.

C. Duct Insulation Schedules
1. Exhaust Duct: None
2. Outside Air: None
3. Supply Air (Round): 2 inch thick Glass Fiber, Flexible (Minimum R-6)
4. Supply Air (Rectangular): 1-1/2 inch thick Duct Liner (Minimum R-6)
5. Return Air (Round): 2 inch thick Glass Fiber, Flexible (Minimum R-6)
6. Return Air (Rectangular): 1-1/2 inch thick Duct Liner (Minimum R-6)

7. Outdoor Ductwork: 2 inch thick Duct Liner (Minimum R-8)
8. Evaporative Cooling: None

2.14 COMBINATION FIRE AND SMOKE DAMPERS

A. Fabricate in accordance with NFPA 90A, UL 555, UL 555S, and as indicated.

B. Provide factory fabricated dynamic fire damper with sleeve, and collar, and frame for each damper.

C. Multiple Blade Dampers: Fabricate with 16 gage galvanized steel frame and blades, oil-impregnated bronze or stainless steel sleeve bearings and plated steel axles, stainless steel jamb sealed, 1/8 x ½ inch plated steel concealed linkage, stainless steel closure spring, blade stops, and lock, and ½ inch actuator shaft.

D. Operators: UL Listed and labeled spring return electric type suitable for 120 volts, single phase, 60 Hz. Provide end switches to indicate damper position. Locate damper operator on interior exterior of duct and link to damper operating shaft. Stand alone dampers to be provided with integral smoke detector control.

E. Electro Thermal Link: Fusible link melting at 165 degrees F (74 degrees C); 120 volts, single phase, 60 Hz; UL Listed and labeled.

F. Interlock combination fire-smoke damper operator with duct smoke detector or zone smoke detector. Coordinate electrical connection with Electrical Contractor.

2.15 GRILLES, REGISTERS AND DIFFUSERS

A. Furnish and install all grilles, registers, ceiling diffusers and door grilles where indicated. They shall be of size and model called for on the drawings.

B. All grilles, registers, and ceiling diffusers must be set flush and true to wall or ceiling to prevent air leakage around edges. All units shall be provided with neoprene gasketing around the inside of the frame.

C. Check location of outlets and inlets and make necessary adjustments in position to conform with architectural features, symmetry, and lighting arrangement.

D. All units shall be factory finished, of color selected by the Architect, or as otherwise indicated.

E. Paint all ductwork, turning vanes, insulation, etc., that is visible through grilles, registers, or ceiling diffusers flat black.

2.16 DISPOSABLE EXTENDED AREA FILTERS

A. Media: UL 900 Class 1, pleated, lofted, non-woven, reinforced cotton fabric; supported by corrugated aluminum separators.
1. Frame: Non-flammable.
2. Nominal thickness: 1 inch (25 mm).

B. Minimum Efficiency Reporting Value (MERV): 8, when tested in accordance with ASHRAE 52.2.

C. Contractor shall replace all filters upon completion of construction. This shall include all new units and filters at all existing units affected by construction.

2.17 CONDENSATE DRAIN PIPING MATERIAL

A. Copper tubing - ASTM B88, Type M, hard drawn.

B. Fitting: AMME B16.18, cast bronze, of ASME B16.22, wrought copper and bronze.

C. Joints: ASTM B52, Grad 95TA.

D. Insulation: 1/2" thick Armaflex insulation.

2.18 REFRIGERANT PIPING MATERIAL

A. Copper Tube: ASTM B 280, H58 hard drawn or O60 soft annealed.
1. Fittings: ASME B16.22 wrought copper.
2. Joints: Braze, AWS A5.8 BCuP silver/phosphorus/copper alloy.

B. Copper Tube to 7/8 inch (22 mm) OD: ASTM B 88 (ASTM B 88M), Type K (A), annealed.
1. Fittings: ASME B16.26 cast copper.
2. Joints: Flared.

C. Insulation: 3/4" thick Armaflex insulation. Provide aluminum jacket on exterior piping.

D. Provide pipe hangers and supports in accordance with ASME B31.5 unless indicated otherwise.

E. Flexible Connectors: Utilize at or near compressors where piping configuration does not absorb vibration.

PART 3 EXECUTION

3.01 PROTECTION OF EQUIPMENT

A. Protect equipment from physical damage and deterioration after it is delivered to the Project, and during the installation period prior to Owner acceptance.

B. The equipment shall be kept clean. Motors and electrical devices shall be covered with suitable materials to prevent dirt or dust accumulation within equipment. Machinery and devices shall be properly oiled and maintained to prevent rusting and deterioration.

C. Repair scratches, mars, or paint deterioration.

3.02 EQUIPMENT SPACE

A. The Drawings indicate specified products physically arranged in the spaces, as cataloged by specific manufacturers, generally as listed in the Equipment Schedules.

B. Prepare Shop Drawings indicating the exact physical space requirements for equipment and servicing of equipment actually purchased for each item of equipment involved. NOTE: Physical space required for equipment servicing must be shown on Shop Drawings.

C. Drawings show pipe and ductwork diagrammatically.

D. Adhere to Drawings as closely as possible in layout of work.

E. Install piping and ductwork in furred spaces wherever possible. Run exposed piping and ductwork parallel to or at right angles to building walls.

F. Conform to ceiling heights established on architectural construction drawings.

3.03 HVAC DUCTWORK INSTALLATION

A. Install accessories in accordance with manufacturer's instructions, NFPA 90A, and follow SMACNA HVAC Duct Construction Standards - Metal and Flexible. Contractor shall verify that ductwork will fit where indicated without interference prior to installation.

B. All exhaust systems shall have barometric dampers to close when not in operation.

C. Provide duct access doors for inspection and cleaning before and after filters, coils, fans, automatic dampers, at fire dampers, combination fire and smoke dampers, and elsewhere as indicated. Provide minimum 8 x 8 inch (200 x 200 mm) size for hand access, size for shoulder access, and as indicated. Provide 4 x 4 inch (100 x 100 m) for balancing dampers only. Review locations prior to fabrication.

D. Provide duct test holes where indicated and required for testing and balancing purposes.

E. Provide fire dampers, combination fire and smoke dampers, and smoke dampers at locations indicated, where ducts and outlets pass through fire rated components, and where required by authorities having jurisdiction. Install with required perimeter mounting angles, sleeves, breakaway duct connections, corrosion resistant springs, bearings, bushings and hinges.

F. Install smoke dampers and combination smoke and fire dampers in accordance with NFPA 92A.

G. At fans and motorized equipment associated with ducts, provide flexible duct connections immediately adjacent to the equipment.

H. At equipment supported by vibration isolators, provide flexible duct connections immediately adjacent to the equipment.

I. Provide balancing dampers at points on supply, return, and exhaust systems where branches are taken from larger ducts as required for air balancing. Install minimum 2 duct widths from duct take-off.

J. Use splitter dampers only where indicated.

K. Provide balancing dampers on duct take-off to diffusers, grilles, and registers, regardless of whether dampers are specified as part of the diffuser, grille, or register assembly.

L. Each supply air outlet, diffuser, register or VAV box shall have it's own balancing device.

M. Flexible Ducts: Connect to metal ducts with draw bands.

3.04 DUCTWORK INSULATION INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install in accordance with NAIMA National Insulation Standards.

C. Insulated duct conveying air below ambient temperature:
1. Provide insulation with vapor barrier jackets.
2. Finish with tape and vapor barrier jackets.
3. Continue insulation through walls, sleeves, hangers, and other duct penetrations.
4. Insulate entire system including fittings, joints, flanges, fire dampers, flexible connections, and expansion joints.

D. External Duct Insulation Application:
1. Secure insulation with vapor barrier with wires and seal jacket joints with vapor barrier adhesive or tape to match jacket.
2. Secure insulation without vapor barrier with staples, tape, or wires.
3. Install without sag on underside of duct. Use adhesive or mechanical fasteners where necessary to prevent sagging. Lift duct off trapeze hangers and insert spacers.
4. Seal vapor barrier penetrations by mechanical fasteners with vapor barrier adhesive.
5. Stop and point insulation around access doors and damper operators to allow operation without disturbing wrapping.

E. Duct and Plenum; Liner Application:
1. Adhere insulation with adhesive for 100 percent coverage.
2. Secure insulation with mechanical liner fasteners. Refer to SMACNA HVAC Duct Construction Standards - Metal and Flexible for spacing.
3. Seal and smooth joints. Seal and coat transverse joints.
4. Seal liner surface penetrations with adhesive.
5. Duct dimensions indicated are net inside dimensions required for air flow. Increase duct size to allow for insulation thickness.

3.05 REFRIGERANT PIPING INSTALLATION

A. Install refrigeration specialties in accordance with manufacturer's instructions.

B. Route piping in orderly manner, with plumbing parallel to building structure, and maintain gradient.

C. Install piping to conserve building space and avoid interference with use of space.

D. Group piping whenever practical at common elevations and locations. Slope piping one percent in direction of oil return.

E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.

F. Pipe Hangers and Supports:
1. Install in accordance with ASME B31.5.
2. Support horizontal piping as scheduled.

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL.
- PLANS ARE COMPLETE.
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

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CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Registered Professional Engineer
2968
MARK J. PETERSON
Date Signed 3/6/19
ARIZONA, U.S.A.

Owner JONATHAN PITT
Proj. Nam WANDERIST OFFICE & RETAIL

MECHANICAL FLOOR SPECIFICATIONS

Date 03/06/19

M301

Scale AS SHOWN

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

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3. Install hangers to provide minimum 1/2 inch (13 mm) space between finished covering and adjacent work.
4. Place hangers within 12 inches (300 mm) of each horizontal elbow.
5. Support vertical piping at every floor. Support riser piping independently of connected horizontal piping.
6. Where several pipes can be installed in parallel and at same elevation, provide multiple or trapeze hangers.
7. Provide copper plated hangers and supports for copper piping.

G. Arrange piping to return oil to compressor. Provide traps and loops in piping, and provide double risers as required. Slope horizontal piping 0.40 percent in direction of flow.

H. Provide clearance for installation of insulation and access to valves and fittings.

I. Provide access to concealed valves and fittings.

J. Flood piping system with nitrogen when brazing.

K. Where pipe support members are welded to structural building frame, brush clean, and apply one coat of zinc rich primer to welding.

L. Follow ASHRAE Std 15 procedures for charging and purging of systems and for disposal of refrigerant.

M. Provide replaceable cartridge filter-driers, with isolation valves and valved bypass.

N. Locate expansion valve sensing bulb immediately downstream of evaporator on suction line.

O. Provide external equalizer piping on expansion valves with refrigerant distributor connected to evaporator.

P. Install flexible connectors at right angles to axial movement of compressor, parallel to crankshaft.

Q. Fully charge completed system with refrigerant after testing.

R. Provide electrical connection to solenoid valves.

3.06 CUTTING AND PATCHING

A. Assume costs and responsibility for cutting and patching required to complete the installation.

B. Surfaces shall be patched to the condition of the adjacent surfaces.

3.07 PAINTING AND FINISHING AND CLEANING

A. Finish painting (other than factory applied) of mechanical equipment, and its associated piping and ductwork, is scheduled under other Sections. Provide touchup painting of prefinished mechanical products.

B. Surfaces shall be left clean, debris shall be removed, and equipment shall be furnished in prime coat finish ready for finish coats.
1. Piping, ductwork and equipment - Clean exterior of piping, ductwork and equipment, removing rust, plaster and dirt by wire brushing. Remove grease, oil, and similar materials by wiping with clean rags and suitable solvents.
2. Motors, pumps and other items with factory finish - Remove grease and oil and leave surfaces clean and polished.

3.08 TESTING, ADJUSTING AND BALANCING

A. Perform total system balance in accordance with the following:
1. AABC MN-1, AABC National Standards for Total System Balance.

B. Begin work after completion of systems to be tested, adjusted, or balanced and complete work prior to Substantial Completion of the project.

C. Where HVAC systems and/or components interface with life safety systems, including fire and smoke detection, alarm, and control, coordinate scheduling and testing and inspection procedures with the authorities having jurisdiction.

D. TAB Agency Qualifications:

1. Company specializing in the testing, adjusting, and balancing of systems specified in this section.
2. Having minimum of three years experience.
3. Certified by the following:
a. AABC, Associated Air Balance Council: www.aabchq.com; upon completion submit AABC National Performance Guaranty.

E. TAB Supervisor and Technician Qualifications: Certified by same organization as TAB agency.

F. Pre-Qualified TAB Agencies:
1. Southwest Testing and Balancing LLC
2. Arizona Air Balance Company
3. Precisionaire of Arizona
4. Technical Air Balance SW, Inc.

G. Final Report: Indicate deficiencies in systems that would prevent proper testing, adjusting, and balancing of systems and equipment to achieve specified performance.
1. Provide final copies for Architect and for inclusion in operating and maintenance manuals.
2. Provide reports in binder manuals, complete with index page and indexing tabs, with cover identification at front and side. Include set of reduced drawings with air outlets and equipment identified to correspond with data sheets, and indicating thermostat locations.
3. Include actual instrument list, with manufacturer name, serial number, and date of calibration.
4. Units of Measure: Report data in I-P (inch-pound) units only.
5. Test Reports: Indicate data on AABC MN-1 forms.
6. Include the following on the title page of each report:
a. Name of Testing, Adjusting, and Balancing Agency.
b. Address of Testing, Adjusting, and Balancing Agency.
c. Telephone number of Testing, Adjusting, and Balancing Agency.
d. Project name.
e. Project location.
f. Project Architect.
g. Project Engineer.
h. Project Contractor.
i. Report date.
7. A written report of test results shall be submitted to Architect.

H. Examination.
1. Verify that systems are complete and operable before commencing work.
a. Systems are started and operating in a safe and normal condition.
b. Temperature control systems are installed complete and operable.
c. Proper thermal overload protection is in place for electrical equipment.
d. Final filters are clean and in place. If required, install temporary media in addition to final filters.
e. Duct systems are clean of debris.
f. Fans are rotating correctly.
g. Fire and volume dampers are in place and open.
h. Air coil fins are cleaned and combed.
i. Access doors are closed and duct end caps are in place.
j. Air outlets are installed and connected.
k. Duct system leakage is minimized.

I. Tolerances.
1. Air Handling Systems: Adjust to within plus or minus 5 percent of design for supply systems and plus or minus 10 percent of design for return and exhaust systems.

2. Air Outlets and Inlets: Adjust total to within plus 10 percent and minus 5 percent of design to space. Adjust outlets and inlets in space to within plus or minus 10 percent of design.

J. Air System Procedure
1. Adjust air handling and distribution systems to provide required or design supply, return, and exhaust air quantities .
2. Make air quantity measurements in ducts by Pitot tube traverse of entire cross sectional area of duct.
3. Measure air quantities at air inlets and outlets.
4. Adjust distribution system to obtain uniform space temperatures free from objectionable drafts and noise.
5. Use volume control devices to regulate air quantities only to extend that adjustments do not create objectionable air motion or sound levels. Effect volume control by duct internal devices such as dampers and splitters.
6. Vary total system air quantities by adjustment of fan speeds. Provide drive changes required. Vary branch air quantities by damper regulation.
7. Provide system schematic with required and actual air quantities recorded at each outlet or inlet.
8. Measure static air pressure conditions on air supply units, including filter and coil pressure drops, and total pressure across the fan. Make allowances for 50 percent loading of filters.
9. Adjust outside air automatic dampers, outside air, return air, and exhaust dampers for design conditions.
10. Measure temperature conditions across outside air, return air, and exhaust dampers to check leakage.

3.09 SPECIAL MECHANICAL INSPECTION CERTIFICATE

A. Duct Smoke Detectors and Fire and Smoke Dampers will require a Special Mechanical Inspection Certificate as required by the Local Jurisdiction.

B. The Special Mechanical Inspector shall be one of the following independent, third party testing agencies (No exceptions):
1. Technical Air Balance SW, Inc.
2. Arizona Air Balance Company
3. Precisionaire of Arizona
4. Southwest Testing and Balancing LLC
5. Tab Technology, Inc.

C. The Special Mechanical Inspector shall submit a final signed report to the Registered Design Professional, Contractor and City Inspector providing final test results and stating whether the items requiring Mechanical special inspection were, to the best of the inspector's knowledge, in compliance with the approved plans and specifications and applicable workmanship provisions of the code.

D. All discrepancies shall be brought to the immediate attention of the contractor for correction.

END OF SECTION

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Suite 200
Phoenix, Arizona 85020
(602) 943.4116
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CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

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MECHANICAL FLOOR SPECIFICATIONS

Date 03/06/19

M302

Scale AS SHOWN

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER MODEL NUMBER	VOLTAGE	LAMP TYPE	MOUNTING	DESCRIPTIONS	REMARKS
A	FLUXWERX ILLUMINATION INC APC R D D 35 B XX S E1 M XX	120	35W LED (PER 4-FT) 6595 LUMENS 3500K	SURFACE AT UNDERSIDE OF STRUCTURE	LED LINEAR DIRECT/INDIRECT RUNS (RUN LENGTHS PER PLAN)	–
B	LITHONIA LIGHTING LDN6 CYL 35/15 LO6AR LSS PM	120	21W LED 1526 LUMENS 3500K	STEM AT 9'–0"	6–IN DOWNLIGHT CYLINDER WITH CLEAR SEMI–SPECULAR REFLECTOR	–
C	LITHONIA LIGHTING CLX L48 4000LM SEF RDL MVOLT GZ10 35K 80CRI	120	28W LED 6595 LUMENS 3500K	SURFACE AT UNDERSIDE OF STRUCTURE	STRIP LIGHT WITH ROUND DIFFUSE LENS	PROVIDE 10W EMERGENCY BATTERY BACKUP WHERE DESIGNATED "EM"
D-DMX	LUMINII DMX 3Z RGBW	24	–	2–GANG BOX	'RGB' WIRELESS CONTROLLER	–
D1	LUMINII LLX18–RGB 6'8" /PSV 40 24V U2ND/ DDMX–RGBW	24	30W RGB LED	SURFACE	'RGB' ACCENT TAPE LIGHT. APPROXIMATELY 6'–8" IN LENGTH	PROVIDE ALL COMPONENTS FOR COMPLETE WORKING SYSTEM. VERIFY LENGTH.
D2	LUMINII LLX18–RGB 25' /PSV 96 24V U2ND/ DDMX–RGBW	24	83W RGB LED	SURFACE	'RGB' ACCENT TAPE LIGHT. APPROXIMATELY 25'–0" IN LENGTH	PROVIDE ALL COMPONENTS FOR COMPLETE WORKING SYSTEM. VERIFY LENGTH.
D3	LUMINII LLX18–RGB 30' / 90° TURN/PSV 96 24V U2ND/ DDMX–RGBW	24	90W RGB LED	SURFACE	'RGB' ACCENT TAPE LIGHT. APPROXIMATELY 30'–0" IN LENGTH	PROVIDE ALL COMPONENTS FOR COMPLETE WORKING SYSTEM. VERIFY LENGTH.
S1A	LITHONIA LIGHTING DSXB LED 16C 530 40K SYM	120	28W LED 2397 LUMENS 4000K	GROUND	PARKING LOT BOLLARD LIGHT. WET LOCATION LISTED.	FULL CUTOFF
S1B	LITHONIA LIGHTING DSXB LED 12C 530 40K ASY	120	22W LED 1847 LUMENS 4000K	GROUND	PARKING LOT BOLLARD LIGHT. WET LOCATION LISTED.	FULL CUTOFF
S2	LITHONIA LIGHTING CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI	120	13W LED 998LUMENS 4000K	RECESSED	ENTRY PORTAL STRIPLIGHT WITH FLAT LENS. DAMP LOCATION LISTED.	LED'S TO BE FIELD INSTALLED AFTER CHANNEL HAS BEEN MOUNTED TO ENTRY PORTAL. NO UPLIGHT.
S2E	LITHONIA LIGHTING CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI PS1050	120	13W LED 998LUMENS 4000K	RECESSED	ENTRY PORTAL STRIPLIGHT WITH EMERGENCY BATTERY BACKUP. DAMP LOCATION LISTED.	LED'S TO BE FIELD INSTALLED AFTER CHANNEL HAS BEEN MOUNTED TO ENTRY PORTAL. NO UPLIGHT.
S3	LITHONIA LIGHTING DSXW1 LED 10C 1000 40K TFTM MVOLT	120	39W LED 3945 LUMENS 4000K	WALL @ 10'–0"	PARKING LOT LIGHT. WET LOCATION LISTED.	FULL CUTOFF
S4E	LITHONIA LIGHTING WST LED P2 40K VW MVOLT E7WH	120	25W LED 3276LUMENS 4000K	WALL @ 10'–0"	EXTERIOR ARCHITECTURAL SCONCE WITH EMERGENCY BATTERY BACKUP. WET LOCATION LISTED.	FULL CUTOFF
S5E	LITHONIA LIGHTING WST LED P1 40K VF MVOLT E7WH	120	12W LED 1639 LUMENS 4000K	WALL @ 10'–0"	EXTERIOR ARCHITECTURAL SCONCE WITH EMERGENCY BATTERY BACKUP. WET LOCATION LISTED.	FULL CUTOFF
-	–	–	–	–	–	–
	LITHONIA LIGHTING EU2C SD	120	FURNISHED WITH FIXTURE	WALL	EMERGENCY LIGHTING UNIT	WITH SELF DIAGNOSTICS
	LITHONIA LIGHTING LQC 1 G EL N ELA B US36	120	FURNISHED WITH FIXTURE	36" STEM	EXIT SIGN WITH EMERGENCY BATTERY BACKUP – GREEN LETTERS	MOUNT STEM TO BOTTOM OF STRUCTURE

NOTES:

1. MANUFACTURER AND MODEL NUMBERS LISTED IN THIS SCHEDULE ARE FOR THE PURPOSE OF ESTABLISHING THE APPEARANCE, QUALITY, AND PERFORMANCE OF THE FIXTURE. SUBSTITUTIONS ARE ACCEPTABLE TO P.A.C.E PROVIDED THE APPEARANCE, QUALITY, AND PERFORMANCE OF THE SUBSTITUTED FIXTURE IS EQUAL TO WHAT IS SPECIFIED. THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE ARCHITECT TO BID ALTERNATE FIXTURES PRIOR TO SUBMITTING HIS BIDS. THE CONTRACTOR SHALL BEAR ALL RESPONSIBILITY WHEN SUBSTITUTING FIXTURES FOR FURNISHING FIXTURES WHICH PERFORM EQUALLY TO THE FIXTURE SPECIFIED. THE CONTRACTOR SHALL FURNISH COMPUTER GENERATED POINT–BY–POINT CALCULATIONS FOR SUBSTITUTED FIXTURES IF REQUESTED BY THE ARCHITECT OR ENGINEER.
2. MODEL NUMBERS LISTED IN THE SCHEDULE MAY NOT INCLUDE ALL COMPONENTS OR OPTIONS FOR A COMPLETE SYSTEM AS SHOWN ON THE LIGHTING PLANS. THE CONTRACTOR AND LIGHT FIXTURE MANUFACTURER SHALL RECEIVE AND REVIEW ALL ELECTRICAL PLANS AND ARCHITECT'S REFLECTIVE CEILING PLANS PRIOR TO SUBMITTING A BID. ANY DISCREPANCIES BETWEEN MODEL NUMBERS AND DESIGN SHOWN ON THE PLANS SHALL BE SUBMITTED IN WRITING TO THE GENERAL CONTRACTOR DURING THE BID PROCESS FOR RESOLUTION. UNLESS OTHERWISE INDICATED BY RFI DURING THE BIDDING PROCESS THE CONTRACTOR AND LIGHTING MANUFACTURER AGREE THAT THEIR BID INCLUDES ALL NECESSARY COMPONENTS FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
3. REFEER TO SHEET E101 FOR COMCHECK COMPLIANCE CERTIFICATES.

HVAC EQUIPMENT SCHEDULE

UNIT NUMBER	EQUIPMENT DESCRIPTION	HP	KVA	KW	AMPS	VOLTS/ø	(See Note 1) DISC SW	(See Note 2) STARTER	(See Notes 3, 4) BRANCH CIRCUIT**
CU – 1,2	SPLIT SYSTEM HEAT PUMP OUTDOOR UNIT	–	–	–	28.5 MCA	230/1	60A/2P	–	2#8, 1#10 GND., 3/4"C.
CU – 3	SPLIT SYSTEM HEAT PUMP OUTDOOR UNIT	–	–	–	34.2 MCA	230/1	60A/2P	–	2#6, 1#10 GND., 1"C.
FC – 1,2,3	SPLIT SYSTEM HEAT PUMP INDOOR UNIT	3/4	–	–	6.9 FLA	230/1	30A/2P	W/UNIT	2#12, 1#12 GND., 1/2"C
EF 1	EXHAUST FAN	–	–	77W	<1.0 FLA	120/1	$M	$M	2#12, 1#12 GND., 1/2"C
– –	–	–	–	–	–	–	–	–	–
– –	–	–	–	–	–	–	–	–	–
IWH – 1,2	INSTANTANEOUS WATER HEATER	–	–	3.6	40	120/1	60	–	2#8, 1#10 GND., 3/4"C.

NOTES

1. NEMA 3R WHERE OUTSIDE. PROVIDE FUSING PER HVAC EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
2. ALL MOTOR STARTERS LOCATED OUTDOORS SHALL BE PROVIDED WITH TEMPERATURE COMPENSATED ELECTRONIC OVERLOADS IN LIEU OF BIMETALLIC OVERLOAD ELEMENTS.
3. ALL CONDUCTORS FEEDING HVAC EQUIPMENT SHALL BE COPPER WITH INSULATION RATED FOR 90 DEGREES C.
4. WIRE SIZE INDICATED BASED UPON TABLE 310.15(B)(16) NOT DE–RATED. ALL CONDUCTORS SERVING OUTDOOR EQUIPMENT AND/OR ROUTED OUTDOORS, SHALL BE DE–RATED FOR 117°–122°F (NEC TABLE 310.15(B)(2)(A).

ELECTRICAL LEGEND

(NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT).

LIGHTING

(SEE LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION OF ALL FIXTURES.)

- FLUORESCENT TROFFER FIXTURE.
- FLUORESCENT STRIP FIXTURE.
- FLUORESCENT WRAPAROUND FIXTURE.
- NL / EM — NIGHTLIGHT (NL) AND/ OR EMERGENCY FIXTURE (EM). SEE PLAN FOR DESIGNATION. FLUORESCENT EMERGENCY FIXTURES SHALL BE FURNISHED W/2–LAMP EMERGENCY BALLAST & 90 MINUTE BATTERIES.
- WALL MOUNTED LIGHT FIXTURE.
- WALL MOUNTED FLUORESCENT LIGHT FIXTURE.
- CEILING MOUNTED OR RECESSED DOWNLIGHT FIXTURE.
- RECESSED WALL WASH FIXTURE. AIM AS DIRECTED BY THE ARCHITECT.
- LIGHTING TRACK.
- TRACK HEAD OR FLOODLIGHT FIXTURE.
- DUAL HEAD EMERGENCY LIGHT FIXTURE WITH 90 MINUTE BATTERY PACK. AIM AS DIRECTED BY CITY INSPECTOR.
- CEILING MOUNTED EMERGENCY EXIT SIGN. ARROWS INDICATE PATH OF EGRESS. SHADED AREA INDICATES FACE.
- WALL MOUNTED EMERGENCY EXIT SIGN. ARROWS INDICATE PATH OF EGRESS. SHADED AREA INDICATES FACE.

DEVICES

- $ — SINGLE–POLE TOGGLE SWITCH MOUNTED +48" AFF TO TOP OF BOX OR AS NOTED.
- $2 — TWO–POLE TOGGLE SWITCH MOUNTED +48" AFF TO TOP OF BOX OR AS NOTED.
- $3 — THREE–WAY TOGGLE SWITCH MOUNTED +48" AFF TO TOP OF BOX OR AS NOTED.
- $4 — FOUR–WAY TOGGLE SWITCH MOUNTED +48" AFF TO TOP OF BOX OR AS NOTED.
- ab — MULTI–LEVEL SWITCHING. INNER LAMPS OF FLUORESCENT FIXTURES TO BE SWITCHED BY "1⁄16" AND OUTER LAMPS TO BE SWITCHED BY "b". INCANDESCENT OR SINGLE BALLAST FIXTURES TO BE SWITCHED AS INDICATED ON DRAWINGS.
- $D — SLIDE CONTROL DIMMER AT +48" AFF TO TOP OF BOX (1500 WATT OR AS NOTED ON PLANS).
- $o — OCCUPANCY SENSOR SWITCH MOUNTED +48" AFF TO TOP OF BOX OR AS NOTED.
- TS — ASTRONOMIC TIMESWITCH. 3PST, 40 AMP, 120 VOLT UNLESS NOTED OTHERWISE.
- PC — PHOTOCELL MOUNTED ON ROOF. AIM NORTH. 'TORK' #2101 OR EQUAL.
- DUPLEX CONVENIENCE RECEPTACLE MOUNTED AT +15" AFF TO BOTTOM OF BOX OR AS NOTED.
- DOUBLE DUPLEX (FOURPLEX) CONVENIENCE RECEPTACLE MOUNTED AT +15" AFF TO BOTTOM OF BOX OR AS NOTED.
- SINGLE CONVENIENCE RECEPTACLE MOUNTED AT +15" AFF TO BOTTOM OF BOX OR AS NOTED.
- DUPLEX CONVENIENCE RECEPTACLE MOUNTED ABOVE COUNTERTOP. SEE ARCHITECT'S INTERIOR ELEVATION FOR EXACT MOUNTING HEIGHT.
- HALF–SWITCHED DUPLEX CONVENIENCE RECEPTACLE MOUNTED AT +15" AFF TO BOTTOM OF BOX OR AS NOTED. COMPUTER DUPLEX RECEPTACLE AT 15" AFF TO BOTTOM OR AS NOTED. PROVIDE 'GRAY' OUTLET BODY WITH STANDARD COVERPLATE. OUTLETS
- ISOLATED GROUNDING OUTLET AT +15" TO BOTTOM OR AS NOTED. (ORANGE) RECEPTACLE WITH ISOLATED GROUND.
- SPECIAL RECEPTACLE AS NOTED ON DRAWINGS (250 VOLT).
- SPECIAL RECEPTACLE AS NOTED ON DRAWINGS (600 VOLT).
- JUNCTION BOX IN ACCESSIBLE LOCATION.
- JUNCTION BOX FLUSH MOUNTED IN WALL UNLESS NOTED OTHERWISE.
- FLOOR MOUNTED DEVICE. TYPICAL OF ALL OUTLET SYMBOLS.
- PLUG–MOLD. LENGTH AND TYPE AS NOTED ON DRAWINGS. MOUNT AT +15" AFF TO BOTTOM OR AS NOTED ON THE DRAWINGS.
- POWER POLE. SEE DRAWINGS FOR SPECIFICATIONS.

SPECIAL SYSTEMS

- TELEPHONE OUTLET MOUNTED AT +15" AFF TO BOTTOM OR AS NOTED. STUB 3/4" E.C. TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE.
- DATA OUTLET MOUNTED AT +15" AFF TO BOTTOM OR AS NOTED. STUB 3/4" E.C. TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE.
- COMBINATION TELEPHONE AND DATA OUTLET IN COMMON 4–SQUARE BOX AT +15" AFF TO BOTTOM OR AS NOTED. STUB 1" E.C. TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE.
- (2) — MULTIPLE DATA OUTLET IN COMMON 4–SQUARE BOX AT +15" AFF TO BOTTOM OR AS NOTED. STUB 1" E.C. TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE. (NUMBER INDICATES REQUIRED CABLE TACKS)
- TV — TELEVISION OUTLET MOUNTED AT +15" AFF TO BOTTOM OR AS NOTED STUB 1" E.C. TO ABOVE ACCESSIBLE CEILING, UNLESS NOTED OTHERWISE.

POWER

- SM — U.L. LABELLED, HORSEPOWER RATED, MANUAL MOTOR STARTER WITH THERMAL OVERLOAD(S). OVERLOAD HEATERS TO BE SIZED PER NEMA AND EQUIPMENT MANUFACTURER'S REQUIREMENTS. SQUARE 'D' TYPE 'M' SERIES OR EQUAL.
- CONTACTOR FURNISHED AND INSTALLED BY OTHERS.
- CONTACTOR FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SIZE AS INDICATED ON DRAWINGS.
- FUSED DISCONNECT SWITCH FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE. SIZE AND FUSES PER RECOMMENDATIONS OF EQUIPMENT MANUFACTURER OR AS NOTED. PROVIDE NEMA 3R ENCLOSURE FOR EXTERIOR OR WET LOCATIONS. (N.F. INDICATES NON–FUSED).
- ELECTRIC MOTOR. SIZE AS INDICATED ON DRAWINGS.
- CIRCUIT BREAKER. SIZE AS INDICATED ON DRAWINGS.
- FUSED SWITCH WITH REJECTION TYPE CLIPS. SIZE AS INDICATED ON DRAWINGS.
- PULL–OUT STYLE FUSED DISCONNECT SWITCH. SIZE AS INDICATED ON DRAWINGS.
- DISTRIBUTION PANELBOARD, MOTOR CONTROL CENTER OR SERVICE ENTRANCE SECTION. SEE DRAWINGS FOR EXACT TYPE.
- T — TRANSFORMER. SEE DRAWINGS FOR TYPE AND SPECIFICATION.
- SURFACE OR FLUSH MOUNTED PANELBOARD. MOUNT TOP OF PANEL AT +6'–6" AFF OR AS NOTED. SEE PANELBOARD SCHEDULE.
- CONTROL CABINET. SEE DRAWING FOR TYPE AND SPECIFICATION.
- PLYWOOD TELEPHONE MOUNTING BOARD WITH #6 COPPER GROUND & DEDICATED DUPLEX CONVENIENCE OUTLET. FURNISH IN ACCORDANCE WITH TELEPHONE COMPANY'S REQUIREMENTS. SIZE AS NOTED ON DRAWINGS. PLYWOOD SHALL BE 3/4" TYPE "CDX".

WIRE/CONDUIT

- FLEXIBLE CONDUIT AT CONNECTIONS TO VIBRATING EQUIPMENT AND TRANSFORMERS. PROVIDE LIQUID–TIGHT FLEX FOR WET OR EXTERIOR LOCATIONS.
- CONDUIT CONCEALED IN WALLS OR ABOVE CEILING. 2 #12, 1 #12 NEUT., 1 #12 GRD., 1/2" C., UNLESS NOTED OTHERWISE.
- CONDUIT ROUTED UNDER FLOOR OR BELOW GRADE. 2 #12, 1 #12 NEUT., 1 #12 GRD., 3/4" C., UNLESS NOTED OTHERWISE.
- CONDUIT TURNING UP.
- CONDUIT TURNING DOWN.
- PHASE CONDUCTORS
- NEUTRAL CONDUCTOR
- ISOLATED GROUNDING CONDUCTOR (EQUIPMENT BONDING CONDUCTOR INCLUDED, BUT NOT SHOWN).

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR.
A.F.G.	ABOVE FINISHED GRADE.
E.F.	EXHAUST FAN
GFCI	GROUND FAULT CURCUIT INTERRUPTER.
GRD.	GROUND
WP	WEATHERPROOF.
XFMR	TRANSFORMER.
XP	EXPLOSION PROOF.

NATIONAL ELECTRIC CODE - 2017 EDITION

1. ALL WORK OF THIS PROJECT IS SUBJECT TO THE REQUIREMENTS OF THE 2017 EDITION OF THE NATIONAL ELECTRIC CODE (2017 NEC) AND EFFECTIVE LOCAL AMENDMENTS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FULLY AWARE OF THE PRESENT REQUIREMENTS OF THE 2017 NEC INCLUDING ALL CHANGES OCCURING IN BOTH THE 2014 NEC AND THE 2017 NEC.
3. IT IS INTENDED ALL CODE REFERENCES THROUGHOUT THESE PLANS REFER TO THE 2017 NEC.

SELF CERTIFIED BY:____________ DATE:______
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

WILLIAM M. CHASE, JR. 3/6/19 ARIZONA, U.S.A.

Owner JONATHAN PITT
Proj. Nam WANDERIST OFFICE & RETAIL

ELECTRICAL LEGEND AND SCHEDULES

Date 03/06/19

E001

Scale AS SHOWN

02/07/2019 5:48:06 PM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

SECTION 26 0020
ELECTRICAL SHEET SPECIFICATIONS

PART 1 GENERAL

1.01 SCOPE OF WORK

A. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complimentary, and what is required by one shall be as binding as if required by all. The Performance by the Contractor shall be required only to the extent consistent with the Contract Documents as reasonably inferable from them as necessary to produce the intended results.
   1. Contractor shall provide all labor, materials, equipment and services necessary to furnish and install complete electrical systems and related items of work as indicated on Drawings or specified herein.
   2. The Contractor shall refer to all project documents and specifications prior to submission of bid and include monies to provide a complete and functioning system. Reference drawings include, but are not necessarily limited to, Civil, Architectural, Structural, Mechanical, Plumbing and Fire Protection.
   3. Description of Systems: The work includes but is not limited to:
      a. Panels, conduit, wiring, etc., for all outlets and equipment.
      b. Electrical service as indicated.
      c. Lighting fixtures with lamps.
      d. Excavation and backfill as required.
      e. Telephone outlets, mounting board, conduits with pull wire, etc.
      f. Provide temporary electrical service including service panel and related work as required.
      g. Motors and Controls: Refer to all project drawings for coordination of required work.
      h. Factory–finished painting of material and equipment furnished under this Division.
      i. Specialty systems as indicated on Drawings.
   4. Drawings are diagrammatic. Refer to Civil, Mechanical, Plumbing, Fire Protection, Architectural and Structural Drawings and specifications for information on equipment furnished and installed by others which may conflict with rough–in or equipment locations. Coordinate Electrical system components with all other Disciplines' Work. No adjustment in contract price will be made for failure to review or coordinate work prior to fabrication and/or installation.
   5. Inconsistencies. In the case of any inconsistency between drawings and specifications or within either document not clarified by addendum, the better quality or greater quantity of work shall be provided in accordance with the Engineer's interpretation.

1.02 INSPECTION AND TESTS

A. Furnish Architect with certificate of inspection and approval by local authorities and required test reports prior to final acceptance of the project by the Architect. All work must be inspected and tested per local code requirements.
B. Owner is responsible for Utility Company charges.

1.03 REFERENCES AND REGULATORY REQUIREMENTS

A. Conform to current local building code.
B. Workmanship and material of electrical work shall comply with or exceed applicable provisions of the following (most recent additions including addenda and errata):
   1. All Local Codes and Ordinances
   2. National Electrical Code (NEC) (NFPA 70)
   3. National Electrical Manufacturers Association (NEMA)
   4. National Electrical Contractors Association (NECA)
      a. Standards of Installation
   5. Underwriters Laboratories (U.L.)
   6. Americans with Disabilities Act (ADA)

1.04 PROJECT COORDINATION

A. All Contractors shall be responsible for coordinating Work with other trades and for cutting and re–finishing of existing walls, floors, solid and suspended ceilings, etc., where required by Work shown and noted herein. Install all Work to clear new and existing architectural and structural members. Items such as conduit, fittings, etc., shall not be installed in conflict with equipment. Coordinate all cutting and patching with the General Contractor. Subcontractor shall be responsible for all cutting and patching of his Work. Obtain written permission of Architect before proceeding with any cutting or patching of structural systems.
B. The Owner shall be notified in writing prior to any trenching requiring a utility shutdown. Any services interrupted by trenching, excavating or floor cutting shall be repaired by the Contractor with no additional cost to the Owner. Existing underground services not specifically indicated on the drawings to be relocated, which interfere with building components, shall be brought to the Architect/Engineer's immediate attention. Prepare drawings showing proposed re–routing, area(s) affected, and length of interruption(s).
C. Connections to Existing Services
   1. All connections to existing electrical systems, and any existing equipment and services shall be made only at the times specified and approved by the Owner and/or Architect.

1.05 FIELD VERIFICATION

A. The Contractor shall visit the job site and familiarize himself with all existing conditions which may affect his bid. No allowances will be made after the bid for existing conditions or the Contractor's failure to verify existing conditions.
   1. The Contractor shall employ an independent locating service to locate and verify all existing underground services or in–floor conduits, whether specifically shown on the drawings or not. Location of underground services or in–slab or underfloor conduits shall be noted on record documents. No trenching, excavation or floor cutting shall commence until all utility locations are verified.
B. The following items shall be verified:
   1. Exact placement, size, capacity, manufacturer and condition of all existing electrical equipment within the scope of work whether specifically shown on the drawings or not.
   2. Location and condition of all existing lighting systems.
   3. Location and condition of all existing life safety systems.
C. Any discrepancies which may affect the Contractors bid shall be brought to the attention of the Engineer and Architect for direction.

1.06 SUBMITTALS

A. See Architectural Administrative Requirements, for submittal procedures.
B. Required Submittal List:
   1. Utility Service Entrance.
   2. Enclosed Switches.
   3. Panelboards.
   4. Interior Luminaires.
   5. Site Lighting luminaires and poles.
C. Project Record Documents: Provide two (2) sets of Record Documents and two (2) bound sets of all operation and maintenance manuals, diagrams, service contracts, guarantees, etc. for Owner's use. Record actual locations of all electrical equipment and incorporate into the Record Documents to show the final "installed" conditions.
D. Submit only those manufacturers listed on the drawings or in the specific section unless prior approval was obtained.
E. Submit shop drawings and product data grouped to include complete submittals of related systems, products, and accessories in a single submittal. Partial submittals will not be reviewed.
F. When overcurrent protective devices in a panelboard are indicated on the electrical drawings as comprising of part of a series rated combination, a manufacturer's current published series rated combination listing shall be included with the submittals.
G. Mark dimensions and values in units to match those specified.
H. Clearly identify specific items on multi–item catalog sheets.
I. The Installing Contractor shall review all submittals for compliance with plans and specifications. The contractor shall stamp each item in the submittal indicating that the review process has been completed.
J. Any discrepancies in the submittals from the requirements of the plans and specifications shall be noted by the Installing Contractor. If major discrepancies, errors, or product omissions are found, the Installing Contractor shall correct the submittals before forwarding for review by the Engineer.

1.07 REQUEST FOR INFORMATION

A. Requests for information are to be submitted to the Architect/Engineer by the General Contractor.
B. Sufficient back–up information shall be included to describe the situation. Where possible, a suggested solution shall be included to facilitate response time.

1.08 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of experience.
B. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.

1.09 REGULATORY REQUIREMENTS

A. All materials, equipment and installation must comply with all applicable laws, codes, rules, and regulations, required by City, County and State, as well as Federal requirements.

1.10 WARRANTY

A. Contractor shall guarantee all materials, equipment and workmanship from defect and shall replace or repair, without additional cost to the Owner, all defective material, equipment and workmanship for a period of one year after Date of Substantial Completion.
B. Submit manufacturers' warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.11 MAINTENANCE MATERIALS

A. Provide one fuse puller.

1.12 EXTRA MATERIALS

A. Provide three spare fuses of each size and type fuse installed.

PART 2 PRODUCTS

2.01 APPROVED MANUFACTURERS

A. Manufacturers as indicated in these documents are approved for use in this project under the terms and conditions shown on the plans and in these specifications. Deviations from the plans and specifications will not be allowed.
B. Substitutions of materials or products shown herein shall be at the Owner's, Architect's or Engineer's written approval only and must be made in accordance with the Architect's requirements.

2.02 CONDUIT

A. Minimum Sizes:
   1. Above slab: 1/2 inch unless otherwise noted.
   2. Below slab: 3/4 inch unless otherwise noted.
   3. Site underground: 1 inch unless otherwise noted.
B. Use
   1. Underground locations:
      a. Underground or under slab–on–grade: Use plastic coated rigid steel conduit or Schedule 40 nonmetallic conduit.
      b. All vertical underground elbows shall be plastic coated rigid steel conduit.
      c. Flexible cable shall not be used in underground applications.
   2. Indoor wet and damp locations: Use rigid steel conduit or electrical metallic tubing.
      a. Watertight flexible cable is permitted subject to National Electrical Code Provisions.
   3. Indoor dry locations:
      a. Concealed: Use rigid steel conduit, electrical metallic tubing, or type MC cable.
      b. Exposed (Unfinished Areas): Use rigid steel to 8 feet above flush floor or to first junction box. Electrical metallic tubing may be used beyond these limits.
   4. Outdoor Locations above grade: Use rigid steel or electrical metallic tubing.
      a. Liquid–tite cable is permitted subject to National Electrical Code Provisions.
   5. Conduits shall not be installed in floor slabs.
   6. Exposed conduit floor penetrations from slabs on grade shall be plastic coated or wrapped (10 mil tape with 1/2 lap) galvanized rigid steel or intermediate metal conduit.
   7. Concealed floor penetrations from slabs on grade in a finished wall or chase may be Schedule 40 non–metallic conduit. Extend nonmetallic conduit to nearest junction box.
   8. Rigid steel conduit wrapped with 10 mil PVC tape 1/2 lapped is acceptable in lieu of plastic coated.
   9. Intermediate metal conduit is acceptable in lieu of rigid steel conduit.
   10. A green equipment grounding conductor shall be run inside all raceways.
   11. Liquid tight flexible conduit used outdoors shall be U.L. listed for sunlight resistance.
C. Manufacturers:
   1. Rigid Steel, Intermediate Metal Conduit, and Electrical Metallic Tubing:
      a. Allied Tube and Conduit, AFC, Hubbell
   2. PVC coating for rigid steel conduit:
      a. Occidental Coating, P.C.D., Robroy Industries
   3. Flexible metal conduit and liquid tight flexible metal conduit
      a. Acme International, Electri–Flex, Hubbell
   4. Nonmetallic conduit
      a. Carlon, RACO, Can–Tex

2.03 BUILDING WIRE AND METALCLAD CABLE

A. Manufacturers
   1. Okonite, General Cable, Southwire, American Insulated Wire
B. Description
   1. Building wire: Single conductor, 600 volt, XHHW or THHN/THWN insulated copper wire.
   2. Metal clad cable: Interlocked steel jacket with 90 degree C., 600 volt, copper wire.
   3. Use conductor not smaller than 12 AWG for power and lighting circuits. Use conductor not smaller than 16 AWG for control circuits.
   4. Metalclad cable shall be used for concealed, indoor, dry locations only.

2.04 BOXES

A. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; include 1/2 inch male fixture studs where required.
B. Cast Boxes: Cast aluminum with gasketed cover.
C. Floor Boxes: Fully adjustable.
D. In–Ground Cast Metal Box: Galvanized cast iron Type 6, flanged with neoprene gasket and flush, nonskid cover with stainless steel screws. Provide with "ELECTRIC" cover legend.

2.05 ENCLOSURES AND CABINETS

A. Enclosure construction: NEMA Type 1 or 3R galvanized steel with hinged cover as required by application. Other types may be required as noted on drawings.
B. Provide interior panel of 3/4" plywood for mounting terminal blocks and electrical components. Finish with white enamel.
C. Recessed backboxes may be galvanized steel.
D. Box Size: As indicated on Drawings.
E. Provide metal barriers to separate compartments containing control wiring operating at less than 50 volts from power wiring.
F. Terminal blocks
   1. Power Terminals: Unit construction type with closed back and tubular pressure screw connectors, rated 600 volts.
   2. Signal and Control Terminals: Modular construction type, suitable for channel mounting, with tubular pressure screw connectors, rated 300 volts.
   3. Provide ground bus terminal block, with each connector bonded to enclosure.
G. Telephone Termination Backboards
   1. Description: 3/4 inch plywood, size as indicated on Drawings.

2.06 DEVICES

A. Manufacturers: Hubbell, Leviton, Pass and Seymour
B. Description
   1. Wall switches: 120–277 volt, 20 amp general–use snap switch with white rocker handle.
   2. Receptacles
      a. Standard, White plastic, type 5–20.
      b. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter and test switch.
      c. Isolated Ground Receptacle: Hubbell #IG5262 or equal.
      d. Wall plates
         1) Decorative Cover Plate: White, smooth plastic.
         2) Surface Mounted Device Cover Plate: Galvanized steel.
         3) Weather Proof Cover Plate (Continuous use): Gasketed, top hinged, full plug protection equal to "TAYMAC".
         4) Weatherproof Cover Plate (Non–continuous use): Gasketed cast metal with hinged gasketed device cover.
   3. Wall dimmers
      a. Manufacturers: Lutron, Hunt, Leviton
      b. Description: Semiconductor dimmer suitable for lamp wattage and type (incandescent, Low Voltage, Fluorescent, LED) as indicated on Drawings.
      c. Device Body: White plastic with slide control and preset.

2.07 GROUNDING AND BONDING

A. Rod electrode
   1. Manufacturers: Blackburn, Carolina Galvanized, Knight Metalcraft
   2. Description: Copper clad steel 3/4 inch x 10 feet.
B. Plate electrode
   1. Description: 1/4" x 18" x 18" (minimum) copper plate.
C. Mechanical connectors
   1. Manufacturers: O – Z Gedney, Thomas and Betts, Kearney – National
   2. Material: Bronze.
D. Exothermic connections
   1. Manufacturers: Cadweld, Thermoweld
E. Wire
   1. #4 and Smaller: Solid copper.
   2. #3 and Larger: Stranded copper.

2.08 IDENTIFICATION

A. Nameplates
   1. Nameplates: Engraved three–layer laminated plastic.
   2. Colors: White letters on black background for general identification; white letters on red background for warning or safety applications.
   3. Locations:
      a. Each electrical distribution and control equipment enclosure (black).
      b. Communication cabinets (black).
      c. Equipment disconnect switches (black).
      d. Locating concealed building ground connections (red).
      e. Electrical equipment room (red).
   4. Letter Size:
      a. Use 1/8 inch letters for identifying individual equipment, loads, or circuit numbers.
      b. Use 1/4 inch letters for identifying grouped equipment and loads.
      c. Use 3/8 inch letters for major heading on warning type nameplates.
B. Wire Markers
   1. Description: Tape wire markers.
   2. Locations: Each conductor at panelboard terminations, pull boxes, and each load connection.
   3. Legend:
      a. Power and Lighting Circuits: Branch circuit or feeder number indicated on drawings.
      b. Control Circuits: Control wire number indicated on shop drawings.
C. Series Rated Equipment: Equipment indicated on the electrical drawings as comprising of part of the series rated combination shall be visibly and readily marked with a label as required by NEC 110–22: "Caution–Series Rated System (_____) _____ A Available. Identified Replacement Component Required." The first blank space is to be permanently marked with the maximum available fault–current for the system. The second blank space is to be marked with the calculated available fault current at that location.
   1. EXAMPLE: "Caution–Series Rated System.65/10 23K Amps Available. Identified replacement component required".

2.09 UTILITY SERVICE ENTRANCE

A. Meters will be furnished by Utility Company.
B. Description: Per utility company requirements.
C. Meter Height: Maximum meter centerline height shall not exceed 6'–3" above the surface on which the meter reader stands.
D. Include provisions for padlocking and sealing as required by Utility Company.

2.10 MAIN SWITCHBOARD

A. Manufacturers: Siemens, Square D, Eaton Corporation; Cutler–Hammer Products, General Electric
B. Description: Deadfront distribution switchboard rated for use as Service Entrance Equipment and accessible from front only. Busbars shall be fully insulated aluminum with standard spacing for uninsulated bus. Provide an insulated ground bus extending the length of the switchboard.
C. Molded Case Circuit Breakers: NEMA AB 1, bolt–on type thermal magnetic circuit breakers with common trip handle for all poles. Provide stationary mounting. Provide ground fault sensing when indicated on drawings. Circuit breakers in switchboards 800 amps and larger shall be 100% rated.
D. Minimum Integrated Short Circuit Rating (MISCR): When so indicated on the Electrical drawings, the MISCR shall be part of a listed series rated combination with other overcurrent protective devices. Otherwise, the minimum integrated short circuit rating shall be 10,000 A.I.C. symmetrical for 240 V.A.C. panelboards, unless noted otherwise.
E. Fusible Switch Assemblies (where shown): Quick make/quick break load interrupter switch with externally operable handle. Provide interlock to prevent opening front cover with switch in ON position. Handle lockable in OFF position.
F. Enclosure: Nema 1 or 3R as shown on drawings. Align sections at front and rear. Nominal switchboard height shall be 90 inches. Provide manufacturer's standard finish.

2.11 ENCLOSED SWITCHES

A. Match Distribution Equipment.
B. Fusible Switch Assemblies: Load interrupter enclosed knife switch with externally operable handle interlocked to prevent opening front cover with switch in ON position. Handle lockable in OFF position. Fuse clips shall accommodate Class R or Class J fuses as indicated on drawings.
C. Nonfusible Switch Assemblies: Load interrupter enclosed knife switch with externally operable handle interlocked to prevent opening front cover with switch in ON position. Handle lockable in OFF position.
D. Enclosures: Nema 1 or 3R as shown on drawings.

2.12 PANELBOARDS

A. Manufacturers – Match Distribution Equipment.
B. Panelboard Bus: Copper or aluminum. Provide copper ground bus in each panelboard. Provide isolated copper ground bus where indicated.
C. The main circuit breaker in panelboards shall be rated at 80%.
D. Minimum Integrated Short Circuit Rating (MISCR): When so indicated on the Electrical drawings, the MISCR shall be part of a listed series rated combination with other overcurrent protective devices. Otherwise, the minimum integrated short circuit rating shall be 10,000 A.I.C. symmetrical for 240 V.A.C. panelboards, unless noted otherwise.
E. Molded Case Circuit Breakers: Bolt–on type thermal magnetic circuit breakers, with common trip handle for all poles. Provide circuit breakers UL listed as Type SWD for lighting circuits. Provide UL Class A ground fault interrupter circuit breakers where scheduled. Do not use tandem or piggy back circuit breakers.
F. Enclosure: NEMA Type 1 or Type 3R as indicated or required by the application.
G. Cabinet Front: Flush or surface as indicated on drawings with concealed trim clamps, concealed hinge, and flush lock all keyed alike. Cabinet front shall be "Door–In–Door" style. Finish in manufacturer's standard gray enamel.
H. Breaker Space Identification: Permanent factory supplied numbering affixed to dead front panel. Adhesive numbering on breaker or dead front panel shall not be used.

2.13 ENCLOSED MOTOR CONTROLLERS

A. Manufacturers: Siemens, Square D, Eaton Corporation; Cutler–Hammer Products, General Electric
B. Manual Controllers
   1. Fractional Horsepower Motor Starting Switch with Thermal Overloads: NEMA ICS 2, AC general–purpose Class A manually operated, full–voltage controller for fractional horsepower induction motors with red pilot light and toggle operator.
   2. Fractional Horsepower Motor Starting Switch without Thermal Overloads: AC general–purpose Class A manually operated, full–voltage controller for fractional horsepower induction motors with green pilot light and toggle operator.
   3. Enclosure: Type 1 or 3R as shown on drawings or as required by application.
C. Automatic Controllers
   1. Magnetic Motor Controllers: AC general–purpose Class A magnetic controller for induction motors rated in horsepower.
   2. Coil operating voltage: 120 volts.
   3. Overload Relay: Melting alloy.
   4. Enclosure: Type 1 or 3R as shown on drawings or as required by application.
   5. Product Options and Features
      a. Auxiliary Contacts: 1 field convertible contact in addition to seal–in contact.
      b. Cover Mounted Pilot Devices: NEMA ICS 2, standard duty type.
      c. Pushbuttons: Unguarded type.
      d. Indicating Lights: LED or neon type.
      e. Selector Switches: Rotary type.
      f. Control Power Transformers: 120 volt secondary, 50 va minimum, in each motor starter. Provide fused secondary, and bond unfused leg of secondary to enclosure.
D. Where indicated on Drawings, the following described combination starters shall be utilized:
   1. Nonfusible Switch Assemblies: NEMA KS 1, enclosed knife switch with externally operable handle.
   2. Fusible Switch Assemblies: NEMA KS 1, enclosed knife switch with externally operable handle. Fuse clips: Designed to accommodate Class R fuses.

2.14 LIGHTING FIXTURES

A. Furnish products as specified in Lighting Fixture Schedule.
B. Install ballasts, and specified accessories at factory. Fixtures may be pre–lamped and flexible conduit whip installed at factory at contractor's option.
C. Emergency Lighting Units
   1. Battery: Nickel–cadmium type, with 1.5 hour capacity.
   2. Battery Charger: Dual–rate type, with sufficient capacity to recharge discharged battery to full charge within twelve hours.
   3. Lamps: 12 watt minimum, sealed beam type in nickel or chrome plated steel housing.
   4. Remote Lamps: Match lamps on unit.
   5. Indicators: Provide lamps to indicate AC ON and RECHARGING.
   6. Provide TEST switch to transfer unit from external power supply to integral battery supply.
D. Exit Signs
   1. Description: Exit sign fixture suitable for use as emergency lighting unit. Description as indicated in Lighting Fixture Schedule.
   2. Mounting: Universal, for field selection.
   3. Battery: Nickel–cadmium with 1.5 hour capacity.
   4. Battery Charger: Dual–rate type, with sufficient capacity to recharge discharged battery to full charge within twelve hours.
E. Lamps
   1. Manufacturers: General Electric, Sylvania, North American Philips
F. Poles shall be capable of withstanding winds of 100 miles per hour minimum.

PART 3 EXECUTION

3.01 WORK SEQUENCE

A. Install work in stages to accommodate Owner's occupancy requirements. During the construction period coordinate electrical schedule and operations with other trades, Owner, and/or Engineer.

3.02 CONDUIT

A. Support conduit using coated steel or malleable iron straps, lay–in adjustable hangers, clevis hangers, and split hangers.
B. Fasten conduit supports to building structure and surfaces.
C. Do not support conduit with building wire, tiewire or perforated pipe straps. Remove wire used for temporary supports.
D. Do not attach conduit larger than 3/4 inch to ceiling support wires. Do not attach more than one conduit to any one support wire.
E. Arrange conduit to maintain headroom and present neat appearance.
F. Route conduit parallel and perpendicular to walls.
G. Route conduit under slab from point–to–point.
H. Maintain 3 inch clearance between conduit and surfaces with temperatures exceeding 104 degrees F.
I. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for 20 minutes, minimum.
J. Use conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations.
K. Install no more than equivalent of four 90–degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams.
L. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
M. Provide suitable fittings to accommodate expansion and deflection where conduit crosses seismic, control or expansion joints.
N. Provide 100 pound test pull string in each empty conduit except sleeves and nipples.
O. Terminate all conduits with an insulated throat fitting or bushing.

3.03 BUILDING WIRE

A. Use 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 100 feet.
B. Only where necessary, use suitable wire pulling lubricant for building wire 4 AWG and larger.
C. Neatly train and lace wiring inside boxes, equipment, and panelboards.
D. Verify continuity of each branch circuit conductor.
E. Verify condition of feeder insulation No. 6 and larger with a 1000 volt megger. Record all readings of all phase conductors.

3.04 BOXES

A. Install electrical boxes to maintain headroom and to present neat mechanical appearance.
B. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
C. Do not install flush mounting boxes back–to–back in walls; provide minimum 6 inch separation. Provide minimum 24 inches separation in acoustic rated walls.
D. Boxes may be fastened to ceiling support wires only with an approved standoff device maintaining a minimum of 6" from the bottom of the box to the top of the T–bar.
E. Support boxes independently of conduit, except cast boxes that are connected to two rigid metal conduits both supported within 12 inches of box.
F. Use cast outlet box in exterior locations exposed to the weather and wet locations.
G. Coordinate locations and sizes of required access doors with Division 8.
H. Coordinate mounting heights and locations of outlets mounted above counters, benches and backsplashes.
I. Adjust floor boxes flush with finish flooring material.
J. Install box or device ring to within 1/8" of finished wall surface.
K. Provide stud–to–stud support for boxes in non–masonry walls.

3.05 IDENTIFICATION

A. Provide panel and circuit number(s) for all circuits contained within each junction or pull box. Use only black "Magic Marker"; no other color is acceptable.
B. All special system junction or pull box covers shall indicate name system, such as: "TEL", "DATA", "FIRE ALARM", "SECURITY", etc.

3.06 DEVICES

A. Install devices plumb and level.
B. Install switches with OFF position down.
C. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
D. Use jumbo size plates for outlets installed in masonry walls.
E. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
F. Test each receptacle device for proper polarity.
G. Test each GFCI receptacle device for proper operation.

3.07 GROUNDING AND BONDING

A. Provide code size bond conductor in all raceways.
B. Provide certified test report indicating overall resistance to ground.
C. Structural steel bond attachment shall be by exothermic weld.

3.08 ANCHORS AND FASTENERS

A. Do not fasten supports to pipes, ducts, mechanical equipment, and conduit.
B. Do not drill or cut structural members.
C. Install surface–mounted cabinets and panelboards with minimum of four anchors.
D. Use sheet metal channel to bridge studs above and below cabinets and panelboards recessed in hollow partitions.

3.09 IDENTIFICATION

A. Install nameplate and label parallel to equipment lines.
B. Secure nameplate to equipment front using tamperproof screws or rivets.

3.10 UTILITY SERVICE ENTRANCE

A. Make arrangements with Utility Company to obtain permanent electric service to the Project.

3.11 PANELBOARDS

A. Install panelboards plumb. Install recessed panelboards flush with wall finishes.
B. Height: 6 ft to top of panelboard; install panelboards taller than 6 ft with bottom no less than 4 inches above floor.
C. Provide filler plates for unused spaces in panelboards.
D. Provide typed circuit directory for each branch circuit panelboard.
E. Provide spare conduits out of each recessed panelboard to an accessible location above ceiling. Minimum spare conduits: 5 empty 1 inch. Identify each as SPARE.

3.12 ENCLOSED MOTOR CONTROLLERS

A. Height: 5 ft to top of operating handle.
B. Install fuses in fusible switches.
C. Select and install overload heater elements in motor controllers to match installed motor characteristics.

3.13 LIGHTING FIXTURES

A. Install suspended luminaires and exit signs using pendants supported from swivel hangers. Provide pendant length required to suspend luminaire at indicated height. Chain suspension may be used in mechanical rooms.
B. Support luminaires larger than 2 x 4 foot size independent of ceiling framing.
C. Install surface mounted luminaires and exit signs plumb and adjust to align with building lines and with each other. Secure to prohibit movement.
D. Install specified lamps in each luminaire.
E. Provide seismic supports and restraints as required by all local and state requirements.
F. Relamp luminaires utilized during construction at Substantial Completion.
G. Replace excessively noisy ballasts as determined by Architect/Engineer.
H. Clean photometric control surfaces.
I. Clean finishes and touch up damage.
J. Provide minimum of 24 consecutive hours of luminaire operation. Replace defective lamps and ballasts at conclusion of demonstration period.
K. Examine excavation and concrete foundation for lighting poles.
L. Install poles plumb. Provide double nuts to adjust plumb. Grout around each base.
M. Install bolt covers.

3.14 TELEPHONE TERMINAL BOARDS

A. Install termination backboards and/or cabinets plumb, and attach securely to building wall at each corner. Install cabinet trim plumb.

END OF SECTION

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

SELF CERTIFIED BY: _____ DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

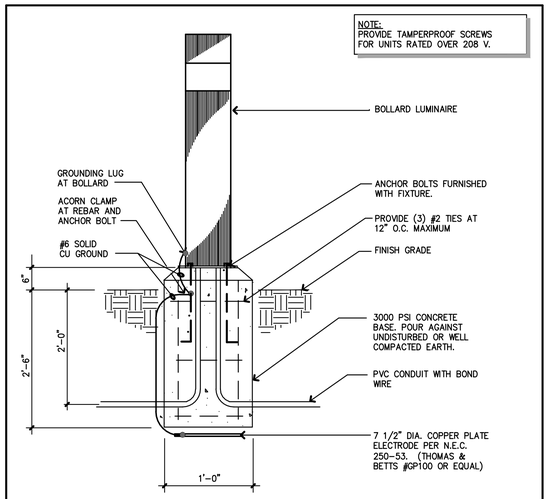
ELECTRICAL SPECIFICATIONS

Date 03/06/19

E002

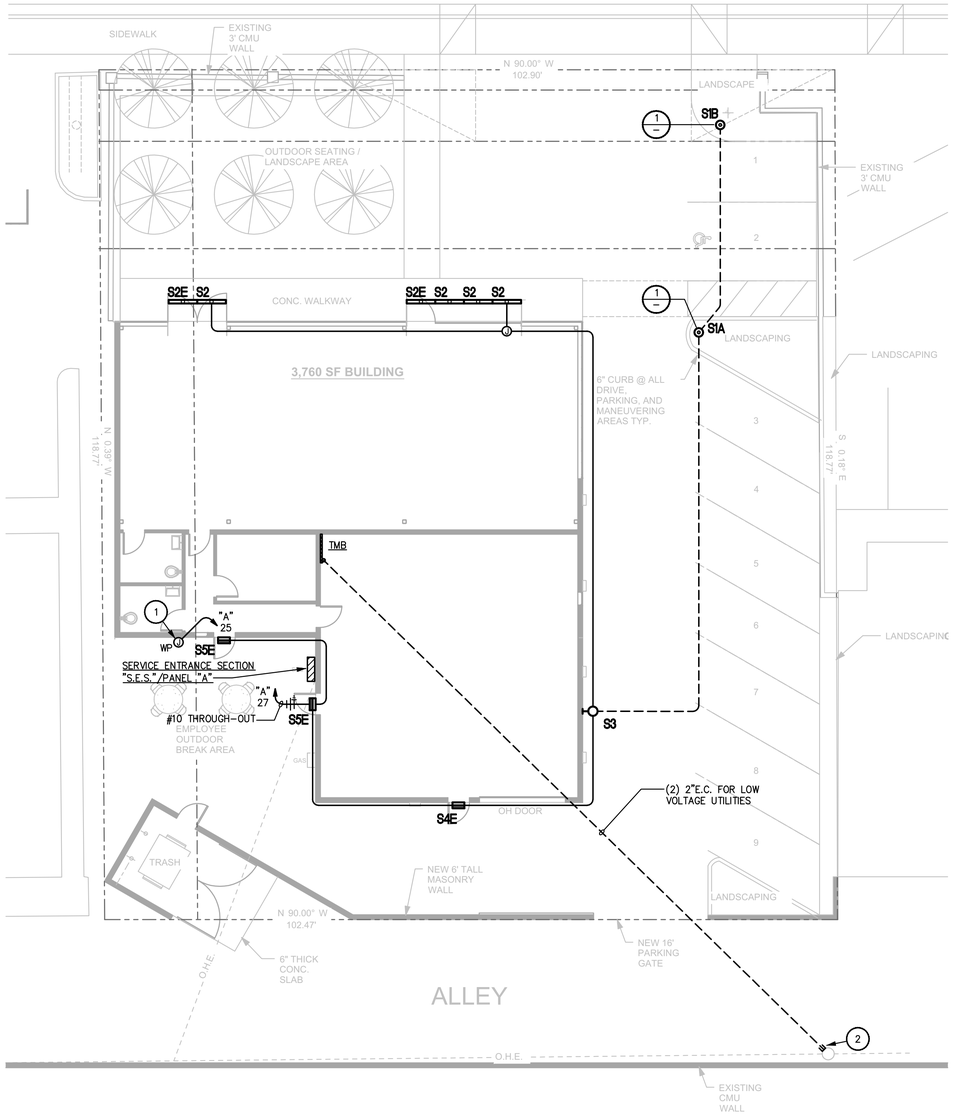
Scale AS SHOWN

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



① BOLLARD MOUNTING DETAIL

NTS



ELECTRICAL SITE PLAN

1"=10'-0"

GENERAL SITE PLAN NOTES:

1. THE SIZE, LOCATION AND DEPTH OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN AND ASSOCIATED DETAILS ARE BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY AT THE TIME OF DESIGN. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES IN THE WORK AREA BEFORE DIGGING AND SHALL TAKE NECESSARY MEASURES TO PROTECT HIMSELF, HIS PERSONNEL, AND THE PUBLIC FROM HARM DUE TO CONTACT WITH UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THESE PLANS. CONTACT AN UNDERGROUND UTILITIES LOCATION SERVICE AT LEAST 72 HOURS PRIOR TO DIGGING TO SPOT UTILITIES. NOTIFY THE ARCHITECT, ENGINEER, AND OWNER OF ALL INCORRECTLY CHARTED SITE UTILITIES ENCOUNTERED DURING THE COURSE OF THE WORK.
2. ALL UNDERGROUND CONDUITS SHALL BE MINIMUM 3/4". HOMERUNS SHALL BE MINIMUM 1". ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC-DB, UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER. ALL UNDERGROUND WIRING SHALL BE MINIMUM #10, UNLESS OTHERWISE NOTED.
3. REFER TO PANEL SCHEDULES, LIGHTING FIXTURE SCHEDULE, SITE PHOTOMETRIC DRAWING, AND LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SITE LIGHTING.
4. COORDINATE LOCATIONS OF ALL SITE LUMINAIRES AND POLES WITH CIVIL AND LANDSCAPE DRAWINGS PRIOR TO ROUGH IN.
5. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION REGARDING UTILITY SERVICE REQUIREMENTS.
6. REFER TO THE UTILITY SITE-SPECIFIC SHOP DRAWINGS FOR TRENCH ROUTING, CONDUIT SIZES, AND QUANTITIES FOR INCOMING PHONE, DATA, AND CABLE TV SERVICES.
7. ELECTRICAL AND TELECOMMUNICATIONS SERVICE ROUTING SHOWN ON THE ELECTRICAL SITE PLAN ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF DESIGN.
8. SITE PLAN INDICATES GENERAL LOCATIONS OF UTILITY-OWNED, SWITCHGEAR, AND PRIMARY CABLE ROUTING BASED UPON INFORMATION AVAILABLE AT THE TIME OF DESIGN. PRIOR TO ROUGH IN, VERIFY THE ACTUAL ROUTING OF UTILITY FEEDERS, PLACEMENT OF UTILITY FACILITIES AND EQUIPMENT WITH THE APPROVED SHOP DRAWINGS PREPARED BY THE ELECTRIC UTILITY COMPANY. COORDINATE UTILITY REQUIREMENTS WITH THE GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
9. UNLESS OTHERWISE DIRECTED BY THE UTILITY COMPANY, PROVIDE MINIMUM 24" COMPACTED COVER OVER UTILITY CONDUITS.
10. WET UTILITIES SHALL NOT BE RUN IN THE SAME TRENCH AS TELEPHONE, OR CATV UTILITIES. WHERE TELEPHONE, OR CATV CROSS UNDERGROUND WET UTILITY LINES, A MINIMUM 24" VERTICAL SEPARATION SHALL BE MAINTAINED WITH THE WET UTILITY LINES PASSING BELOW. VERIFY SEPARATION DISTANCES WITH LOCAL SERVING UTILITY'S DESIGN AND CONSTRUCTION STANDARDS.
11. TRENCH BOTTOMS SHALL BE SMOOTH, FLAT AND WITHOUT SURFACE IRREGULARITIES. WHEN NECESSARY, PROVIDE SUFFICIENT QUANTITIES OF BEDDING MATERIAL TO PROVIDE THE REQUIRED SURFACE. BEDDING MATERIAL SHALL BE AS SPECIFIED BY THE UTILITY COMPANY.
12. WHEN CHANGING ELEVATIONS IN STRAIGHT CONDUIT RUNS, THE ELEVATION OF THE TRENCH BOTTOM SHALL NOT EXCEED 1'-0" RISE IN 12'-0" HORIZONTAL RUN.
13. PROVIDE ALL TRENCHING AND BACKFILL PER UTILITY STANDARDS AND SPECIFICATIONS.
14. THE ELECTRICAL INSTALLATION SHALL CONFORM TO ALL STATE AND LOCAL SEISMIC REQUIREMENTS.

KEY NOTES:

1. PROVIDE 120VAC CONNECTION TO IRRIGATION CONTROLLER.
2. STUB OUT CONDUIT AS DIRECTED BY UTILITY COMPANIES.

SELF CERTIFIED BY: _____ DATE: 03/06/2019
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PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
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CONTACTS:

OWNER
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(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
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JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

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-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Owner	JONATHAN PITT
Proj. Nam	WANDERIST OFFICE & RETAIL

ELECTRICAL SITE PLAN

Date	03/06/19

E100

Scale	AS SHOWN

02/07/2019 5:46:06 PM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

COMcheck Software Version 4.1.1.0
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: WANDERIST OFFICE & RETAIL
Project Type: New Construction

Construction Site:
Owner/Agent:
Designer/Contractor: PACE AZ

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Retail:Sales Area	1926	1.10	2119
2-Common Space Types:Corridor/Transition <8 ft wide	132	0.59	78
3-Common Space Types:Office - Enclosed	140	0.84	118
4-Common Space Types:Restrooms	142	0.77	109
5-Common Space Types:Storage >=1000 sq.ft.	1412	0.41	579
		Total Allowed Watts =	3002

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Retail:Sales Area				
LED 1: A: Other:	1	31	35	1085
2-Common Space Types:Corridor/Transition <8 ft wide				
LED 2: B: Other:	1	4	21	84
3-Common Space Types:Office - Enclosed				
LED 1: A: Other:	1	30	35	1050
4-Common Space Types:Restrooms				
LED 2: B: Other:	1	4	21	84
5-Common Space Types:Storage >=1000 sq.ft.				
LED 3: C: Other:	1	14	28	392
			Total Proposed Watts =	2695

Interior Lighting PASSES: Design 10% better than code

COMcheck Software Version 4.1.1.0
Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: WANDERIST OFFICE & RETAIL
Project Type: New Construction
Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site:
Owner/Agent:
Designer/Contractor: PACE AZ

Allowed Exterior Lighting Power

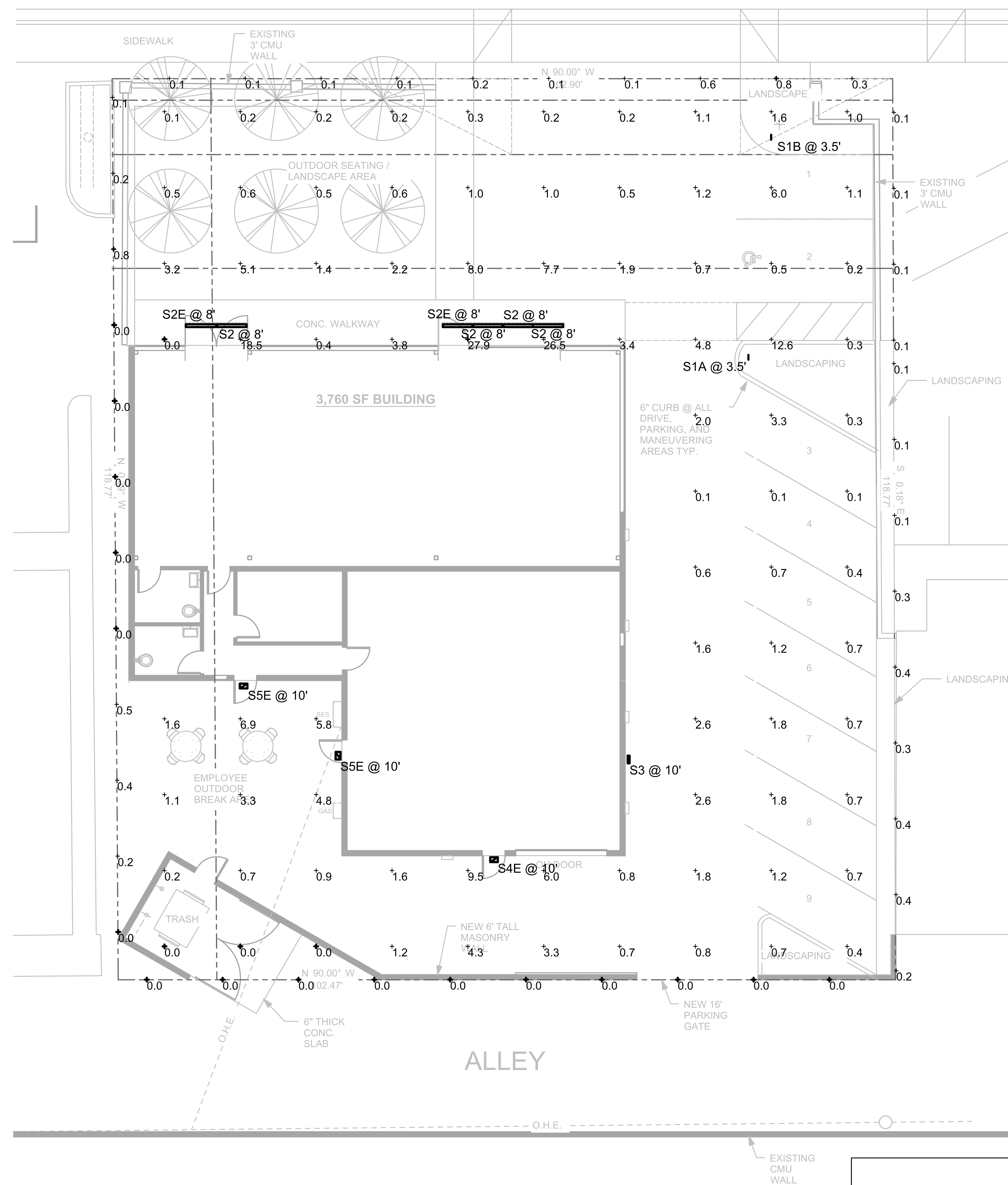
A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Dining area	690 ft2	0.65	Yes	448
Loading dock	604 ft2	0.35	Yes	211
Parking area	1630 ft2	0.04	Yes	65
Driveway	2275 ft2	0.04	Yes	91
Pedestrian and vehicular entrances and exits	12 ft of door	14	Yes	168
			Total Tradable Watts (a) =	984
			Total Allowed Watts =	984
			Total Allowed Supplemental Watts (b) =	400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Dining area (690 ft2): Tradable Wattage				
LED 5: S5E: Other:	1	2	12	24
Loading dock (604 ft2): Tradable Wattage				
LED 4: S4E: Other:	1	1	25	25
Parking area (1630 ft2): Tradable Wattage				
LED 1A: S1A: Other:	1	1	28	28
LED 1B: S1B: Other:	1	1	28	28
Driveway (2275 ft2): Tradable Wattage				
LED 3: S3: Other:	1	1	39	39
Pedestrian and vehicular entrances and exits (12 ft of door width): Tradable Wattage				
LED 2: S2/S2E: Other:	1	6	13	78
			Total Tradable Proposed Watts =	222

Exterior Lighting PASSES: Design 84% better than code



PHOTOMETRIC SITE PLAN
1"=10'-0"

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PL FC AFG	+	0.2 fc	0.8 fc	0.0 fc	N/A	N/A
SITE FC AFG	+	2.7 fc	27.9 fc	0.0 fc	N/A	N/A

SELF CERTIFIED BY: [signature] DATE: 03/06/2019
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

ERWIN | ARCHITECTURE DEVELOPMENT

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

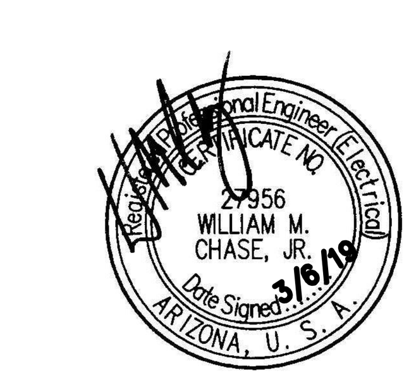
STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19



Owner JONATHAN PITT
Proj. Nam WANDERIST OFFICE & RETAIL

PHOTOMETRIC SITE PLAN

Date 03/06/19

E101

Scale AS SHOWN

02/07/2019 5:48:06 PM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

FIXTURE TYPE 'S1'

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

D-Series LED Bollard

d"series

Specifications

Diameter: 8" Round (20.3 cm)

Height: 42" (106.7 cm)

Weight (max): 27 lbs (12.25 kg)

Introduction

The D-Series LED Bollard is a stylish, energy-saving, long-life solution designed to perform the way a bollard should—with zero uplight. An optical leap forward, this full cut-off luminaire will meet the most stringent of lighting codes. The D-Series LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Ordering Information

EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DDBXD

DSXB LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options	Other options	Finish (required)
DSXB LED	Asymmetric 12C 12 LEDs[1] Symmetric 16C 16 LEDs[2]	350 350 mA 450 450 mA[3,4] 530 530 mA 700 700 mA	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted AMBLW Amber limited wavelength[3,4]	ASY Asymmetric[1] SYM Symmetric[2]	MVOLT[5] 120[5] 208[5] 240[5] 277[5] 347[4]	Shipped installed PE Photoelectric cell, button type DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ELCW Emergency battery backup[6]	Shipped installed SF Single fuse (120, 277, 347V)[4,7] DF Double fuse (208, 240V)[4,7] H24 24" overall height H30 30" overall height H36 36" overall height FG Ground-fault festoon outlet L/AB Without anchor bolts L/AB4 4-bolt retrofit base without anchor bolts[8]	DWHXD White DNAXD Natural aluminum DDBXD Dark bronze DBLXD Black DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Accessories

Ordered and shipped separately.

MRAB U Anchor bolts for DSXB[8]

NOTES

1. Only available in the 12C, ASY version.
2. Only available in the 16C, SYM version.
3. Only available with 450 AMBLW version.
4. Not available with ELCW.
5. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
6. Not available with 347V. Not available with fusing. Not available with 450 AMBLW.
7. Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
8. MRAB U not available with L/AB4 option.

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FIXTURE TYPE 'S2' AND 'S2E'

LITHONIA LIGHTING®

Catalog Number

Notes

Type

LED Linear

CLX

24", 36", 48" and 96" Lengths

Flat Diffuse Lens

Round Diffuse Lens

Wide Diffuse Lens

FEATURES & SPECIFICATIONS

INTENDED USE — The CLX is a linear lighting solution that is available in multiple lengths, lumen packages and distributions. Designed for versatility, the CLX can address virtually any indoor lighting need. The CLX is also offered in standard and high efficacy configurations and capable of being continuous row mounted or installed as a stand-alone fixture. Ideal for uplight and downlight in commercial, retail, manufacturing, warehouse, and display applications. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.** Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.

CONSTRUCTION — Channel and cover are formed from code-gauge cold-rolled steel. Housing and lens endcaps are injection molded plastic to provide a more architectural look and feel. The endcaps come standard with a 7/8" knock out for continuous mounting but can be ordered without.

Finish: Paint options include high-gloss, baked white polyester (WH), galvanized (GALV), matte black (MB) and smoke gray (SKGY). Five-stage iron phosphate pre-treatment ensures superior paint adhesion and rust resistance.

OPTICS — Offered with acrylic lens and less lens configurations. Provides a choice of optical distributions including, wide, narrow, and aisle.

ELECTRICAL — Utilizes high-output LEDs integrated on a two-layer circuit board, ensuring cool-running operation. Optional internal pluggable wiring harness for reduced labor cost in row mounting applications. (See PLR_ ordering information on page 15.) Electronic LED driver is multi-volt input and 0-10V dimming standard (see Operational Data on page 12 for actual wattage consumption). This fixture is designed to withstand a maximum line surge of 2.5kV at 0.75kA combination wave for indoor locations, for applications requiring higher level of protection additional surge protection must be provided.

L70>100,000 hours at 25°C.

LEDs provide nominal 80 CRI or 90CRI at 3000 K, 3500 K,4000 K, or 5000 K.

Lumen output up to 2,500 lumens per foot.

INSTALLATION — Fixture may be ceiling or wall mounted (with or without THCLX hanger or angle mounted with CLXANGBRT), pendant or stem mounted with appropriate mounting options.

LISTINGS — CSA certified to US and Canadian safety standards. For use in damp locations between -4°F (-20°C) and 104°F (40°C). Optional High Ambient (HA) ranging to 122°F(50°C) available on certain lumen packages (See ambient temperature chart for additional information).
DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Stock configurations are offered for shorter lead times:

Stock Part Number	UPC	DLC QPL Product ID	DLC Premium
CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525816	PJANKZR4	Yes
CLX L48 3000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525885	PKW32VKL	Yes
CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525939	P77I8Z20	Yes
CLX L48 5000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525908	P8A42C1H	Yes
CLX L96 6000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525861	PPFTGRBV	Yes
CLX L96 6000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525915	PW6250TE	Yes
CLX L96 10000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525922	PYKOC7EW	Yes
CLX L96 10000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525830	PKYPL35K	Yes
CLX L48 3000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525960	PJANKZR4	Yes
CLX L48 3000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525892	PKW32VKL	Yes
CLX L48 5000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525854	P77I8Z20	Yes
CLX L48 5000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525946	P8A42C1H	Yes
CLX L96 6000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525878	PPFTGRBV	Yes
CLX L96 6000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525823	PD0SSIAD	Yes
CLX L96 10000LM SEF RDL MVOLT GZ10 40K 80CR WH	00191723525953	PYKOC7EW	Yes
CLX L96 10000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525847	PKYPL35K	Yes

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® or XPoint™ Wireless control networks marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

INDUSTRIAL

CLX Page 1 of 16

CLX LED Linear

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: CLX L48 5000LM SEF WDL MVOLT GZ10 40K 80CRI WH

Series	Length	Nominal lumens	Performance package	Louver	Lens
CLX LED linear	L24 24"[1,2]	1500LM 1,500 lumens 2000LM 2,000 lumens 2500LM 2,500 lumens 3500LM 3,500 lumens 4500LM 4,500 lumens 5000LM 5,000 lumens[3,4]	SEF Standard efficiency[5] HEF Premium efficiency	(Blank) Less louver SBLW Straight blade louver, white[6] SBLMB Straight blade louver, matte black[6] SBLGV Straight blade louver, galvanized[6] SBLSKGY Straight blade louver, smoke gray[6]	L/Lens Less lens FDL Flat diffuse[7,8] RDL Round diffuse[7,8] WDL Wide diffuse[7,8]
	L36 36"[2]	2250LM 2,250 lumens 3000LM 3,000 lumens 3750LM 3,750 lumens 5250LM 5,250 lumens 6750LM 6,750 lumens 7500LM 7,500 lumens[3,4]			
	L48 48"	3000LM 3,000 lumens 4000LM 4,000 lumens 5000LM 5,000 lumens 7000LM 7,000 lumens[2] 9000LM 9,000 lumens[2] 10000LM 10,000 lumens[2,4]			
	L96 96"	6000LM 6,000 lumens 8000LM 8,000 lumens 10000LM 10,000 lumens 14000LM 14,000 lumens[2,4] 18000LM 18,000 lumens[2,4] 20000LM 20,000 lumens[2,4]			

Distribution	Voltage		Driver[14]	Color temperature	Coloring rendering index
(Blank) General ND Narrow[8,9] WD Wide[8,9] AD2 Aisle, 24° off center[8,9]	MVOLT 120-277V[10] 120 120V 208 208V 240 240V	277 277V 347 347V[11,12] 480 480V[11,12]	GZ10 0 -10V dimming[14] EZ1 Dimming to 1%[2]	30K 3000 K 35K 3500 K 40K 4000 K 50K 5000 K	80CRI 80 CRI 90CRI 90 CRI

Options			Finish
PS1050 Emergency battery pack, 10W, non-CEC compliant[2,12,15,16,17] E10WLCP Emergency battery pack, 10W Linear Constant Power, CA Title 20 compliant[2,12,15,16,17] BGTD Generator transfer device, not avaialble with PS1050[12,15,18] OCS 5', 18/3 Reloc selectable One Pass cable[15] HA High ambient, for use in ambient temperatures up to 50°C EPNKO Decorative endplate, no knock out[19] OUTCTR Wiring leads pulled through back center of fixture[22] OUTEND Wiring leads pulled through end of fixture[20] CS1W Staight blade plug, 120V[10,15] CS3W NEMA twist-lock plug, 120V[10,15] CS7W Staight blade plug, 277V[10,15] CS11W NEMA twist-lock plug, 277V[10,15] CS25W NEMA twist-lock plug, 347V[10,15] CS97W NEMA twist-lock plug, 480V[10,15] CS93W 600V SEOOW white cord, no plug (no voltage required) CS6G16STOWD5D 6' white cord, 16/5, no plug, includes low voltage dimming wires (no voltage required)[14]	PLR__ Plug-in wiring, see page 16 for ordering information PLR1LVG Plug-in wiring,low voltage dimming[21] RRL__ RELOC®-ready luminaire. See page 15 for ordering information SPD Surge protection device, provides up to 6kV protection[15,22] USPOM Assembled in the United States Individual controls:[23] MSD7 PIR integral occupancy sensor MSDPDT7 PDT 7 dual technology integral occupancy control MSD7ADC PIR integral occupancy sensor with automatic dimming control photocell MSDPDT7ADC PDT integral occupancy sensor with automatic dimming control photocell Xpoint™ Wireless:[23] XAD XPoint™ Wireless 0-10V relay, internal, lower max ambient XAD924 XPoint™ Wireless 0-10V relay, internal, lower max ambient with emergency relay (UL924 compliant)	nLight® Wired:[23] N100 nLight® without lumen management NES7 nLight® nES 7 PIR integral occupancy sensor[24] NESPDT7 nLight® nES PDT 7 dual technology integral occupancy control[24] NES7ADCX nLight® nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell[24] NESPDT7ADCX nLight® nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell[24] nLight® Wireless:[25] NLTAIR2 RES7 nLight® Generation 2 enabled PIR integral occupancy sensor with automatic dimming photocell[25] NLTAIR2 RES7PDT nLight AIR Generation 2 enabled dual technology integral occupancy sensor with automatic dimming photocell[25] NLTAIR2 RIO No sensor control[25]	WH White GALVW Galvanized with white lens end caps GALVB Galvanized with black lens end caps MB Matte black SKGYW Smoke gray with white lens end caps SKGYB Smoke gray with black lens end caps

See Accessories and footnotes on next page

LITHONIA LIGHTING® CLX

INDUSTRIAL: One Lithonia Way, Conyers, GA 30012 Phone: 800-315-4963 www.lithonia.com

 Rev. 10/03/18 Page 2 of 16

FIXTURE TYPE 'S3'

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

D-Series Size 1 LED Wall Luminaire

d"series

Specifications

Luminaire

Width: 13-3/4" (34.9 cm) Weight: 12 lbs (5.4 kg)

Depth: 10" (25.4 cm)

Height: 6-3/8" (16.2 cm)

Back Box (BBW, ELCW)

Width: 13-3/4" (34.9 cm) BBW Weight: 5 lbs (2.3 kg)

Depth: 4" (10.2 cm) ELCW Weight: 10 lbs (4.5 kg)

Height: 6-3/8" (16.2 cm)

For 3/4" NPT side-entry conduit (BBW only)

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines)[1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A)[1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT[2] 120[3] 208[3] 240[3] 277[3] 347[3,4] 480[3,4]	Shipped included (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry)[5]	Shipped installed PE Photoelectric cell, button type[6] DMG 0-10V dimming driver (no controls; wires pulled outside fixture)) PIR 180° motion/ambient light sensor, <15' mtg ht[1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht[1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[1,7] ELCW Emergency battery backup (includes external component enclosure), non CEC compliant[8]

Other Options		Finish (required)		
Shipped installed SF Single fuse (120, 277 or 347V)[3,9] DF Double fuse (208, 240 or 480V)[3,9] HS House-side shield[10] SPD Separate surge protection	Shipped separately[10] BSW Bird-deterrent spikes WG Wire guard VG Vandal guard DDL Diffused drop lens	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White	DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum	DWHGXD Textured white DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

NOTES

1. 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4. Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5. Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6. Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7. Reference Motion Sensor table on page 3.
8. Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9. Not available with ELCW.
10. Also available as a separate accessory; see Accessories information.

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DSXW1-LED Rev. 3/13/18

FIXTURE TYPE 'S4E' AND 'S5E'

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

WST LED Architectural Wall Sconce

Specifications

Luminaire

Height: 8-1/2" (21.59 cm)

Width: 17" (43.18 cm)

Depth: 10-3/16" (25.9 cm)

Weight: 20 lbs (9.1 kg)

Optional Back Box (PBBW)

Height: 8.49" (21.56 cm)

Width: 17.01" (43.21 cm)

Depth: 1.70" (4.32 cm)

FOR 3/4" NPT SIDE-ENTRY

FOR 1/4" MOUNTING BOLTS

Optional Back Box (BBW)

Height: 4" (10.2 cm)

Width: 5-1/2" (14.0 cm)

Depth: 1-1/2" (3.8 cm)

For 3/4" NPT side-entry conduit

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

See ordering tree for details.

A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

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WST-LED Rev. 06/21/18

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

WST LED

Series	Performance Package	Color temperature	Distribution	Voltage		Mounting
WST LED	P1 1,500 Lumen package P2 3,000 Lumen package P3 6,000 Lumen package	27K 2700 K 30K 3000 K 40K 4000 K 50K 5000 K	VF Visual comfort forward throw VW Visual comfort wide	MVOLT[1] 120[2] 208[2] 240[2]	277[2] 347[2] 480[2]	Shipped included (blank) Surface mounting bracket Shipped separately BBW Surface-mounted back box[3] PBBW Premium surface-mounted back box[3,4]

Options		Finish (required)
PE Photoelectric cell, button type[5] PER NEMA twist-lock receptacle only (controls ordered separate)[6] PER5 Five-wire receptacle only (controls ordered separate)[6] PER7 Seven-wire receptacle only (controls ordered separate)[6] PIR Motion/Ambient Light Sensor, 8-15' mounting height[7,8] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[7,8] PIRH 180° motion/ambient light sensor, 15-30' mounting height[7,8] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[7,8] SF Single fuse (120, 277, 347V)[2] DF Double fuse (208, 240, 480V)[2] DS Dual switching[9] E7WH Emergency battery backup, Non CEC compliant (7W)[10]	E7WC Emergency battery backup, Non CEC compliant (cold, 7W)[10,11] E7WHR Remote emergency battery backup, Non CEC compliant (remote 7W)[10,12] E20WH Emergency battery pack 18W constant power, CEC compliant[10] E20WC Emergency battery pack -20°C 18W constant power, CEC compliant[10,11] E23WHR Remote emergency battery backup, Non CEC compliant (remote 20W)[10,11,13] LCE Left side conduit entry[14] RCE Right side conduit entry[14] Shipped separately RBPW Retrofit back plate[3] VG Vandal guard[15] WG Wire guard[15]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

WSTVCPBBW DDBXD U	Premium Surface - mounted back box
WSBBW DDBTX U	Surface - mounted back box
RBPW DDBXD U	Retrofit back plate

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
3. Also available as a separate accessory; see accessories information.
4. Top conduit entry standard.
5. Need to specify 120, 208, 240 or 277 voltage.
6. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
7. Not available with VG or WG. See PER Table.
8. Reference Motion Sensor table.
9. Not available with Emergency options, PE or PER options.
10. Not available with 347/480V.
11. Battery pack rated for -20° to 40°C.
12. Comes with PBBW.
13. Warranty period is 3-years.
14. Not available with BBW.
15. Must order with fixture; not an accessory.

Emergency Battery Operation

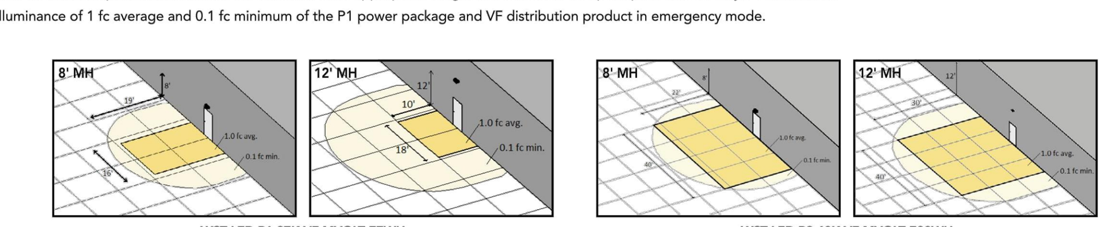
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

10' x 10' Gridlines
8' and 12' Mounting Height



WST LED P1 27K VF MVOLT E7WH

WST LED P2 40K VF MVOLT E20WH

LITHONIA LIGHTING. One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • www.lithonia.com

WST-LED Rev. 06/21/18

PETERSON ASSOCIATES CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
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2058 S. DOBSON ROAD, SUITE 10
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(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

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PHOENIX, AZ 85020
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(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

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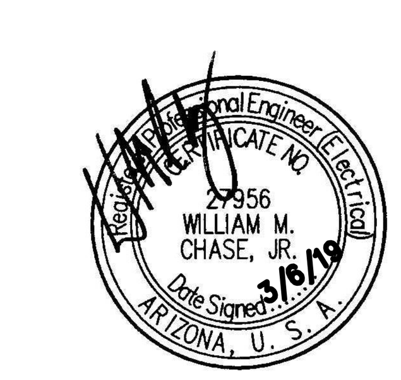

Owner JONATHAN PITT

Proj. Nam WANDERIST OFFICE & RETAIL

EXTERIOR LIGHTING FIXTURE CUT SHEETS

Date 03/06/19

E102

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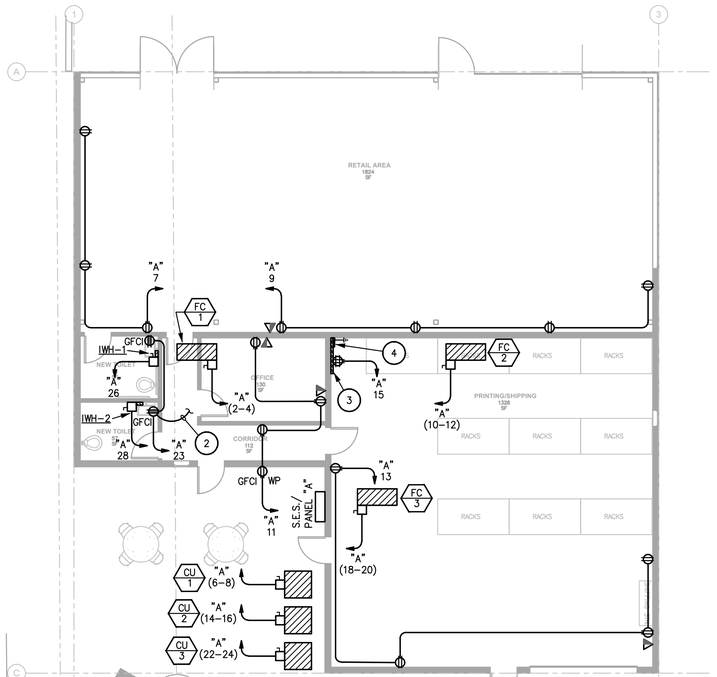
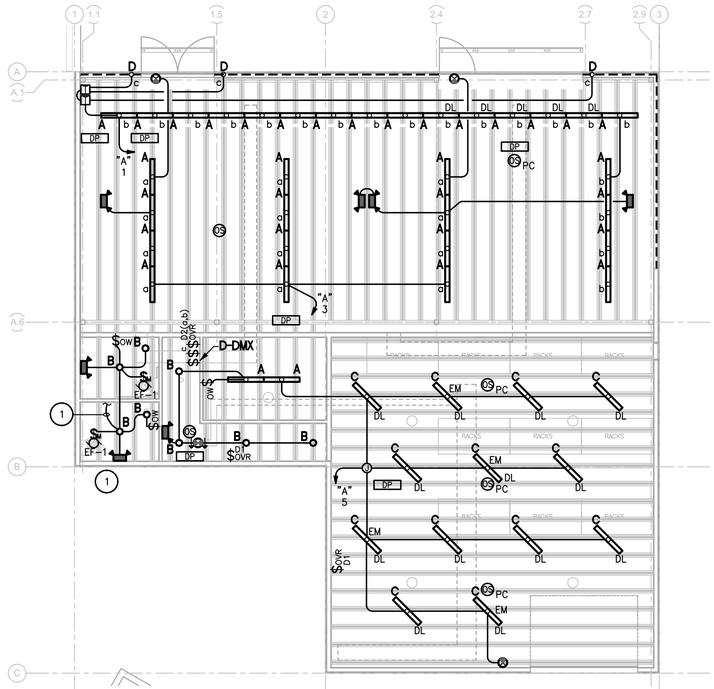
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



ELECTRICAL POWER PLAN
1/8"=1'-0"



ELECTRICAL LIGHTING PLAN
1/8"=1'-0"

GENERAL POWER NOTES:

1. REFER TO ONE-LINE DIAGRAM AND EQUIPMENT SCHEDULES FOR ADDITIONAL INFORMATION.
2. REFER TO ELECTRICAL PANEL SCHEDULES FOR BRANCH CIRCUIT NUMBERS AND OVERCURRENT DEVICES.
3. WHERE POSSIBLE, MOUNT EQUIPMENT DISCONNECT SWITCHES DIRECTLY ON MECHANICAL UNIT SERVED. COORDINATE MOUNTING LOCATION AND SWITCH INSTALLATION WITH MECHANICAL CONTRACTOR. DISCONNECT SWITCH SHALL BE ACCESSIBLE AND MOUNTED SO THE COVER DOOR MAY BE OPENED AT LEAST 90 DEGREES.
4. THE LOCATIONS AND MOUNTING HEIGHT OF DEVICES SHOWN ON THESE PLANS ARE DIAGRAMMATIC TO COMMUNICATE QUANTITIES, CIRCUITING, AND GENERAL LOCATIONS. DO NOT SCALE LOCATIONS FROM THESE PLANS. REFER TO ARCHITECTURAL DIMENSIONED PLANS AND ELEVATIONS. VERIFY THE EXACT LOCATIONS OF ALL RECEPTACLES, TELEPHONE AND DATA OUTLETS, AND OTHER SPECIAL SYSTEMS OUTLETS WITH ARCHITECT PRIOR TO ROUGH-IN.
5. PRIOR TO ROUGH-IN, FIELD VERIFY FEEDER ROUTING TO ASSURE THERE ARE NO STRUCTURAL OBSTRUCTIONS OR COORDINATION CONFLICTS WITH EQUIPMENT PROVIDED BY OTHER TRADES. IDENTIFIED CONFLICTS AND/OR OBSTRUCTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT, IN WRITING, PRIOR TO COMMENCEMENT OF ROUGH-IN.
6. VERIFY THE PLACEMENT, WIRING REQUIREMENTS, AND EXACT LOCATION OF POINT OF CONNECTION, FOR ALL HVAC AND PLUMBING EQUIPMENT WITH THE HVAC AND PLUMBING CONTRACTORS PRIOR TO ROUGH-IN. SEE DETAIL FOR METHOD TO BE USED WHEN CONNECTING DIRECT-WIRED EQUIPMENT. COORDINATE LOCATION/INSTALLATION OF DISCONNECT(S) AND WIRING WITH RESPECTIVE SUB-CONTRACTORS.
7. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO ARRANGE FOR AND PROVIDE MINIMUM WORKING CLEARANCE AROUND ALL ELECTRICAL EQUIPMENT, DEVICES, AND DISCONNECT SWITCHES BASED UPON FIELD CONDITIONS AT THE TIME OF INSTALLATION AND IN ACCORDANCE WITH NEC ART. 110.26. IF THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO ROUGH-IN.
8. ALL CONDUITS SHALL BE PROVIDED WITH A SEPARATE GREEN EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250.122. IN ADDITION, PROVIDE A SEPARATE FULL-SIZED ISOLATED GROUND CONDUCTOR IN CIRCUITS INDENTIFIED AS 'IG'.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM LOAD INFORMATION PROVIDED IN ELECTRICAL EQUIPMENT SCHEDULES. VERIFY THE LOAD AND CONNECTION REQUIREMENTS OF ALL EQUIPMENT FURNISHED BY OTHERS.
10. ALL ENCLOSED MOTOR CONTROLLERS SHALL BE FURNISHED WITH FULL-SIZED OVERLOADS, 120V CONTROL-VOLTAGE TRANSFORMERS WITH PRIMARY AND SECONDARY FUSING, ROTARY H-O-A SELECTOR SWITCH, COVER-MOUNTED ON/OFF PILOT LIGHTS, AND TWO SETS EACH OF N.O. AND N.C. AUXILIARY DRY CONTACTS.
11. ALL 120V SINGLE PHASE BRANCH CIRCUITS SHALL HAVE INDIVIDUAL NEUTRAL CONDUCTORS. COMMON NEUTRALS ARE NOT ACCEPTABLE. (EXCEPTION: MULTIWIRE BRANCH CIRCUITS.)
12. PROVIDE ID TAGS ON NEUTRAL CONDUCTORS IN PANELBOARD TO IDENTIFY ASSOCIATED BRANCH CIRCUIT.
13. PROVIDE SUPPORTS, HANGERS, MISCELLANEOUS SWITCHES, CONTROLS, AND DEVICES FURNISHED WITH OWNER FURNISHED EQUIPMENT AS REQUIRED FOR A COMPLETE INSTALLATION.
14. ALL RECEPTACLES INSTALLED OUTDOORS SHALL BE LISTED AS 'WEATHER RESISTANT'. RECEPTACLES LOCATED OUTDOORS IN WET LOCATIONS SHALL HAVE AN ENCLOSURE THAT IS LISTED AS WEATHER-PROOF WHETHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED. (NEC ART.406.9(A)(B)).
15. THE ELECTRICAL INSTALLATION SHALL CONFORM TO ALL LOCAL AND STATE SEISMIC REQUIREMENTS.

GENERAL LIGHTING NOTES:

1. REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION ABOUT FIXTURE TYPES, QUALITY, LAMPS, BALLASTS, ACCESSORIES, AND INSTALLATION REQUIREMENTS.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT PLACEMENT AND QUANTITIES OF CEILING MOUNTED LIGHT FIXTURES. COORDINATE PLACEMENT AND INSTALLATION OF CEILING MOUNTED ELECTRICAL ITEMS WITH OTHER TRADES TO AVOID CONFLICTS.
3. REFER TO LIGHTING CONTACTOR AND/OR CONTROL DETAILS FOR ADDITIONAL INFORMATION.
4. INSTALL SURFACE MOUNTED EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS ON EITHER WALL OR CEILING SURFACE AS DIRECTED BY THE ARCHITECT. EXIT SIGNS AND EMERGENCY LIGHTING SHALL BE CIRCUITED FROM LOCAL LIGHTING CIRCUITS. THEY SHALL NOT BE SWITCHED.
5. "EM" INDICATES AN EMERGENCY LIGHT FIXTURE SERVING AS AN EMERGENCY EGRESS LIGHT REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
6. EXIT SIGNS, EMERGENCY LIGHTS, AND EMERGENCY BALLASTS SHALL BE CIRCUITED FROM THE LOCAL UNSWITCHED LIGHTING BRANCH CIRCUIT.
7. "NL" INDICATES AN UNSWITCHED LIGHTING FIXTURE SERVING AS A NIGHTLIGHT.
8. AN AVERAGE OF AT LEAST 1.0 FOOT-CANDLE SHALL BE PROVIDED FOR EMERGENCY EGRESS LIGHTING. HEADS OF EMERGENCY LIGHTING UNITS SHALL BE AIMED BY THE CONTRACTOR PER MANUFACTURER'S INSTRUCTIONS AND AS DIRECTED BY THE LOCAL INSPECTOR.
9. EXIT LIGHT POSITIONS SHALL BE COORDINATED WITH PENDANT LIGHTS AND OTHER ARCHITECTURAL FEATURES TO MINIMIZE OBSTRUCTIONS TO CLEAR VISIBILITY.
10. UNITIZED EMERGENCY LIGHT FIXTURES, EXIT SIGNS, AND LED FIXTURES CONTAINING INTEGRAL BATTERIES AND CHARGING EQUIPMENT SHALL BE SERVED IN ACCORDANCE WITH NEC ART. 700.12(F). THE BRANCH CIRCUIT SHALL BE CLEARLY IDENTIFIED IN THE PANEL AS SERVING EMERGENCY LIGHTING.
11. FINAL QUANTITIES AND LOCATIONS OF EMERGENCY LIGHTS AND EXIT SIGNS ARE TO BE DETERMINED IN THE FIELD WITH CITY AND STATE INSPECTORS AND THE ARCHITECT. THE CONTRACTOR SHALL PROVIDE A UNIT PRICE IN HIS BID FOR ADDITIONAL EXIT SIGNS & EMERGENCY LIGHTS THAT MAY BE REQUIRED BY THE LOCAL JURISDICTION.
12. ALL CONDUITS SHALL BE FURNISHED WITH A GREEN EQUIPMENT GROUND SIZED IN ACCORDANCE WITH NEC TABLE 250.122.
13. PROVIDE A SEPARATE NEUTRAL FOR ALL 120V LIGHTING BRANCH CIRCUITS. COMMON (SHARED) NEUTRALS ARE NOT ACCEPTABLE.
14. PROVIDE A NEUTRAL CONDUCTOR AT ALL LIGHT SWITCHES PER NEC ART. 404.2.
15. ALL LIGHTING CIRCUITS ARE TO BE CONTROLLED AT THE PANELBOARD WITH CIRCUIT BREAKERS RATED FOR SWITCHING DUTY UNLESS LOCAL SWITCHING IS EITHER SHOWN OR OTHERWISE NOTED ON THE DRAWINGS.
16. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATIONS AND INSTALLATION OF ALL CEILING RECESSED LIGHTING FIXTURES WITH ALL OTHER TRADES PRIOR TO ROUGH-IN.
17. THE ELECTRICAL INSTALLATION SHALL CONFORM TO ALL STATE AND LOCAL SEISMIC REQUIREMENTS.
18. ALL BIDDING CONTRACTORS SHALL INCLUDE LIGHT FIXTURE PACKAGE AND CONTROLS AS SCHEDULED ON THE PLANS AS PART OF BASE BID.
19. CONTRACTORS MAY SUBMIT ALTERNATE LIGHT FIXTURE AND LIGHTING CONTROLS BY OTHER MANUFACTURERS THAN THOSE SHOWN IN THE LIGHT FIXTURE SCHEDULE AS PART OF BID, PROVIDED THEY ARE EQUAL IN ALL MANNERS INCLUDING BUT NOT LIMITED TO APPEARANCE, PERFORMANCE AND WARRANTY. THE BURDEN OF PROOF OF EQUALITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ALTERNATE MANUFACTURER. EVALUATION AND ACCEPTANCE OF ALTERNATES SHALL BE BY THE ARCHITECT, OWNER/TENANT AND/OR BUILDING MANAGEMENT. ALTERNATE MANUFACTURERS SHALL FURNISH COMPLETE POINT-BY-POINT PHOTOMETRY OF INTERIOR AND EXTERIOR LIGHTING IF SO REQUESTED BY THE OWNER, ARCHITECT, ENGINEER OR THE LOCAL AUTHORITY HAVING JURISDICTION AT NO ADDITIONAL CHARGE.
20. SHOP DRAWINGS AND/OR SUBMITTALS FOR ANY ALTERNATE LIGHT FIXTURE OR LIGHTING CONTROLS SHALL INCLUDE WRITTEN CONFIRMATION THAT SUCH ALTERNATE WAS REVIEWED AND APPROVED BY ARCHITECT, OWNER/TENANT AND/OR BUILDING MANAGEMENT.

IECC LIGHTING COMPLIANCE

ALL LIGHTING INSTALLATIONS SHALL CONFORM TO THE LOCALLY ADOPTED EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC). SEE COMCHECK FORMS FOR SPECIFIC REQUIREMENTS OF THIS PROJECT.

KEY NOTES:

1. DOWN TO RECEPTACLE BELOW.
2. UP TO LIGHT FIXTURE OVERHEAD.
3. NEW 4'x8'x3/4" FIRE RETARDANT PLYWOOD FOR LOW VOLTAGE SYSTEMS BACK BOARD.
4. NEW 12"x6" PRE-DRILLED COPPER GROUND BUS FOR LOW VOLTAGE AND COMMUNICATION SYSTEM BONDING. FURNISH #6 BARE COPPER GROUND TO INTERSYSTEM BONDING BUS BAR AT S.E.S.

LIGHTING CONTROL SYMBOLS

DL	FIXTURE WITH DAY LIGHT CONTROL
$_{OD}$	WALL MOUNTED MOTION SWITCH WITH 0-10VDC DIMMING. MOUNT TOP OF BOX AT +48" AFF.
$_{OW}$	WALL MOUNTED MOTION SWITCH. MOUNT TOP OF BOX AT +48" AFF.
OS	CEILING MOUNTED DUAL TECH MOTION SENSOR
OS$_{PC}$	CEILING MOUNTED DUAL TECH MOTION SENSOR AND DIMMING PHOTOCELL.
$_{OVR}^{D}$	LOW VOLTAGE OVERRIDE SWITCH WITH DIMMING. MOUNT TOP OF BOX AT +48" AFF. D#-NUMBER OF LOADS CONTROLLED.
DP	DIMMING PACK 0-10V DC MOUNTED ABOVE ACCESSIBLE CEILING.

PETERSON ASSOCIATES
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ELECTRICAL PLANS

Date 03/06/19

E200

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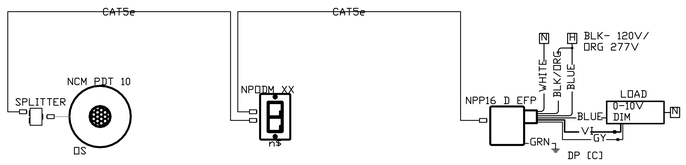
City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19



1 CORRIDOR
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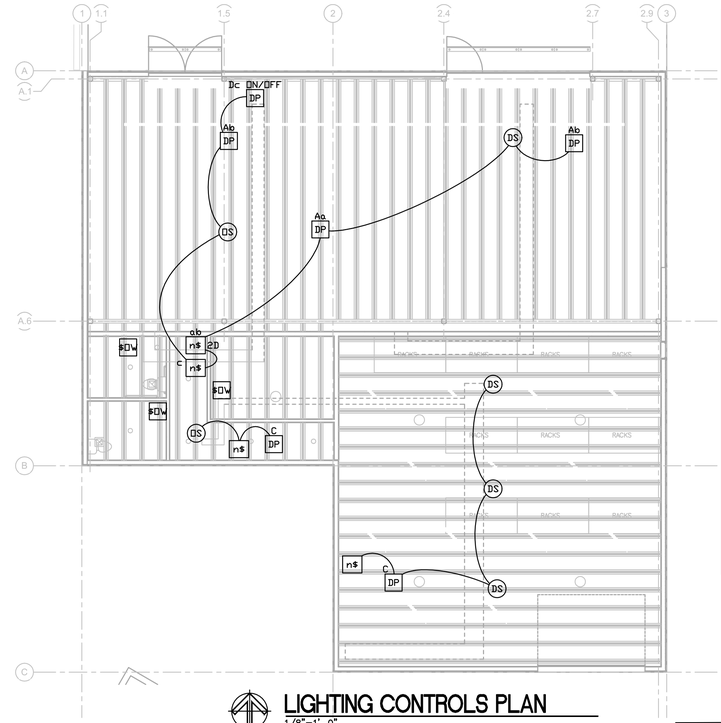


LIGHTING CONTROLS PLAN
1/8"=1'-0"

ACUITY CONTROLS LEGEND
Created by John Abberton

$DW
WSX PDT SA XX
Wall Switch Sensor, Passive Dual Technology, Vacancy (default) or Auto-On

DP
NPP16 D EFP
Power/Relay Pack, Occupancy Controlled Dimming

DS
NCM PDT 10 ADCX
Low Voltage Ceiling Mount Sensor, Passive Dual Technology, Large Motion / Extended Range 360 Lens, Photocontrol w/ Auto Dimming; No Wires

n$
NPODM XX
Low Voltage Push-Button Wallpod

n$ 2D
NPODM 2P DX XX
Low Voltage Push-Button Wallpod, 2-Pole, Occupancy controlled dimming without dimming output

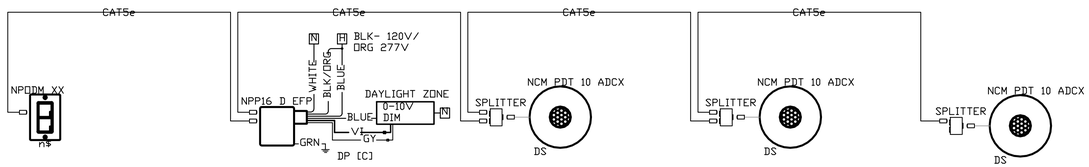
DS
NCM PDT 10
Low Voltage Ceiling Mount Sensor, Passive Dual Technology, Large Motion / Extended Range 360 Lens

WIRE LEGEND - Design 1

CAT5e
CAT5e
Pre-terminated CAT5e cable

GENERAL LIGHTING CONTROL NOTES:

1. THE WIRING DIAGRAMS SHOWN ARE GENERIC FOR THE PURPOSE OF SHOWING GENERAL INTENT. THE CONTRACTOR SHALL OBTAIN COMPLETE SHOP DRAWINGS, INCLUDING COMPLETE AND PROJECT SPECIFIC WIRING DIAGRAMS FOR EACH PROJECT FROM THE CONTROLS SUPPLIER/INSTALLER. THE SHOP DRAWINGS MUST BE REVIEWED BY THE ENGINEER PRIOR TO THE START OF ANY WORK RELATED TO THE LIGHTING CONTROL SYSTEM.
2. THE CONTRACTOR SHALL PROVIDE COMMISSIONING OF THE SYSTEM BY A FACTORY CERTIFIED TECHNICIAN. THE FACTORY CERTIFIED TECHNICIAN SHALL PROVIDE A REPORT CERTIFYING THAT THE SYSTEM IS OPERATING PROPERLY UPON SUBSTANTIAL COMPLETION OF THE PROJECT.
3. THE CONTRACTOR'S BID AND INSTALLATION SHALL BE BASED ON A COMPLETE AND FUNCTIONAL INSTALLATION.
4. OCCUPANCY SENSOR LOCATIONS AND QUANTITIES ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF THE DESIGN AND ARE APPROXIMATE LOCATIONS. THE CONTRACTOR AND LIGHTING CONTROLS SUPPLIER/INSTALLER SHALL DETERMINE EXACT QUANTITIES AND LOCATIONS OF SENSORS BASED ON THE FINAL FIELD CONDITIONS DURING THE DEVELOPMENT OF THE PROJECT SHOP DRAWINGS.
5. ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF 6'-0" FROM A SUPPLY AIR DIFFUSER OR REGISTER.
6. THE CONTRACTOR AND LIGHTING CONTROLS SUPPLIER/INSTALLER ARE RESPONSIBLE FOR PROVIDING ADEQUATE ROOM CONTROLLERS AND WIRING TO PROPERLY OPERATE THE SYSTEM PER THE SEQUENCE OF OPERATIONS AND THE ZONING PLAN.
7. LOCATIONS AND QUANTITIES OF PHOTOCELLS SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR WITH THE LIGHTING CONTROLS SUPPLIER/INSTALLER PRIOR TO SUBMITTAL OF SHOP DRAWINGS BEING SUBMITTED FOR REVIEW.
8. A PRE-INSTALL MEETING SHALL BE HELD ON THE JOB SITE WITH THE OWNER/TENANT'S PROJECT MANAGER, GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR AND LIGHTING CONTROLS SUPPLIER/INSTALLER PRIOR TO ROUGH-IN OF ANY LIGHTING CONTROL COMPONENTS.



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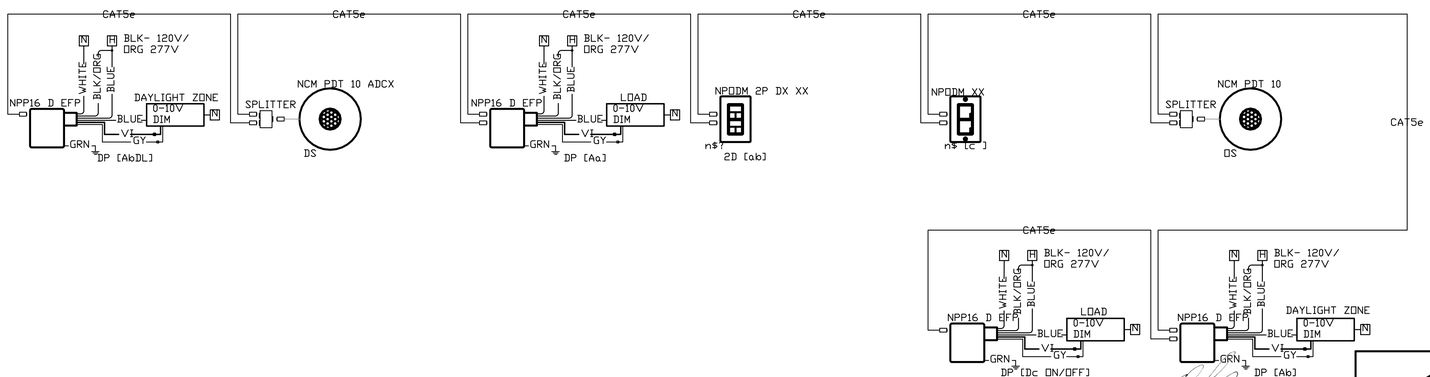

3 RETAIL AREA
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(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
ANDREWS DESIGN GROUP INC.
DON ANDREWS JR.
(E) DON@ADGARCH.NET
(P) 480.894.3478

CIVIL
3 ENGINEERING
DAN MANN, P.E.
6370 E. THOMAS RD, SUITE 200,
SCOTTSDALE, AZ 85251
(E) DAN@3ENGINEERING.COM
(P) 602.334.4387

STRUCTURAL
UNITED STRUCTURAL DESIGN
DAVID GRAPSAS, P.E., S.E.
2058 S. DOBSON ROAD, SUITE 10
MESA, AZ 85202
(E) DGRAPSAS@UNITEDSTR.COM
(P) 480.382.9768

MEP
PETERSON ENGINEERING
DAVID MCKERCHER
7201 N. DREAMY DRAW DRIVE, SUITE 200
PHOENIX, AZ 85020
(E) DAMEM@MPECONSULT.COM
(P) 602.388.1716

LANDSCAPE
NORRIS DESIGN
JOEL THOMAS
(E) JTHOMAS@NORRIS-DESIGN.COM
(P) 512.900.7888

SHEET ISSUE/REV:

NO.	DESCRIPTION	DATE
-	PRE-APP MTG	10.10.18
-	MINOR SITE PLAN	01.09.19
-	CITY SUBMITTAL	03.06.19

Owner JONATHAN PITT
Proj. Nam WANDERIST OFFICE & RETAIL

LIGHTING CONTROLS

Date 03/06/19

E201

Scale AS SHOWN

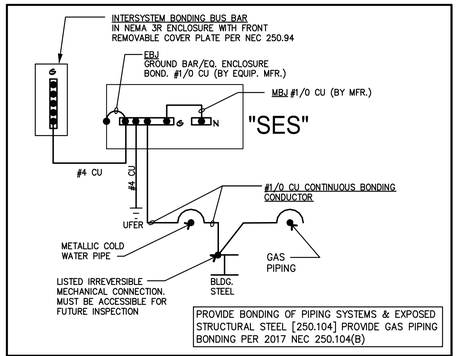
02/07/2019 5:48:06 PM

City of Phoenix Plan #: 1901783-LPSC Date: 03/12/19

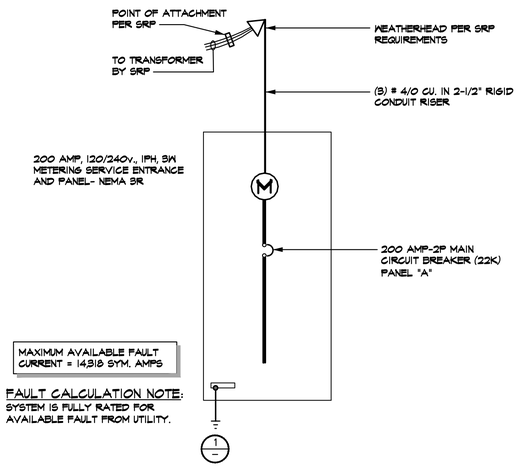
GENERAL ONE-LINE NOTES:

(600V AND BELOW)

1. VERIFY UTILITY COMPANY METERING REQUIREMENTS WITH THE UTILITY COMPANY REPRESENTATIVE BEFORE ORDERING SES AND RELATED SERVICE EQUIPMENT.
2. SUBMIT SERVICE EQUIPMENT SHOP DRAWINGS TO UTILITY COMPANY FOR ITS REVIEW AND APPROVAL PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. SHOP DRAWING SUBMITTAL TO THE ENGINEER SHALL INCLUDE UTILITY COMPANY METERING AND SERVICE EQUIPMENT REQUIREMENTS ALONG WITH WRITTEN EVIDENCE OF THE UTILITY COMPANY'S APPROVAL OF SERVICE EQUIPMENT SHOP DRAWINGS.
3. SELECTION AND DESIGN OF SES, SWITCHGEAR, LOW-VOLTAGE DISTRIBUTION SWITCHBOARDS, AND PANEL BOARDS INDICATED HEREIN ARE BASED UPON SIEMENS. EQUIPMENT BY OTHER MANUFACTURERS LISTED IN THE SPECIFICATIONS IS ACCEPTABLE PROVIDED THE EQUIPMENT CONFORMS TO THE PROJECT-SPECIFIC SPECIFICATIONS AND ALL INDICATED SPARE DEVICES, BUSSED SPACE, AND PROVISIONS FOR FUTURE SECTIONS ARE PROVIDED. ALTERNATE OR SUBSTITUTED EQUIPMENT SHALL FIT IN THE AVAILABLE AREA SHOWN ON THE FLOOR PLANS WITH ALL NEC REQUIRED WORKING SPACE AND SAFETY CLEARANCES MAINTAINED. THE CONTRACTOR SHALL FURNISH A 1/4" SCALE SHOP DRAWING WITH HIS SUBMITTAL PROVING SUBSTITUTED EQUIPMENT FITS AS DESCRIBED HEREIN.
4. ALL PANEL BOARDS SHALL BE FULLY RATED UNLESS SPECIFICALLY INDICATED ON EITHER THE ONE-LINE DIAGRAM OR ON THE PANEL SCHEDULES THEY MAY BE 'SERIES RATED'. SERIES RATING AS REFERRED TO HEREIN MEANS THE OVERCURRENT DEVICES SHALL BE PART OF A LISTED SERIES-RATED COMBINATION WITH THE RESPECTIVE FEEDER BREAKER IN THE DISTRIBUTION PANEL IMMEDIATELY UPSTREAM FROM THE PANEL. NO DESIGN CHANGES MAY BE MADE WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL ENGINEER AND THE LOCAL ELECTRICAL INSPECTOR.
5. FOR EACH SERIES-RATED SWITCHBOARD OR PANELBOARD, A PERMANENT NAMEPLATE SHALL BE PROVIDED TO INDICATE THE SERIES RATING. NAMEPLATE SHALL BE ENGRAVED, 3-LAYERED LAMINATED PLASTIC WITH BLACK LETTERING ON A YELLOW BACKGROUND AND SHALL BE ATTACHED ADJACENT TO THE MANUFACTURER'S SERIES RATING LABEL. NAMEPLATE SHALL READ "CAUTION. THIS PANEL IS PART OF A SERIES COMBINATION ____KA/____KA RATED SYSTEM. AVAILABLE FAULT CURRENT AT THIS LOCATION IS _____AMPS." (REFER TO SHORT-CIRCUIT STUDY RESULTS FOR APPROPRIATE VALUE OF AVAILABLE FAULT CURRENT.) LETTERING FOR THE WORD "CAUTION" SHALL BE 3/8" HIGH AND THE REMAINING LETTERING SHALL BE 3/16".
6. SES SHALL BE SERVICE ENTRANCE RATED.
7. THE ELECTRICAL INSTALLATION SHALL CONFORM TO ALL STATE AND LOCAL SEISMIC REQUIREMENTS.



1 SERVICE ENTRANCE GROUNDING NTS



FAULT CALCULATION NOTE:
SYSTEM IS FULLY RATED FOR AVAILABLE FAULT FROM UTILITY.

ONE-LINE DIAGRAM

N.T.S.

PANEL SCHEDULE "A"

IG Bus: NO	Cabinet: NEMA 3R	Feed Thru: NO	Service Rated: YES	Type: BOLT-ON	Mounting: SURFACE	Voltage: 120/240V.-1Ph.-3W.	Bracing: 22,000 A.I.C.	Status: NEW	Mains: 200A. MCB

	Use and/or Area Served	C/B	Cir. No.	Volt-Amperes Phase A	Volt-Amperes Phase B	Cir. No.	C/B	Use and/or Area Served
A	LTG: FRONT RETAIL	20/1	1	1219		2	15/2	FC-1
				828				
A	LTG/EM LTG: RETAIL	20/1	3		700	4		
					828			
A	LTG/EM LTG: BOH	20/1	5	683		6	40/2	CU-1
				3420				
	RECEPT: RETAIL WEST	20/1	7		540	8		
					3420			
	RECEPT: RETAIL EAST	20/1	9	720		10	15/2	FC-2
				828				
	RECEPT: OFFICE/CORR/PATIO	20/1	11		720	12		
					828			
	RECEPT: SHIPPING	20/1	13	720		14	40/2	CU-2
				3420				
	RECEPT: TMB	20/1	15		360	16		
					3420			
	SPARE	20/1	17	0		18	15/2	FC-3
				828				
	SPARE	20/1	19		0	20		
					828			
	SPARE	20/1	21	0		22	50/2	CU-3
				4104				
A,D	LTG/EM LTG/RECEPT: TOILETS	20/1	23		748	24		
					4104			
	IRRIGATION CONTROLLER	20/1	25	180		26	40/1	IWH-1
				3600				
A,D	EXTERIOR LTG	20/1	27		296	28	40/1	IWH-2
					3600			
	SPACE	-	29			30	-	SPACE
	SPACE	-	31			32	-	SPACE
	SPACE	-	33			34	-	SPACE
	SPACE	-	35			36	-	SPACE
	SPACE	-	37			38	-	SPACE
	SPACE	-	39			40	-	SPACE
	Total Load per Phase			20549	20392	20550 VA / 120 =		171.3 Amps

PANEL SCHEDULE SYMBOLS

- **A** CONTINUOUS DUTY/LARGEST LOAD @125%
- **B** PROVIDE BREAKER WITH HANDLE "LOCK-ON" DEVICE
- **C** PROVIDE BREAKER WITH HANDLE "LOCK-OFF" DEVICE
- **D** CONTROLLED BY PHOTOCELL
- **E** CONTROLLED BY TIMECLOCK
- **F** EXISTING BREAKER WITH LOAD REMOVED
- **G** EXISTING BREAKER WITH NEW LOAD
- **H** NEW BREAKER WITH NEW LOAD
- **J** SHUNT-TRIP CIRCUIT BREAKER

PETERSON ASSOCIATES
CONSULTING ENGINEERS INC.
7201 N. Dreamy Draw Drive
Suite 200
Phoenix, Arizona 85020
(602) 943.4116
Facsimile (602) 943.2507
www.mpeconsult.com
Job No. 197090

KIVA #18-1372
SDEV #1800276
PAPP #1806619
PRLC
QS Q16-36

SELF CERTIFIED BY:_____ DATE:_____
DONALD ANDREWS CERTIFICATE #45

- PLANS WERE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF, OR REVIEWED BY THE SELF-CERTIFIED PROFESSIONAL,
- PLANS ARE COMPLETE,
- THE PLANS ARE, AS OF THE DATE OF SUBMISSION, IN ACCORDANCE WITH THE REQUIREMENTS OF THE PHOENIX BUILDING CONSTRUCTION CODE AND ALL OTHER APPLICABLE LAWS.

ERWIN | ARCHITECTURE DEVELOPMENT

CONTACTS:

OWNER
SUPERLUXE SCREEN PRINTING
JONATHAN PITT
(E) JON@THEWANDERIST.COM
(P) 480.247.6653

ARCHITECT
ERWIN ARCHITECTURE & DEVELOPMENT, LLC.
WILLIAM ERWIN, AIA, LEED AP BD+C
(E) WILL@ERWINARCHITECTURE.COM
(P) 602.677.8372

SELF-CERTIFIED ARCHITECT
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