SOLAR DECATHLON 2013

TEAM TEXAS

TEAM TEXAS - SOLAR DECATHLON 2013

UNIVERSITY OF TEXAS AT EL PASO &
THE COMMUNITY COLLEGE

SHEET INDEX

TEAM TEXAS - SOLAR DECATHLON 2013

TEAM NAME:	TEAM TEXAS
ADDRESS:	ORANGE COUNTY GREAT PARK IRVINE, CALIFORNIA LOT #106
CONTACT:	ASMARSHALL@UTEP.EDU SOLARDECATHLON.UTEP.EDU

CONSULTANTS

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U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2013
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U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON

MARK	DATE	DESCRIPTION
01	10/11/2012	80% DOE/NR DD SUBMISSION
02	11/20/2012	80% DOE/NR DD RE-SUBMISSION
03	02/14/2013	95% DOE/NR CD SUBMISSION
03	04/05/2013	95% DOE/NR RE-SUBMISSION

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SHEET TITLE

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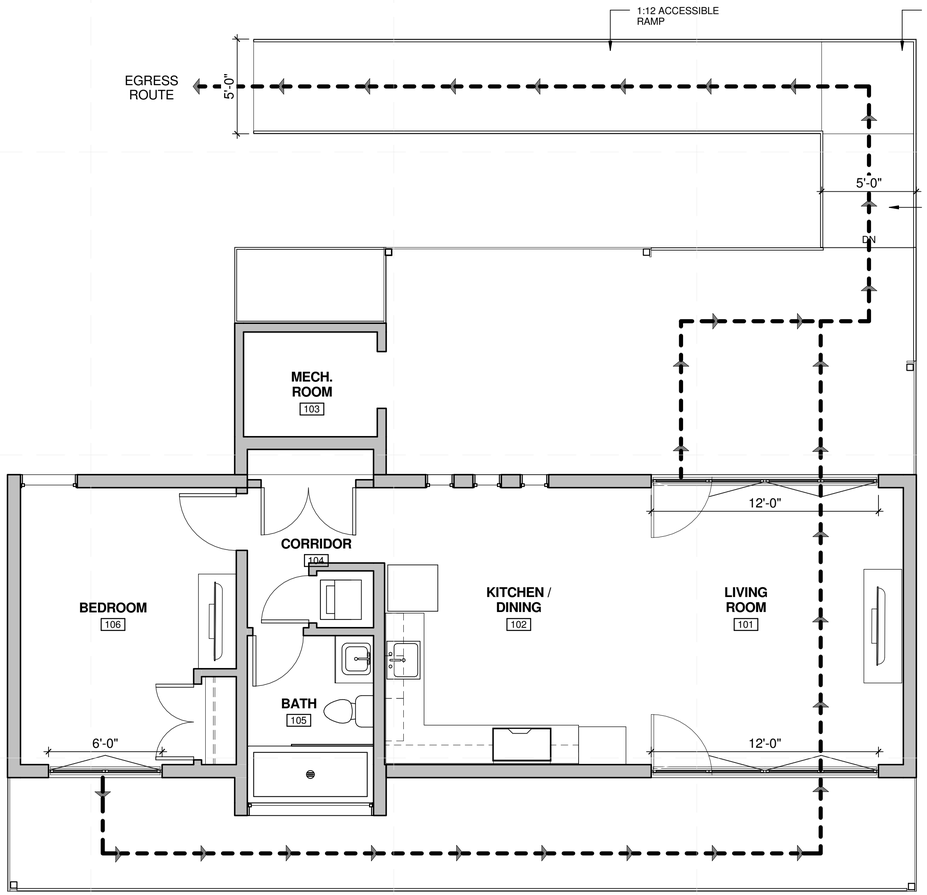

A2 EGRESS PLAN

1/4" = 1'-0"

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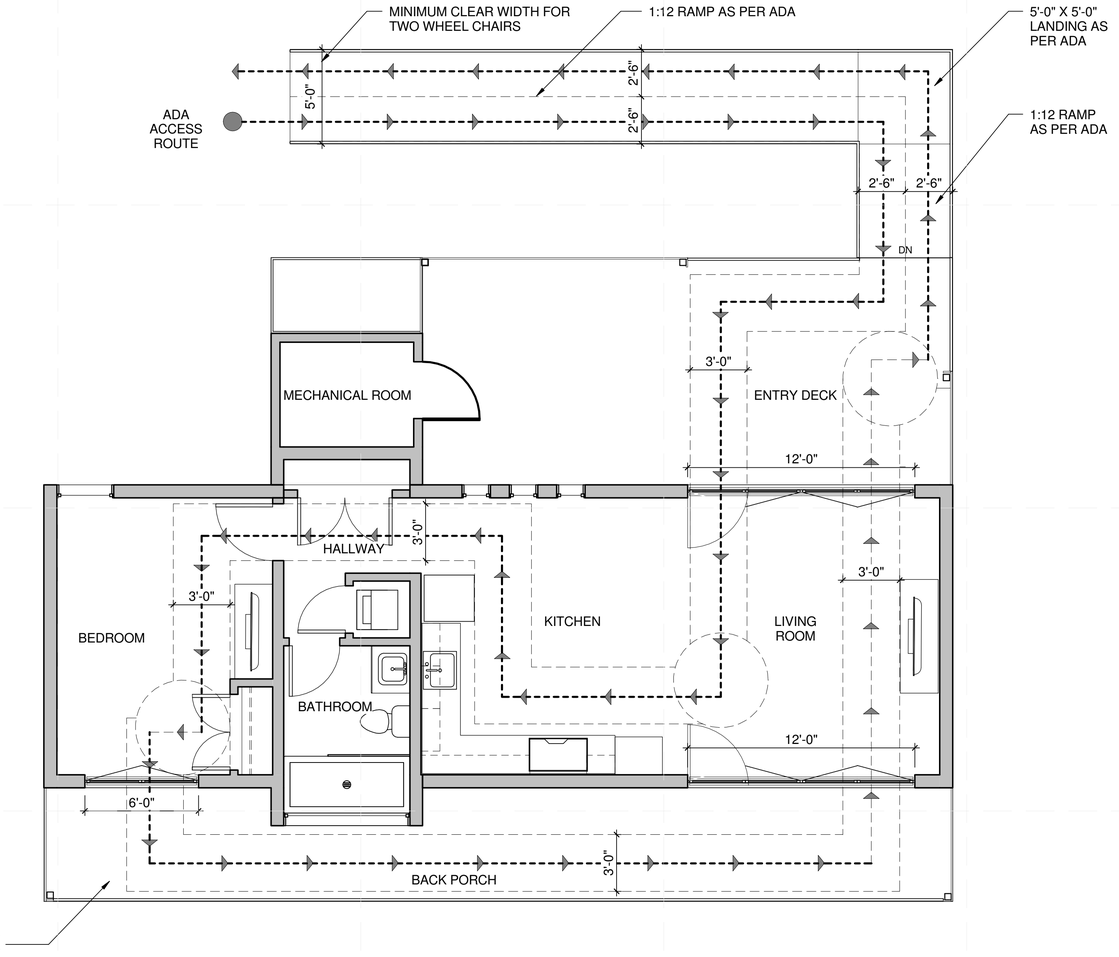
EGRESS PLAN

G-101



A3 ACCESSIBLE ROUTE PLAN

1/4" = 1'-0"

GENERAL SHEET NOTES
1: PLAN COMPLIES WITH ACCESSIBILITY PATH.
2: MILLWORK AND FURNITURE ARE SHOWN ON FURNITURE PLAN.
3: RAMP TO BE BUILT TO LONGER DIMENSIONS AND CUT TO FIT GRADE OF SITE. MAXIMUM SLOPE OF RAMP TO BE 1:12.

PROJECT AREAS	
LIVING ROOM	245 SQ. FT.
KITCHEN / DINING ROOM	203 SQ. FT.
CORRIDOR / CLOSETS	81 SQ. FT.
BATHROOM	79 SQ. FT.
BEDROOM	192 SQ. FT.
TOTAL AREA	800 SQ. FT.

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ADA TOUR ROUTE COMPLIANCE PLAN

G-102

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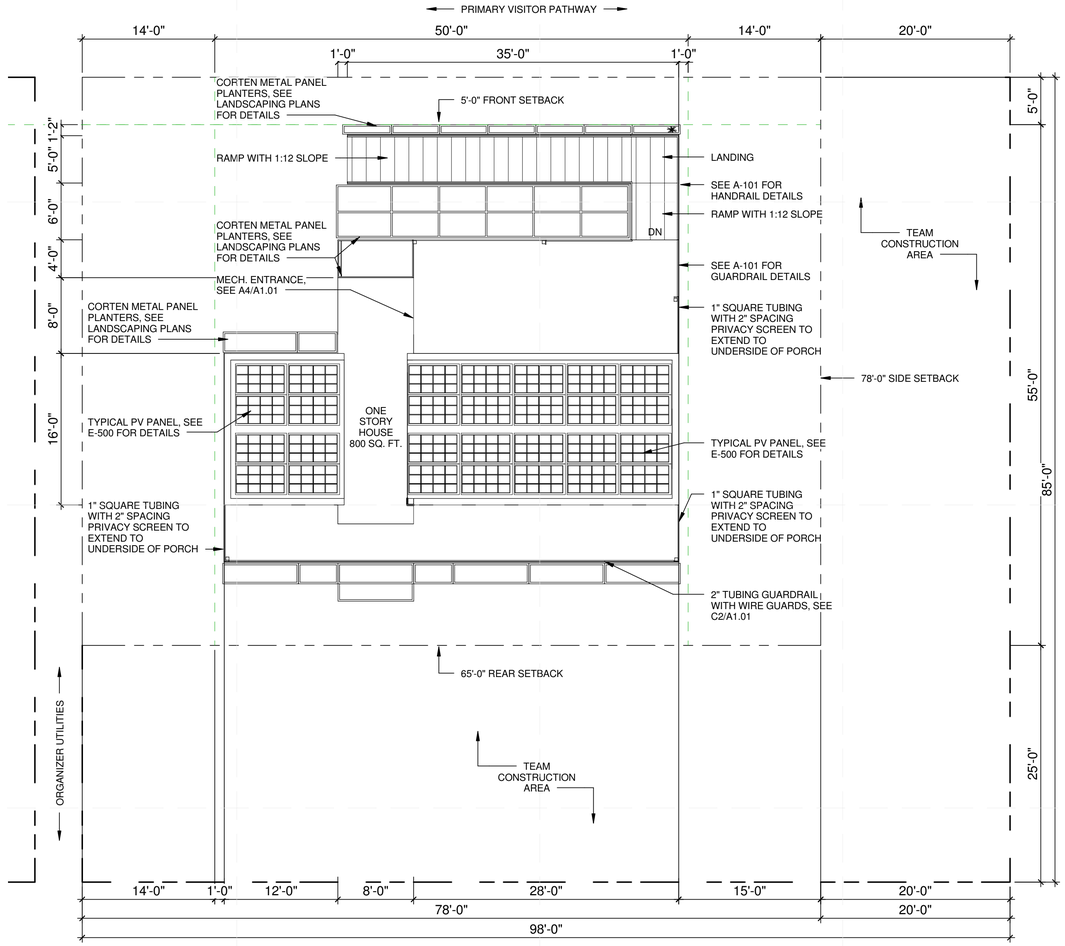

B4 CIVIL SITE PLAN
1/8" = 1'-0"

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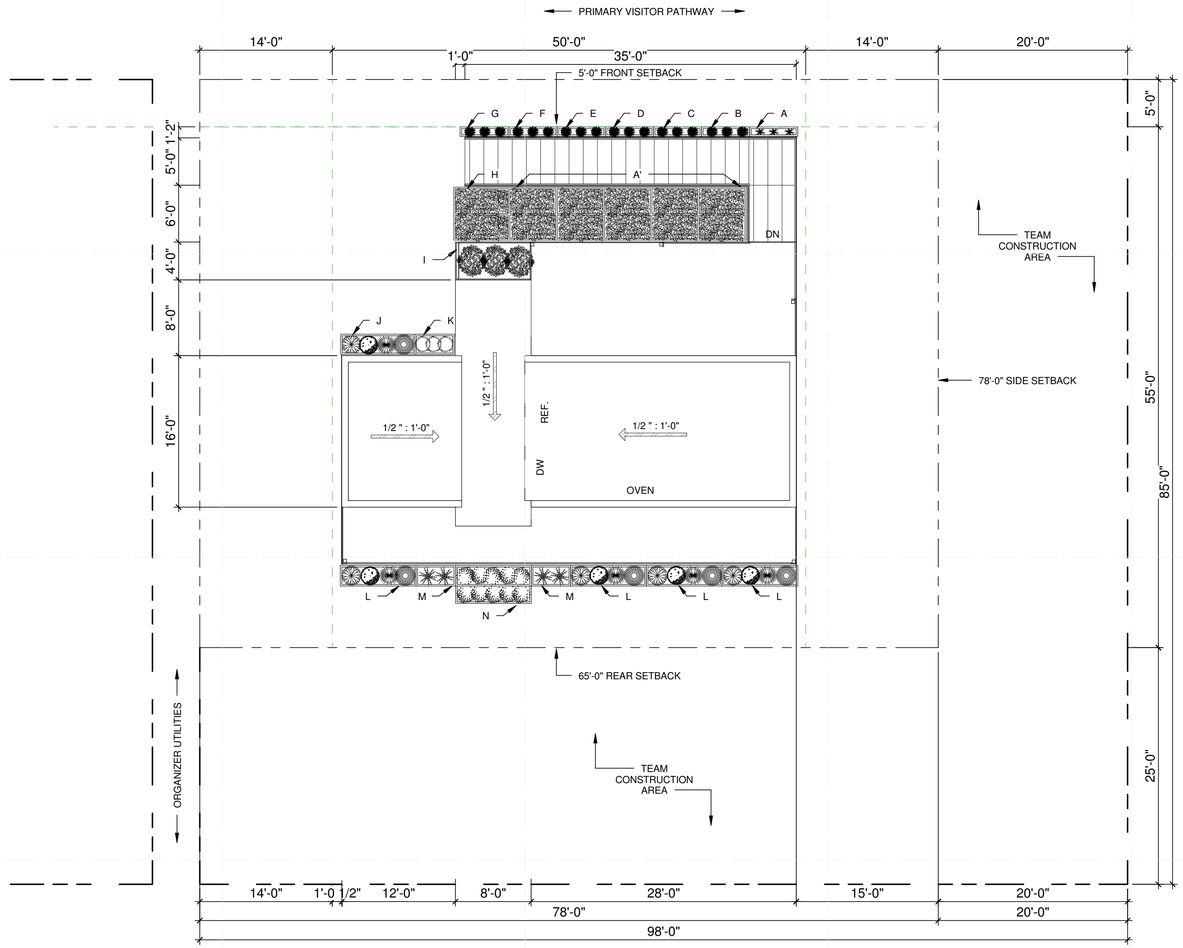
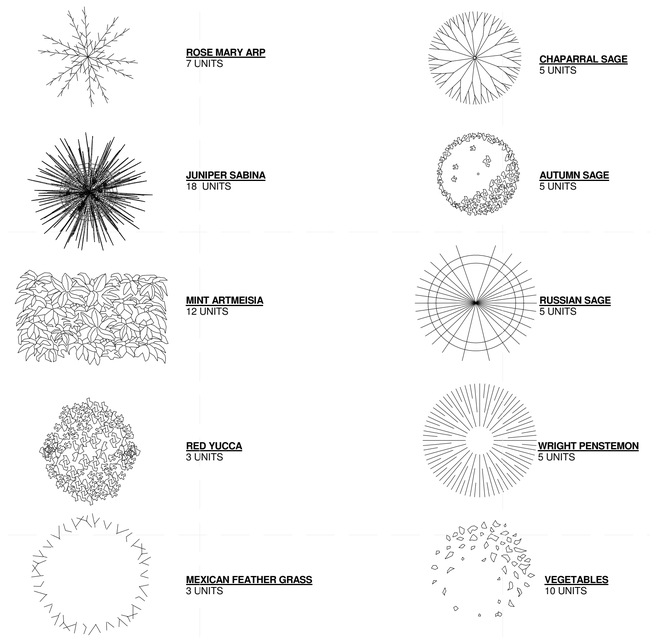
SITE UTILITY PLAN

C-103



B1 LANDSCAPING PLAN
1/8" = 1'-0"

A1 PLANTER LEGEND
1/4" = 1'-0"



B5 LANDSCAPE LEGEND
1/4" = 1'-0"

GENERAL NOTES

PLANTER FRAME

EXTERIOR COMPOSED OF CORTEN STEEL PANELS
1/4" THICKNESS
18 GAUGE

1 SQ IN. TUBING

2 FT. ON CENTER

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AUTEP
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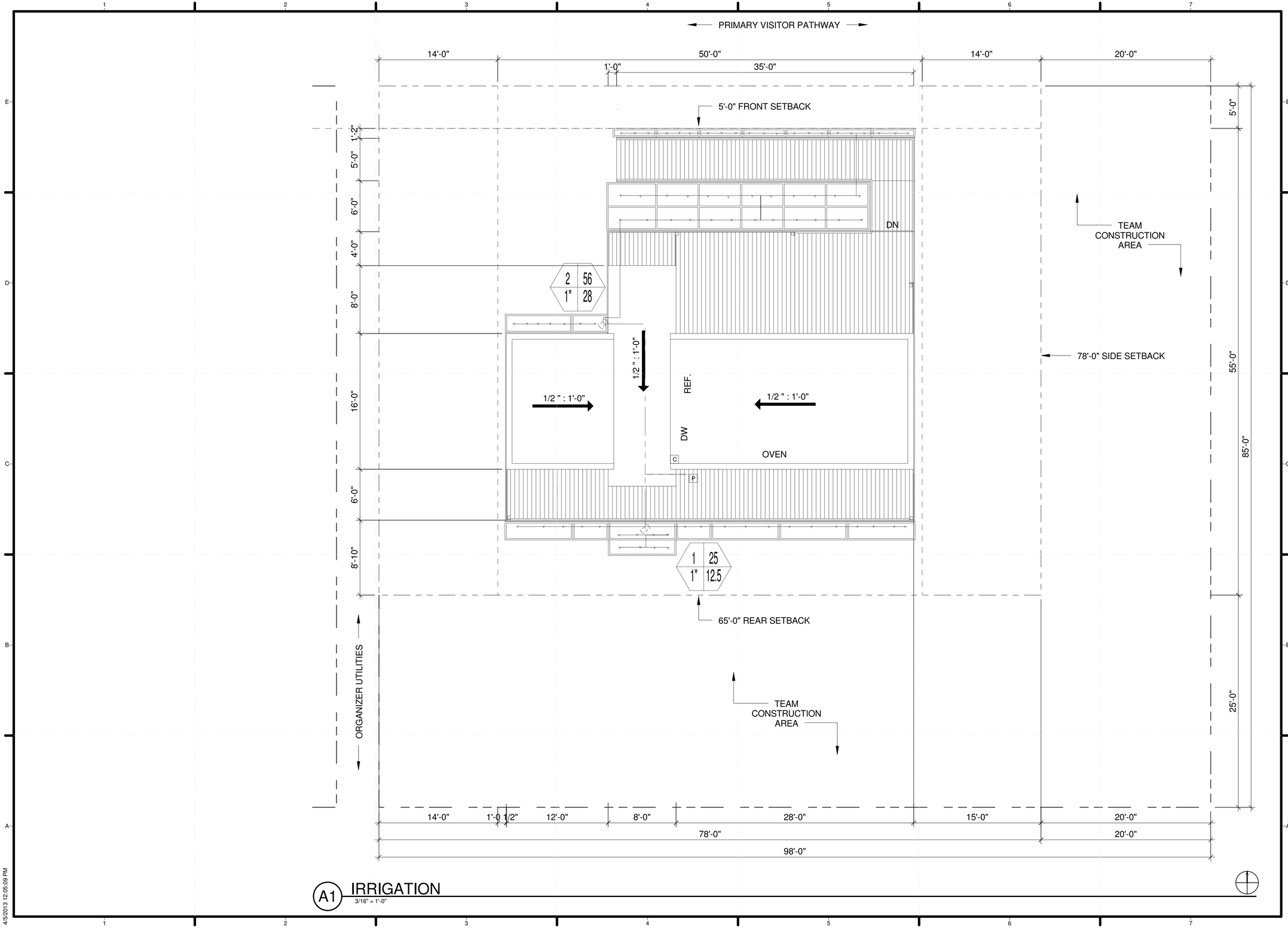
LANDSCAPE AND PLANTING SITE PLAN

L-101



A1 IRRIGATION
3/16" = 1'-0"

4/5/2013 12:05:09 PM

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LANDSCAPE IRRIGATION AND GREYWATER PLAN

L-102

LANDSCAPE & IRRIGATION GENERAL NOTES

GENERAL NOTES

1 CONTRACTOR SHALL BE FAMILIAR WITH PLANS, DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN, ARE IN CONFLICT WITH PROPOSED CONTRACT.

2 EXISTING UTILITY LINES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION, CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION. CALL FOR BLUE STAKING.

3 CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS.

PLANTING NOTES

GENERAL

1 SCOPE: WORK COVERED IN THESE NOTES CONSISTS OF THE PLANTING OF SEEDING, TREES, SHRUBS AND GROUND COVERS, GRADING AND MULCHING, INCLUDING THE FURNISHING OF ALL LABOR, EQUIPMENT, MATERIALS AND PERFORMING ALL WORK IN CONNECTION WITH THE DRAWINGS AND SPECIFICATIONS.

PROTECTION

1 PROTECTION OF PERSONS AND PROPERTY: LANDSCAPE SUBCONTRACTOR IS TO BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND POST WITH WARNING LIGHTS OR OTHER WARNING MEASURES AS NECESSARY. PROTECTION OF EXISTING SHRUBS, TREES AND OTHER PLANT MATERIALS ARE ALSO TO BE INCLUDED.

2 PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS. ALL DAMAGES THAT MAY OCCUR DURING THIS PHASE OF WORK SHALL BE THE CONTRACTORS FINANCIAL RESPONSIBILITY.

GRADING

1 PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALL GOVERNING BODIES HAVING JURISDICTION.

2 ROUGH GRADING: ROUGH GRADING SHALL BE PERFORMED TO SPECIFICATIONS BY EARTHWORK SUBCONTRACTOR TO WITHIN +/- 0.1 FT. OF PLAN CONTOURS

3 FINE GRADING: SURFACE SHALL BE RAKED FREE OF STONES AND EXTRANEOUS MATERIALS AND DEBRIS LARGER THAN 1" TO A SMOOTH AND EVEN TEXTURE. ALL EXTRANEOUS MATTER WILL BE DISPOSED OF BY LANDSCAPE SUBCONTRACTOR.

PLANTINGS

1 PLANT MATERIAL SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. THE USE OF MATERIALS DIFFERING IN KIND, QUALITY OR SIZE FROM THAT SPECIFIED WILL BE ALLOWED ONLY AFTER THE LANDSCAPE ARCHITECT IS CONVINCED THAT ALL MEANS OF OBTAINING THE SPECIFIED MATERIAL HAVE BEEN EXHAUISTED. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED. ALL REQUESTS FOR SUBSTITUTIONS MUST BE SUBMITTED NO LATER THAN 2 WEEKS PRIOR TO THE INITIATION OF WORK.

2 PLANT MATERIAL QUALITY, SIZE AND CONDITION SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK, 1980 EDITION. AS PUBLISHED BY THE COMMITTEE ON HORTICULTURAL STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

3 ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALED INJURIES, PLANT DISEASES, INSECT EGGS, BORES AND ALL OTHER FORMS OF INFECTIONS.

4 UNLESS OTHERWISE STATED ON THE DRAWINGS OR APPROVED BY OWNER'S REPRESENTATIVE, ALL PLANTS SHALL BE NURSERY GROWN AND SHALL BE TAGGED WITH NURSERY LABELS INDICATING SPECIES AND VARIETY.

5 NONCONTAINER GROWN PLANTS SHALL HAVE A SOLID BALL OF EARTH OF MINIMUM SPECIFIED SIZE AND HELD IN PLACE SECURELY BY BURLAP AND A STOUT TWINE OR ROPE. BROKEN OR LOOSE BALLS WILL BE REJECTED.

6 UNLESS SPECIFICALLY NOTED ON THE DRAWING, ALL TREES SHALL HAVE A SINGLE TRUNK THAT IS STRAIGHT AND FREE OF " DOG-LEGS" "CROOKS", "Y-CROTCHES", OR OTHER DISFIGURING SHAPES. THE CENTRAL LEADER OF ALL TREES SHALL NOT HAVE BEEN PRUNED. TREES WITH DOUBLE LEADERS ARE NOT ACCEPTABLE, UNLESS SPECIFIED AS MULTI-TRUNKED.

7 ALL PLANT MATERIAL SHALL HAVE A UNIFORM SHAPE AROUND ITS COMPLETE CIRCUMFERENCE PLANT MATERIAL WITH IRREGULAR BRANCHING PATTERNS OR WITH BRANCHING PATTERNS MORE HIGHLY DEVELOPED ON ONE SIDE THAN ON OTHER SIDES SHALL NOT BE ACCEPTABLE.

JOB SITE.

1 THE LANDSCAPE ARCHITECT WILL INSPECT PLANT MATERIAL AT A WHOLESALE NURSERY OF THE CONTRACTOR'S CHOICE PRIOR TO DELIVERY OF MATERIALS TO THE CONTRACTOR'S YARD. HOWEVER, AT NO ADDITIONAL EXPENSE TO THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAVEL EXPENSES INCURRED BY THE OWNER'S REPRESENTATIVE FOR ANY TRAVEL OUTSIDE OF THE LOCAL AREA.

2 THE LANDSCAPE SUBCONTRACTOR SHALL BE LIABLE FOR ANY LOSS OR DAMAGE TO ANY WORK OR MATERIALS, SUPPLIES AND EQUIPMENT ON THE JOB SITE CAUSED BY THE LANDSCAPE SUBCONTRACTOR, ITS EMPLOYEES OR ANY PROJECT WITH THE OWNERS REPRESENTATIVE/OWNER.

3 LANDSCAPE ARCHITECT AND GENERAL CONTRACTOR'S QUALITY CONTROL INSPECTOR SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL PLANT MATERIALS. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO OWNER.

MULCHING

1 ALL PLANTING BEDS SHOWN ON PLANS SHALL BE MULCHED. NO BEDS WILL BE LEFT UNCOVERED OR NOT TOP DRESSED, UNLESS OTHERWISE SPECIFIED.

CARE AND REPLACEMENT

1 ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR THE PERIOD OF ONE FULL YEAR BEGINNING ON THE DATE OF FINAL ACCEPTANCE.

SEEDING NOTES

GENERAL

1 ALL AREAS DISTURBED OR DENUDED OF VEGETATION SHALL BE RESEEDED WITH THE SEED MIX OR SOD AS DESCRIBED IN THE PLANS AND SPECIFICATIONS.

2 ALL DISTURBED OR DENUDED AREAS BEYOND THE LIMITS OF CONSTRUCTION SHALL BE RESEEDED AS PER THE SEED MIX AND AS PER THE LANDSCAPE ARCHITECT'S DIRECTION.

3 ALL RECLAMATION SEEDING OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.

IRRIGATION NOTES

GENERAL

1 IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711-3087.

2 WORK UNDER THIS SECTION CONSISTS OF INSTALLING A COMPLETE UNDERGROUND IRRIGATION SYSTEM AS SHOWN ON THESE PLANS, DETAILS AND SPECIFICATIONS. THE LANDSCAPE SUBCONTRACTOR PERFORMING THIS WORK SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTAL WORK, AND PERMITS NECESSARY FOR THE COMPLETION OF THE IRRIGATION SYSTEM, EXCEPT FOR THOSE COMPONENTS SPECIFIED TO BE FURNISHED BY OTHERS.

3 ALL ROADWAY TRENCHING, PATCHING, AND TRAFFIC CONTROL SHALL BE PERFORMED TO THE CITY OF EL PASO STANDARDS FOR PUBLIC WORK CONSTRUCTION. THE LANDSCAPE SUBCONTRACTORSHALL PREPARE FOR THE OWNER AND OTHER REQUIRED ENTITIES HAVING JURISDICTION A TRAFFIC CONTROL PLAN AND A PROJECTED TIME SCHEDULE.

4 THELANDSCAPE SUBCONTRACTOR SHALL COORDINATE WATER "TAP-IN" LOCATIONS AND CONTROLLER LOCATIONS WITH THE CONTRACTOR'S QUALITY CONTROL INSPECTOR AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

5 ALL PLANT MATERIALS SHALL BE IRRIGATED WITH AUTOMATIC IRRIGATION SYSTEMS AS PER PLANS, DETAILS AND SPECIFICATIONS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

6 WHERE TREES, LIGHT STANDARDS, ETC. ARE AN OBSTRUCTION OF PIPING AND DRIP EMITTERS. THEY SHALL BE ADJUSTED AND/OR RELOCATED AS NECESSARY TO OBTAIN FULL COVERAGE WITHOUT EXCESSIVE OVERFLOW.
PLANS ARE DIAGRAMMATIC AND APPROXIMATE DUE TO SCALE OF DRAWINGS. ALL VALVES SHALL BE LOCATED IN PLANTING AREAS OR SODDEN AREAS WHERE SHOWN AND ALL PIPING SHALL BE INSTALLED PRIOR TO LANDSCAPING OR PAVING WORK. NO TEES. ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER PAVING. CAP ALL ENDS HAND TIGHT, PRIOR TO BACKFILL.

7 COMPLY WITH REQUIREMENTS OF THE I.P.C. AND ANY OTHER GOVERNMENTAL BODIES HAVING JURISDICTION.

8 ALL BACKFILL SHALL BE IMPORTED CLEAN MATERIAL. TRENCH IS TO BE EVEN WITH EXISTING GRADES AFTER COMPACTION. NO ORGANIC MATERIAL AND NO STONES IN BACKFILL LARGER THAN 1/2" IN DIAMETER.

9 TRENCH BACKFILL MATERIAL SHALL BE COMPACTED 85% PROCTOR DENSITY

10 COORDINATE PROGRAMS TO AVOID ST'ATION OVERLAP.

11 LANDSCAPE SUBCONTRACTOR TO FLUSH ALL LINES PRIOR TO INSTALLING HEADS AND EMITTERS.

12 ALL VALVES TO BE IN APPROVED VALVE BOXES (SEE SPECS AND NOTES). LOCATE VALVE BOXES IN GROUPINGS OF TWO OR THREE AND LOCATE NEAR WALKWAYS WHERE POSSIBLE. ALL VALVES TO BE TAGGED WITH THE VALVE RESPECTIVE NUMBER.

13 LANDSCAPE SUBCONTRACTOR SHALL PREPARE THOROUGH AND CORRECT SET OF AS-BUILT DRAWINGS AND SPECIFICATIONS FOR SUBMITAL TO THE GENERAL CONTRACTOR AS A PREREQUISITE FOR FINAL PAYMENT

14 THE MAINLINE SHALL BE PRESSURE TESTED AT 150 PSI FOR 4 HOURS, WITNESSED BY THE GENERAL CONTRACTOR'S QUALITY CONTROL INSPECTOR

COMPONENTS AND PRODUCTS

1 ALL COMPONENTS INSTALLED AS THE UNDERGROUND IRRIGATION SYSTEM ARE TO BE NEW AND IN GOOD WORKING ORDER AND WITHOUT FLAWS UNLESS OTHERWISE INDICATED ON THE PLANS, DETAILS AND SPECIFICATIONS.

2 IF THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS DO NOT THORQUGHLY DESCRIBE THE METHOD OR TECHNIQUES TO BE USED FOR INSTALLATION, THE LANDSCAPE SUBCONTRACTOR SHALL FOLLOW THE INSTALLATION METHODS RECOMMENDED BY THE MANUFACTURER.

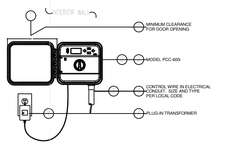
3 ALL PLANT MATERIALS INSTALLED SHALL HAVE THE AUTOMATIC IRRIGATION SYSTEM FULLY OPERABLE AT THE TIME OF PLANT INSTALLATION.

CARE AND REPLACEMENT

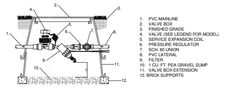
1 THE LANDSCAPE SUBCONTRACTOR SHALL SUPPLY ALL WARRANTIES OF COMPONENTS OF THE IRRIGATION SYSTEM TO THE GENERAL CONTRACTOR

2 THE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN SATISFACTORY WORKING ORDER DURING THE TIME OF CONTRACT WORK.

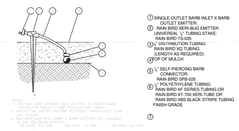
3 CONTRACTOR SHALL MAINTAIN & WATER ALL TREES & TURF WHILE THE OLD IRRIGATION SYSTEM IS DOWN.



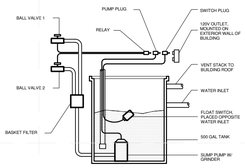
1 L-103 PRO-C CONVENTIONAL CONTROLLER
NOT TO SCALE



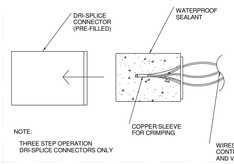
2 L-103 REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
NOT TO SCALE



3 L-103 BARB CONNECTOR INTO 1/2" TUBING WITH 1/4" TUBING, STAKE AND XERI-BUG
NOT TO SCALE



4 L-103 GREY WATER TANK SCHEMATIC
NOT TO SCALE



5 L-103 WIRE CONNECTORS
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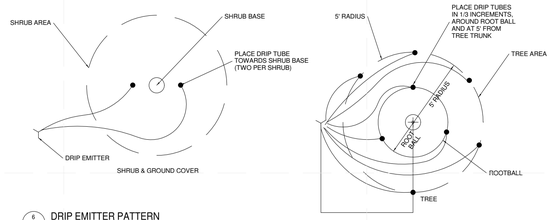
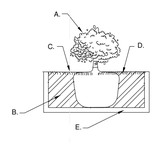


6 L-103 DRIP EMITTER PATTERN
NOT TO SCALE



GENERAL NOTES:
1. THE OUTSIDE DIAMETER OF THE WATER RETENTION BASIN SHALL BE TWICE THE DIAMETER OF THE SHRUB PLANTING PIT

CONSTRUCTION NOTES:
A. SHRUB
B. PLANTING SOIL MIXTURE
C. WATER RETENTION BASIN
D. 3" DEPTH OF BARK MULCH
E. CONTAINER

7 L-103 SHRUB PLANTING
NOT TO SCALE

IRRIGATION LEGEND

SYM	ITEM	QTY
C	HUNTER PCC-600i, 6 STATION INDOOR CONTROLLER	1
	1" REMOTE CONTROL VALVE, HUNTER PG101G	1
	INSTALL WYE FILTERS AFTER THE VALVE ON ALL DRIP ZONES.	
	1" MAIN LINE - SCHED. 40 PVC	
	1" LATERAL LINE - SCHED. 40 PVC	
	RAINBIRD PURPLE DRIP LINE 3/4" POLY	
	PVC TO POLY CONVERTER	

NOTES

- ALL EQUIPMENT SPECIFIED MAY BE SUBSTITUTED WITH AN EQUAL APPROVED BY LANDSCAPE ARCHITECT & OWNER.
- THIS PLAN IS SCHEMATIC FOR READABILTY. CONTRACTER MAY FIELD ADJUST EQUIPMENT LOCATIONS AS NECESSSARY. FIELD VERIFY CONTROLLER AND WIRE LOCATIONS WITH LANDSCAPE ARCHITECT.
- ALL EQUIPMENT TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS UNLESS DETAILED OTHERWISE ON PLANS.
- ALL UILITIES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION. CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION. CALL N.M. ONE CALL AT 260-1990 FOR BLUE STAKING.
- ALL OPEN EXCAVATIONS OCCURRING FROM THIS WORK SHALL BE BARRACADED AS NECESSARY.
- FERFORM ALL ASPECTS OF WORK IN COMPLIANCE WITH ALL APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES, AND ORDINANCES OF ALL GOVERNING BODIES HAVING JURISDICTION.
- PLANS ARE SCHEMATIC. CONTRACTOR MAY ADJUST ALL LATERAL LINES TO ECONOMIZE PIPING AS LONG AS GENERAL VALVE ZONING REMAINS AS INTENDED ON DRAWINGS. THEREFORE, CONTRCTOR SHALL SIZE ALL PIPE AS PER INDUSTRY STANDARD FRICTION LOSS CHARACTERISTICS FOR PVC CLASS 40 IPS PLASTIC PIPE. VALVES AND MAINLINE HAVE BEEN SIZED AS PER FLOW AND SHALL NOT BE REDUCED IN SIZE WITHOUT PERMISSION OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL STUB 3 EXTRA CONTROL WIRES TO THE FARTHEST VALVE BOX IN EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION.

1 LANDSCAPE IRRIGATION NOTES AND DETAILS
1/16" = 1'-0"

4/5/2013 12:05:12 PM

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CONSULTANTS

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LANDSCAPE IRRIGATION NOTES AND DETAILS

L- 103

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA:

ROOF DEAD LOADS:	12 PSF
FLOOR DEAD LOADS:	15 PSF
LIVE LOADS:	
ROOF	20 PSF
FLOOR	60 PSF
WIND LOADING:	
BASIC WIND SPEED	115 MPH
BUILDING CATEGORY	II
IMPORTANCE FACTOR	1.0
WIND EXPOSURE	C
DESIGN WIND PRESSURE	19.6 PSF
DESIGN UPLIFT PRESSURE	22.0 PSF

LATERAL FORCE RESISTING SYSTEM:
LFRS IS COMPRISED OF 6 1/2" THICK STRUCTURAL INSULATED PANEL WALLS MANUFACTURED BY INSULATED COMPONENT STRUCTURES - ROCKY MOUNTAIN INC.
SHEAR TRANSFER BETWEEN FLOORS AND FOUNDATION ARE ACCOMPLISHED WITH BOLTED CONNECTION TO W-BEAM AND BOLTED CONNECTION TO CP SEISMIC PIER MANUFACTURED BY CENTRAL PIERS. HELD DOWN BY CONCRETE FOOTING AND STEEL BRACES.

SEISMIC LOADING:		
OCCUPANCY CATEGORY	II	
SEISMIC USE GROUP	I	
SEISMIC IMPORTANCE FACTOR	1.0	
SPECTRAL RESPONSE COEFFICIENTS:		
SDS = 0.995		
SD1 = 0.554		
SEISMIC DESIGN CATEGORY	D	
DESIGN BASE SHEAR	5040 LB	
BASIC SEISMIC FORCE RESISTING SYSTEM:		
LIGHT-FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL		INSULATED PANELS
RESPONSE MODIFICATION FACTOR, R	7	

CONCRETE NOTES:

1. CONCRETE MIXES:

	MINIMUM SPECIFIED, 28 DAY COMPRESSIVE STRENGTH (PSI)	MAXIMUM AGG. SIZE	SLUMP	
FOOTINGS	4000	1 1/2"	4" - 6"	

2. CONCRETE SHALL BE NORMAL WEIGHT.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60.
4. USE COVER OF 1 1/2" THROUGHOUT FOOTING.
5. PROVIDE AN ADDITIONAL 1/8" FOR HOLES STEEL STAKES HOLES.
6. PROVIDE AN ADDITIONAL 1/16" FOR HOLES WEDGE ANCHORS WITH A 2.5" EMBEDMENT.

REINFORCING STEEL NOTES:

1. REINFORCING STEEL SHALL CONFORM WITH ASTM A 615, GRADE 60.
2. REINFORCING STEEL SHALL BE CONTINUOUS IN FOOTINGS AT ALL CORNERS AND INTERSECTIONS. REINFORCEMENT CLEAR CONCRETE COVER:

SIDES OF FORMED GRADE BEAM	1 1/2"
PLACED AGAINST EARTH	1 1/2"

CP SEISMIC PIERS NOTES:

1. SEISMIC PIERS SHALL BE CP SEISMIC MANUFACTURED BY CENTRAL PIERS.
2. HEIGHT OF PIER SHALL BE 11" AND EXTEND UP TO 18".
3. PIER USED AT PERIMETER SHALL BE CP SEISMIC PERIMETER PIER BY CENTRAL PIERS.
4. REPLACE CONCRETE PAD FOOTING WITH 4"X32"X32" REINFORCED FOOTING.
5. CP SEISMIC PIER SHALL BE CONNECTED TO W-BEAM WITH 4 3/8" BOLTS WITH WASHER AND NUTS ON BOTH SIDES OF FLANGE.
6. CP SEISMIC PIER SHALL BE CONNECTED TO FOOTING WITH 5/8" STAINLESS STEEL WEDGE ANCHORS MANUFACTURED BY STRONG TIE WITH 2.5" EMBEDMENT.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM WITH THE FOLLOWING:

WIDE-FLANGE BEAMS:	ASTM A 992
WIDE-FLANGE BEAM BOLTS	ASTM A 325
ALL OTHER BOLTS	ASTM A 307
STEEL STAKES	ASTM A 36
ANGLES, PLATES, ETC.	ASTM A 36
HSS MEMBERS	ASTM A 500 GR. B 46

2. W-BEAM SHALL BE LEVELED FLAT BEFORE LAYING INTERIOR HOME MODULE ON IT.
3. W-BEAM SHALL BE CONNECTED TO FLOOR FRAME WITH 1/2" THRU BOLTS WITH WASHER AND NUTS.
4. STEEL STAKES SHALL BE SOLID, COMPOSITION PIPE IS NOT PERMISSIBLE.
5. WHERE W10X33 SUPPORTING BEAM CONNECTS TO W8X13 SUPPORTED BEAM WITH DOUBLE ANGLES, PROVIDE AN ADDITIONAL $\frac{1}{16}$" GREATER THAN SUPPORTED BEAM THICKNESS.
6. ALL HSS MEMBERS' CONNECTIONS SHALL BE PREFABRICATED.
7. USE STANDARD HOLES FOR ALL BOLTS EXCEPT WHERE NOTED ON THE PLANS

SIP PANELS:

1. ROOF SIP SHALL COMPRISE OF ORIENTED STRANDED BOARD EXTERIOR 7/16" SKIN, POLYURETHANE CORE, AND PLYWOOD INTERIOR SKIN FOR A TOTAL WIDTH OF 8.25" MANUFACTURED BY ICS - ROCKY MOUNTAIN INC. .
2. WALLS SIP SHALL COMPRISE OF ORIENTED STRANDED BOARD EXTERIOR 7/16" SKIN, POLYURETHANE CORE, AND PLYWOOD INTERIOR SKIN FOR A TOTAL WIDTH OF 6.5" MANUFACTURED BY ICS - ROCKY MOUNTAIN INC.
3. PRIOR TO JOINING THE PANELS, USE A BEAD OF EXPANDING FOAM ADHESIVE, RECOMMENDED BY MANUFACTURER.
4. ALL PANELS SHOULD INCLUDE A 2X ON ALL EDGES.

8.25" ROOF SIP PANELS	2X8
6.5" WALL SIP PANELS	2X6

FLOOR FRAMING:

1. WOOD SHALL BE DOUGLAS-FIR LARCH.
2. SILL PLATE CONNECTING WALL TO FLOOR SHALL BE A 2X6.
3. ALL BACK-TO-BACK PANELS SHALL BE CONNECTED BY 1-1/2" BOLT UNLESS OTHERWISE NOTED IN THE PLANS.

LEGEND:

A.R.	ANCHOR ROD
B.N.	BOUNDARY NAILING
B.O.F.	BOTTOM OF FOOTING
C.J.	CONTROL JOINT
CONST. JT.	CONSTRUCTION JOINT
DBL	DOUBLE
EA.	EACH
E.N.	EDGE NAILING
ELEV.	ELEVATION
F.F.	FINISHED FLOOR
F.N.	FIELD NAILING
F.V.	FIELD VERIFY
FRMG	FRAMING
GWB	GYPSUM WALL BOARD
J.B.	JOIST BEARING ELEVATION
HD	HOLDOWN
R.S.	ROUGH SAWN
T.B.	TRUSS BEARING
T.B. EL.	TRUSS BEARING ELEVATION
T.N.	TOE-NAIL
T.O.B.	TOP OF BEAM
T.O.F.	TOP OF FOOTING
T.O.P.	TOP OF PARAPET
T.O.W.	TOP OF WALL
TYP.	TYPICAL
SCHED.	SCHEDULE
SHTG	SHEATHING
SIM.	SIMILAR
SIP	STRUCTURAL INSULATED PANEL
S.W.	SHEARWALL
U.N.O.	UNLESS NOTED OTHERWISE
W.C.J.	WALL CONTROL JOINT

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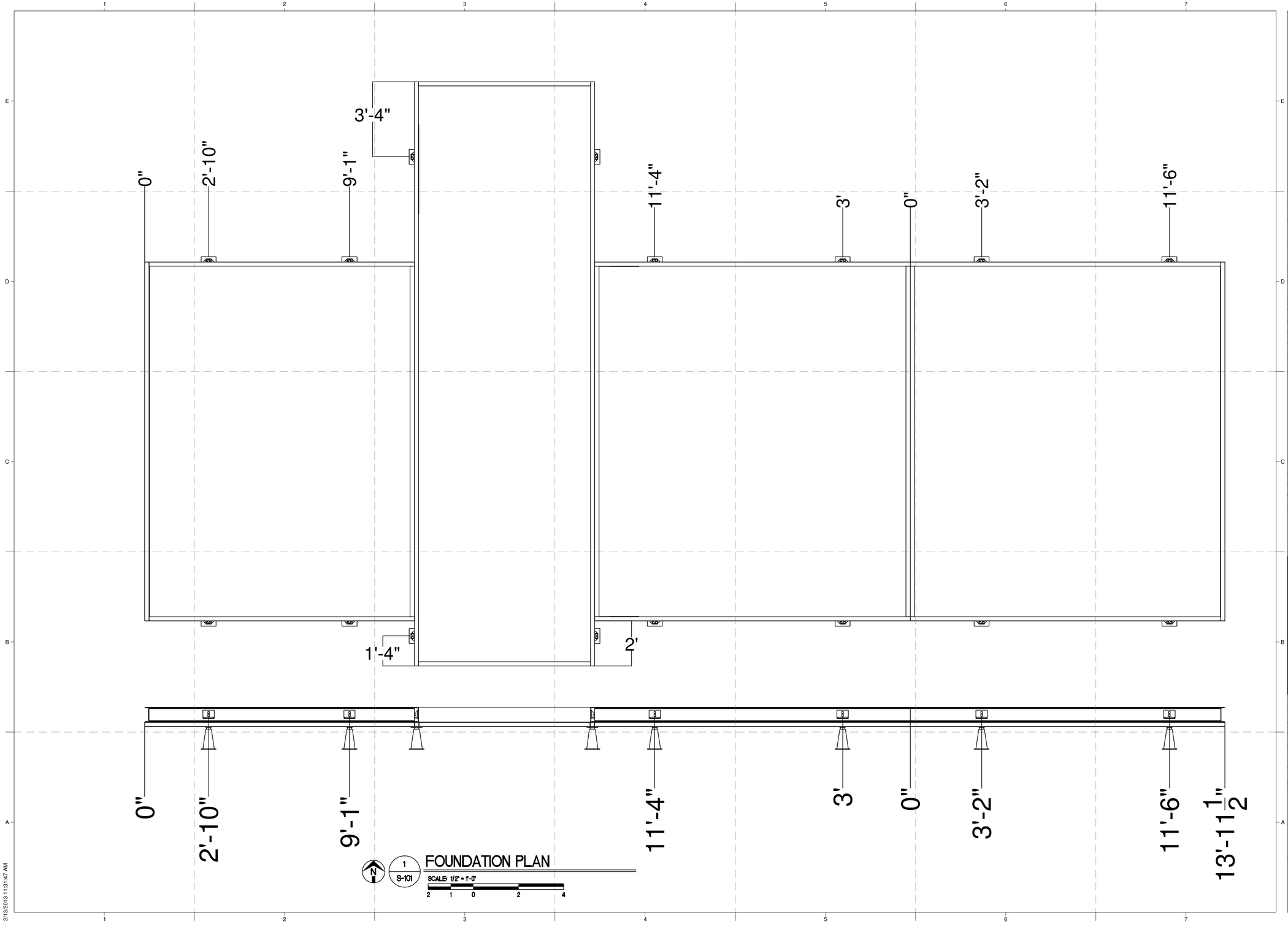
GENERAL STRUCTURAL NOTES

S-001



1 S-101 FOUNDATION PLAN

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

2 1 0 2 4

2/13/2013 11:31:47 AM

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HKN ENGINEERS - STRUCTURE

EMC ENGINEERS - MPE

EPCC - SCHOOL OF INTERIOR DESIGN

EPCC - SCHOOL OF CULINARY ARTS

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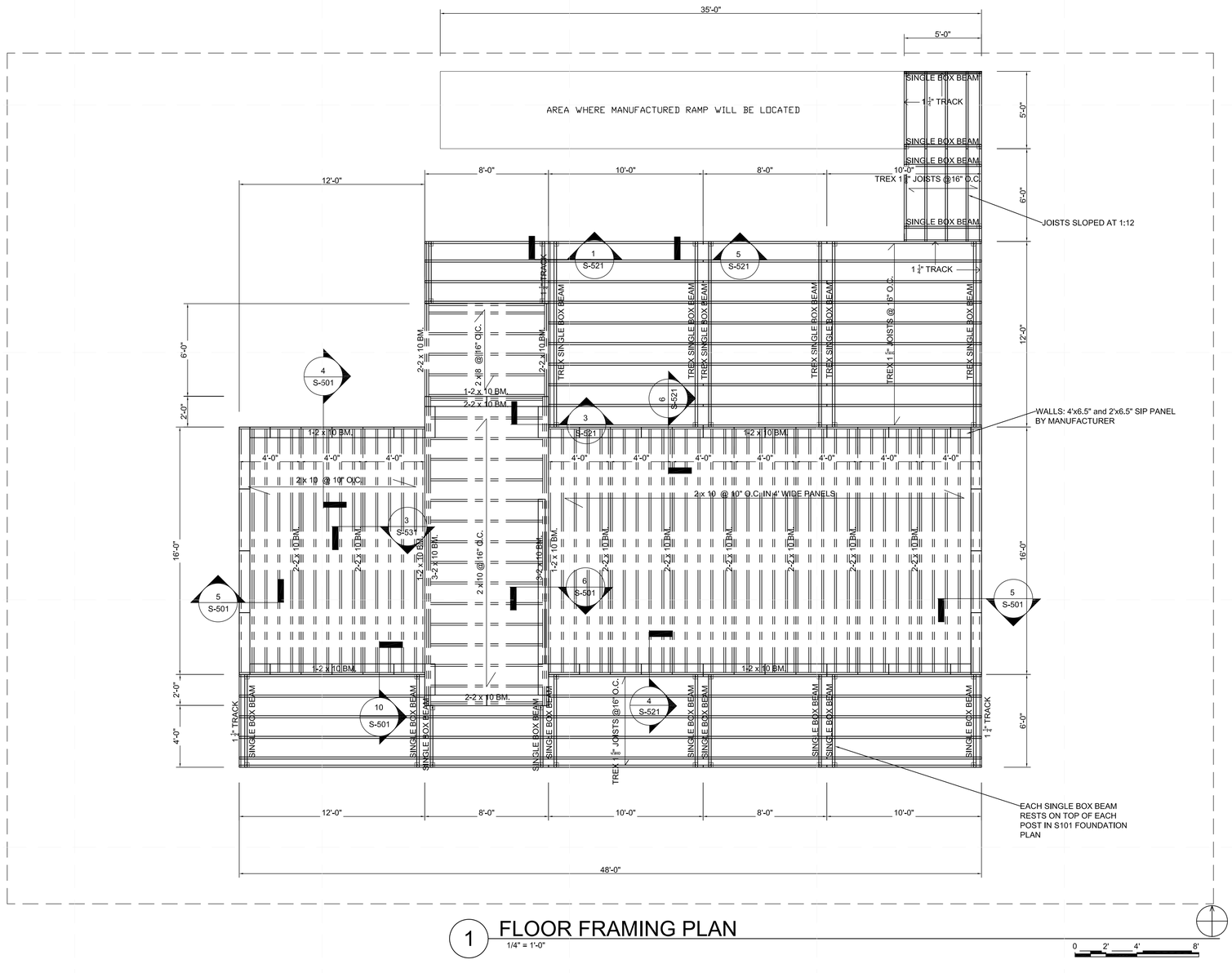
STRUCTURAL FOUNDATION PLAN

S-101



1 FLOOR FRAMING PLAN

1/4" = 1'-0"

0 2' 4' 8'

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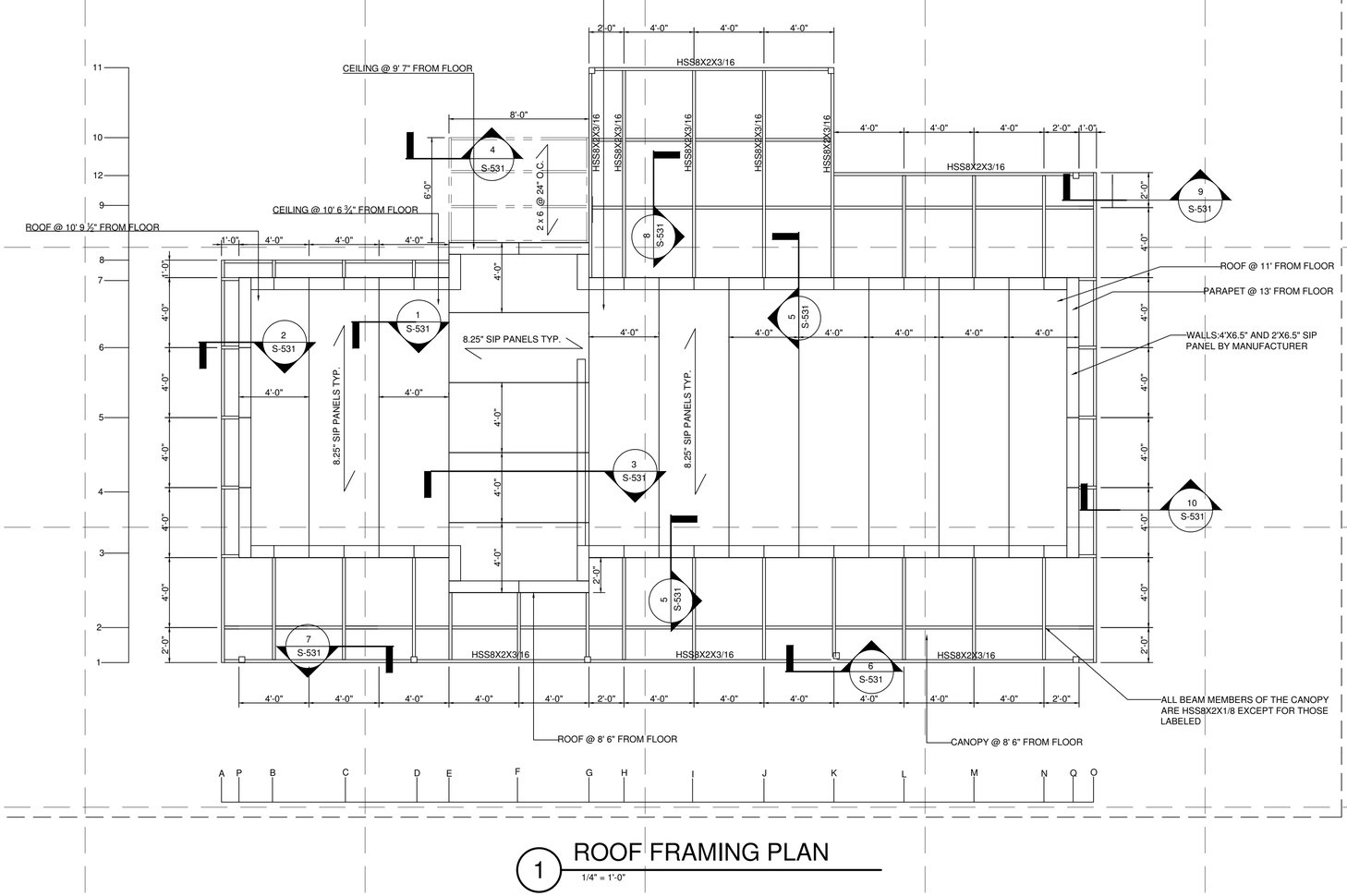
FLOOR FRAMING PLAN

S-102



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

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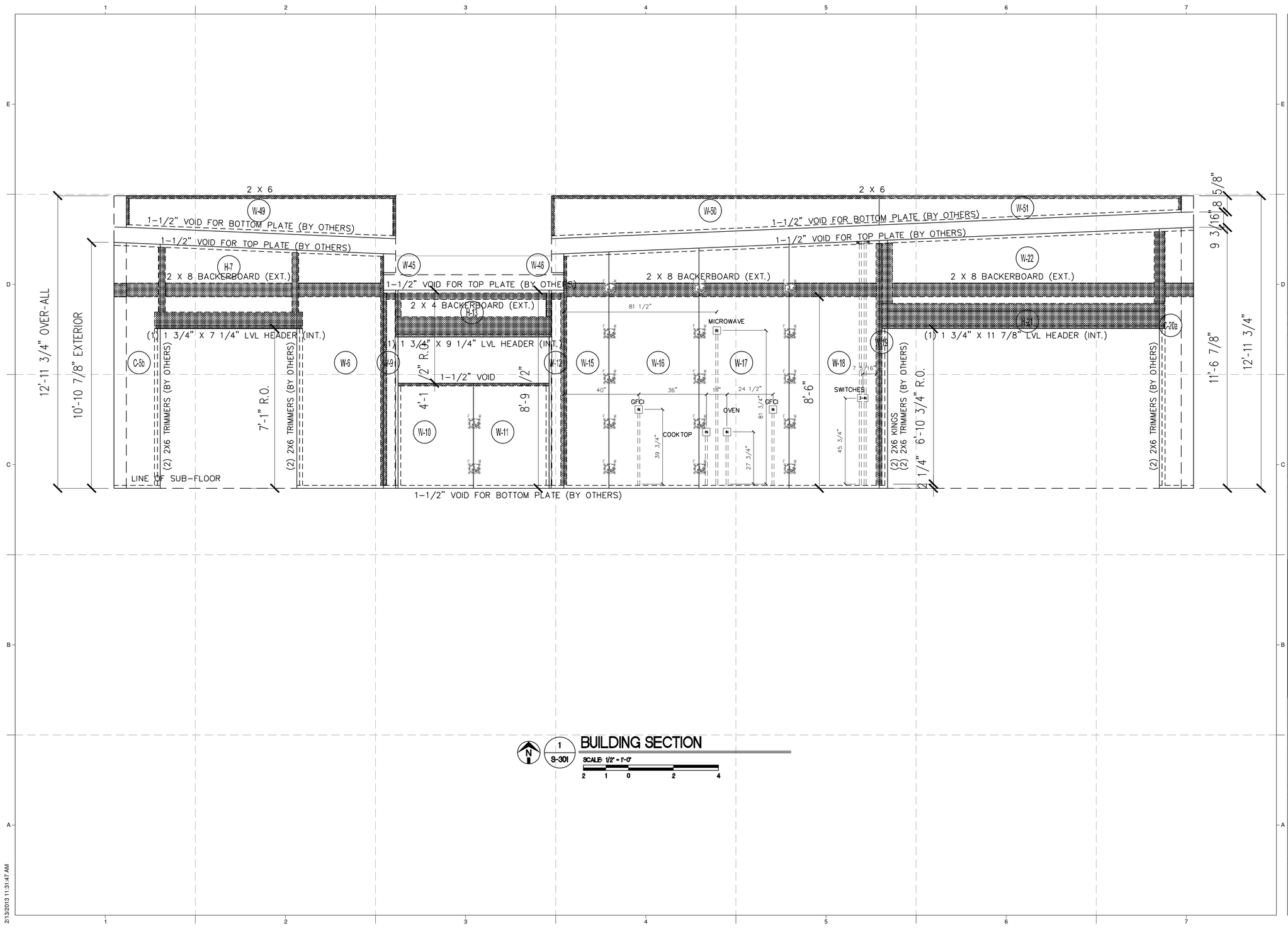
ROOF FRAMING PLAN

S-103



1 S-301 BUILDING SECTION

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

2 1 0 2 4

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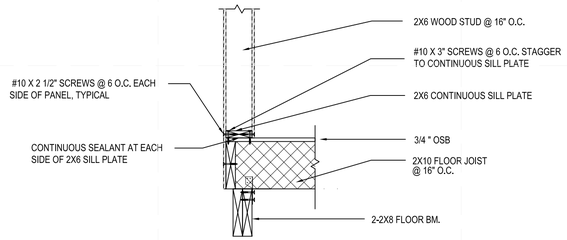
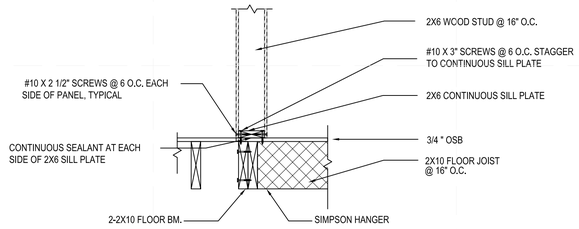
BUILDING SECTION

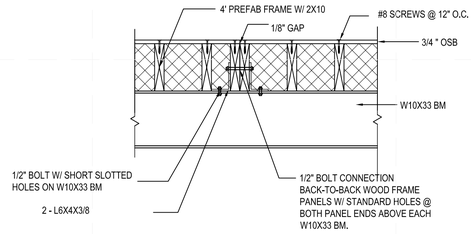
S-301



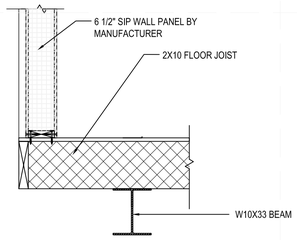
1 EDGE OF FLOOR @ MECHANICAL ROOM
SC: 3/4" = 1' - 0"



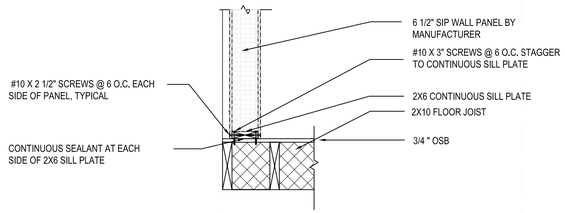
2 EDGE OF FLOOR @ MECHANICAL ROOM
SC: 3/4" = 1' - 0"



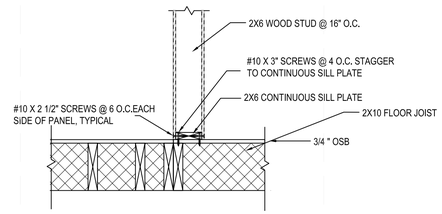
3 FLOOR SPLINE
SC: 3/4" = 1' - 0"



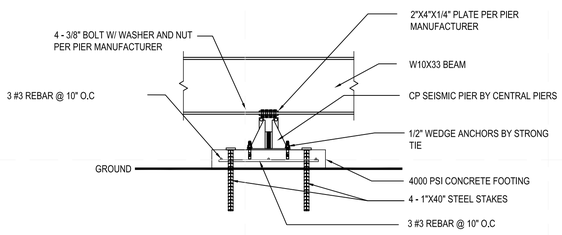
4 EDGE OF FLOOR SLAB CONNECTION 6" O.C. SCREWS
SC: 3/4" = 1' - 0"



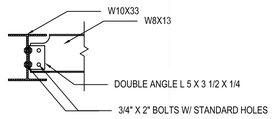
5 EDGE OF FLOOR SLAB CONNECTION 6" O.C SCREWS
SC: 3/4" = 1' - 0"



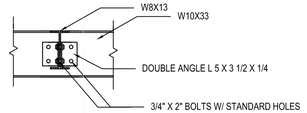
6 EDGE OF FLOOR SLAB CONNECTION 4" O.C. SCREWS
SC: 3/4" = 1' - 0"



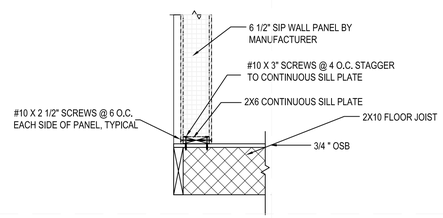
7 SEISMIC PIER AT FOOTING
SC: 3/4" = 1' - 0"



8 BEAM TO BEAM CONNECTION
SC: 3/4" = 1' - 0"



9 DOUBLE ANGLE CONNECTION
SC: 3/4" = 1' - 0"



10 EDGE OF FLOOR SLAB CONNECTION 4" O.C. SCREWS
SC: 3/4" = 1' - 0"

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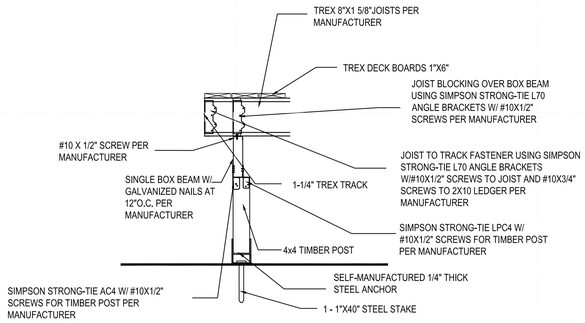
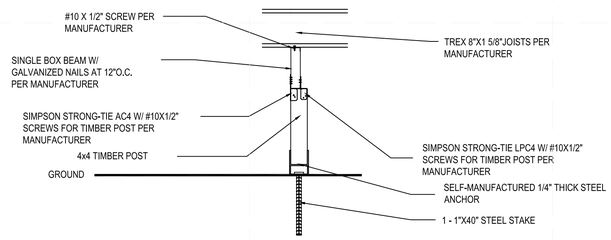
DETAILS

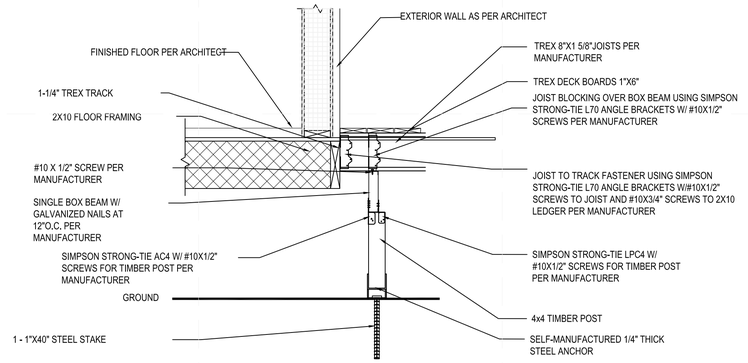
S-501



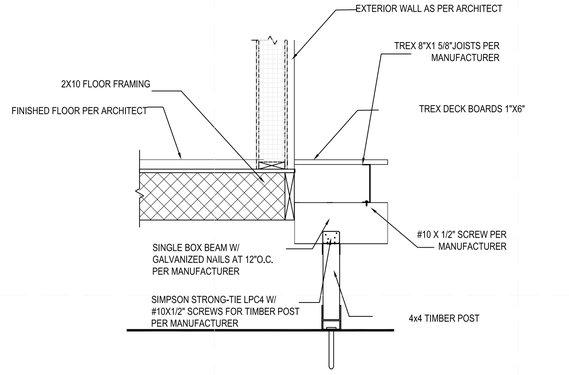
1 DECK CORNER
SC: 3/4" = 1' - 0"



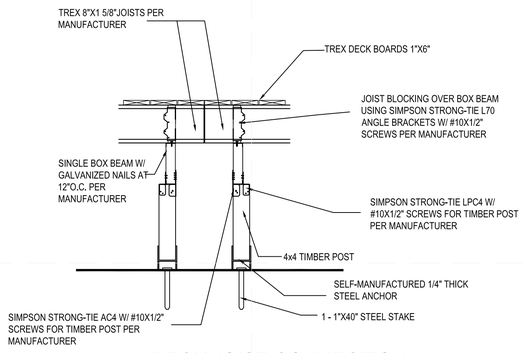
2 DECK POST
SC: 3/4" = 1' - 0"



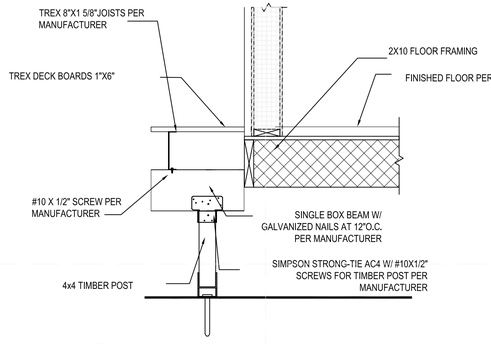
3 DECK AND CENTER MODULE CONNECTION
SC: 3/4" = 1' - 0"



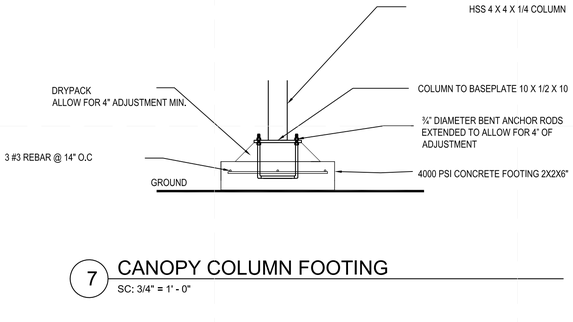
4 BACK DECK TO WALL
SC: 3/4" = 1' - 0"



5 DECK JOIST CONNECTION
SC: 3/4" = 1' - 0"



6 FRONT DECK TO WALL
SC: 3/4" = 1' - 0"



7 CANOPY COLUMN FOOTING
SC: 3/4" = 1' - 0"

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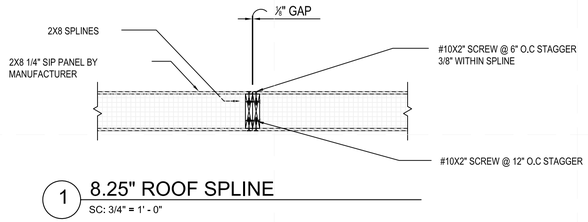
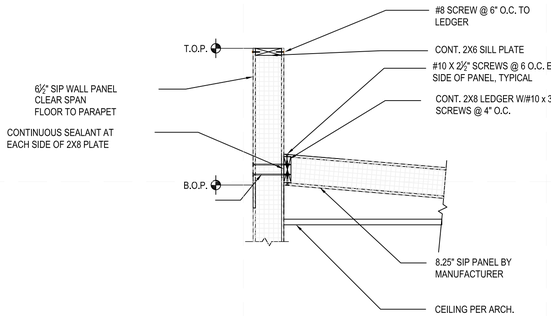
DECK DETAILS

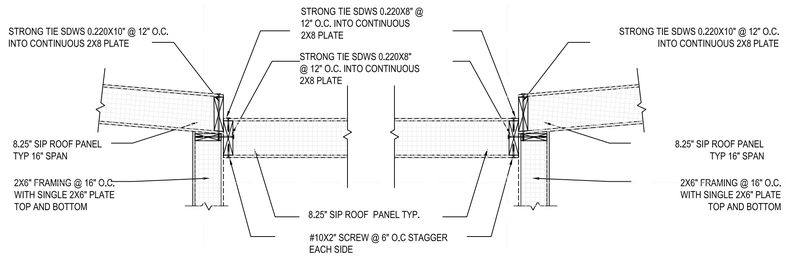
S-521



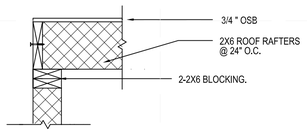
1 8.25" ROOF SPLINE
SC: 3/4" = 1' - 0"



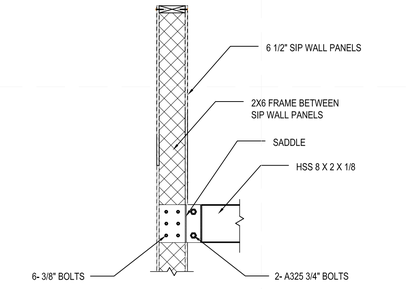
2 BEARING END
SC: 3/4" = 1' - 0"



3 STRUCTURAL CONNECTIONS WITHIN WALLS
SC: 3/4" = 1' - 0"

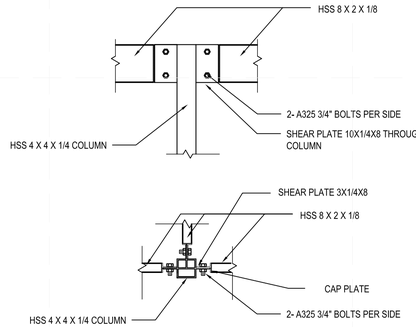


4 EDGE OF ROOF @ MECHANICAL ROOM
SC: 3/4" = 1' - 0"



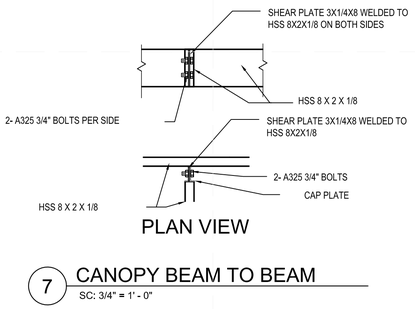
PLAN VIEW

5 CANOPY BEAM TO SIP WALL PANEL
SC: 3/4" = 1' - 0"



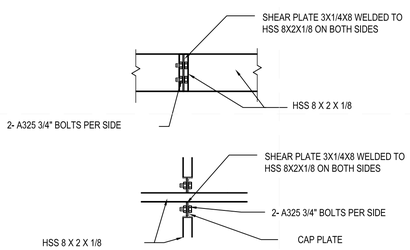
PLAN VIEW

6 CANOPY BEAMS TO COLUMN
SC: 3/4" = 1' - 0"



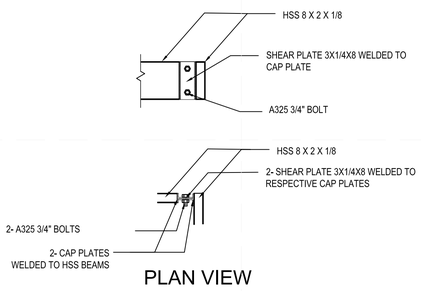
PLAN VIEW

7 CANOPY BEAM TO BEAM
SC: 3/4" = 1' - 0"



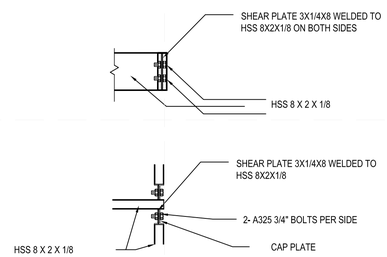
PLAN VIEW

8 CANOPY BEAMS INTERIOR JUNCTION
SC: 3/4" = 1' - 0"



PLAN VIEW

9 CANOPY BEAMS CORNER JUNCTION
SC: 3/4" = 1' - 0"



PLAN VIEW

10 CANOPY BEAMS EXTERIOR JUNCTION
SC: 3/4" = 1' - 0"

TEAM NAME:	TEAM TEXAS
ADDRESS:	ORANGE COUNTY GREAT PARK IRVINE, CALIFORNIA LOT #106
CONTACT:	INFO@SOLARDECATHLON.GOV WWW.SOLARDECATHLON.GOV

CLIENT

U.S. DEPARTMENT OF ENERGY

SOLAR DECATHLON 2013

WWW.SOLARDECATHLON.GOV

MARK	DATE	DESCRIPTION

LOT NUMBER:	106
DRAWN BY:	TEAM TEXAS
CHECKED BY:	
COPYRIGHT:	

SHEET TITLE

ROOF DETAILS

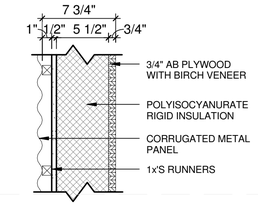
S-531

REFERENCE KEYNOTES

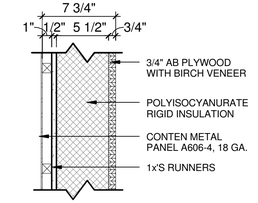
A LABEL	CLASS A DOOR
A/C	AIR CONDITION
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT / ENGINEER
AAP	ALARM ANNUNCIATOR PANEL
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ABV	ABOVE
AC	ASBESTOS CEMENT, ASPHALTIC CONCRETE
ACC	ACCESS, ACCESSIBLE
ACP	ASPHALTIC CONCRETE PAVING, AUTOMATIC CONTROL PANEL
ACST	ACOUSTICAL, ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADH	ADHESIVE
ADJ	ADJACENT, ADJOINING, ADJUSTABLE
ADJUST	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE, ALTITUDE
ALUM	ALUMINUM
ANOD	ANODIZE
ANT	ANTENNA
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT
ASC	ABOVE SUSPENDED CEILING
ASPH	ASPHALT
ASSY	ASSEMBLY
ATM	AUTOMATIC TELLER MACHINE
AUTO	AUTOMATIC
AV	AUDIO VISUAL
AVE	AVENUE
B LABEL	CLASS B DOOR
BALC	BALCONY
BB	BULLETIN BOARD, BASE BOARD
BD	BOARD
BDRY	BOUNDARY
BEV	BEVEL, BEVELED
BITUM	BITUMINOUS
BJT	BED JOINT
BLDG	BUILDING
BLVD	BOULEVARD
BLW	BELOW
BM	BENCH MARK, BEAM, BENDING MOMENT
BOT	BOTTOM
BR	BEDROOM
BRG	BEARING
BRG HT	BEARING HEIGHT
BRZ	BRONZE
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
C	CELSIUS, CHANNEL
C LABEL	CLASS C DOOR
C TO C	CENTER TO CENTER
CAB	CABINET
CAD	CADMIUM, COMPUTER AIDED DRAFTING
CAT	CATALOG
CATV	COMMUNITY ANTENNA TELEVISION
CB	CATCH BASIN, CEMEMT BASE CERAMIC TILE, CORNER BEAD
CCTV	CLOSE CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
CF/OI	CONTRATOR FURNISHED / OWNER INSTALLED
CFE	CONTACTOR FURNISHED EQUIPMENT
CFLG	COUNTERFLASHING
CG	CORNER GUARD
CH BD	CHALKBOARD
CHFR	CHAMPER
CI	CAST IRON, CURB INLET
CIR	CIRCLE
CIRC	CIRCUMFERENCE
CJ	CONSTRUCTION JOINT, CONTROL JOINT
CK	CAULK, CAULKING
CL	CENTER LINE, CLASS, CLOSE
CLG	CEILING
CLG HT	CEILING HEIGHT
CLO	CLOSET
CLR	CLEAR, COLOR, COOLER
CLRM	CLASSROOM
CM	CENTIMETER(S)
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION, COMBINED
COMM	COMMUNICATION
COMP	COMPONENT
COMPT	COMPARTMENT
CONC	CONCRETE, CONCENTRIC
CONSTR	CONSTRUCTION
CONT	CONTINUOUS, CONTINUE, CONTROLLER
CONTR	CONTACTOR, CONTRACT
CORR	CORRIDOR, CORRUGATED, CORRECT
CPT	CARPET
CR	CHROMIUM, CONTROL ROOM
CRS	COURSE
CSK	COUNTERSINK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTR	CENTER, CONTOUR
CU	CUBIC
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
D	DRAIN, DEPTH, PENNY (NAIL)
D LABEL	CLASS D DOOR
DA	DISABLED, DRAINAGE AREA
dB	DECIBEL
DBL	DOUBLE
DBL GLZ	DOUBLE GLAZE
DEG	DEGREE
DEMO	DEMOLITION, DEMONSTRATION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL, DIAGRAM
DIM	DIMENSION
DISP	DISPENSER
DIST	DISTANCE, DISTRICT
DIV	DIVISION, DIVIDE
DJ	DOUBLE JOIST
DL	DEAD LOAD
DMPF	DAMPROOFING
DMPR	DAMPER
DN	DOWN
DR	DOOR, DRIVE, DINING ROOM, DRESSING ROOM
DS	DOWNSPOUT
DW	DISHWASHER, DOMESTIC WATER
DWG(S)	DRAWING(S)
E	EAST, MODULUS OF ELASTICITY
E LABEL	CLASS E DOOR
EA	EACH
EB	EXPANISON BOLT
ECU	EVAPORATIVE COOLING UNIT
EE	EACH END
EF	EACH FACE, EXTERIOR FINISH
EFS	EXTERIOR FINISH SYSTEM
EG	EDGE GRAIN
EGB	EXTERIOR GYPSUM BOARD
EGSB	EXTERIOR GYPSUM SHEATHING BOARD
EH	ELECTRIC HEATER
EHD	ELECTRIC HAND DRYER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION, EACH LAYER
ELEC	ELECTRIC
ELEV	ELEVATOR
EMER	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
ENCL	ENCLOSE, ENCLOSURE
ENGR	ENGINEER
ENTR	ENTRANCE
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQT	EQUIPMENT
EQUIP	EQUIPMENT
ERD	EXISTING ROOF DRAIN
EST	ESTIMATED
EVAP	EVAPORATE
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EXC	EXCAVATE
EXIST	EXISTING
EXP	EXPOSED, EXPANSION, EXPAND
EXS	EXTRA STRONG
EXT	EXTERIOR, EXTERNAL, EXTINGUISHER
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAS	FASCIA, FIRE ALARM STATION
FB	FIRE BLANKET, FLAT BAR
FCO	FLOOR CELANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINSH FLOOR
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT, FLAT HEAD
FHC	FIRE HOSE CABINET
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLAT HEAD WOOD SCREW
FIN	FINISH, FINISHED
FIXT	FIXTURE
FJT	FLUSH JOINT
FLASH	FLASHING
FLG	FLOORING, FLANGE
FLR	FLOOR, FILLER
FLR FIN	FLOOR FINISH
FLR SK	FLOOR SINK
FLUOR	FLUORESCENT
FP	FIRE PROTECTION, FIREPROOF, FLAGPOLE
FR	FRAME, FIRE RATING, FIRE RESISTANT
FS	FULL SIZE
FSTNR	FASTENER
FT	FOOT, FEET, FIRE TREATED, FULLY TEMPERED (GLASS)
FTG	FOOTING
FURN	FURNACE, FURNISH, FURNITURE
FUT	FUTURE
G	NATURAL GAS
GA	GAUGE
GALV	GALVANIZED, GALVANIC
GB	GRAB BAR, GAS BIBB
GC	GENERAL CONTRACTOR
GCO	GROUND CLEANOUT
GL	GLASS, GROUND LEVEL
GL BLK	GLASS BLOCK
GLU LAM	GLUED LAMINATED WOOD
GLZ	GLAZING
GT	GROUT, GREASE TRAP
GWB	GYPSUM WALL BOARD
GYM	GYMNASIUM
GYP	GYPSUM
GYP BD	GYPSUM BOARD
HAZ	HAZARD
HAZ MAT	HAZARDOUS MATERIAL
HB	HOSE BIBB
HC	HOLLOW CORE, HANDICAP
HD	HAND DRYER, HEAVY DUTY
HDBD	HARDBOARD
HDR	HEADER
HDW	HARDWARE
HH	HAND HOLE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HS	HAND SINK
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
I	MOMENT OF INERTIA
I/O	INPUT / OUTPUT
ID	INSIDE DIAMETER, IDENTIFICATION, INSIDE DIMENSION
IIC	IMPACT INSULATION CLASS
INCL	INCLUDE, INCLUDED, INCLUDING
INFO	INFORMATION
INSUL	INSULATE, INSULATION, INSULATING, INSULATED
INT	INTERIOR
INTERCOM	INTERCOMMUNICATIONS
INV	INVERT
JAN	JANITOR
JAN CLO	JANITOR'S CLOSET
JBOX	JUNCTION BOX
K	KILO, THOUSAND
KIT	KITCHEN
KO	KNOCK OUT
KPL	KICK PLATE
L	ANGLE, LITER
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE, LAMINATED
LAM GL	LAMINATED GLASS
LDR	LEADER
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LIB	LIBRARY
LL	LIVE LOAD
LNG	LIQUID NATURAL GAS
LPT	LOW POINT
LR	LIVING ROOM
LT	LIGHT
LVR	LOUVER
LWC	LIGHT WEIGHT CONCRETE
M	METER, MOMENT
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT, MAIL BOX
MBR	MASTER BEDROOM, MEMBER
MC	MEDICINE CABINET
MECH RM	MECHANICAL ROOM
MED	MEDIUM, MEDICAL
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM, MINUTE
MIRR	MIRROR
MISC	MISCELLANEOUS
ML	METAL LATH, MONOLITHIC
MLDG	MOULDING, MOLDING
MLWK	MILLWORK
MO	MASONRY OPENING
MOD	MODULAR, MODEL, MODIFY, MODULE
MRB	MARBLE BASE
MS	MOP SINK
MT	MOUNT, MOUNTED, MOUNTING, METAL THRESHOLD
MTL	METAL
MULL	MULLION
MVBL	MOVABLE
N	NORTH
NA	NOT APPLICABLE
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER, OUTSIDE DIMENSION
OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED / OWNER INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OH	OPPOSITE HAND, OVERHANG, OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PA	PUBLIC ADDRESS
PAR	PARALLEL
PB	PANIC BAR, PANELBOARD, PAINTED BASE, PULL BOX, PUSHBOTTON
PBD	PARTICLE BOARD
PCD	PAPER CUP DISPENSER
PCF	POUNDS PER CUBIC FOOT
PED	PEDESTAL
PERF	PERFORATE(D)
PERFAB	PREFABRICATE(D)
PERIM	PERIMETER
PFE	PORTABLE FIRE EXTINGUISHER
PG	PRESSURE GAUGE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR, PIPE RAIL
PREFIN	PREFINISHED
PRKG	PARKING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT, PRESSURE TREATED
PTD	PAINTED, PAPER TOWEL DISPENSER
PTDR	PAPER TOWEL DISPENSER / RECEPTACLE
PTN	PARTITION
PTR	PAPER TOWEL RECEPTACLE
PVG	PAVEMENT, PAVING
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTF	QUARRY TILE FLOOR
QTY	QUANTITY
R	RISER, RADIUS, RANGE
RB	RESILIENT BASE, RUBBER BASE
RB HK	ROBE HOOK
RCP	REFLECTED CEILING PLAN
RCPTN	RECEPTION
RD	ROOF DRAIN, ROAD
REBAR	REINFORCING STEEL BARS
REF	REFERENCE, REFRIGERATOR
REFL	REFLECT, REFLECTED, REFLECTIVE, REFLECTOR
REFR	REFRIGERATION
REG	REGISTER
REINF	REINFORCE, REINFORCING
REM	REMOVABLE
REQD	REQUIRED
RESIL	RESILENT
REST	RESTROOM
REV	REVISION
RFG	ROOFING
RH	ROOF HATCH, RIGHT HAND
RHR	RIGHT HAND REVERSE
RL	ROOF LEADER
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	RAILROAD, ROLL ROOFING
RS	ROUGH SAWN
RT	RIGHT
RTF	RUBBER TILE FLOOR
RTU	ROOF TOP UNIT
RV	ROOF VENT, ROOF VENTILATOR
S	SOUTH
SB	SPLASH BLOCK
SBS	STYRENE BUTADIEN STYRENE (ROOFING)
SC	SOLID CORE
SCHED	SCHEDULE
SCHEM	SCHEMATIC
SCP	SCUPPER
SCR	SHOWER CURTAIN ROD
SCRN	SCREEN
SCWD	SOLID CORE WOOD DOOR
SD	SMOKE DETECTOR, SOAP DISPENSER
SECT	SECTION
SF	SQUARE FOOT (FEET), SUPPLY FAN
SH	SHINGLES, SINGLE HUNG (WINDOW)
SHFT	SHAFT (ELEVATOR)
SHLVS	SHELVES, SHELVING
SHR	SHOWER
SHR HD	SHOWER HEAD
SHT	SHEET
SHT MTL FLASH	SHEET METAL FLASHING
SHTHG	SHEATHING
SIM	SIMILAR
SIM COND	SIMILAR CONDITION
SJ	SCORE JOINT
SKLT	SKYLIGHT
SLD WDW	HORIZONTAL SLIDING WINDOW
SND	SANITARY NAPKIN DISPENSER
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SP	STAND PIPE
SPEC(S)	SPECIFICATION(S)
SPKLR	SPRINKLER
SPKR	SPEAKER
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS	SERVICE SINK
STA	STATION
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STOR	STORAGE
STR	STAIR(S)
STRUCT	STRUCTURE, STRUCTURAL
SUH	SUSPENDED UNIT HEATER
SV	SHEET VINYL
SWBD	SWITCHBOARD
SYM	SYMBOL
SYS	SYSTEM
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T/S	TUB / SHOWER
TB	TOWEL BAR, THROUGH BOLT
TC	TERRA COTTA
TCA	TELEPHONE CONTROL PANEL
TD	TOWEL DISPENSER, TRENCH DRAIN
TDR	TOWEL DISPENSER / RECEPTACLE
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TER	TERRAZZO, TELEPHONE EQUIPMENT ROOM
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
THD	THREAD
THK	THICKNESS, THICK
THRES	THRESHOLD
THRU	THROUGH
THRUOUT	THROUGHOUT
TK BD	TACK BOARD
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE (CURB)
TOC FTG	TOP OF CONCRETE FOOTING
TOC WALL	TOP OF CONCRETE WALL
TOF	TOP OF FOOTING (FLOOR, FRAME)
TOJ	TOP OF JOIST
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET (PAVEMENT)
TOPO	TOPOGRAPHY
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TPH	TOILET PAPER HOLDER
TR	TOWEL RACK
TRANS	TRANSOM, TRANSPARENT
TS	TUBE STEEL
TSH	TOWEL SHELF
TSTAT	THERMOSTAT
TV	TELEVISION
TYP	TYPICAL
UC	UNDERCUT
UGND	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UNFIN	UNFINISHED
UNIV	UNIVERSAL
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY
VAC	VACUUM
VAN	VANITY
VAP PRF	VAPOR PROOF
VAR	VARIES
VB	VINYL BASE, VALVE BOX
VCT	VINYL COMPOSITION TILE
VEH	VEHICLE
VENT	VENTILATION, VENTILATOR
VERT	VERTICAL
VEST	VESTIBULE
VG	VERTICAL GRAIN
VID	VIDEO
VJ	V JOINT
VNR	VENEER
VOL	VOLUME
VOLT	VOLTAGE
VR	VAPOR RETARDER
VRFY	VERIFY
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
VWF	VINYL WALL FABRIC
W	WASTE, WEST, WIDE
W/	WITH
W/O	WITHOUT
W/W	WALL TO WALL
WB	WOOD BASE
WBL	WOOD BLOCKING
WC	WALL COVERING, WATER CLOSET
WCO	WALL CLEANOUT
WD	WOOD, WOOD DOOR
WDW	WINDOW
WF	WASH FOUNTAIN
WFAB	WALL FABRIC
WGL	WIRED GLASS
WH	WALL HUNG, WALL HYDRANT, WATER HEATER
WHSE	WAREHOUSE
WI	WROUGHT IRON
WLD	WELDED
WM	WATER METER, WIRE MESH
WP	WATERPROOFING, WEATHERPROOFING
WP	
WR	WATER REPELLENT, WEATHER RESISTANT, WIRE ROPE
WSCT	WAINSCOT
WSL	WEATHER SEAL
WT	WATERTIGHT, WEIGHT
WU	WINDOW UNIT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
X BRACE	CROSS BRACE
X SECT	CROSS SECTION
XBRA	CROSSBRACING
XFER	TRANSFER
XFMR	TRANSFORMER
XL	EXTRA LARGE
XPS	EXTRUDED POLYSTYRENE BOARD (INSULATION)
YCO	YARD CLEANOUT
YD	YARD, YARD DRAIN
YH	YARD HYDRANT
YI	YARD INLET
YR	YEAR
Z	MODULUS OF SECTION

WALL LEGEND

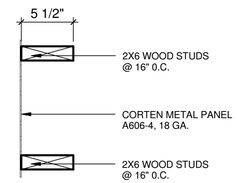
A CORRUGATED METAL PANEL EXTERIOR WALLS



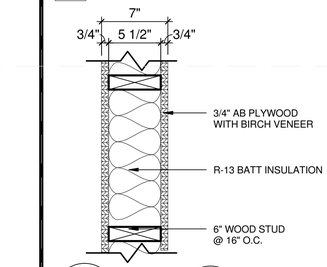
B CORTEN METAL PANEL EXTERIOR WALLS



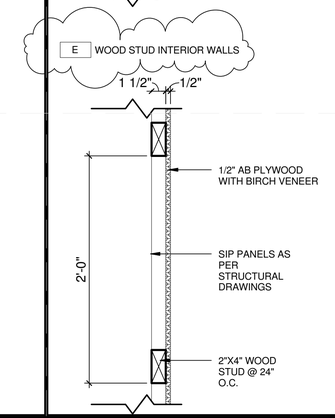
C CORTEN METAL PANEL EXTERIOR WALLS



D WOOD STUD INTERIOR WALLS



E WOOD STUD INTERIOR WALLS



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MARK	DATE	DESCRIPTION

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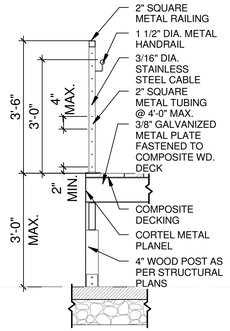
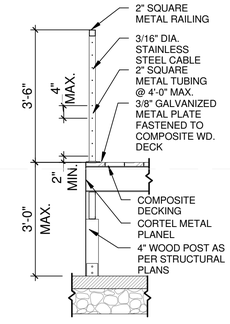
ARCHITECTURAL SYMBOLS AND NOTES

A-001

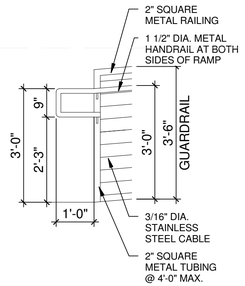
8/22/2013 4:38:30 PM



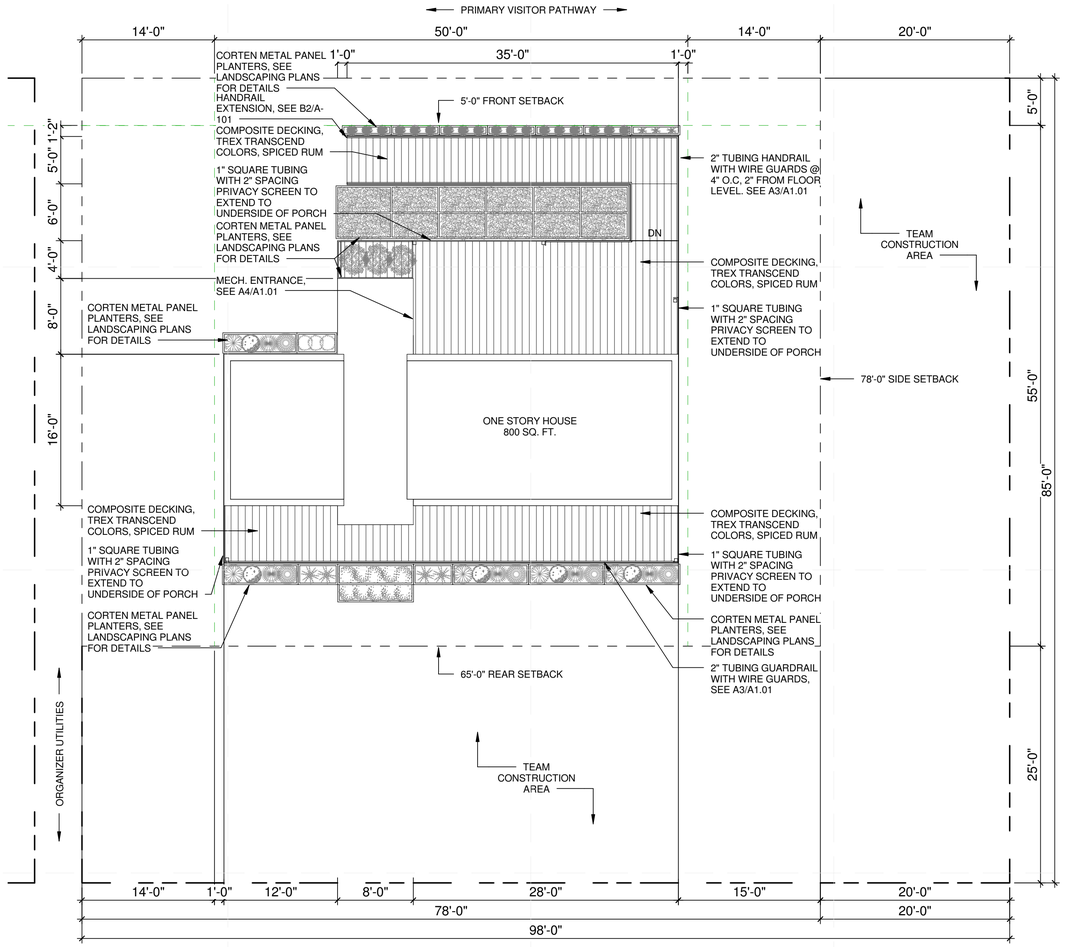
D2 HANDRAIL DETAIL
1/2" = 1'-0"



C2 GUARDRAIL DETAIL
1/2" = 1'-0"

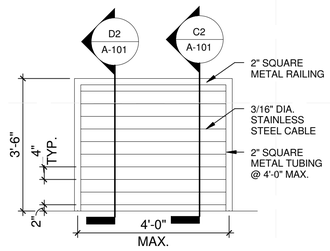


B2 DETAIL EXTENSION
1/2" = 1'-0"

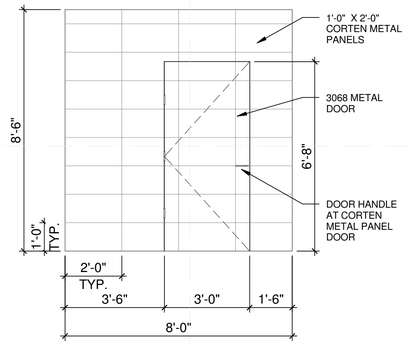


B3 SITE PLAN
1/8" = 1'-0"

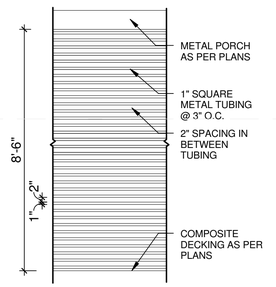
0 4' 8' 16'



A3 TYP. RAILING ELEV.
1/2" = 1'-0"



A4 PATIO / MECH. ROOM ELEV.
3/8" = 1'-0"



A5 PRIVACY SCREEN
3/8" = 1'-0"

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ARCHITECTURAL SITE PLAN

A-101

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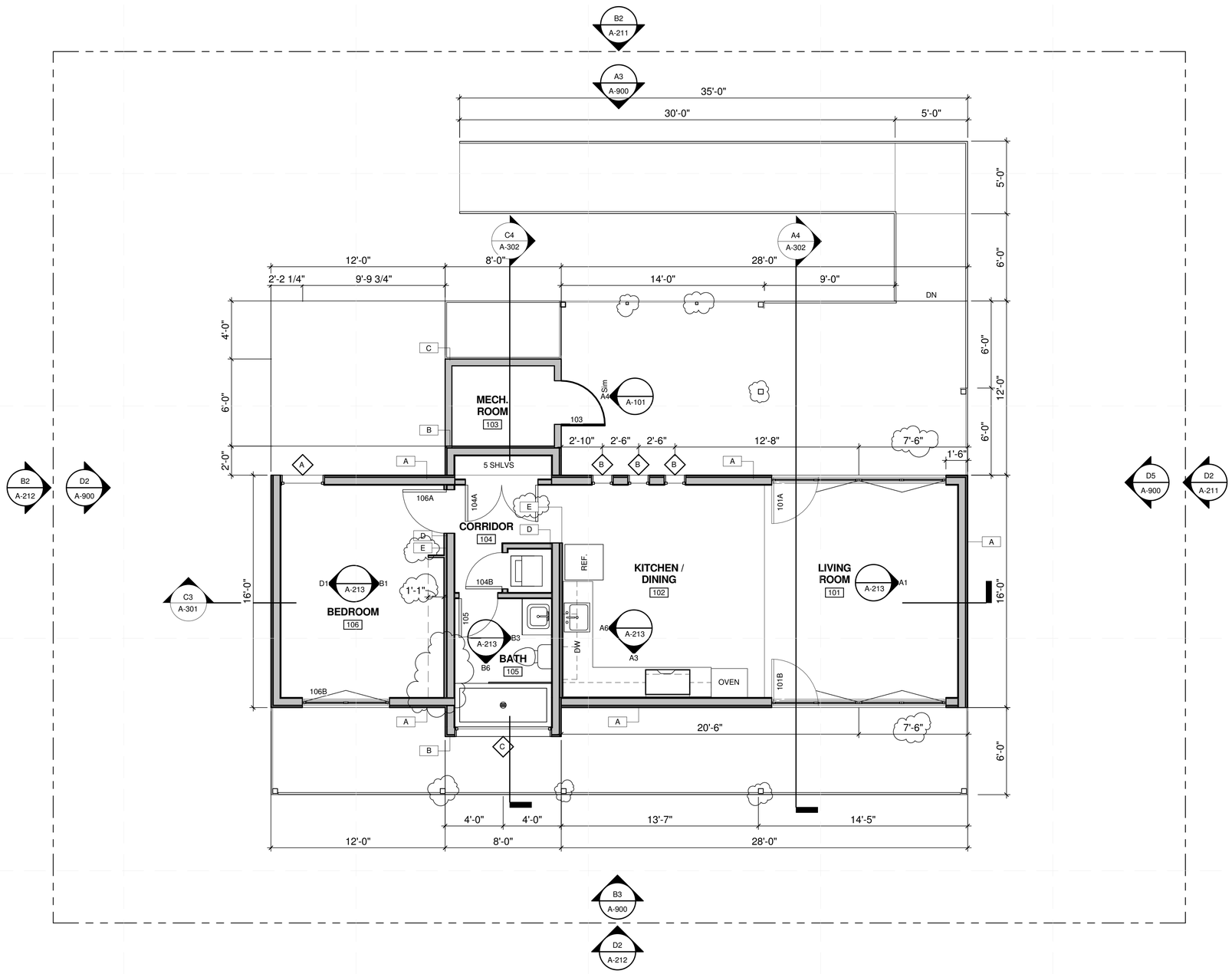

A1 FIRST FLOOR

1/4" = 1'-0"

0 2' 4' 8'

8/22/2013 4:38:32 PM

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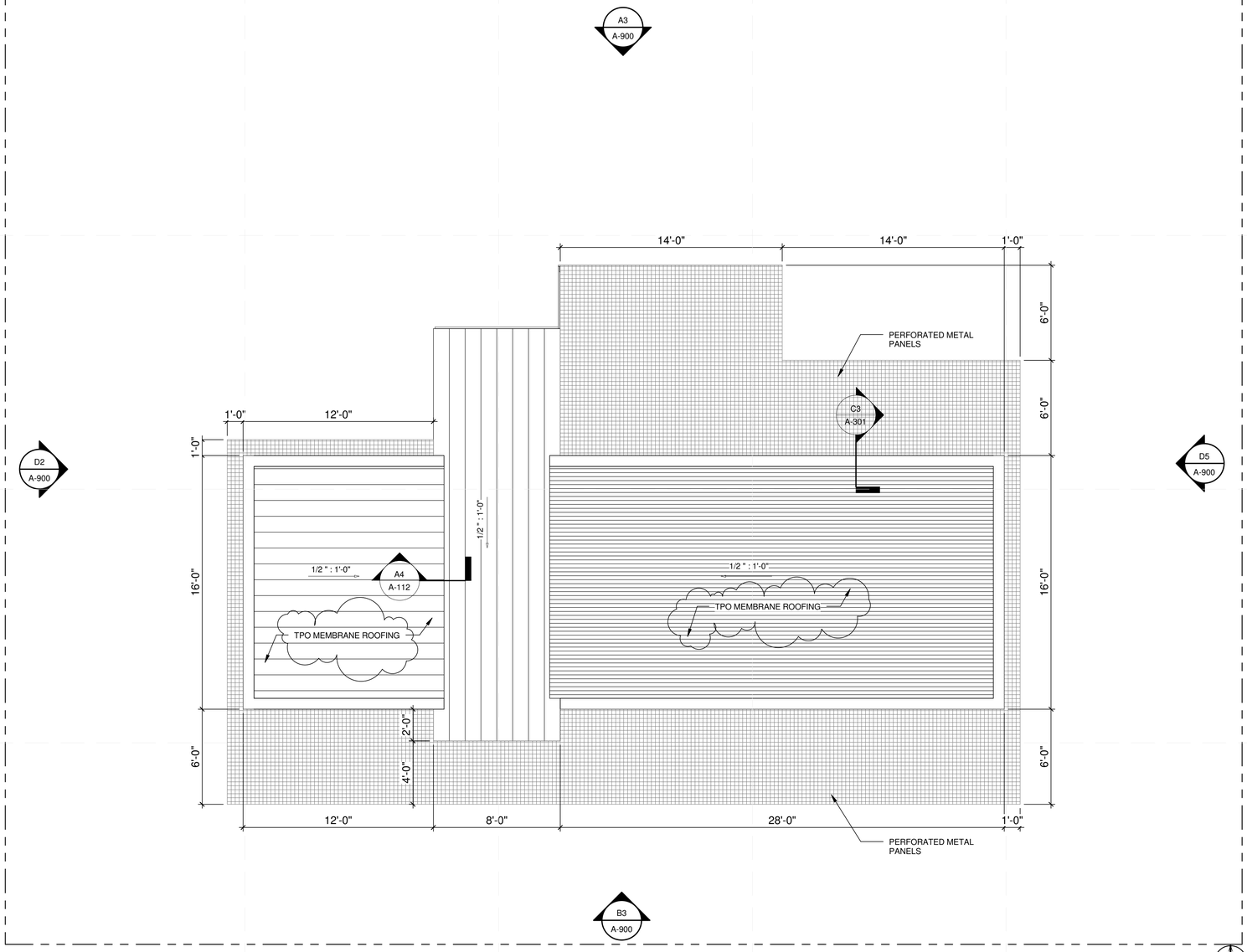
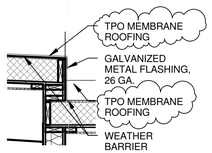
FIRST FLOOR PLAN

A-111

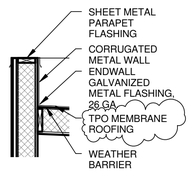


B2 ROOF PLAN
1/4" = 1'-0"

0 4' 8' 16'



A4 MID. ROOF DTL.
1/2" = 1'-0"



A6 TYP. FLASHING DTL.
1/2" = 1'-0"

REFERENCE KEYNOTES

ROOFING LEGEND

TPO MEMBRANE ROOFING

PERFORATED METAL PANEL ROOFING

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ROOF PLAN

A-112

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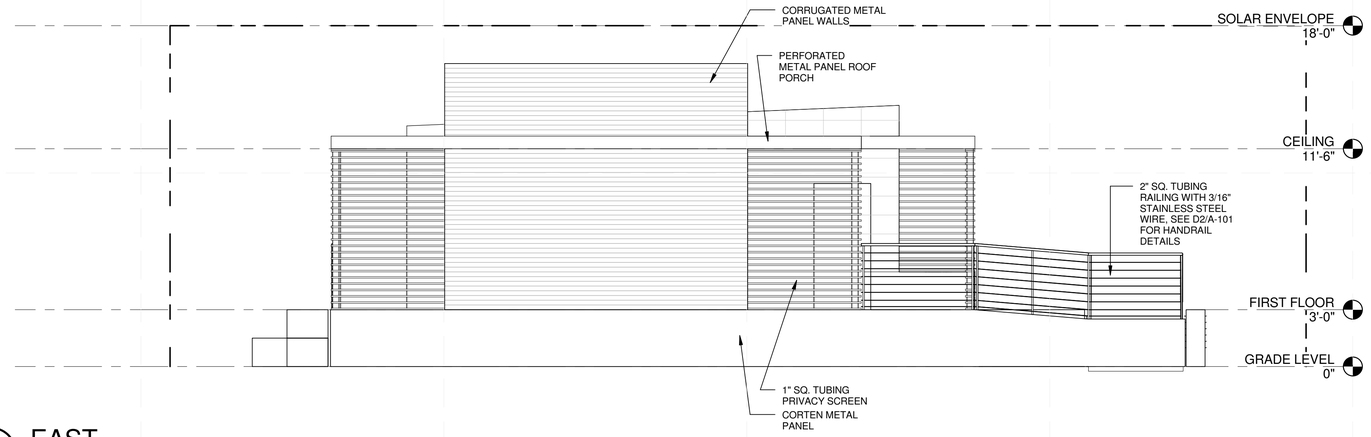
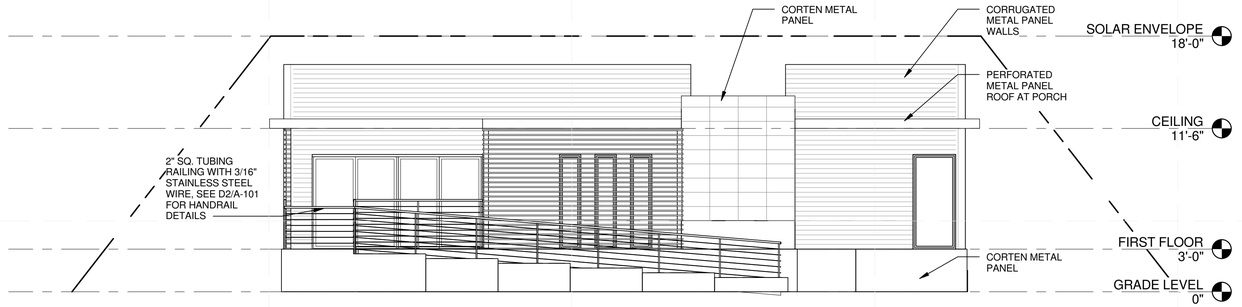


D2 EAST
1/4" = 1'-0"



B2 NORTH
3/16" = 1'-0"

4/5/2013 12:02:32 PM

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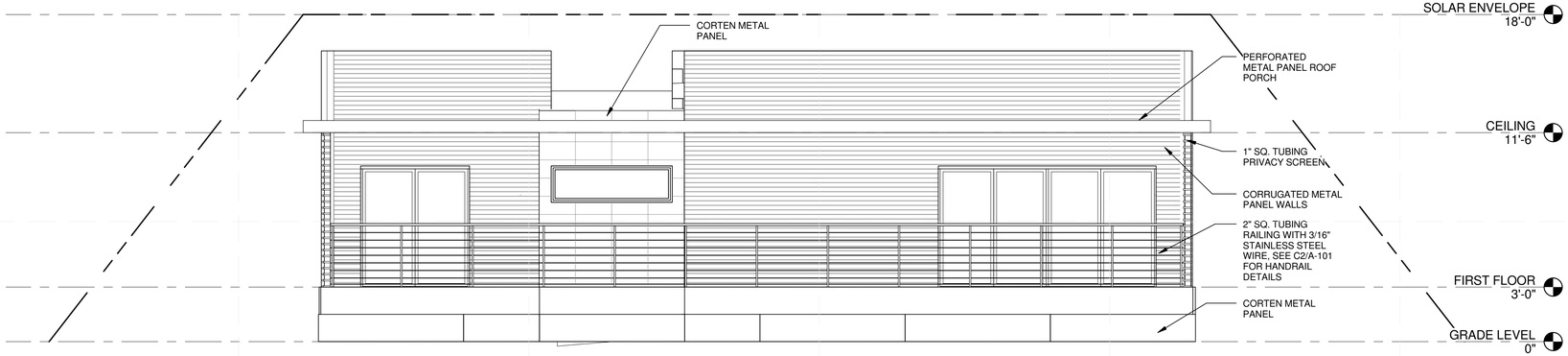
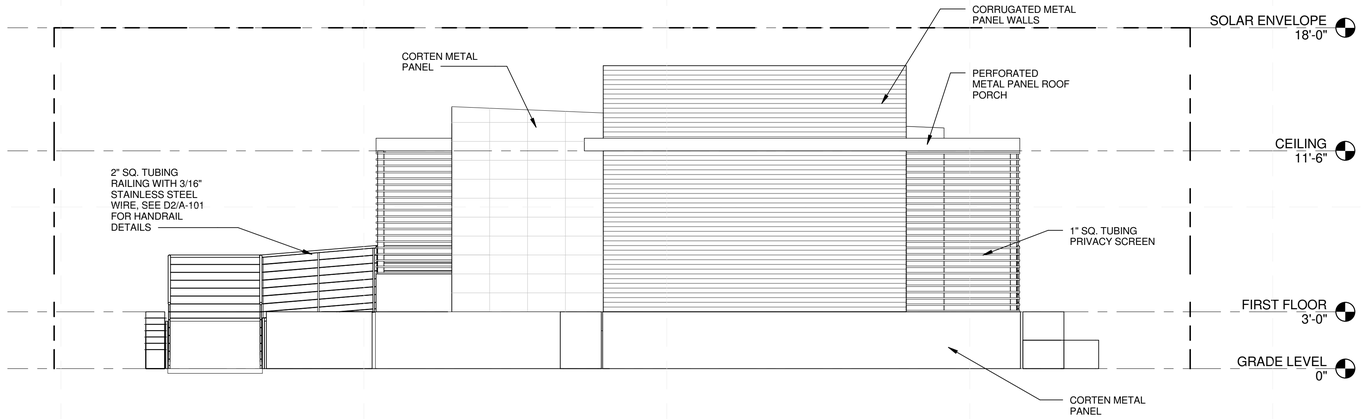
ELEVATIONS

A-211



D2 SOUTH
1/4" = 1'-0"



B2 WEST
1/4" = 1'-0"

4/5/2013 12:02:44 PM

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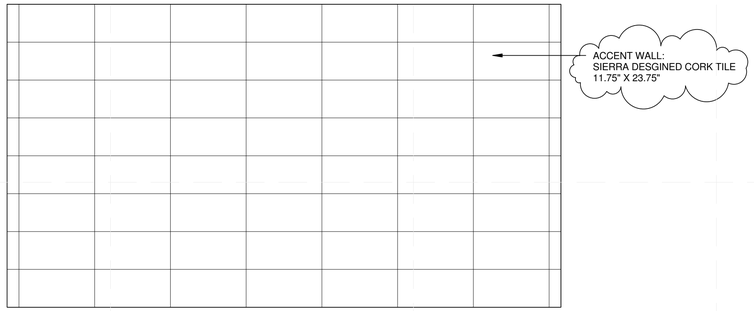
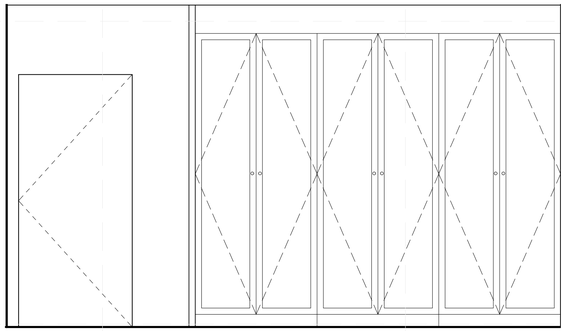
ELEVATIONS

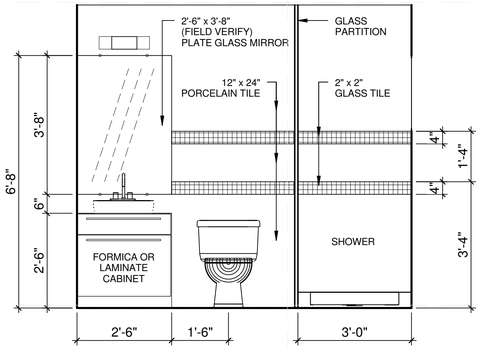
A-212



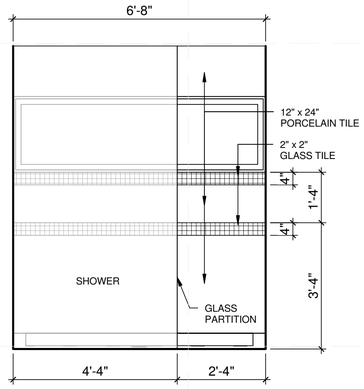
D1 INTERIOR ELEVATION - BEDROOM
1/2" = 1'-0"



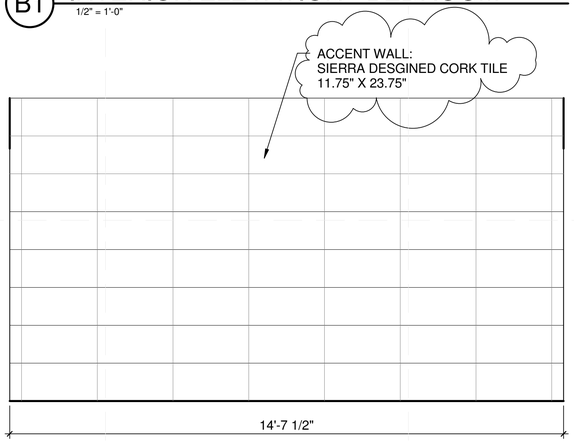
B1 INTERIOR ELEVATION - BEDROOM
1/2" = 1'-0"



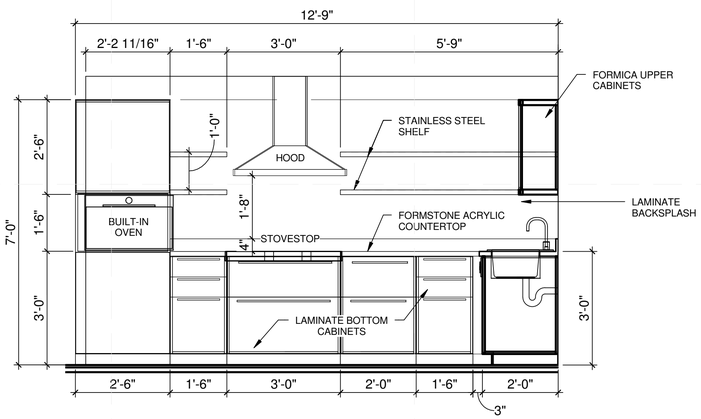
B3 INTERIOR ELEVATION - BATH
1/2" = 1'-0"



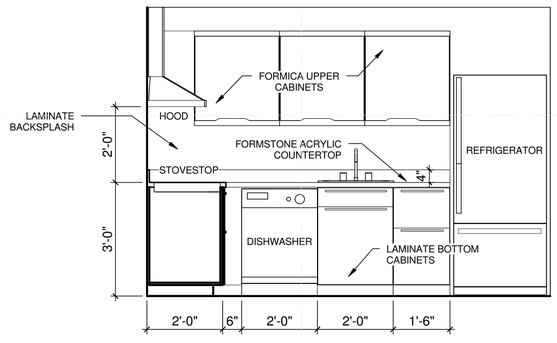
B6 INTERIOR ELEVATION - BATH 2
1/2" = 1'-0"



A1 INTERIOR ELEVATION - MEDIA CENTER
1/2" = 1'-0"



A3 INTERIOR ELEVATION - KITCHEN
1/2" = 1'-0"



A6 INTERIOR ELEVATION - KITCHEN
1/2" = 1'-0"

8/22/2013 4:38:35 PM

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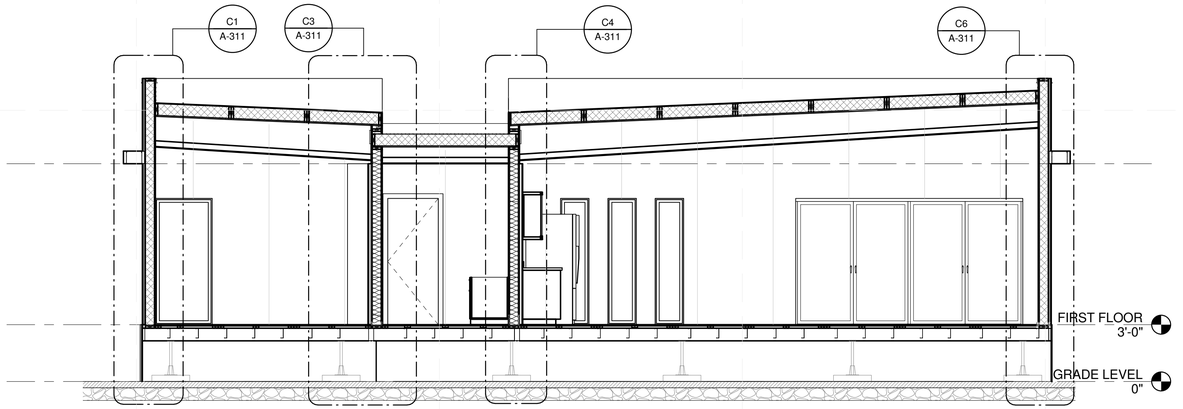
INTERIOR ELEVATIONS

A-213



C3 BUILDING SECTION

1/4" = 1'-0"

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BUILDING SECTIONS

A-301

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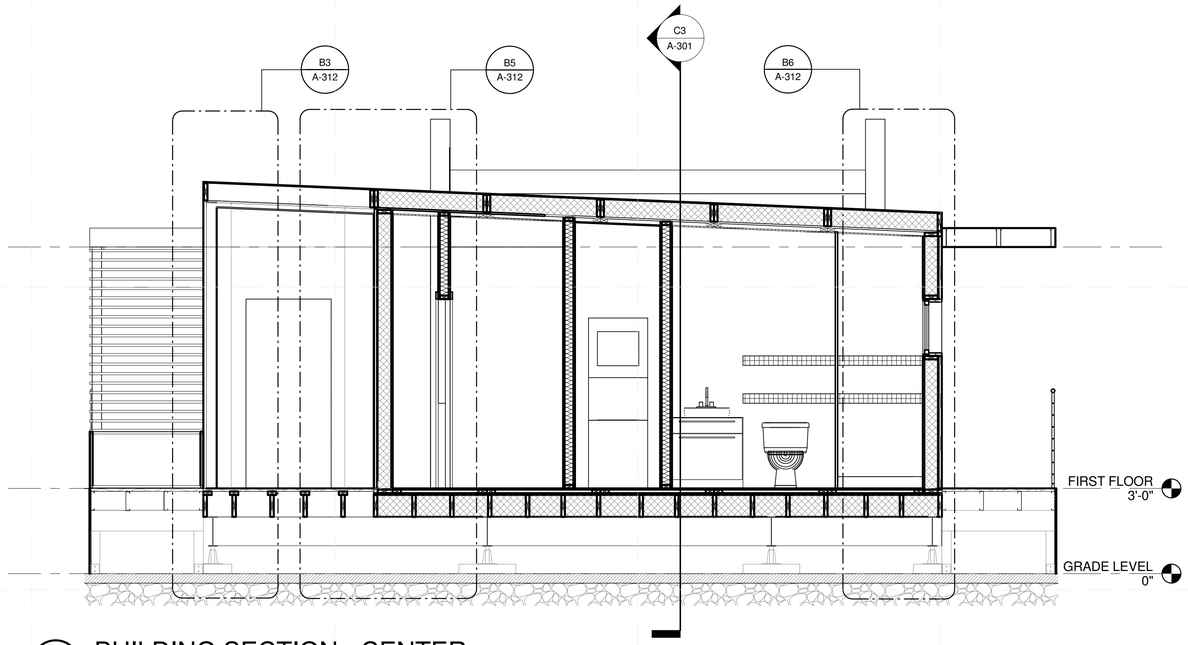
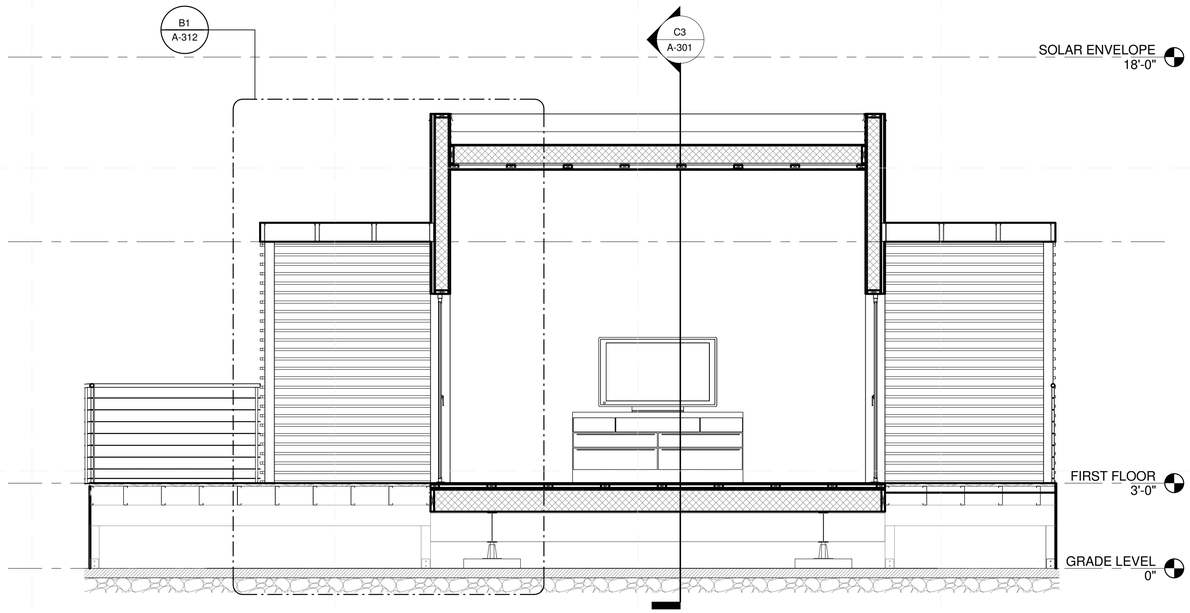


C4 BUILDING SECTION - CENTER
3/8" = 1'-0"



A4 BUILDING SECTION - ENTRETAINMENT
3/8" = 1'-0"

4/5/2013 12:02:57 PM

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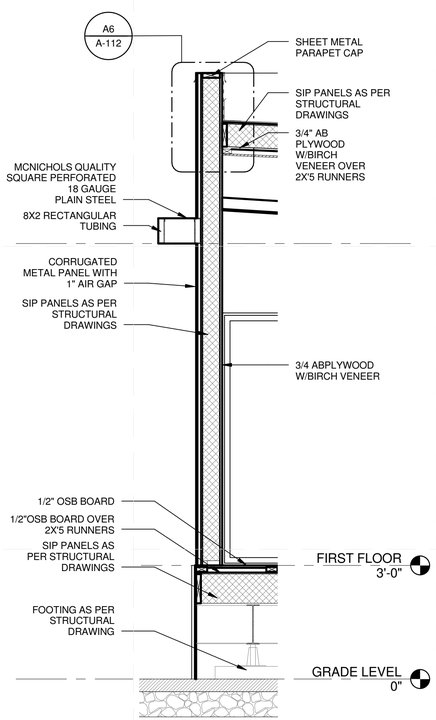
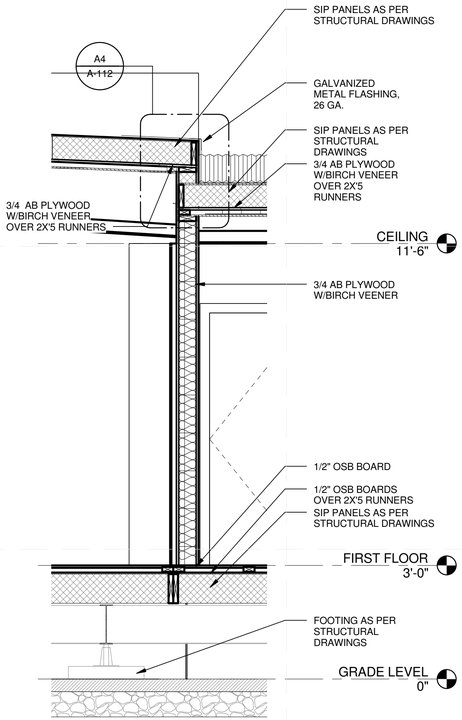
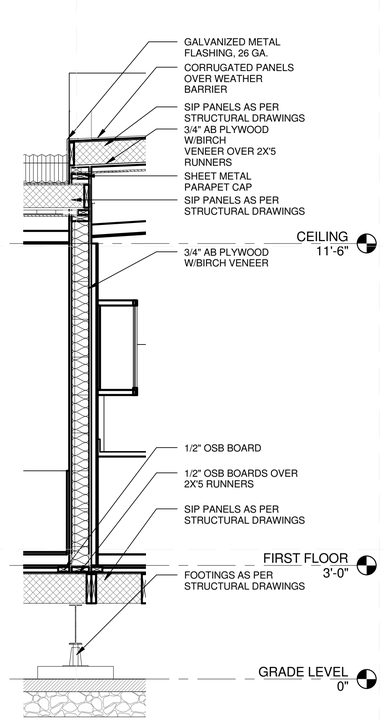
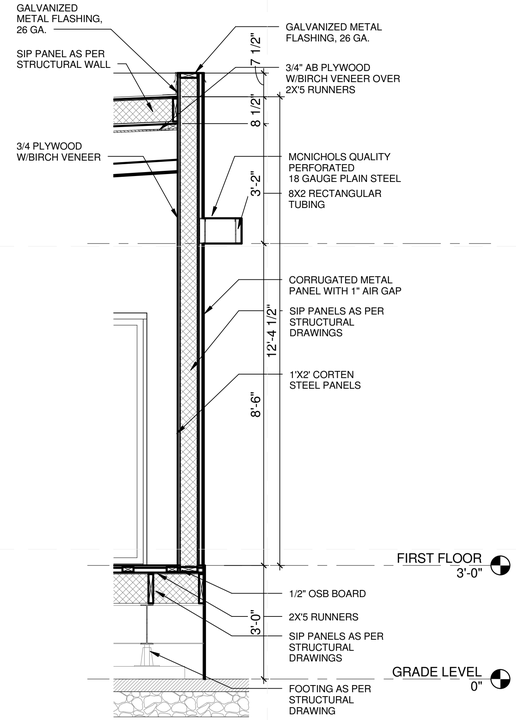
BUILDING SECTIONS

A-302









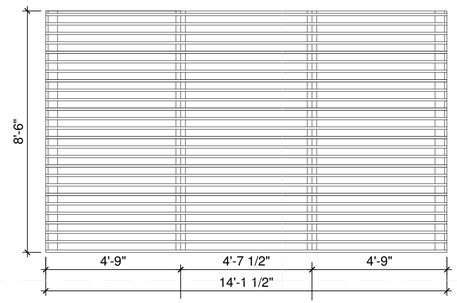
C1 WALL SECTION D
1/2" = 1'-0"

C3 WALL SECTION C
1/2" = 1'-0"

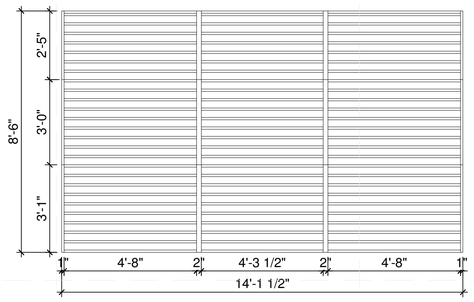
C4 WALL SECTION B
1/2" = 1'-0"

C6 WALL SECTION A
1/2" = 1'-0"

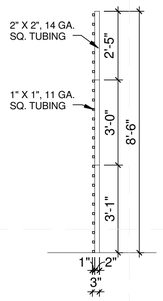
EXTERIOR ELEVATION



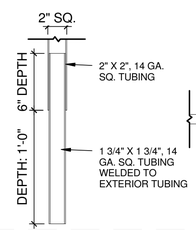
PATIO ELEVATION



SECTION



VERTICAL SUPPORT DETAIL (N.T.S.)



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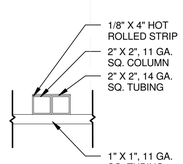
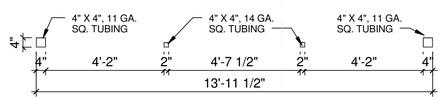
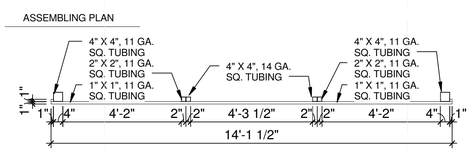


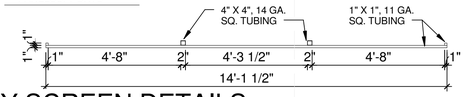
FIXED COLUMNS



ASSEMBLING PLAN



PANELSUPPORTS



A1 PRIVACY SCREEN DETAILS
3/8" = 1'-0"

8/22/2013 4:45:34 PM

AUAPT
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03	02/14/2013	95% DOE/NR CD SUBMISSION
03	04/05/2013	95% DOE/NR RE-SUBMISSION
04	08/22/2013	AS BUILTS
1	Date 1	Revision 1

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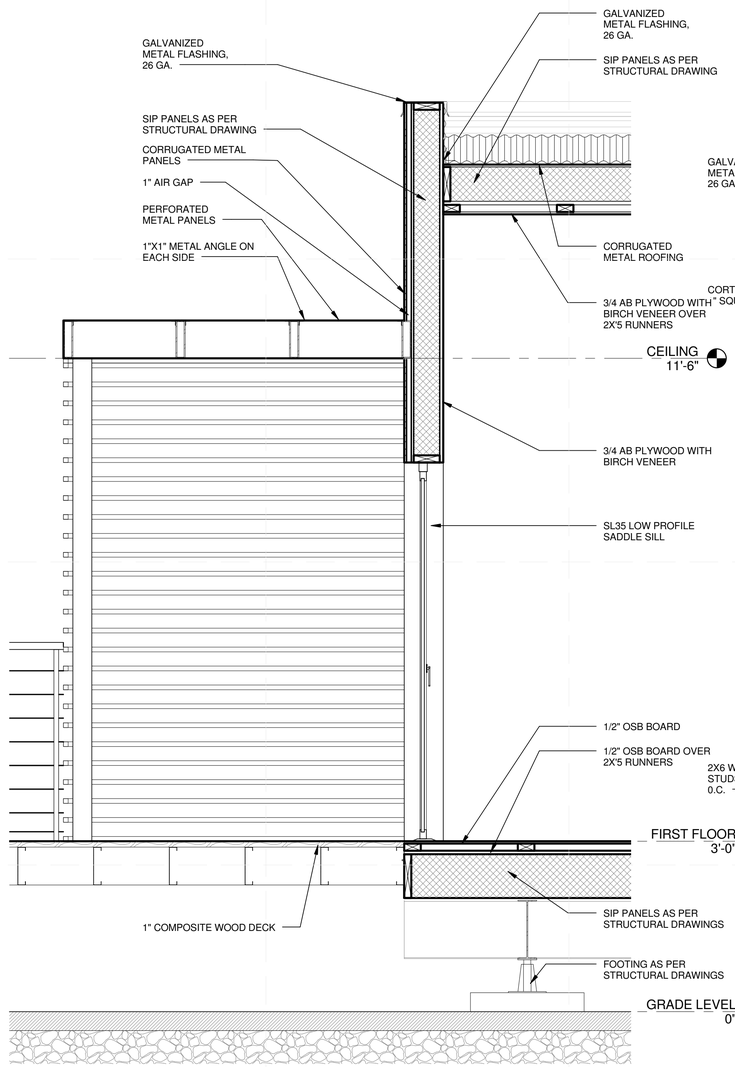
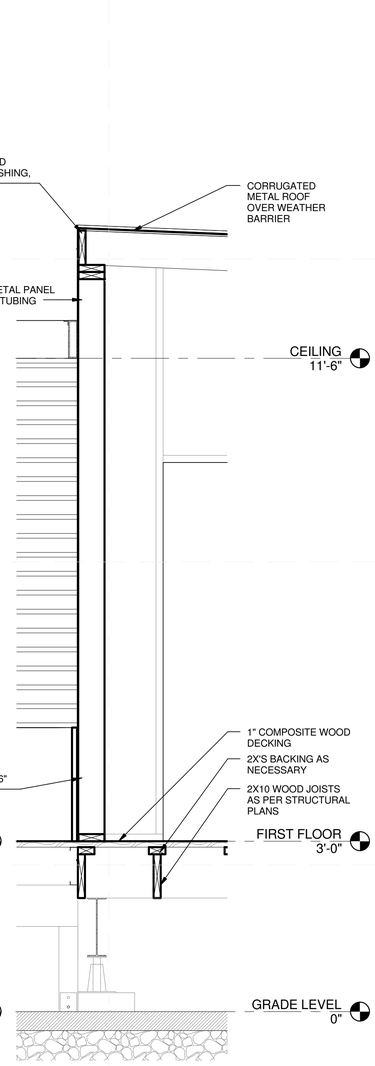
WALL SECTIONS

A-311



B1 WALL SECTION 4
3/4" = 1'-0"



B3 WALL SECTION 3
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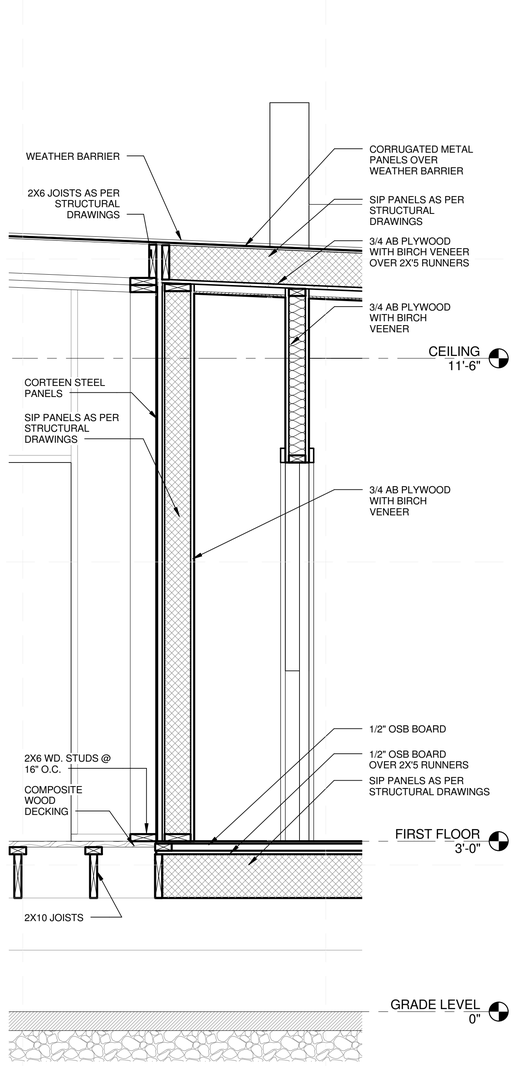

B5 WALL SECTION 2
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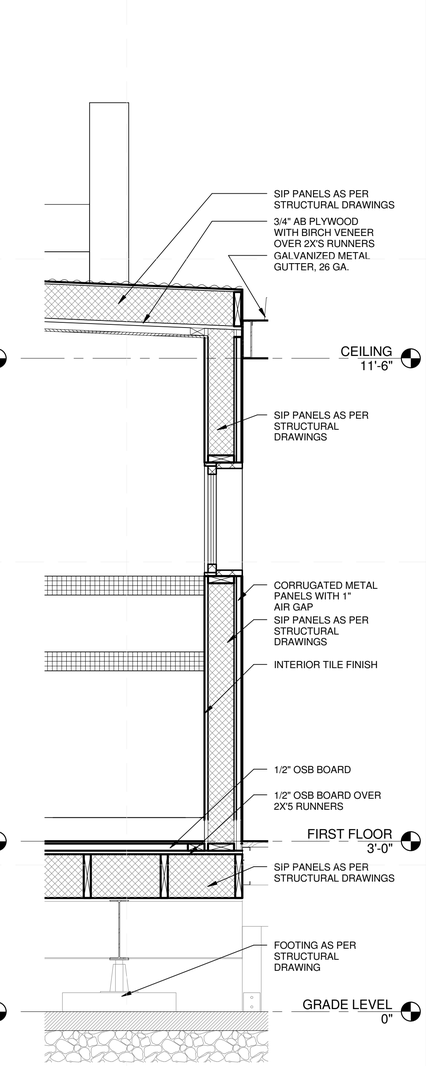

B6 WALL SECTION 1
3/4" = 1'-0"

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WALL SECTIONS

A-312

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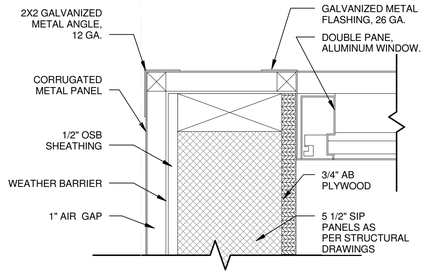
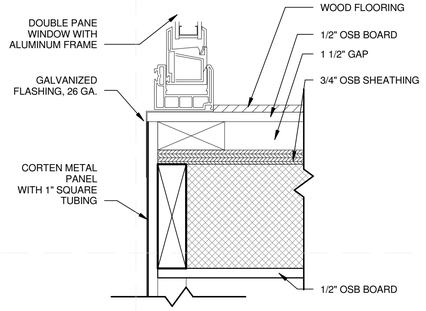


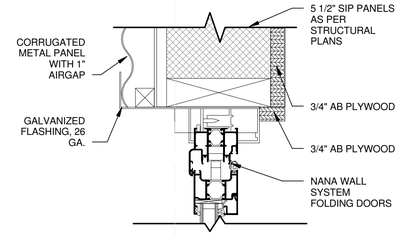
D2 BEDROOM/BATH JAMB DETAIL

3" = 1'-0"



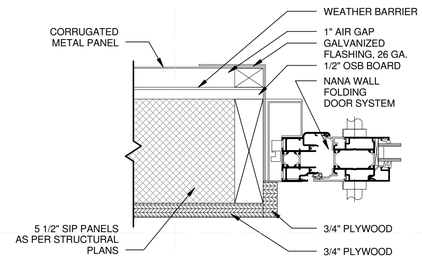
C2 BEDROOM SILL DETAIL

3" = 1'-0"



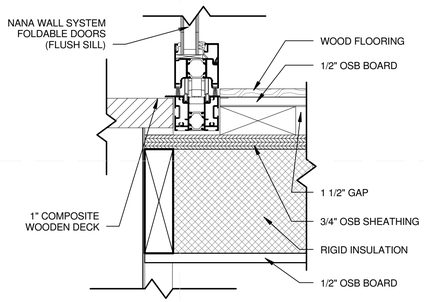
D4 NANA WALL HEAD DETAIL

3" = 1'-0"



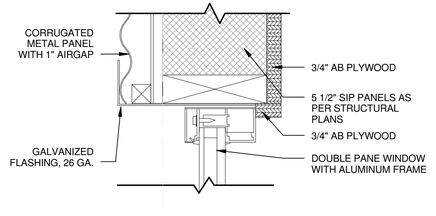
C4 NANA WALL JAMB DETAIL

3" = 1'-0"



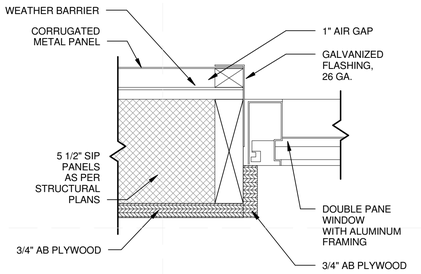
B4 NANA WALL SILL DETAIL

3" = 1'-0"



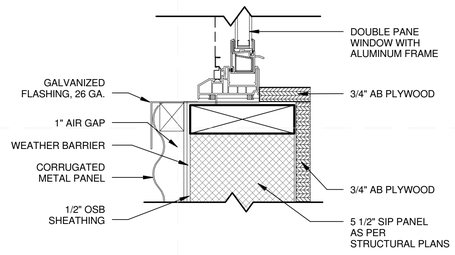
D6 TYPICAL HEAD DETAIL

3" = 1'-0"



C6 TYPICAL JAMB DETAIL

3" = 1'-0"



B6 TYPICAL SILL DETAIL

3" = 1'-0"

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WINDOW DETAILS

A-531

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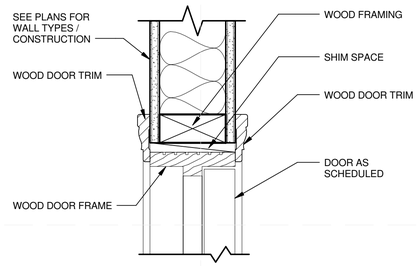
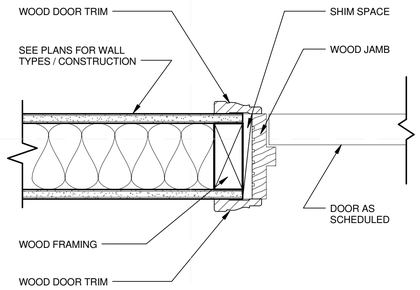


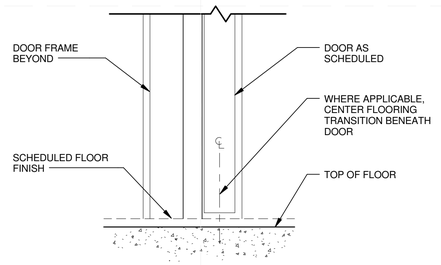
D6 DOOR HEAD DETAIL

3" = 1'-0"



C6 DOOR JAMB DETAIL

3" = 1'-0"



B6 SILL DETAIL

3" = 1'-0"

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DOOR DETAILS

A-532

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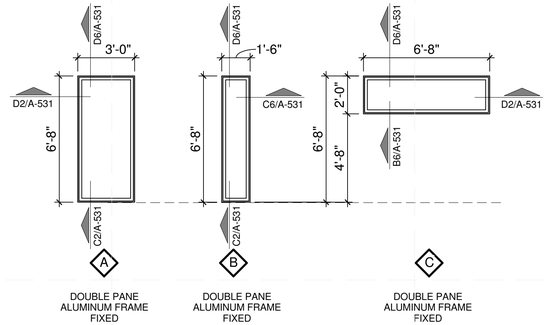
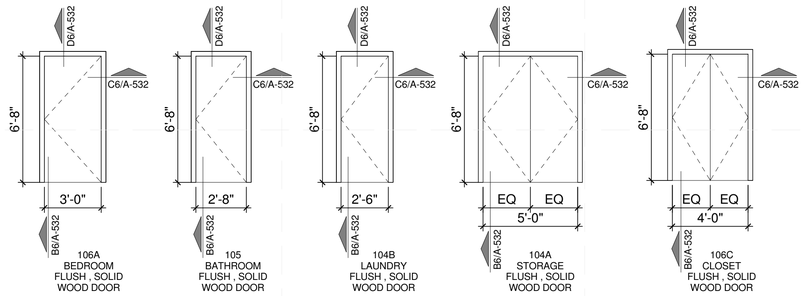
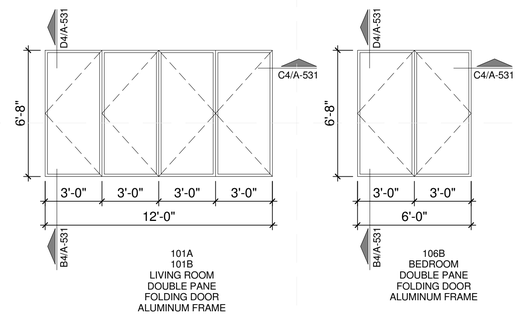


WINDOW LEGEND

1/4" = 1'-0"





DOOR LEGEND

1/4" = 1'-0"

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FINISH				COMMENTS
		FLOOR	BASE	WALL	CEILING	
101	LIVING ROOM	WOOD FLOOR	WOOD	PLYWOOD FINISHED / METAL DECK	PLYWOOD FINISHED	CLNG.HEIGHT VARIES
102	KITCHEN / DINING	WOOD FLOOR	WOOD	PLYWOOD FINISHED	PLYWOOD FINISHED	CLNG.HEIGHT VARIES
103	MECH. ROOM	COMPOSITE DECK	WOOD	METAL PANELS	PLYWOOD FINISHED	CLNG.HEIGHT VARIES
104	CORRIDOR	WOOD FLOOR	WOOD	PLYWOOD FINSIHES	PLYWOOD FINISHED	CLNG.HEIGHT VARIES
105	BATH	TILE	WOOD	TILE / PLYWOOD FINISHED	PLYWOOD FINISHED	CLNG.HEIGHT VARIES
106	BEDROOM	WOOD FLOOR	WOOD	PLYWOOD FINISHED / WOOD PLANKS	PLYWOOD FINISHED	CLNG.HEIGHT VARIES

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SCHEDULES

A-601

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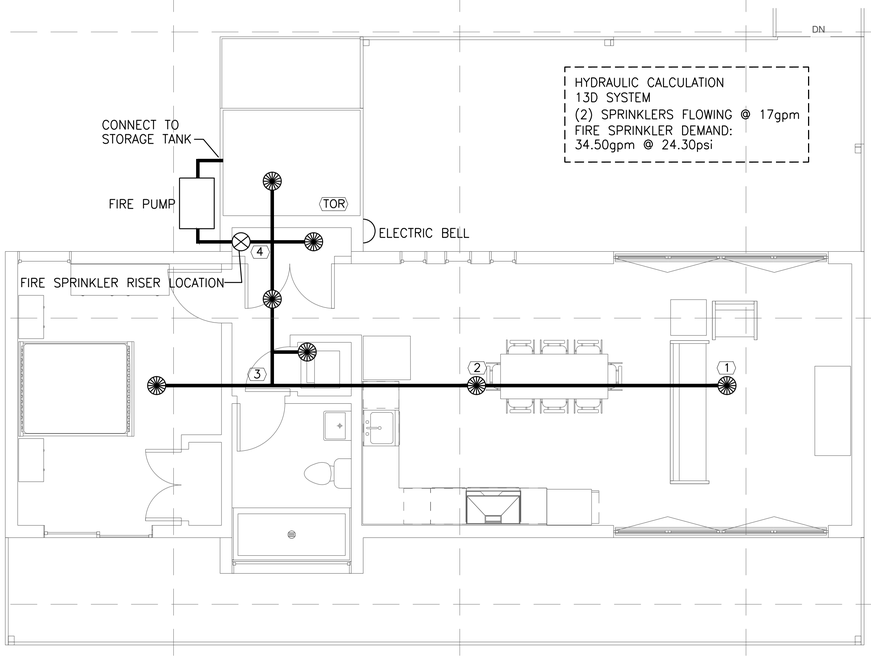


N

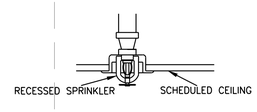
1 FP-100 **FIRE SPRINKLER SYSTEM FLOOR PLAN**

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

4 2 0 4 8

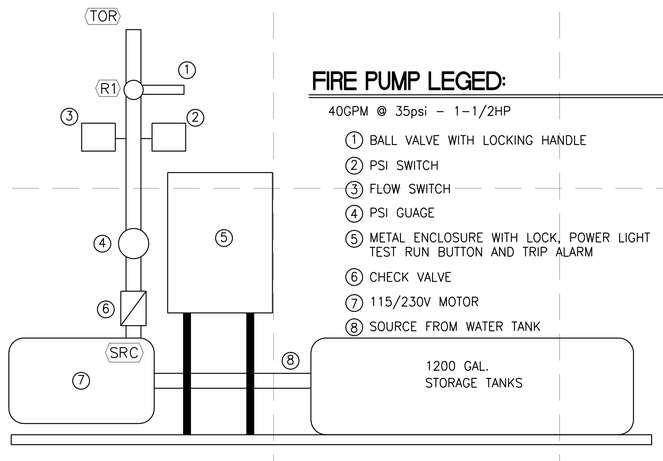
FIRE PROTECTION GENERAL NOTE:

1. ALL FIRE SPRINKLER PIPING AND FITTINGS TO BE 1" APPROVED CPCV SPRINKLERS NOT REQUIRED IN HATCHED AREAS PER NFPA 13D ALL ELECTRICAL WIRING BY OTHERS
2. ALL PIPE TO BE UL AND FM LISTED FOR THE USE IN FIRE SPRINKLER SYSTEMS.
3. ALL OF THE PIPING TO BE INSTALLED IS TO BE HUNG IN ACCORDANCE WITH CURRENT NFPA AND ALL ITEMS TO BE UL AND FM APPROVED FOR SPRINKLER SYSTEMS.
4. ALL VALVES AND DEVICES THAT ARE USED ARE TO BE UL AND FM LISTED FOR THE USE ON FIRE SPRINKLER SYSTEMS AND ARE TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. FIRE EXTINGUISHERS AND ALARM SERVICE ARE TO BE PROVIDED BY OTHERS.
6. HYDROSTATIC SYSTEM ACCEPTANCE SHALL BE CONDUCTED PER THE REQUIREMENTS OF NFPA 13.



2 FP-100 **FIRE SPRINKLER**

SCALE: NOT TO SCALE



FIRE PUMP LEGED:

40GPM @ 35psi – 1-1/2HP

1. BALL VALVE WITH LOCKING HANDLE
2. PSI SWITCH
3. FLOW SWITCH
4. PSI GUAGE
5. METAL ENCLOSURE WITH LOCK, POWER LIGHT TEST RUN BUTTON AND TRIP ALARM
6. CHECK VALVE
7. 115/230V MOTOR
8. SOURCE FROM WATER TANK

3 FP-100 **FIRE SPRINKLER SYSTEM: FIRE PUMP RISER**

SCALE: NOT TO SCALE

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FIRE PROTECTION FLOOR PLAN, SCHEMATIS AND KEYED NOTES

FP-100

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PLUMBING GENERAL NOTES:

1. PLUMBING GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING SHEETS IN THIS PROJECT SET.

2. THE PLUMBING WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE AND ADOPTED PROVISIONS OF THE FOLLOWING CODES:
   2012 INTERNATIONAL RESIDENTAL BUILDING CODE
   2012 INTERNATIONAL ENERGY CONSERVATION CODE
   AS ADOPTED AND INTERPRETED BY THE STATE OF TEXAS, CITY OF EL PASO, AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) REGULATIONS, CURRENT ADOPTED EDITION REGARDING MECHANICAL /PLUMBING SYSTEMS, FIRE PROTECTION AND ALARM SYSTEMS AND ELECTRICAL SYSTEMS. ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS SHALL GOVERN. THE CONSTRUCTION TEAM SHALL HOLD AND SAVE THE TEAM TEXAS AND DESIGN TEAM FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

3. THE CONSTRUCTION TEAM SHALL COORDINATE WITH TEAM TEXAS AND DESIGN TEAM ANY WORK THAT HAS THE POTENTIAL TO HINDER MECHANICAL AND PLUMBING SERVICES TO AREA OUTSIDE OF THIS CONTRACT. ALL SHUT-DOWNS OR TIE-INS RELATING TO THESE SYSTEMS SHALL BE SCHEDULED AND SUBMITTED IN WRITING TO BE APPROVED BY THE TEAM TEXAS AND DESIGN TEAM OFFICE. CONSTRUCTION TEAM SHALL SUBMIT IN WRITING A SCHEDULE FOR PHASING OF CONSTRUCTION THAT INDICATES AREAS OF FIRST PRIORITY DURING EACH PHASE AND ANTICIPATED COMPLETION TIMES. SCHEDULES SHALL BE SUBMITTED A MINIMUM OF ONE WEEK PRIOR TO COMMENCING WORK. TEAM TEXAS AND DESIGN TEAM SHALL REVIEW THESE SCHEDULES AND NOTIFY CONSTRUCTION TEAM OF ACCEPTANCE PRIOR TO COMMENCEMENT OF WORK.

4. ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH CODES AND RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN. THE CONSTRUCTION TEAM SHALL HOLD AND SAVE THE TEAM TEXAS AND DESIGN TEAM FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FORM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

5. BIDDERS SHALL VISIT THE SITE AND SHALL BE RESPONSIBLE FOR HAVING ASCERTAINED PERTINENT LOCAL CONDITIONS SUCH AS LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE SITE, THE CHARACTER AND EXTENT OF THE WORK WITHIN THE BUILDING AND TO BECOME FAMILIAR WITH ALL OTHER WORK TO BE PERFORMED AT THIS TIME. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO CONSTRUCTION TEAM'S FAILURE TO DETERMINE ALL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.

6. BEFORE YOU DIG ALL EXISTING UTILITIES I.E. WATER, SEWER, GAS, FIRE LINE, ELECTRICITY, TELEPHONE, CABLE, IRRIGATION LINES, SHALL BE LOCATED AND CLEARLY MARKED IN ORDER TO AVOID UNNECESSARY SHUT DOWNS AND EMERGENCY.

7. EACH CONSTRUCTION TEAM SHALL GIVE ALL REQUISITE NOTICES, OBTAIN AND PAY FOR ALL PERMITS, DEPOSITS AND FEES (INCLUDING UTILITY CONNECTIONS FEES, ANY UTILITY EXTENSION FEES, DEVELOPMENT FEES, AND IMPACT FEES) NECESSARY FOR THE INSTALLATION OF WORK UNDER THESE NOTES. TWO (2) COPIES OF CERTIFICATES OF APPROVAL SHALL BE OBTAINED FROM ALL AUTHORITIES ISSUING SAME AND SHALL BE TURNED OVER TO TEAM TEXAS AND DESIGN TEAM PRIOR TO FINAL ACCEPTANCE OF THE WORK.

8. REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONSTRUCTION TEAM FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK. CONSTRUCTION TEAM SHALL SECURE AND PAY ALL PERMITS, FEES, INSPECTIONS, AND TESTS UNLESS OTHERWISE INDICATED. COORDINATE WITH DESIGN TEAM AND TEAM TEXAS. SUBSTITUTIONS REQUESTED BY THE CONSTRUCTION TEAM SHALL BE PAID FOR BY THE CONSTRUCTION TEAM

9. ALL WORK SHALL CONFIRM WITH FEDERAL, STATE, AND LOCAL CODES, RULES, AND REGULATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED CONSTRUCTION TEAM IN A FIRST CLASS WORKMANLIKE MANNER. THE SYSTEMS SHALL BE INSTALLED COMPLETE AND FULLY OPERATIVE UNLESS OTHERWISE INDICATED

10. CONSTRUCTION TEAM SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE DESIGN TEAM OFFICES. THIS REPORT SHALL DESCRIBE EXISTING DAMAGE OR OTHER CONDITIONS THAT MAY INTERFERE WITH THIS PROPOSED NEW WORK. THIS SITE SURVEY SHALL ALSO INCLUDE VERIFICATION OF SIZES, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE DESIGN TEAM PRIOR TO THE AWARDING OF THE CONSTRUCTION TEAM. OTHERWISE THE DESIGN TEAM'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.

11. WHERE STRUCTURE IS ALTERED OR DAMAGES DURING CONSTRUCTION, INSTALLATION AND REMOVAL OF EQUIPMENT OR FIXTURES, THE CONSTRUCTION TEAM SHALL REPAIR THE AREA TO MATCH SURROUNDING AREA PER DESIGN TEAM SPECIFICATIONS CUTTING, TRENCHING ,AND PENETRATIONS THROUGH FIRE WALL, CONCRETE AND OTHER STRUCTURES ARE A PART OF THIS PROJECT SCOPE AND SHALL BE INCLUDED IN THE COSNTRUCTION TEAM'S BID. ALL EXCAVATION AND BACKFILLING REQUIRED FOR PLUMBING WORK IS ALSO INCLUDED AS PART OF THIS CONSTRUCTION TEAM AND SHALL BE INCLUDED IN CONSTRUCTION TEAM'S BID.

12. ALL SYSTEMS AND COMPONENTS SHALL BE APPROVED FOR THE PURPOSE FOR WHICH INSTALLED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND FROM ESTABLISHED AMERICAN SUPPLIERS UNLESS OTHERWISE INDICATED.

13. ALL EQUIPMENT PARAMETERS SHOWN ARE FOR PERFORMANCE AT SITE ALTITUDE. SUPPLIERS SHALL SELECT AND DEMONSTRATE THAT THEIR EQUIPMENT MEETS THE DESIGN CONDITIONS AT SITE ALTITUDE.

14. PLUMBING CONSTRUCTION TEAM SHALL COORDINATE WITH ELECTRICAL CONSTRUCTION TEAM THE ELECTRICAL REQUIREMENTS, INCLUDING POWER, CONTROL, COMMUNICATION, AND MONITORING, OF EACH DEVICE PROVIDED AND/OR INSTALLED BY PLUMBING CONSTRUCTION TEAM.

15. SUPPORT SYSTEM FOR PIPING MATERIALS AND EQUIPMENT SUPPORTED BY THE BUILDING STRUCTURE SHALL BE SUBMITTED TO THE STRUCTURAL DESIGN TEAM FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. NO WIRE OR PERFORATED STRAP WILL BE PERMITTED FOR ANY HANGER OR SUPPORT.

16. CONSTRUCTION TEAM SHALL NOT CUT, DRILL, OR ALTER ANY ELEMENT OF A WALLS, FLOORS CEILINGS, ROOFS, AND SLABS WITHOUT FIRST RECEIVING INSTRUCTIONS FROM DESIGN TEAM. ALL CUTS SHALL BE MADE WITH A CUTTING TOOL.

17. PATCHING OR SEALING OF CUTS AND PENETRATIONS SHALL BE DONE BY CONSTRUCTION TEAM PER INSTRUCTIONS FROM AND TO FINAL APPROVAL OF DESIGN TEAM. COORDINATE WITH GENERAL CONSTRUCTION TEAM.

18. CONSTRUCTION TEAM SHALL FIELD VERIFY CONDITION OF EXISTING EQUIPMENT AND PROVIDE NECESSARY COMPONENTS TO ASSEMBLE AND TO START-UP COMPLETE AND FULLY OPERATIONAL SYSTEMS.

19. BEFORE INSTALLATION, EQUIPMENT AND DEVICES INCLUDING, BUT NOT LIMITED TO, ANY DEVICE WITH ELECTRICAL CONNECTIONS, DUCTWORK, INSULATION, PIPING, VALVES, AND AIR DEVICES SHALL NOT BE STORED DIRECTLY ON GRADE OR ON A SLAB OR FLOOR. BEFORE AND AFTER INSTALLATION, SUCH EQUIPMENT AND DEVICES SHALL BE PROTECTED FROM ENTRY OF DIRT, TRASH WATER (EXCEPT AS REQUIRED), VERMIN.

20. CONSTRUCTION TEAM SHALL COORDINATE ACTUAL LOCATIONS OF PIPING RUNS AND VALVE LOCATIONS WITH AIR DEVICES, DUCTWORK, LIGHTS, CEILING PANELS, JOIST SPACING AND DESIGN TEAM FLOOR PLANS AND REFLECTED CEILING PLAN (REF. ELECTRICAL PLANS AND DESIGN TEAM PLANS).

21. FOR OUTDOOR EQUIPMENT ON GRADE, CONSTRUCTION TEAM SHALL CONSTRUCT LEVEL 3000 PSI CONCRETE SLABS WITH FINISHED EDGES, WIRE REINFORCED, MINIMUM 3 1/2" THICK, AND MINIMUM 6" LARGER ON ALL SIDES THAN THE EQUIPMENT BEING SUPPORTED.

22. PROVIDE THE TEAM TEXAS WITH THREE (3) COPIES OF ALL INSTALLATIONS INSTRUCTIONS, PRODUCT DATA SUBMITTAL INFORMATION, WARRANTIES, CONTACT INFORMATION DURING WARRANTY PERIOD AND BALANCING REPORTS IN 3-RING BINDERS.

23. OPERATING TESTS AND CLEANING PROCEDURES SHALL BE PERFORMED AND REPORTS SHALL BE ISSUED PER CODE REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS.

24. PIPING ROUTED ON THE ROOF SHALL BE SUPPORTED BY FACTORY MADE PIPE SUPPORTS PER MANUFACTURER'S RECOMMENDATIONS.

25. CONSTRUCTION TEAM SHALL PROVIDE AND INSTALL IDENTIFICATION TAGS FOR EQUIPMENT AND PIPING PER ASME 13.1 SCHEME OF IDENTIFICATION FOR PIPING.

26. LOCATIONS OF ROOF AND ATTIC PLUMBING AND MECHANICAL EQUIPMENT ARE APPROXIMATE AS SHOWN. PLUMBING CONSTRUCTION TEAM SHALL FIELD ADJUST AS REQUIRED.

27. CONSTRUCTION TEAM SHALL TAKE PRECAUTIONS PER THE DESIGN TEAM'S INSTRUCTIONS TO PROTECT EXISTING TREES AND /OR OTHER SITE VEGETATION.

28. THE MECHANICAL/PLUMBING CONSTRUCTION TEAM SHALL PROVIDE AND HAVE INSTALLED ANY ACCESS DOOR REQUIRED TO ACCESS MECHANICAL OR PLUMBING EQUIPMENT THAT REQUIRES ACCESS BEHIND GYPBOARD OR HARD CEILINGS AND IN WALLS. THE MECHANICAL/PLUMBING CONSTRUCTION TEAM SHALL PROVIDE THE GENERAL CONSTRUCTION TEAM WITH THESE ACCESS DOORS FOR INSTALLATION IN THE CEILING OR WALL. ACCESS DOORS SHALL BE RATED FOR THE WALL, FLOOR, OR CEILING TYPE AND SHALL BE A MINIMUM SIZE OF 12"X12".

29. ALL MATERIAL INSTALLED IN CEILING SPACE SHALL BE NONCOMBUSTIBLE PLENUM RATED MATERIALS.

30. THE PLUMBING CONSTRUCTION TEAM SHALL COORDINATE ALL UNDERGROUND PIPING WITH THE LANDSCAPE, IRRIGATION, AND DESIGN TEAM SITE DRAWINGS.

31. ALL PIPING, PLUMBING AND DUCTWORK OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.

32. SUBMITTAL REQUIREMENTS
   A. THE INTENT OF THIS SECTION IS TO GIVE GENERAL SUBMITTAL INFORMATION, REFER TO SPECIFIC SUBMITTAL INFORMATION IN THE SUBSEQUENT MECHANICAL SECTIONS.
   B. WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, AND BEFORE ORDERS ARE PLACED, CONSTRUCTION TEAM SHALL SUBMIT SPECIFIC INFORMATION ON LIST OF EQUIPMENT AND PRINCIPAL MATERIALS SPECIFIED IN PDF FORMAT TO THE CONSTRUCTION MANAGER (CM). CONSTRUCTION TEAM SHALL INDICATE AND/OR PROVIDE NAMES OF MANUFACTURERS, CATALOG AND MODEL NUMBERS, CUT SHEETS, AND SUCH OTHER SUPPLEMENTARY INFORMATION AS NECESSARY FOR EVALUATION.

33. REQUIRED SHOP DRAWING SUBMITTALS
   A. PLUMBING FIXTURES (AS NOTED IN PLUMBING FIXTURE SCHEDULE)
   B. WATER HEATERS INCLUDING CONTROLLER AND CONNECTION CABLING
   C. CIRCULATION PUMPS INCLUDING TIMER AND AQUASTAT
   D. PIPING MATERIALS, FITTINGS, AND SOLDER
   E. PIPING INSULATION INCLUDING JACKETING
   F. PIPING SUPPORTS AND HANGERS
   G. FIRE PROTECTION SPRINKLER SYSTEM INCLUDING DRAWINGS, HYDRAULIC CALCULATIONS, AND EQUIPMENT SUBMITTALS.
   H. SOLAR SYSTEM

PLUMBING

34. SEE PLUMBING FIXTURE SCHEDULE FOR SIZES OF CONNECTIONS TO INDIVIDUAL FIXTURES.

35. COLD, HOT, AND RECIRCULATING WATER PIPING SHALL BE PEX TUBING WITH FUSED JOINTS.

36. SEWER AND VENT PIPING BELOW GRADE SHALL BE HUB AND SPIGOT PVC OR CAST IRON. ABOVE GRADE SEWER AND VENT PIPING SHALL BE NO-HUB PVC OR CAST IRON.

37. HOT AND RECIRCULATING WATER PIPING SHALL BE INSULATED WITH 1" FIBERGLASS INSULATION WITH VAPOR BARRIER PER PIPE INSULATION SCHEDULE. HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH MSS-SP58, MSS-SP69, AND MSS-SP89

38. REFRIGERANT PIPING: COPPER TUBING: ASTM B280, TYPE "K" ACR HARD DRAWN. FITTINGS: ASME B16.22 WROUGHT COPPER. BRAZE, AWS A5.8 BCUP SILVER/PHOSPHORUS/COPPER ALLOY WITH MELTING RANGE 1190 TO 1480 DEG F. HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH MSS-SP58, MSS-SP69, AND MSS-SP89

39. REFRIGERANT PIPING SHALL BE INSULATED WITH 1" THICK @ 0.24 BTUH/INCH/SQ FT/DEG F FIBERGLASS INSULATION WITH VAPOR BARRIER.

PLUMBING SYMBOL LEGEND

ABBRV	SYMBOL	DESCRIPTION
GENERAL		
	N	NORTH DIRECTION
	A / A—	DIRECTION OF SITE OF ELEV. ON PLAN; SHEET NUMBER OF DRAWING WHERE ELEV. IS SHOWN
	1 / A-5	DRAWING NUMBER; SHEET REFERENCE
	XX-##	FIXTURE I.D. - SEE FIXTURE SCHEDULES
	XX-XX	NEW EQUIPMENT ABBREVIATION AND NO.
		INDICATES PIPING CONTINUATION
		FLOW DIRECTION
FLR		FLOOR
CLG		CEILING
AFF		ABOVE FINISHED FLOOR
BFF		BELOW FINISHED FLOOR
FF		FINISHED FLOOR
AFG		ABOVE FINISHED GRADE
BFG		BELOW FINISHED GRADE
EXIST		EXISTING
NIC		NOT IN CONSTRUCTION
		UNDERGROUND
(SYMBOL) E	—(SYMBOL) E—	INDICATES EXISTING SERVICE
	—W—	UTILITY WATER SERVICE
CW		DOMESTIC COLD WATER
HW		DOMESTIC HOT WATER
HWR		DOMESTIC HOT WATER RECIRCULATING
SAN	—S—	SANITARY WASTE/SEWER
		VENT
	—F—	FIRE PROTECTION WATER SUPPLY
SOS	—SOS—	SOLAR SUPPLY
SOR	—SOR—	SOLAR RETURN
	CW / VENT UP / DRAIN / HW	TYPICAL PLUMBING ROUGH-IN DESCRIPTION
AD		ACCESS DOOR - MIN. 18"x18" UNLESS SPECIFIED OTHERWISE
WCO		WALL CLEANOUT, FLUSH WITH FINISHED WALL
CO		IN-LINE CLEANOUT, EXPOSED OR ACCESSIBLE
FD, FS		FLOOR DRAIN OR SINK, SIZE PER PLANS
		UNION
VTR	(OR)	VENT THRU ROOF, SIZED PER PLANS

NOTES: GENERAL LEGEND NOT ALL ITEMS APPLICABLE TO THIS PROJECT

CIRCULATION PUMP SCHEDULE

SYMBOL	CP-1
SERVES	DOMESTIC HOT WATER RETURN
MOUNTING	IN-LINE
CONNECTION SIZES (IN)	3/4"
FLOW (GPM)	3
TOTAL DEVELOPED HEAD (FT)	15
SPEED (RPM)	1750
TEMPERATURE SET POINT (F)	110
MOTOR HORSEPOWER	1/6
ELECTRICAL POWER	120V /1P
WEIGHT (LB)	35
MANUFACTURER / MODEL	TACO MODEL 113
MANUFACTURER / MODEL	B&G PR

NOTES
1. PUMPS ARE SCHEDULED TO BE BY B&G OR TACO. PACO ARMSTRONG, AND AURORA SHALL BE CONSIDERED EQUIVALENT MANUFACTURERS.
2. REFER TO HOT WATER HEATER SCHEMATIC FOR PIPING AND VALVES.
3. UNIT SHALL BE CONTROLLED FOR AN AQUASTAT AND TIMER. INSTALL UP STREAM OF THE PUMP. SET AT TEMPERATURE SHOWN. PUMP "ON" WHEN BELOW SETPOINT ACTIVATED BY TIMER TIMER TO BE TORK MODEL 7000 OR EQUAL. SET TIME TO BE ON DURING BUSINESS HOURS AND OFF WHEN CLOSED.
4. PROVIDE EACH PUMP WITH CHECK-OUT AND START-UP SERVICES FROM AN AUTHORIZED PUMP MANUFACTURER'S REPRESENTATIVE.

DOMESTIC SERVICE WATER/ SOLAR/ REFERGERANT PIPING INSULATION SCHEDULE

SERVICE PIPING	SPECIFIED PER GENERAL PLUMBING NOTES	CODE REQUIRED
HOT, COLD, SOLAR, AND RECIRCULATING WATER	ALL SIZES - 1" THICK @ 0.24 BTUH/INCH/SQ FT/DEG F	ALL SIZES - 1" THICK @ 0.27 BTUH/INCH/SQ FT/DEG F
REFRIGERANT	ALL SIZES - 1-1/2" THICK @ 0.24 BTUH/INCH/SQ FT/DEG F	ALL SIZES - 1-1/2" THICK @ 0.27 BTUH/INCH/SQ FT/DEG F

NOTES:
1. REQUIRED PER REQUIREMENTS OF ICC ENERGY CONSERVATION CODE 2012.

SOLAR ELECTRIC WATER HEATER SCHEDULE

SYMBOL	SERVES	STORAGE GALLONS	HEATING. ELEMENTS QTY/KW	RECOVERY GAL/HOUR	TEMPERATURES INLET	TEMPERATURES RISE	MANUFACTURER & MODEL
WH-1	HOME	80	1 / 3.0 KW (SEE NOTE 2)	25	40	120	DAIKIN ALTHERMA EKHWS080BA3VJU

NOTES:
1. MANUFACTURER IS DAIKIN. NO OTHER ARE CONSIDERED EQUIVALENT MANUFACTURERS.
2. KW RATINGS @ 208 VOLTS, 1-PHASE. ELEMENTS ARE SEQUENTIALLY OPERATED BY THERMOSTAT.
3. EACH WATER HEATER SHALL HAVE LONG LIFE INCOLOY ELEMENTS, BRASS DRAIN VALVE, STAINLESS STEEL TANK, ASME RATED 125 PSI PRESSURE/TEMPERATURE RELIEF VALVE, THERMOSTAT, AND HIGH LIMIT.
4. EACH WATER HEATER SHALL HAVE INTERNAL HEAT EXCHANGER COIL WITH THREADED EXTERNAL CONNECTION POINTS.
5. EACH WATER HEATER SHALL HAVE TANK INSULATION WITH A MINIMUM R-VALUE OF 20 AND SHALL MEET THE REQUIREMENTS OF ICC ENERGY CONSERVATION CODE 2009.
6. PROVIDE AND INSTALL EXPANSION TANK. TANK CAPACITY SHALL BE 2.1 GALLON. TANK SHALL BE AMTROL MODEL THERM-X-TROL ST-5 OR APPROVED EQUIVALENT.
7. WATER HEATER SHALL HAVE A COMMERCIAL WARRANTY OF 3 YEARS ON THE TANK AND 1 YEAR ON PARTS

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MARK	DATE	DESCRIPTION
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SYMBOL LEGEND AND PLUMBING GENERAL NOTES

P-001

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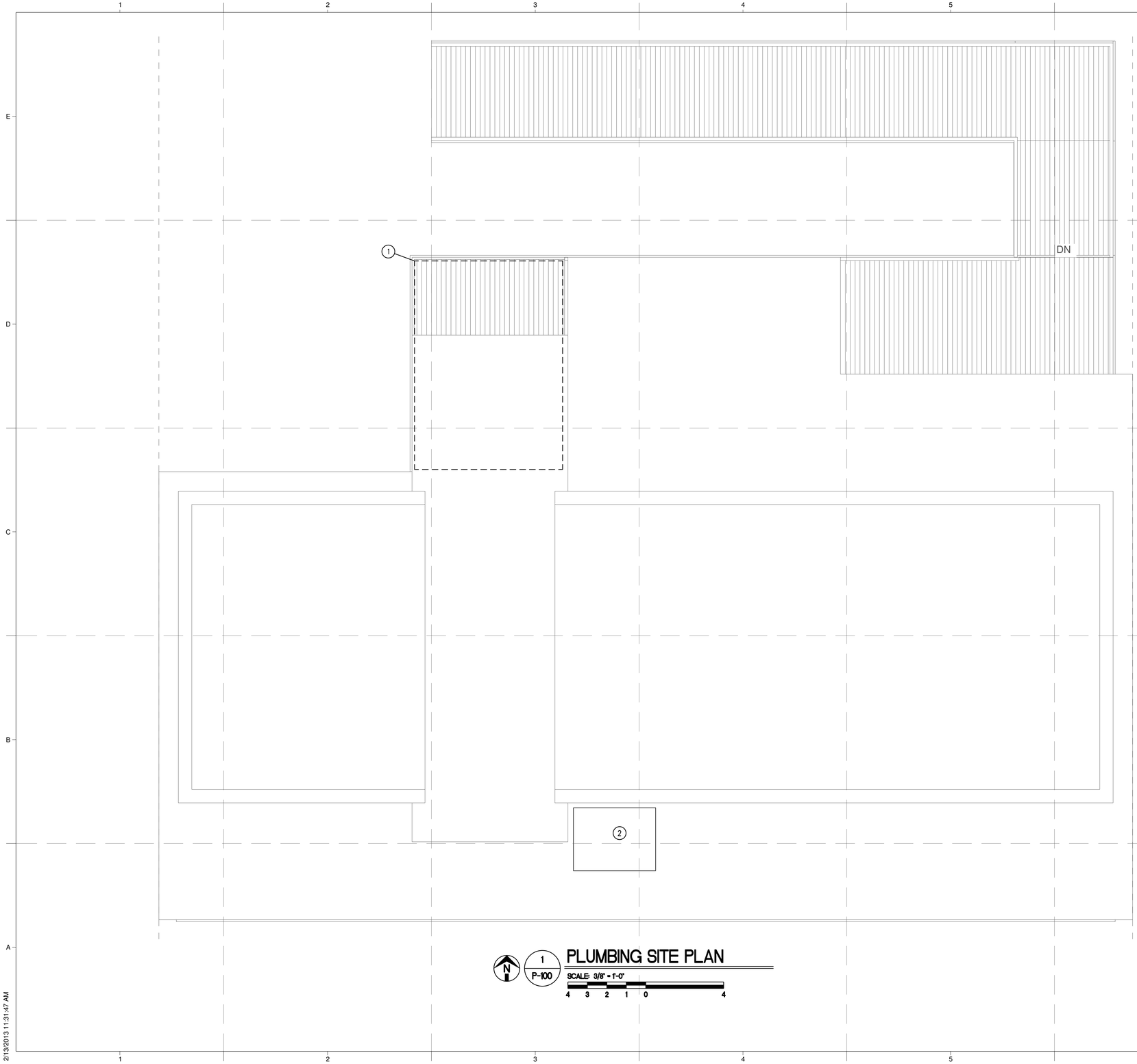

PLUMBING KEYED NOTES: (#)

1. LOCATION OF 1,200 GALLON DOMESTIC/FIRE PROTECTION POLYETHYLENE STORAGE TANK. TANK TO BE 10 FEET LONG X 7 FEET WIDE X 2.5 FEET TALL. THE STORAGE TANK SHALL HAVE A 2" FILL CONNECTION AS INDICATED ON THE DRAWINGS. THE TANK SHALL HAVE MANHOLE OPENING FOR INSTALLATION OF SUBMERSIBLE WATER PUMP WITH 1" WATER DISCHARGE CONNECTION. THERE SHALL BE A AUTOMATIC VENT RELIEF ON THE TANK.

2. LOCATION OF 500 GALLON GRAY WATER STORAGE POLYETHYLENE STORAGE TANK. TANK TO BE 5 FEET LONG X 5 FEET WIDE X 3 FEET TALL. THE STORAGE TANK SHALL HAVE A 4" GRAY-WATER SEWER CONNECTION AS INDICATED ON THE DRAWINGS. THE TANK SHALL HAVE 1-1/2" CONNECTION FOR LANDSCAPING CONNECTION.

PLUMBING SITE PLAN

1 / P-100

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

4 3 2 1 0 4

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PLUMBING SITE PLAN AND PLUMBING KEYED NOTES

P-100

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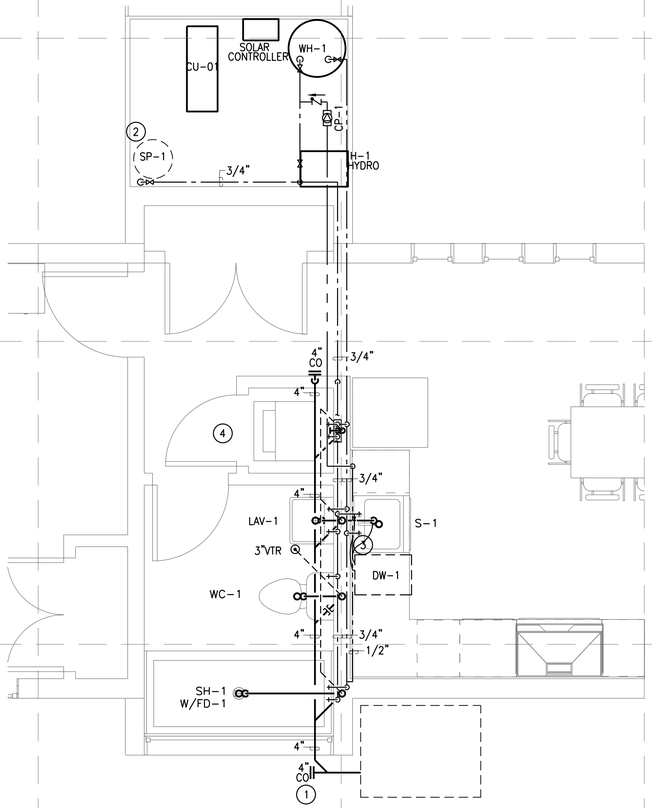
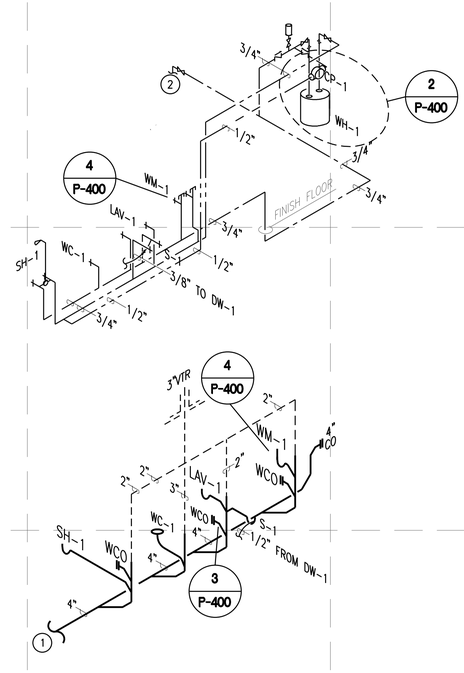


PLUMBING KEYED NOTES: (#)

1. CONNECT 4" GRAY WATER SEWER PIPING TO 500 GALLON GRAY WATER TANK.
2. SP-1 SUBMERSIBLE PUMP IN 1,200 GALLON DOMESTIC WATER STORAGE TANK WITH DISCHARGE ARISING INTO MECHANICAL SPACE AND THEN DOW THROUGH FLOOR OVER TO WALL AND UP IN TO WALL AS INDICATED FOR WATER DISTRIBUTION.
3. WATER PIPING TO BE IN WALL AND STUB OUT AS REQUIRED FOR INDIVIDUAL PLUMBING FIXTURES.
4. WATER HEATER (WH-1) AT FLOOR IN TOWER OF POWER PER SCHEMATIC 2/P-400. REFER TO SOLAR DRAWINGS FOR ADDITIONAL PIPING INFORMATION.



N

1 / P-200 PLUMBING WASTE SEWER AND DOMESTIC WATER FLOOR PLAN

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

4 3 2 1 0 4

2 / P-200 PLUMBING WASTE SEWER AND DOMESTIC WATER ISOMETRICS

SCALE: NOT TO SCALE

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PLUMBING WASTE SEWER, DOMESTIC WATER FLOOR PLAN, PLUMBING ISOMETRIC AND KEYED NOTES

P-200

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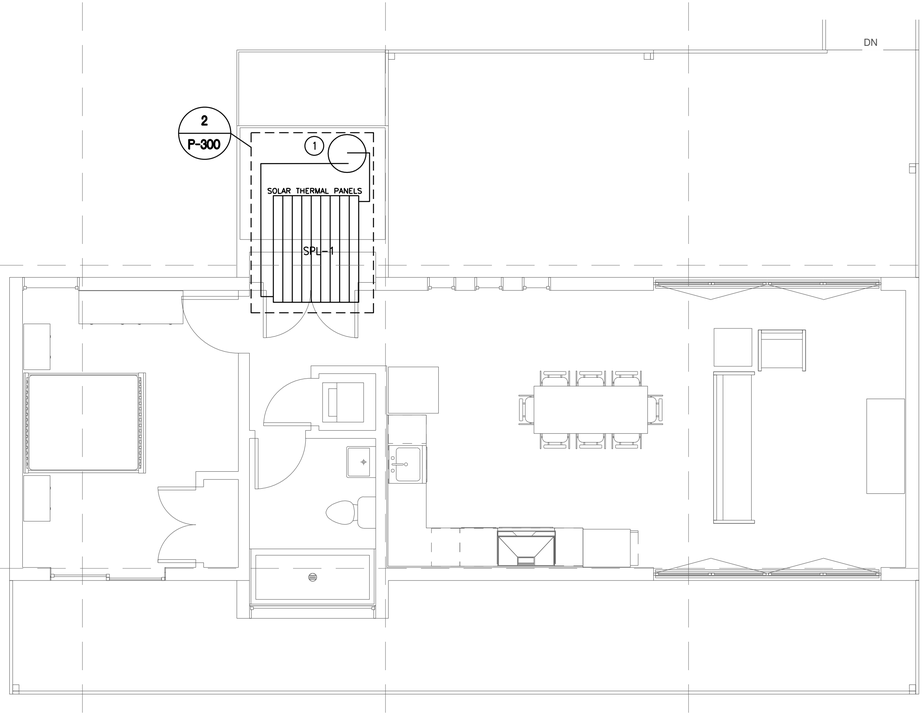
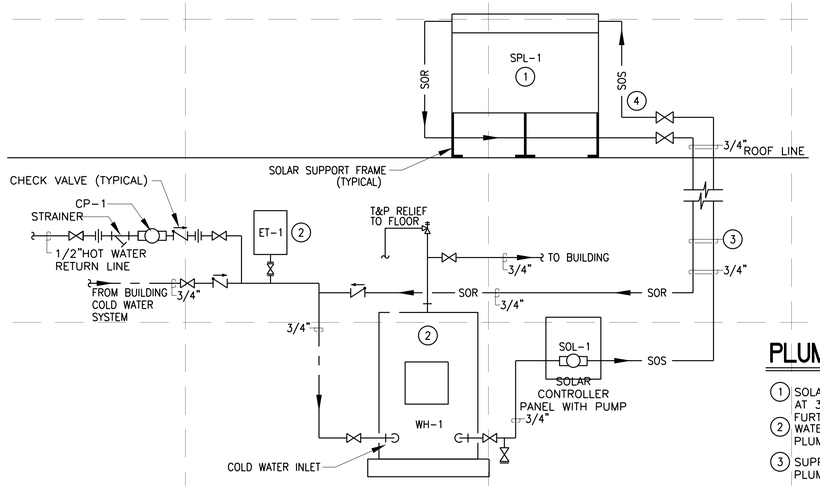


1 P-300 PLUMBING SOLAR SYSTEM FLOOR PLAN

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

4 2 0 4 8



2 P-300 W.H./SOLAR INSTALLATION SCHEMATIC

SCALE: NONE

PLUMBING KEYED NOTES:

1. WATER HEATER (WH-1) AT FLOOR IN TOWER OF POWER PER SCHEMATIC 2/P-400, REFER TO SOLAR DRAWINGS FOR ADDITIONAL PIPING INFORMATION.

SOLAR SYSTEM SCHEDULE

SOLAR COLLECTOR	SOL
DESIGNATION	SPL-1
TYPE	HEAT PIPE EVACUATED TUBE
SIZE	80"H X 86"W X 6"D
NUMBER OF PANELS	1
NUMBER OF TUBES PER PANEL	30
TUBE DIAMETER AND LENGTH	2.28" DIA X 80"
MINIMUM PANEL CAPACITY BTUH/DAY	43,000
PUMPING SYSTEM	SOL-1
MOUNTING	IN-LINE
CONNECTION SIZES (IN)	3/4"
FLOW (GPM)	5
TOTAL DEVELOPED HEAD (FT)	20
SPEED (RPM)	1750
MOTOR HORSEPOWER	1/3
ELECTRICAL POWER	120V /1P
PANEL WEIGHT (LB)	300
CINCO SOLAR MODEL	CS-03-BS

NOTES

1. SOLAR COLLECTOR SYSTEM ARE SCHEDULED TO BE BY CINCO SOLAR, INC. ALL OTHER SYSTEMS REQUIRE PRIOR APPOVAL OF THE ENGINEER.
2. PROVIDE HIGH ANGLE FRAME KIT AND ASSOCIATED SUPPORT FRAMING.
3. SOLAR SYSTEM TO BE MOUNTED ON STRUCTURAL CANOPY, COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
4. PANEL TO BE MOUNTED AT 35 DEGREE ELEVATION FROM HORIZONTAL FACING SOUTH.
5. CONTRACTOR TO PROVIDE PIPING, INSULATION, AND VALVES AS REQUIRED FOR A COMPLETE SYSTEM.
6. REFER TO SOLAR SPECIFICATIONS FOR FURTHER INFORMATION.
7. PROVIDE CHECKOUT AND STARTUP WITH CHECK-OUT AND START-UP SERVICES FROM AN AUTHORIZED SOLAR SYSTEM MANUFACTURER'S REPRESENTATIVE.

PLUMBING NOTES:

1. SOLAR PANEL MOUNTED ON ADJUSTABLE SOLAR SUPPORT FRAME SET AT 35 DEGREES FROM HORIZONTAL. REFER TO SPECIFICATION FOR FURTHER INFORMATION.
2. WATER HEATER (WH-1) AND EXPANSION TANK (ET-1), REFER TO PLUMBING DRAWINGS FOR FURTHER INFORMATION.
3. SUPPORT PIPING FROM STRUCTURE PER SPECIFICATIONS, REFER TO PLUMBING DRAWINGS FOR FURTHER INFORMATION.
4. SUPPORT PIPING FROM SOLAR SYSTEM STRUCTURE PER SPECIFICATIONS, REFER TO PLUMBING DRAWINGS FOR FURTHER INFORMATION.

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PLUMBING SOLAR SYSTEM FLOOR PLAN, SOLAR RISER DIAGRAM, SOLAR SCHEDULES AND SCHEMATICS

P-300

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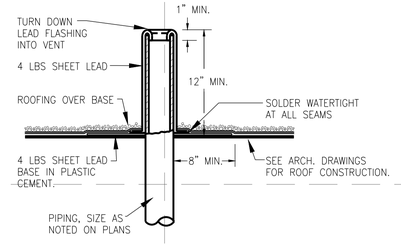
PLUMBING FIXTURE SCHEDULE

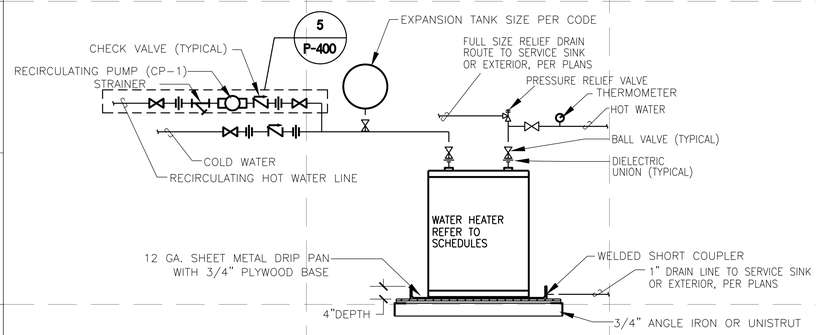
SYMBOL	MINIMUM CONNECTIONS CW	HW-110	VENT	WASTE	FIXTURE TYPE	MANUFACTURER	OPTIONS
WC-1	1/2"	--	2"	4"	FLOOR MOUNTED TANK TYPE GRAVITY FLUSH ADA COMPLIANT WATER CLOSET ELONGATED CHINA BOWL, EXTRA HEAVY DUTY OPEN FRONT WHITE SEAT, BOTTOM OUTLET, 1.6 GALLON 'PER FLUSH, FLUSH LEVER ON RIGHT WHERE REQUIRED.	ELJER 091-1175 PATRIOT AMER. STD 2216.143 CADET II KOHLER K-3427 CRANE 3-392, ZURN	SEAT - BEMIS 1655SSC, CHURCH 9500SSC, CENTOCO 1500CCSS, BENEKE 527SS, KOHLER K4666SC
LAV-1	1/2"	1/2"	1-1/2"	1-1/2"	WALL MOUNTED ADA COMPLIANT LAVATORY VITREOUS CHINA, NOMINAL 20"x18", BACK AND SIDE SPLASHES, FOR CONCEALED ARM CARRIER, SINGLE CENTERED FAUCET HOLE, ADA COMPLIANT SINGLE LEVER FAUCET, LESS ESCUTCHEON PLATE, LESS DRAIN, CAST BRASS CONSTRUCTION, WATER LESS, DRAIN OUTLET WITH POP-UP WASTE	ELJER 051-2644 DELWYN AMER. STD 0356.421 LUCERNE KOHLER K-2007 KINGSTON CRANE 1-412H ZURN	FAUCET - ZURN Z-82200 AQUASPEC, CHICAGO 2200 CARRIER - ZURN Z-1231, OR EQUAL BY WADE, JR SMITH DRAIN - AMER. STD. 2411.015, ELJER 803-0552
S-1	1/2"	1/2"	1-1/2"	1-1/2"	COUNTERTOP SINGLE DEEP COMPARTMENT 18 GA. STAINLESS STEEL, NOM. 16" x 22" BOWL, 10" DEEP, BACK FLANGE, WIDESET GOOSENECK FAUCET WITH HOLES 4" ON CENTER, LEVER HANDLE, DRAIN OUTLET WITH GRID STRAINER	JUST SLX-2225-A-GR ELKAY DLR252210	FAUCET - CHICAGO FAUCET #786-369, ZURN Z-831B4 AQUASPEC DRAIN - J-35-316
SH-1	3/4'	3/4"	--	--	HANDICAPPED ADA COMPLIANT SHOWER ASSEMBLY HAND SPRAY SHOWER UNIT, PRESSURE BALANCING MIXING VALVE W/ INTEGRAL VOLUME CONTROL AND ADJUSTABLE STOP SCREW. BALANCING PISTON SEALED OPERATING SPINDLE, INTEGRAL STOPS, CLEAR-FLO 2.5 GPM SHOWER HEAD WITH ARM& FLANGE, WALL/HAND SHOWER W/ 5' FLEX METAL HOSE, WALL CONNECTION& FLANGE, INLINE VACUUM BREAKER, 30" SLIDE BAR FOR HAND SHOWER MOUNTING, POLISHED CHROME FINISH.	SYMMONS S-96-300X-B30-L-V	
SA-1	3/4"	3/4"	--	--	SHOCK ABSORBER STAINLESS STEEL NESTED BELLOWS TYPE. CASING & BELLOWS SHALL BE TYPE 304 STAINLESS STEEL. PROVIDE ISOLATION BALL VALVE WITH ACCESS DOOR (IF REQUIRED) AT INLET. CONTRACTOR SHALL SIZE EACH UNIT FOR PROPER DISPLACEMENT FOR THE FIXTURES COUNT ON CW OR HW LINE AS REQUIRED AT LOCATION SHOWN.	ZURN Z-1700 SHOCKTROLS JR SMITH 5000 HYDROTROLS WADE PRECISION PRODUCTS	
WM-1	3/4"	3/4"	--	2"	WASHING MACHINE CONNECTION AUTOMATIC WASHING MACHINE VALVE ASSEMBLY WITH 1/2" SWEAT UNION ELL CONNECTIONS AND 2" DRAIN CONNECTION. VALVE ASSEMBLY SHALL HAVE TRIPLE SEAL PACKING, SELF ADJUSTING SPRING LOADED, NON-WEAR ACTION. VALVES TO BE HOUSED IN A METAL OR PLASTIC ENCLOSURE	SYMMONS W-602	THE WASHING MACHING CONNECTION IS TO CONNECT TO A MINIMUM 3 INCH WASTE MAIN IN THE WALL PER SCHEMATIC.
FD-1	--	--	2"	3"	FLOOR DRAIN 6"[ROUND ADJUSTABLE NICKEL BRONZE STRAINER, CAST IRON BODY, SEDIMENT BUCKET, ADJUSTABLE FLASHING COLLAR, 3/4" TRAP PRIMER ADAPTER	ZURN ZN-415-B-P JR SMITH 2005	PROVIDE TRAP PRIMER ADAPTER - ZURN-1023 OR EQUAL
WCO	--	--	---	AS SHOWN ON DWG	WALL CLEANOUT NO-HUB CAST IRON CLEANOUT TEE WITH ROUND STAINLESS STEEL COVER AND CENTER SCREW, GASKETED SEAL IRON THREADED PLUG WITH RECESSED SOCKET	ZURN Z-1446-BP, JR SMITH 4422-PB	OR EQUAL BY WADE
ECO DCO	--	--	---	AS SHOWN ON DWG	EXTERIOR CLEANOUT CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED CAST IRON TOP, GASKET SEAL CAST IRON PLUG WITH RECESSED SOCKET. INSTALL IN MINIMUM OF 12" x 12" x 4" REINFORCED CONCRETE PAD WITH BEVELED EDGES.	ZURN Z-1400-HD	OR EQUAL BY JR SMITH OR WADE

NOTES:

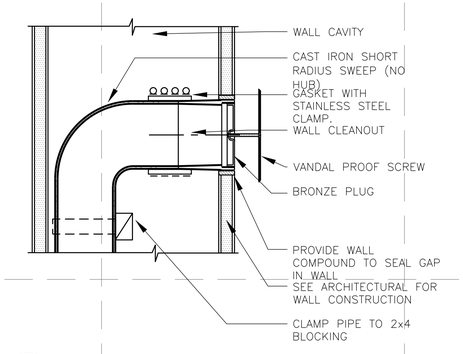
1. MANUFACTURERS WITH MODEL NUMBERS ARE BASE ITEMS. OTHER MANUFACTURERS LISTED ARE EQUIVALENT MANUFACTURERS.
2. FOR MOUNTING HEIGHTS OF INDIVIDUAL WALL-MOUNTED FIXTURES, REFER TO ARCHITECTURAL ELEVATION DRAWINGS.
3. EACH UNDERSLAB OR CONCEALED P-TRAP SHALL BE A DEEP-SEAL TYPE.
4. PROVIDE EACH WALL MOUNTED PLUMBING FIXTURE, SUCH AS SINKS, LAVATORIES, ELECTRIC WATER COOLERS, DRINKING FOUNTAINS, ETC., WITH A FLOOR MOUNTED FIXTURE SUPPORT CARRIER WITH RECTANGULAR LEGS.
5. UNLESS SCHEDULED OTHERWISE, PROVIDE EACH LAVATORY, SINK, WATER COOLER, ETC. WITH A P-TRAP ASSEMBLY CONSISTING OF A CHROME-PLATED (C.P.) CAST BRASS TRAP WITH CLEANOUT PLUG, C.P. TUBING OUTLET (MIN. 17 GA.), AND C.P. CAST BRASS ESCUTCHEON WITH SETSCREW.
6. PROVIDE EACH FIXTURE WHICH REQUIRES COLD AND/OR HOT WATER (EXCEPT FLUSH VALVES) WITH A SUPPLY/STOP ASSEMBLY CONSISTING OF A C.P. BRASS QUARTER TURN STOP VALVE (MIN. 1/2") WITH LOOSE KEY HANDLE AND LOCK SHIELD, STAINLESS STEEL FLEXIBLE RISER, C.P. BRASS NIPPLE, AND C.P. CAST BRASS ESCUTCHEON WITH SETSCREW.
7. FOR EACH PUBLIC LAVATORY OR SINK WITH EXPOSED DRAIN AND BOTH COLD AND HOT SUPPLY COMPONENTS, PROVIDE A MANUFACTURED INSULATION KIT MADE FROM MOLDED CLOSED CELL VINYL THAT IS ANTI-MICROBIAL, FORM FITTING, AND SEAMLESS. EACH KIT SHALL COVER THE TAILPIECE, P-TRAP, WALL BEND, BOTH WATER SUPPLY STOPS, AND BOTH WATER RISERS. KITS SHALL BE EQUAL OR EQUIVALENT TO "PROWRAP" BY McGUIRE OR LAV-GUARD BY TRUEBRO.
8. ALL ITEMS SHALL BE NSF APPROVED AND LISTED FOR THEIR USAGE. ALL FAUCETS, WATER COOLERS, AND DRINKING FOUNTAINS SHALL BE TO NSF 61 AND LISTED WITH NSF.
9. PROVIDE ACCESS DOORS FOR ANY CONCEALED VALVES, SHOCK ABSORBERS, AIR GAP FITTINGS AND ANY OTHER CONCEALED FIXTURES THAT REQUIRED MAINTENANCE.
10. WHERE ARCHITECTURAL PLANS SHOW WATER CLOSETS AND URINALS, PROVIDE AND INSTALL FLUSHING VALVE SUCH THAT FLUSH HANDLE IS ON WIDE SIDE OF WATER CLOSET, THAT IS, THE SIDE AWAY FROM THE ADJACENT WALL. ALL WALL MOUNTED FIXTURES SHALL BE MOUNTED AT THE REQUIRED ADA AND TAS MOUNTING HEIGHTS IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS.



1 P-400 **VENT THRU ROOF SCHEMATIC**
SCALE: NONE



2 P-400 **W.H. INSTALLATION SCHEMATIC**
SCALE: NONE



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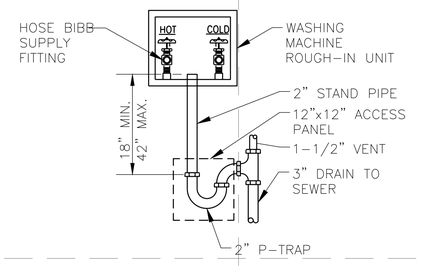
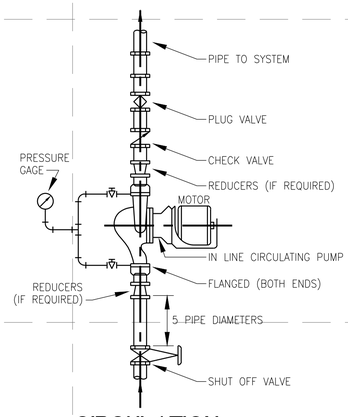
SCALE: NONE



4 P-400 **WASHING MACHINE HOOKUP SCHEMATIC**
SCALE: NONE



5 P-400 **CIRCULATION PUMP DETAIL**
SCALE: NONE

2/13/2013 11:31:47 AM

TEAM TEXAS - SOLAR DECATHLON 2013

TEAM NAME: TEAM TEXAS
ADDRESS: ORANGE COUNTY GREAT PARK IRVINE, CALIFORNIA LOT #106
CONTACT: ASMARSHALL@UTEP.EDU SOLARDECATHLON.UTEP.EDU

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U.S. DEPARTMENT OF ENERGY
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MARK	DATE	DESCRIPTION
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03	02/14/2013	95% DOE/NR CD SUBMISSION
03	04/05/2013	95% DOE/NR RE-SUBMISSION

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PLUMBING FIXTURE SCHEDULES AND SCHEMATICS

P-400

MECHANICAL GENERAL NOTES:

GENERAL

1. THESE MECHANICAL GENERAL NOTES ARE APPLICABLE TO ALL MECHANICAL SHEETS IN THIS PROJECT SET.

2. THE MECHANICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE AND ADOPTED PROVISIONS OF THE FOLLOWING CODES:
   2012 INTERNATIONAL RESIDENTIAL BUILDING CODE
   2012 INTERNATIONAL ENERGY CONSERVATION CODE
   AS ADOPTED AND INTERPRETED BY THE STATE OF TEXAS, CITY OF EL PASO, DOE SOLAR DECATHALON, AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) REGULATIONS, CURRENT ADOPTED EDITION REGARDING MECHANICAL SYSTEMS, FIRE PROTECTION AND ALARM SYSTEMS AND ELECTRICAL SYSTEMS. ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS SHALL GOVERN. THE CONSTRUCTION TEAM SHALL HOLD AND SAVE THE TEAM TEXAS AND DESIGN TEAM FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

3. THE CONSTRUCTION TEAM SHALL COORDINATE WITH TEAM TEXAS AND DESIGN TEAM ANY WORK THAT HAS THE POTENTIAL TO HINDER MECHANICAL AND PLUMBING SERVICES TO AREA OUTSIDE OF THIS CONTRACT. ALL SHUT-DOWNS OR TIE-INS RELATING TO THESE SYSTEMS SHALL BE SCHEDULED AND SUBMITTED IN WRITING TO BE APPROVED BY THE TEAM TEXAS AND DESIGN TEAM OFFICE. CONSTRUCTION TEAM SHALL SUBMIT IN WRITING A SCHEDULE FOR PHASING OF CONSTRUCTION THAT INDICATES AREAS OF FIRST PRIORITY DURING EACH PHASE AND ANTICIPATED COMPLETION TIMES. SCHEDULES SHALL BE SUBMITTED A MINIMUM OF ONE WEEK PRIOR TO COMMENCING WORK. TEAM TEXAS AND DESIGN TEAM SHALL REVIEW THESE SCHEDULES AND NOTIFY CONSTRUCTION TEAM OF ACCEPTANCE PRIOR TO COMMENCEMENT OF WORK.

4. ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH CODES AND RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN. THE CONSTRUCTION TEAM SHALL HOLD AND SAVE THE TEAM TEXAS AND DESIGN TEAM FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FORM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

5. BIDDERS SHALL VISIT THE SITE AND SHALL BE RESPONSIBLE FOR HAVING ASCERTAINED PERTINENT LOCAL CONDITIONS SUCH AS LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE SITE, THE CHARACTER AND EXTENT OF THE WORK WITHIN THE BUILDING AND TO BECOME FAMILIAR WITH ALL OTHER WORK TO BE PERFORMED AT THIS TIME. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO CONSTRUCTION TEAM'S FAILURE TO DETERMINE ALL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.

6. BEFORE YOU DIG ALL EXISTING UTILITIES I.E. WATER, SEWER, GAS, FIRE LINE, ELECTRICITY, TELEPHONE, CABLE, IRRIGATION LINES, SHALL BE LOCATED AND CLEARLY MARKED IN ORDER TO AVOID UNNECESSARY SHUT DOWNS AND EMERGENCY.

7. EACH CONSTRUCTION TEAM SHALL GIVE ALL REQUISITE NOTICES, OBTAIN AND PAY FOR ALL PERMITS, DEPOSITS AND FEES (INCLUDING UTILITY CONNECTIONS FEES, ANY UTILITY EXTENSION FEES, DEVELOPMENT FEES, AND IMPACT FEES) NECESSARY FOR THE INSTALLATION OF WORK UNDER THESE NOTES. TWO (2) COPIES OF CERTIFICATES OF APPROVAL SHALL BE OBTAINED FROM ALL AUTHORITIES ISSUING SAME AND SHALL BE TURNED OVER TO TEAM TEXAS AND DESIGN TEAM PRIOR TO FINAL ACCEPTANCE OF THE WORK.

8. REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONSTRUCTION TEAM FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK. CONSTRUCTION TEAM SHALL SECURE AND PAY ALL PERMITS, FEES, INSPECTIONS, AND TESTS UNLESS OTHERWISE INDICATED. COORDINATE WITH DESIGN TEAM AND TEAM TEXAS. SUBSTITUTIONS REQUESTED BY THE CONSTRUCTION TEAM SHALL BE PAID FOR BY THE CONSTRUCTION TEAM.

9. ALL WORK SHALL CONFIRM WITH FEDERAL, STATE, AND LOCAL CODES, RULES, AND REGULATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED CONSTRUCTION TEAM IN A FIRST CLASS WORKMANLIKE MANNER. THE SYSTEMS SHALL BE INSTALLED COMPLETE AND FULLY OPERATIVE UNLESS OTHERWISE INDICATED

10. CONSTRUCTION TEAM SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE DESIGN TEAM OFFICES. THIS REPORT SHALL DESCRIBE EXISTING DAMAGE OR OTHER CONDITIONS THAT MAY INTERFERE WITH THIS PROPOSED NEW WORK. THIS SITE SURVEY SHALL ALSO INCLUDE VERIFICATION OF SIZES, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE DESIGN TEAM PRIOR TO THE AWARDING OF THE CONTRACT. OTHERWISE THE DESIGN TEAM'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.

11. WHERE STRUCTURE IS ALTERED OR DAMAGES DURING CONSTRUCTION, INSTALLATION AND REMOVAL OF EQUIPMENT OR FIXTURES, THE CONSTRUCTION TEAM SHALL REPAIR THE AREA TO MATCH SURROUNDING AREA PER DESIGN TEAM SPECIFICATIONS CUTTING, TRENCHING, AND PENETRATIONS THROUGH FIRE WALL, CONCRETE AND OTHER STRUCTURES ARE A PART OF THIS PROJECT SCOPE AND SHALL BE INCLUDED IN THE CONSTRUCTION TEAM'S BID. ALL EXCAVATION AND BACKFILLING REQUIRED FOR PLUMBING WORK IS ALSO INCLUDED AS PART OF THIS CONTRACT AND SHALL BE INCLUDED IN CONSTRUCTION TEAM'S BID.

11. ALL SYSTEMS AND COMPONENTS SHALL BE APPROVED FOR THE PURPOSE FOR WHICH INSTALLED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND FROM ESTABLISHED AMERICAN SUPPLIERS UNLESS OTHERWISE INDICATED.

12. ALL EQUIPMENT PARAMETERS SHOWN ARE FOR PERFORMANCE AT SITE ALTITUDE. SUPPLIERS SHALL SELECT AND DEMONSTRATE THAT THEIR EQUIPMENT MEETS THE DESIGN CONDITIONS AT SITE ALTITUDE.

13. MECHANICAL CONSTRUCTION TEAM SHALL COORDINATE WITH ELECTRICAL CONSTRUCTION TEAM THE ELECTRICAL REQUIREMENTS, INCLUDING POWER, CONTROL, COMMUNICATION, AND MONITORING, OF EACH DEVICE PROVIDED AND/OR INSTALLED BY MECHANICAL CONSTRUCTION TEAM.

14. SUPPORT SYSTEM FOR PIPING MATERIALS AND EQUIPMENT SUPPORTED BY THE BUILDING STRUCTURE SHALL BE SUBMITTED TO THE STRUCTURAL DESIGN TEAM FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. NO WIRE OR PERFORATED STRAP WILL BE PERMITTED FOR ANY HANGER OR SUPPORT.

15. CONSTRUCTION TEAM SHALL NOT CUT, DRILL, OR ALTER ANY ELEMENT OF ANY WALLS, FLOORS CEILINGS, ROOFS, AND SLABS WITHOUT FIRST RECEIVING INSTRUCTIONS FROM DESIGN TEAM. ALL CUTS SHALL BE MADE WITH A CUTTING TOOL.

16. PATCHING OR SEALING OF CUTS OR PENETRATIONS SHALL BE DONE BY CONSTRUCTION TEAM PER INSTRUCTIONS FROM AND TO FINAL APPROVAL OF DESIGN TEAM. COORDINATE WITH GENERAL CONSTRUCTION TEAM.

17. CONSTRUCTION TEAM SHALL FIELD VERIFY CONDITION OF EXISTING EQUIPMENT AND PROVIDE NECESSARY COMPONENTS TO ASSEMBLE AND TO START-UP COMPLETE AND FULLY OPERATIONAL SYSTEMS.

18. BEFORE INSTALLATION, EQUIPMENT AND DEVICES INCLUDING, BUT NOT LIMITED TO, ANY DEVICE WITH ELECTRICAL CONNECTIONS, DUCTWORK, INSULATION, PIPING, VALVES, AND AIR DEVICES SHALL NOT BE STORED DIRECTLY ON GRADE OR ON A SLAB OR FLOOR. BEFORE AND AFTER INSTALLATION, SUCH EQUIPMENT AND DEVICES SHALL BE PROTECTED FROM ENTRY OF DIRT, TRASH WATER (EXCEPT AS REQUIRED), VERMIN.

19. CONSTRUCTION TEAM SHALL COORDINATE ACTUAL LOCATIONS OF AIR DEVICES AND DUCTWORK WITH LIGHTS, CEILING PANELS, JOIST SPACING AND DESIGN TEAM REFLECTED CEILING PLAN (REF. ELECTRICAL PLANS AND DESIGN TEAM PLANS).

20. PROVIDE THE TEAM TEXAS WITH THREE (3) COPIES OF ALL INSTALLATIONS INSTRUCTIONS, PRODUCT DATA SUBMITTAL INFORMATION, WARRANTIES, CONTACT INFORMATION DURING WARRANTY PERIOD AND BALANCING REPORTS IN 3-RING BINDERS.

21. OPERATING TESTS AND CLEANING PROCEDURES SHALL BE PERFORMED AND REPORTS SHALL BE ISSUED PER CODE REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS.

22. PIPING ROUTED ON THE ROOF SHALL BE SUPPORTED BY FACTORY MADE PIPE SUPPORTS PER MANUFACTURER'S RECOMMENDATIONS.

23. CONSTRUCTION TEAM SHALL PROVIDE AND INSTALL IDENTIFICATION TAGS FOR EQUIPMENT AND PIPING PER ASME 13.1 SCHEME OF IDENTIFICATION FOR PIPING.

24. LOCATIONS OF CEILING, ROOF AND ATTIC MECHANICAL EQUIPMENT ARE APPROXIMATE AS SHOWN. MECHANICAL CONSTRUCTION TEAM SHALL FIELD ADJUST AS REQUIRED.

25. CONSTRUCTION TEAM SHALL TAKE PRECAUTIONS PER THE DESIGN TEAM'S INSTRUCTIONS TO PROTECT EXISTING TREES AND /OR OTHER SITE VEGETATION.

26. THE MECHANICAL/PLUMBING CONSTRUCTION TEAM SHALL PROVIDE AND HAVE INSTALLED ANY ACCESS DOOR REQUIRED TO ACCESS MECHANICAL OR PLUMBING EQUIPMENT THAT REQUIRES ACCESS BEHIND GYPBOARD OR HARD CEILINGS AND IN WALLS. THE MECHANICAL/PLUMBING CONSTRUCTION TEAM SHALL PROVIDE THE GENERAL CONSTRUCTION TEAM WITH THESE ACCESS DOORS FOR INSTALLATION IN THE CEILING OR WALL. ACCESS DOORS SHALL BE RATED FOR THE WALL, FLOOR, OR CEILING TYPE AND SHALL BE A MINIMUM SIZE OF 12"X12".

27. ALL MATERIAL INSTALLED IN CEILING SPACE SHALL BE NONCOMBUSTIBLE PLENUM RATED MATERIALS.

28. FOR OUTDOOR EQUIPMENT ON GRADE, CONSTRUCTION TEAM SHALL CONSTRUCT LEVEL 3000 PSI CONCRETE SLABS WITH FINISHED EDGES, WIRE REINFORCED, MINIMUM 3 1/2" THICK, AND MINIMUM 6" LARGER ON ALL SIDES THAN THE EQUIPMENT BEING SUPPORTED.

29. ALL PIPING, PLUMBING AND DUCTWORK OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.

30. SUBMITTAL REQUIREMENTS
    A. THE INTENT OF THIS SECTION IS TO GIVE GENERAL SUBMITTAL INFORMATION, REFER TO SPECIFIC SUBMITTAL INFORMATION IN THE SUBSEQUENT MECHANICAL SECTIONS.
    B. WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, AND BEFORE ORDERS ARE PLACED, CONSTRUCTION TEAM SHALL SUBMIT SPECIFIC INFORMATION ON LIST OF EQUIPMENT AND PRINCIPAL MATERIALS SPECIFIED IN PDF FORMAT TO THE CONSTRUCTION MANAGER (CM). CONSTRUCTION TEAM SHALL INDICATE AND/OR PROVIDE NAMES OF MANUFACTURERS, CATALOG AND MODEL NUMBERS, CUT SHEETS, AND SUCH OTHER SUPPLEMENTARY INFORMATION AS NECESSARY FOR EVALUATION.

31. REQUIRED SHOP DRAWING SUBMITTALS
    A. RADIANT FLOOR HEATING SYSTEM
    B. RADIANT CEILING COOLING "CHILLED BEAM" SYSTEM
    C. THERMOSTAT, HUMIDISTAT, AND REMOTE SENSORS

RADIANT SYSTEMS:

32. DEVICES THAT MIGHT CAUSE OR OPERATE WITH VIBRATION OR NOISE SHALL BE ISOLATED PER MANUFACTURER'S RECOMMENDATIONS.

33. RADIANT FLOOR HEATING SYSTEM SHALL BE ZURN PEX SYSTEM WITH ACCUFLOW INJECTION PUMP MANIFOLDS WITH ZONE CIRCULATING PUMPS AND ASSOCIATED VALVES, ZONE THERMOSTATS, SUPPORTS, AND CONNECTORS MANIFOLD ZONE CIRCULATION PUMPS (4 TOTAL) SHALL BE SIZED AT 1 GPM AT 20 FEET OF HEAD USING 1/2" PEX TUBING EACH.

34. RADIANT CEILING COOLING "CHILLED BEAM" SYSTEM SHALL BE A TWA PANEL SYSTEMS, INC. ASSEMBLY WITH ASSOCIATED INJECTION PUMP MANIFOLDS WITH ZONE CIRCULATING PUMPS AND ASSOCIATED VALVES, ZONE THERMOSTATS, SUPPORTS, AND CONNECTORS MANIFOLD ZONE CIRCULATION PUMPS (4 TOTAL) SHALL BE SIZED AT 1 GPM AT 20 FEET OF HEAD USING 1/2" PEX TUBING EACH.

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW EQUIPMENT
(##)	NEW WORK KEYED NOTE
XX-##	EXISTING EQUIPMENT INDICATORS WILL NOT HAVE A SYMBOL. (EXAMPLE: B-1 = EXIST. BOILER #1)
XXX / ##	NEW EQUIPMENT ABBREVIATION SEQUENCE NUMBER
P	PUMP
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
T	THERMOSTAT(TSTAT)
HCS	DUAL HEAT/COOL SUPPLY
HCR	DUAL HEAT/COOL RETURN

NOTES: GENERAL LEGEND NOT ALL ITEMS APPLICABLE TO THIS PROJECT

TEAM TEXAS - SOLAR DECATHLON 2013

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CONTACT:	ASMARSHALL@UTEP.EDU SOLARDECATHLON.UTEP.EDU

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MARK	DATE	DESCRIPTION
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SYMBOL LEGEND, MECHANICAL GENERAL NOTES

M-001

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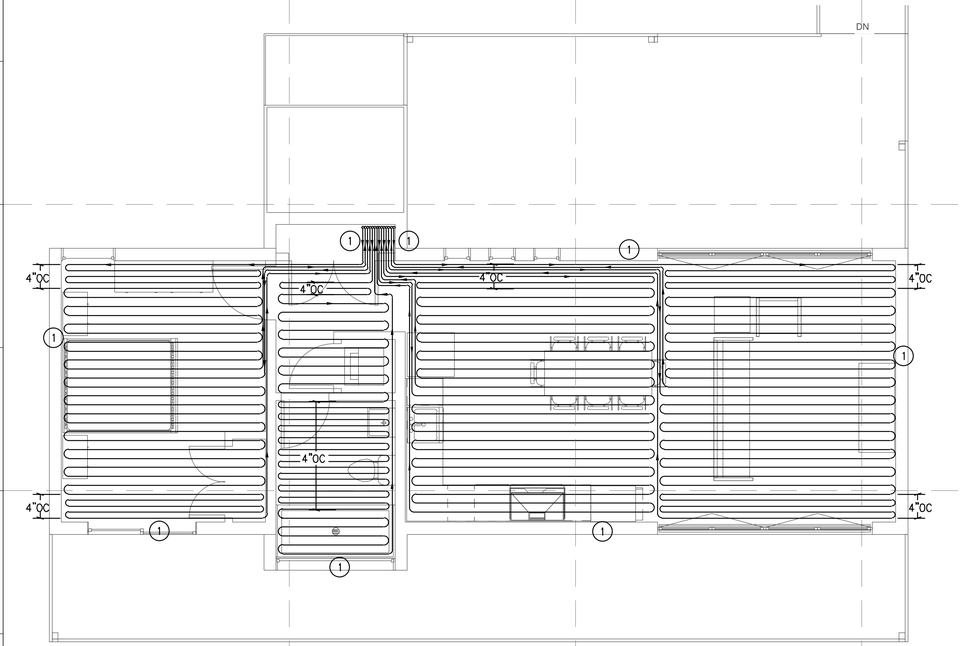

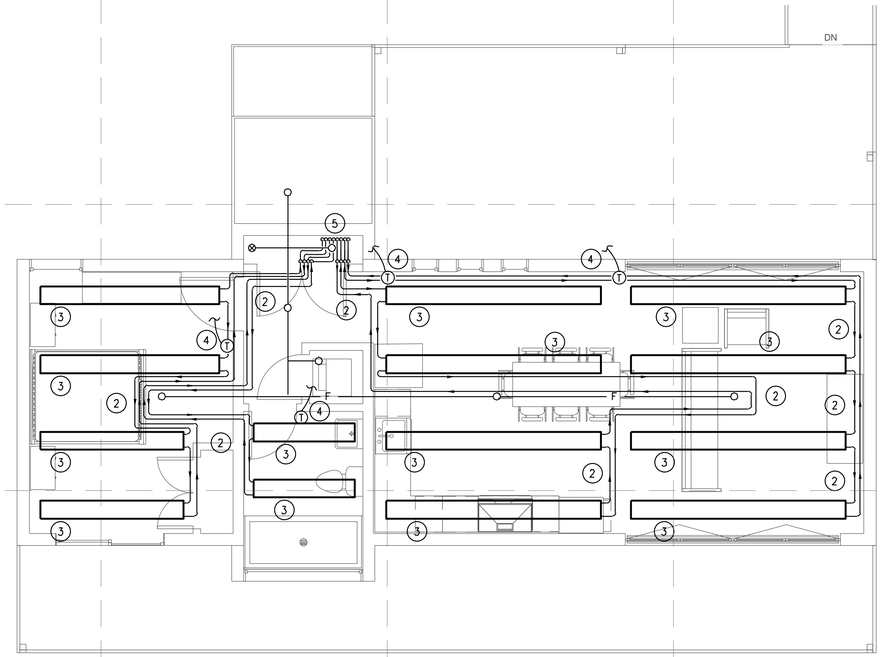

1 M-100 MECHANICAL RADIANT FLOOR PLAN

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

4 2 0 4 8

2 M-100 MECHANICAL RADIANT CEILING PLAN

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

4 2 0 4 8

MECHANICAL KEYED NOTES: (#)

1. RADIANT HEATING SUPPLY AND RETURN PIPING BELOW FLOOR. CONNECT TO ASSOCIATED PUMP AND HEADER ASSEMBLY. REFER TO SCHEMATIC 1/M- 300. PIPING IS TO BE SPACED AT 6" ON CENTER EXCEPT WHERE INDICATED AS 4" O.C. ON DRAWING.
2. RADIANT COOLING SUPPLY AND RETURN PIPING ABOVE CEILING. CONNECT TO ASSOCIATED PUMP AND HEADER ASSEMBLY. REFER TO SCHEMATIC 2/M-300. CONNECT TO COOLING PANELS AS SHOWN.
3. 12" WIDE RADIANT COOLING LINEAR PANEL. LENGTH AS SHOWN. PIPE TO ASSOCIATED PUMP AS REQUIRED.
4. COMBINATION HEATING AND COOLING THERMOSTAT. CONNECT TO ASSOCIATED PUMPS AS REQUIRED. REFER TO 3/M-300.
5. PIPING IS TO RUN BELOW CEILING IN CLOSET AS SHOWN, TO AVOID CONFLICT WITH FIRE PIPING. COORDINATE ALL PIPING AND PANELS WITH FIRE PIPING ELECTRICAL CONDUIT/FIXTURES.

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CONSULTANTS

- WRIGHT AND DALBIN ARCHITECTS
- HKN ENGINEERS - STRUCTURE
- EMC ENGINEERS - MPE
- EPCC - SCHOOL OF INTERIOR DESIGN
- EPCC - SCHOOL OF CULINARY ARTS

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02	11/20/2012	80% DOE/NR DD RE-SUBMISSION
03	02/14/2013	95% DOE/NR CD SUBMISSION
03	04/05/2013	95% DOE/NR RE-SUBMISSION

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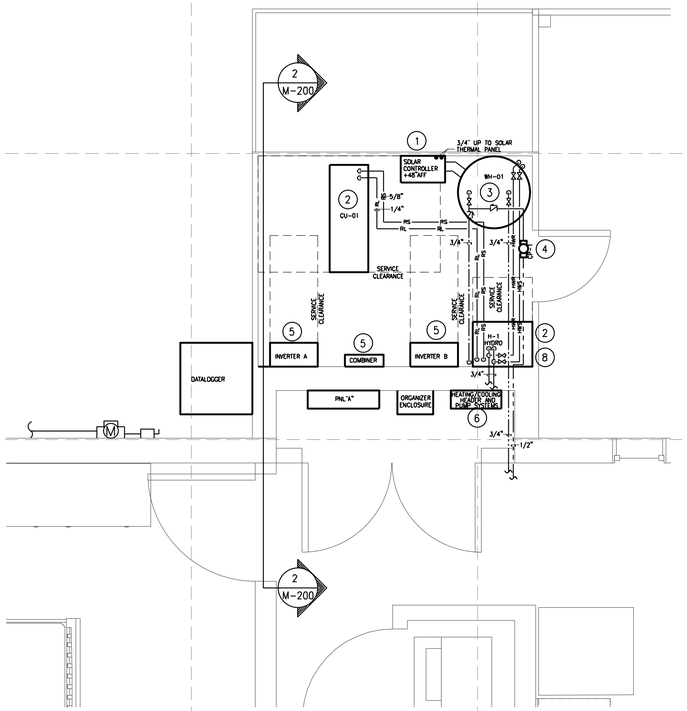
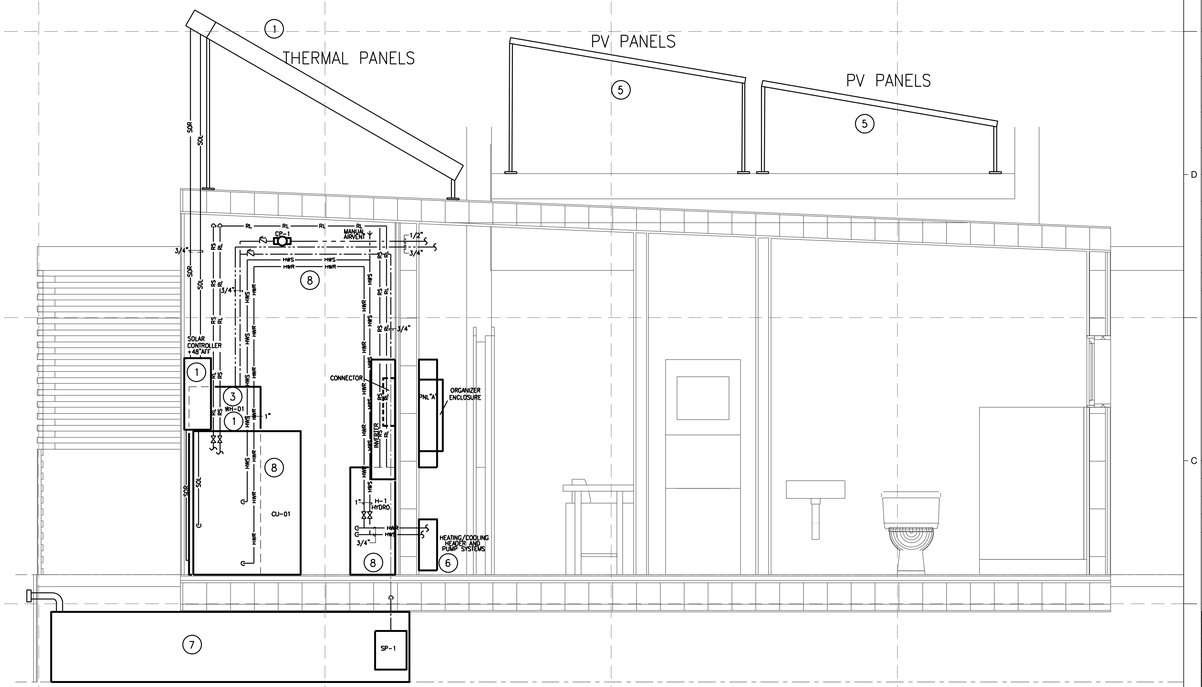
SHEET TITLE

MECHANICAL RADIANT FLOOR PLAN, MECHANICAL RADIANT CEILING PLAN AND KEYED NOTES

M-100





ENLARGED MECHANICAL ROOM FLOOR PLAN

1 / M-200

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

2 1 0 2 4

MECHANICAL ROOM ELEVATION

2 / M-200

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

2 1 0 2 4

MECHANICAL KEYED NOTES:

1. DOMESTIC WATER SOLAR SYSTEM, REFER TO SCHEMATIC 2-P-200 FOR FURTHER INFORMATION
2. HEAT PUMP CONDENSING UNIT ASSEMBLY, REFER TO SCHEMATIC 1/M-300 FOR FURTHER INFORMATION.
3. DOMESTIC WATER HEATER TANK (WH-01), REFER TO SCHEMATIC 2-P-200 AND 2-P-400 FOR FURTHER INFORMATION.
4. DOMESTIC WATER RECIRCULATION PUMP (CP-1), REFER TO SCHEMATIC 2-P-200 AND 5-P-400 FOR FURTHER INFORMATION.
5. ELECTRICAL PV PANELS COMBINER PANELS AND PV-DC/AC INVERTER DISCONNECT.
6. RADIANT HEATING AND COOLING MANIFOLDS ASSEMBLIES REFER TO SCHEMATICS 1/M-200 AND 2/M-200 FOR FURTHER INFORMATION.
7. 1,200 GALLON POTABLE WATER STORAGE TANK.
8. REFER TO MECHANICAL SYSTEM SCHEMATIC 4/M-300.

2/13/2013 11:31:47 AM

TEAM TEXAS - SOLAR DECATHLON 2013

TEAM NAME:	TEAM TEXAS
ADDRESS:	ORANGE COUNTY GREAT PARK IRVINE, CALIFORNIA LOT #106
CONTACT:	ASMARSHALL@UTEP.EDU SOLARDECATHLON.UTEP.EDU

CONSULTANTS

WRIGHT AND DALBIN ARCHITECTS
HKN ENGINEERS - STRUCTURE
EMC ENGINEERS - MPE
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U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON

MARK	DATE	DESCRIPTION
01	10/11/2012	80% DOE/NR DD SUBMISSION
02	11/20/2012	80% DOE/NR DD RE-SUBMISSION
03	02/14/2013	95% DOE/NR CD SUBMISSION
03	04/05/2013	95% DOE/NR RE-SUBMISSION

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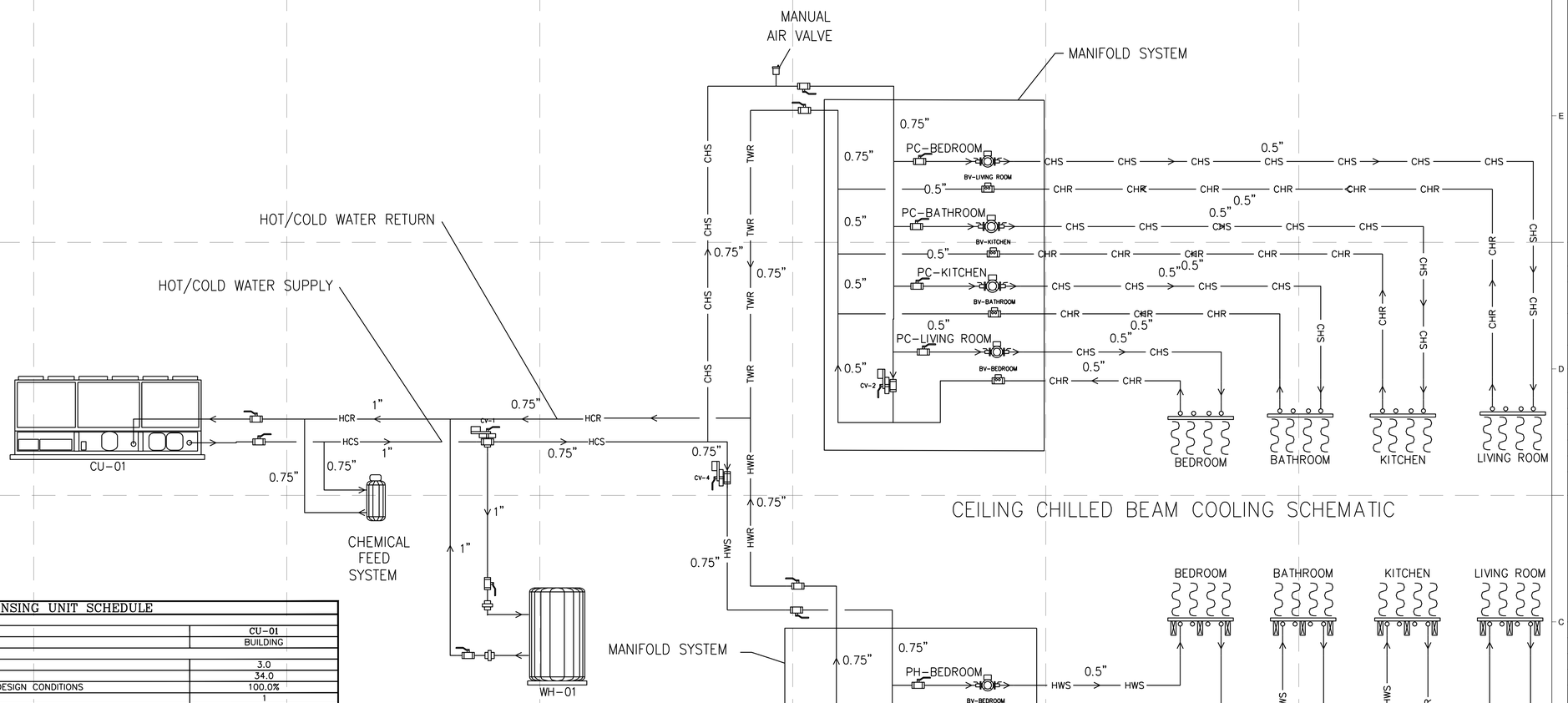
ENLARGED MECHANICAL ROOM FLOOR PLAN, ELEVATION, AND KEYED NOTES

M-200



CEILING CHILLED BEAM COOLING SCHEMATIC

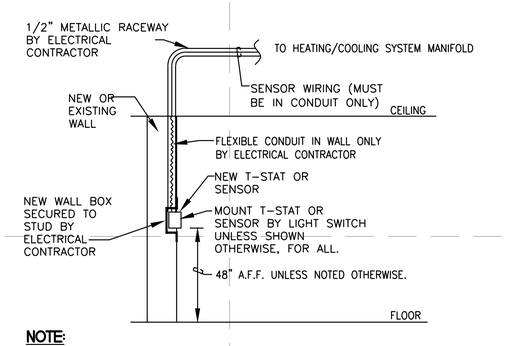
CENTRAL PLANT SCHEMATIC

RADIANT FLOOR HEATING SCHEMATIC

OUTDOOR CONSENSING UNIT SCHEDULE	
OUTDOOR UNIT	
SYMBOL	CU-01
SYSTEM SERVED	BUILDING
COOLING	
NOMINAL TONS	3.0
MINIMUM TOTAL CAPACITY, MBH	34.0
PCRCENTAGE OF CAPACITY AT DESIGN CONDITIONS	100.0%
FANS (NO) / TYPE	1
ENTERING CONDENSER AIR TEMPERATURE (F)	105
SPECIFIED UNIT'S (EER/SEER)	**12.2 EER**
COMPRESSOR QUANTITY / STAGES	1
HEATING	
CAPACITY, MBH AT 47 DEG F	38.0
SPECIFIED UNIT'S (COP)	**4.5**
ELECTRICAL (SEE NOTE 4)	
VOLTAGE	208V/1P
MINIMUM CIRCUIT AMPACITY	18.0
MAXIMUM OVERCURRENT PROTECTION	20
REFRIGERANT TYPE	R410o
WEIGHT (LB)	150
DAIKIN ALTHERMA MODEL NUMBER, SEE NOTE 1	ERLQ030BAVJU
WATER HEAT PUMP ASSEMBLY	
SYMBOL	H-01
FUNCTION	HEAT PUMP
SYSTEM HEATING WATER TEMPERATURE RANGE DEG F	59.0 TO 131.0 DEF G
SYSTEM COOLING WATER TEMPERATURE RANGE DEG F	41.0 TO 71.6 DEG F
WATER FLOW:	
HEATING GPM	4.0
COOLING GPM	4.0
PUMP HEAD PRESSURE (PSI)	7.0
HP - REFRIGERANT CONNECTIONS (RS-RL)	5/8" RS - 1/4" RL
ELECTRICAL BACKUP HEATER (KW)	3.0
ELECTRICAL (SEE NOTE 4)	
VOLTAGE	208V/1P
MINIMUM CIRCUIT AMPACITY	14.3
MAXIMUM OVERCURRENT PROTECTION	20
WEIGHT (LB)	130
DAIKIN ALTHERMA MODEL NUMBER, SEE NOTE 1	EKHBX030BA3VJU

NOTES :

1. UNITS ARE SCHEDULED TO BE MANUFACTURED BY DAIKIN. ALL OTHERS MANUFACTURERS REQUIRE PRIOR APPROVAL.
2. COOLING CAPACITIES, SEER'S, AND HEATING COP'S ARE COMBINATION RATINGS WITH OUTDOOR UNITS. CAPACITIES ARE RATED AT ENTERING AIR TEMPERATURE AND AMBIENT AS LISTED, SEER ARE RATED AT ARI CONDITIONS. AIRFLOW CONDITIONS ARE RATED AT 4,000 FEET ALTITUDE.
3. EACH OUTDOOR UNIT SHALL BE EQUIPPED WITH HAIL GUARD FOR THE CONDENSER COIL, DEFROST CONTROL, HIGH PRESSURE SWITCH, HARD START KIT ON SINGLE PHASE UNITS, ANTI- SHORT CYCLE TIMER, SERVICE VALVES, ANCILLARY REFRIGERANT EQUIPMENT AND INDOOR BLOWER RELAY KIT, CONDENSATE KIT, INSULATION KIT TO PREVENT CONDENSATION ON THE BOTTOM AN ANTI-SHORT CYCLE TIMER AND A TIME DELAY RELAY ON MULTI-COMPRESSOR UNITS TO PREVENT MORE THAN ONE COMPRESSOR FROM STARTING SIMULTANEOUSLY.



NOTE:

1. ELECTRICAL CONTRACTOR TO INSTALL CONDUIT AND PULL STRING FOR CONTROLS. CONTRACTOR TO INSTALL WIRE DEVICES.

THERMOSTAT/SENSOR MOUNTING SCHEMATIC

2 / M-300

SCALE: NONE

RADIANT HEATING/COOLING SCHEMATIC

1 / M-300

SCALE: NONE

TEAM TEXAS - SOLAR DECATHLON 2013

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MARK	DATE	DESCRIPTION
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MECHANICAL SCHEMATICS

M-300

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ELECTRICAL GENERAL NOTES:

GENERAL

1. THESE ELECTRICAL GENERAL NOTES ARE APPLICABLE TO ALL ELECTRICAL SHEETS IN THIS PROJECT SET.

2. THE ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE AND ADOPTED PROVISIONS OF THE FOLLOWING CODES:
   2012 INTERNATIONAL RESIDENTIAL CODE (IRC)
   2012 INTERNATIONAL ENERGY CONSERVATION CODE
   2011 NATIONAL ELECTRICAL CODE
   AS ADOPTED AND INTERPRETED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) REGULATIONS, CURRENT ADOPTED EDITIONS REGARDING ELECTRICAL SYSTEMS, FIRE PROTECTION AND ALARM SYSTEMS, AND MECHANICAL SYSTEMS.

3. ANY AND ALL SHUT-DOWNS OR TIE-INS RELATING TO THESE SYSTEMS SHALL BE SCHEDULED AND SUBMITTED IN WRITING TO BE APPROVED BY THE SOLAR DECATHLON UTILITY TIE-IN PERSONNEL, THE DESIGN TEAM. CONSTRUCTION TEAM SHALL SUBMIT IN WRITING A SCHEDULE FOR PHASING OF CONSTRUCTION THAT INDICATES AREAS OF FIRST PRIORITY DURING EACH PHASE AND ANTICIPATED COMPLETION TIMES. SCHEDULES SHALL BE SUBMITTED A MINIMUM OF ONE WEEK PRIOR TO COMMENCING WORK. DESIGN TEAM SHALL REVIEW THESE SCHEDULES AND NOTIFY CONSTRUCTION TEAM OF ACCEPTANCE PRIOR TO COMMENCEMENT OF WORK.

4. ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH CODES AND RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN. THE CONSTRUCTION TEAM SHALL HOLD AND SAVE THE TEAM TEXAS AND DESIGN TEAM FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

5. CONSTRUCTION TEAMS SHALL VISIT THE SITE AND SHALL BE RESPONSIBLE FOR HAVING ASCERTAINED PERTINENT LOCAL CONDITIONS SUCH AS LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE SITE, THE CHARACTER AND EXTENT OF THE WORK WITHIN THE BUILDING AND TO BECOME FAMILIAR WITH ALL OTHER WORK TO BE PERFORMED AT THIS TIME. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO CONSTRUCTION TEAM'S FAILURE TO DETERMINE ALL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.

6. BEFORE YOU DIG ALL EXISTING UTILITIES I.E. WATER, SEWER, GAS, FIRE LINE, ELECTRICITY, TELEPHONE, CABLE, IRRIGATION LINES, SHALL BE LOCATED AND CLEARLY MARKED IN ORDER TO AVOID UNNECESSARY SHUT DOWNS AND EMERGENCY.

7. EACH CONSTRUCTION TEAM SHALL GIVE ALL REQUISITE NOTICES, OBTAIN AND PAY FOR ALL PERMITS, DEPOSITS AND FEES (INCLUDING UTILITY CONNECTIONS FEES, ANY UTILITY EXTENSION FEES, IMPACT FEES, AND DEVELOPMENT FEES) NECESSARY FOR THE INSTALLATION OF WORK UNDER THESE NOTES. TWO (2) COPIES OF CERTIFICATES OF APPROVAL SHALL BE OBTAINED FROM ALL AUTHORITIES ISSUING SAME AND SHALL BE TURNED OVER TO TEAM TEXAS AND DESIGN TEAM PRIOR TO FINAL ACCEPTANCE OF THE WORK.

8. REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONSTRUCTION TEAM FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK. CONSTRUCTION TEAM SHALL SECURE AND PAY ALL PERMITS, FEES, INSPECTIONS, AND TESTS UNLESS OTHERWISE INDICATED. COORDINATE WITH DESIGN TEAM OR TEAM TEXAS. SUBSTITUTIONS REQUESTED BY THE CONSTRUCTION TEAM SHALL BE PAID FOR BY THE CONSTRUCTION TEAM.

9. ALL WORK SHALL CONFORM WITH FEDERAL, STATE, AND LOCAL CODES, RULES, AND REGULATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED CONSTRUCTION TEAM IN A FIRST CLASS WORKMANLIKE MANNER. THE SYSTEMS SHALL BE INSTALLED COMPLETE AND FULLY OPERATIVE UNLESS OTHERWISE INDICATED.

10. CONSTRUCTION TEAM SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE DESIGN TEAM OFFICES. THIS REPORT SHALL DESCRIBE EXISTING DAMAGE OR OTHER CONDITIONS THAT MAY INTERFERE WITH THIS PROPOSED NEW WORK. THIS SITE SURVEY SHALL ALSO INCLUDE VERIFICATION OF SIZES, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDING OF THE CONTRACT. OTHERWISE THE DESIGN TEAM'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.

11. WHERE STRUCTURE IS ALTERED OR DAMAGED DURING CONSTRUCTION, INSTALLATION AND REMOVAL OF EQUIPMENT OR FIXTURES, THE CONSTRUCTION TEAM SHALL REPAIR THE AREA TO MATCH SURROUNDING AREA PER DESIGN TEAM SPECIFICATIONS CUTTING, TRENCHING, AND PENETRATIONS THROUGH FIRE WALL, CONCRETE AND OTHER STRUCTURES ARE A PART OF THIS PROJECT SCOPE AND SHALL BE INCLUDED IN THE CONSTRUCTION TEAM'S BID. ALL EXCAVATION AND BACKFILLING REQUIRED FOR PLUMBING WORK IS ALSO INCLUDED AS PART OF THIS CONTRACT AND SHALL BE INCLUDED IN CONSTRUCTION TEAM'S BID.

12. ALL SYSTEMS AND COMPONENTS SHALL BE APPROVED FOR THE PURPOSE FOR WHICH INSTALLED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND FROM ESTABLISHED AMERICAN SUPPLIERS UNLESS OTHERWISE INDICATED.

13. ALL EQUIPMENT PARAMETERS SHOWN ARE FOR PERFORMANCE AT SITE ALTITUDE. SUPPLIERS SHALL SELECT AND DEMONSTRATE THAT THEIR EQUIPMENT MEETS THE DESIGN CONDITIONS AT SITE ALTITUDE.

14. ELECTRICAL CONSTRUCTION TEAM SHALL COORDINATE WITH MECHANICAL CONSTRUCTION TEAM THE MECHANICAL\ PLUMBING EQUIPMENT'S ELECTRICAL REQUIREMENTS, INCLUDING POWER, CONTROL, COMMUNICATION, AND MONITORING, OF EACH DEVICE PROVIDED AND/OR INSTALLED BY MECHANICAL CONSTRUCTION TEAM.

15. SUPPORT SYSTEM FOR LIGHTING, POWER AND FIRE ALARM MATERIALS AND EQUIPMENT SUPPORTED BY THE BUILDING STRUCTURE SHALL BE SUBMITTED TO THE STRUCTURAL DESIGN TEAM FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. NO WIRE OR PERFORATED STRAP WILL BE PERMITTED FOR ANY HANGER OR SUPPORT.

16. THE CONSTRUCTION TEAM SHALL NOT SCALE THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND DO NOT COMPLETELY DEPICT ALL EXISTING CONDITIONS IN THE AREA.

17. IT SHALL BE THE CONSTRUCTION TEAM'S RESPONSIBILITY TO LOOK THROUGH ALL DRAWINGS ASSOCIATED WITH THIS PROJECT. WORK ASSOCIATED WITH THE ELECTRICAL CONSTRUCTION TEAM'S TRADE MAY BE SHOWN ON OTHER DRAWINGS. ANY ADDITIONAL COSTS RESULTING FROM THE FAILURE TO INCLUDE THESE ITEMS SHOWN ON OTHER DRAWINGS WILL BE INCURRED BY THE CONSTRUCTION TEAM.

18. POSITIONING OF NEW LAY-IN FIXTURES TAKES PRECEDENCE OVER DESIGN TEAM REFLECTED CEILING PLAN AND MECHANICAL DIFFUSERS PRIOR TO INSTALLATION OF FIXTURES. CONSTRUCTION TEAM SHALL COORDINATE ACTUAL LOCATIONS OF LIGHTS WITH AIR DEVICES AND DUCTWORK, CEILING PANELS, JOIST SPACING AND DESIGN TEAM REFLECTED CEILING PLAN (REF. MECHANICAL PLANS AND DESIGN TEAM PLANS).

19. PROVIDE TEAM TEXAS WITH THREE (3) COPIES OF ALL INSTALLATIONS INSTRUCTIONS, PRODUCT DATA SUBMITTAL INFORMATION, WARRANTIES, CONTACT INFORMATION DURING WARRANTY PERIOD AND BALANCING REPORTS IN 3-RING BINDERS.

20. FOR OUTDOOR EQUIPMENT ON GRADE, CONSTRUCTION TEAM SHALL CONSTRUCT LEVEL 3000 PSI CONCRETE SLABS WITH FINISHED EDGES, WIRE REINFORCED, MINIMUM 3 1/2" THICK, AND MINIMUM 6" LARGER ON ALL SIDES THAN THE EQUIPMENT BEING SUPPORTED.

21. CONSTRUCTION TEAM SHALL MAKE NO PENETRATIONS WHATSOEVER OF WALLS FORMING PART OF A STAIRWELL, AND EXIT PASSAGEWAY, OR OTHER TWO-HOUR RATED WALLS. ALL CONDUITS SHALL RUN PARALLEL TO WALLS.

22. CONSTRUCTION TEAM SHALL SAW CUT AND PATCH ASPHALT, CONCRETE OR OTHER MATERIAL ENCOUNTERED AS REQUIRED TO INSTALL NEW UNDERGROUND RACEWAY. REFER TO DESIGN TEAM SPECIFICATIONS REGARDING PATCHING REQUIREMENTS.

23. CONSTRUCTION TEAM SHALL PROVIDE AND INSTALL IDENTIFICATION TAGS FOR EQUIPMENT AND CONDUITS PER SPECIFICATIONS AND ASME 13.1 SCHEME OF IDENTIFICATION FOR PIPING. BURIED ELECTRICAL CONDUITS SHALL BE MARKED PER CODE REQUIREMENTS WITH UNDERGROUND WARNING TAPE 3" BELOW FINISHED GRADE. TAPE SHALL BE 4" WIDE COLORED RED WITH SUITABLE WARNING LEGEND PER ASME A13.1 SCHEME OF IDENTIFICATION FOR PIPING.

24. THE ELECTRICAL CONSTRUCTION TEAM SHALL PROVIDE AND HAVE INSTALLED ANY ACCESS DOOR REQUIRED TO ACCESS ELECTRICAL EQUIPMENT AND/OR JUNCTION BOXES THAT REQUIRES ACCESS BEHIND GYPBOARD OR HARD CEILINGS AND IN WALLS. THE ELECTRICAL CONSTRUCTION TEAM SHALL PROVIDE THE GENERAL CONSTRUCTION TEAM WITH THESE ACCESS DOORS FOR INSTALLATION IN THE CEILING OR WALL. ACCESS DOORS SHALL BE RATED FOR THE WALL, FLOOR, OR CEILING TYPE AND SHALL BE A MINIMUM SIZE OF 12"X12".

25. ALL ELECTRICAL CONDUIT AND PANEL OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.

26. SUBMITTAL REQUIREMENTS
   A. THE INTENT OF THIS SECTION IS TO GIVE GENERAL SUBMITTAL INFORMATION, REFER TO SPECIFIC SUBMITTAL INFORMATION IN THE SUBSEQUENT ELECTRICAL SECTIONS.
   B. WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, AND BEFORE ORDERS ARE PLACED, CONSTRUCTION TEAM SHALL SUBMIT SPECIFIC INFORMATION ON LIST OF EQUIPMENT AND PRINCIPAL MATERIALS SPECIFIED. CONSTRUCTION TEAM SHALL INDICATE AND/OR PROVIDE NAMES OF MANUFACTURERS, CATALOG AND MODEL NUMBERS, CUT SHEETS, AND SUCH OTHER SUPPLEMENTARY INFORMATION AS NECESSARY FOR EVALUATION. MINIMUM OF SIX (6) COPIES, OR AS DIRECTED BY THE DESIGN TEAM OF EACH SHALL BE SUBMITTED AND SHALL INCLUDE ALL ITEMS MENTIONED BY MODEL NUMBER AND/OR MANUFACTURER'S NAME IN THE SPECIFICATIONS OR IN SCHEDULES ON THE DRAWINGS.
   C. REQUIREMENTS FOR EACH SUBMITTAL:
      1. BEAR A DATED STAMP OR SPECIFIC WRITTEN INDICATION THAT THE CONSTRUCTION TEAM HAS REVIEWED AND APPROVED ALL SUBMITTAL PRIOR TO SUBMISSION TO DESIGN TEAM.
      2. HAVE ALL INFORMATION DELETED BY CONSTRUCTION TEAM THAT PERTAINS TO THE MEANS AND METHODS OF CONSTRUCTION OR TO FABRICATION, ASSEMBLY, INSTALLATION, OR ERECTION (APPROVAL BY DESIGN TEAM SHALL NOT EXTEND TO THESE AREAS UNLESS SPECIFICALLY NOTED BY DESIGN TEAM).
      3. **BE CLEARLY AND SPECIFICALLY MARKED AS TO WHICH SPECIFIC PIECE OF EQUIPMENT IS BEING** SUBMITTED, BY USE OF A PERMANENT MARKER, STAMP, ETC., SO AS TO DISTINGUISH IT FROM OTHER PIECES OF EQUIPMENT THAT MAY OCCUR ON THE SAME PAGE.
      4. **BE CLEARLY AND SPECIFICALLY MARKED AS TO WHICH AVAILABLE OPTIONS ARE BEING** SUBMITTED THAT ARE ASSOCIATED WITH A PIECE OF EQUIPMENT, AND BE COMPLETE WITH RESPECT TO QUANTITIES, DIMENSIONS, SPECIFIC PERFORMANCE, MATERIALS, AND SIMILAR DATA TO ENABLE THE DESIGN TEAM TO REVIEW THE PROPOSED EQUIPMENT.
      5. OMISSION BY CONSTRUCTION TEAM OF ANY OF THE ABOVE REQUIREMENTS OR SUBMITTALS WILL SUBJECT SUBMITTAL TO AUTOMATIC REJECTION WITHOUT REVIEW.
      6. ANY SUBMITTALS RECEIVED BY DESIGN TEAM THAT WERE NOT REQUESTED SHALL BE RETURNED WITHOUT REVIEW OF ANY KIND. SUBMITTALS SHALL INDICATE MINIMUM ACCESS AND SERVICE CLEARANCES IF REQUIRED BY THE SUBMITTED EQUIPMENT.
   D. INSTALLATION INSTRUCTIONS – FOR CERTAIN PRODUCTS OR SYSTEMS AS IDENTIFIED IN SUBSEQUENT SPECIFICATIONS SECTIONS OR ON THE DRAWINGS, THE CONSTRUCTION TEAM SHALL BE REQUIRED TO PROVIDE COPIES OF MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE SUBMITTAL. WHEN REQUIRED AS SUCH, THE INSTALLATION INSTRUCTIONS ARE CONSIDERED PART OF THE SUBMITTAL AND THEIR OMISSION MAY RESULT IN AUTOMATIC REJECTION OF THE SUBMITTAL. WHERE MORE THAN ONE IDENTICAL DEVICE ARE SCHEDULED, ONLY ONE SET OF INSTALLATION INSTRUCTIONS NEEDS TO BE SUBMITTED.
   E. THIS DESIGN TEAM WILL REVIEW THE SUBMITTALS FOR APPROVAL TWICE. ANY ADDITIONAL REVIEWS THAT ARE REQUIRED BY THE DESIGN TEAM FOR WHATEVER REASON AFTER THE INITIAL TWO REVIEWS WILL RESULT IN ADDITIONAL COMPENSATION FOR THE DESIGN TEAM'S TIME BY THE SUBMITTING CONSTRUCTION TEAM AT THE DESIGN TEAM'S RATE.

27. REQUIRED SHOP DRAWING SUBMITTALS
   A. LIGHTING FIXTURES (AS NOTED IN LIGHTING FIXTURE SCHEDULE)
   B. MAIN DISTRIBUTION PANEL INCLUDING CIRCUIT BREAKERS
   C. PANELBOARDS INCLUDING CIRCUIT BREAKERS
   D. TRANSFORMERS
   E. RECEPTACLES AND COVER PLATES
   F. DISCONNECTS INCLUDING FUSES OR MAGNETIC STARTERS
   G. GROUNDING
   H. WIRING
   I. CONDUIT
   J. LIGHTING CONTROL PANEL
   K. FIRE ALARM SYSTEM
   L. COMMUNICATIONS / TELEPHONE WIRING
   M. JUNCTION BOXES AND ENCLOSURES
   N. SOLAR PHOTOVOLTAIC SYSTEM

ELECTRICAL:

28. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH ADJACENT SURFACES.

29. PROVIDE BLANK METAL COVERPLATE OVER ALL UNUSED OUTLET BOXES. PAINT COVERPLATE TO MATCH ADJACENT SURFACES.

30. RECEPTACLE AND DATA OUTLET MOUNTING HEIGHTS INDICATED ON THE DRAWINGS ARE APPROXIMATE. THE CONSTRUCTION TEAM SHALL BE RESPONSIBLE FOR COORDINATING WITH OTHER TRADES FOR EXACT HEIGHT REQUIRED. THIS REQUIREMENT ALSO APPLIES TO SWITCHES, TELEPHONE OUTLETS, DATA OUTLETS, HVAC SENSORS, ETC.. ANY DEVICE THAT HAS TO BE RELOCATED DUE TO CONSTRUCTION TEAM'S FAILURE TO COORDINATE LOCATION WITH COUNTERTOPS, CHALKBOARDS, TACKBOARDS, ETC. WILL BE DONE AT NO ADDITIONAL COST TO THE TEAM TEXAS. MATCH ORIENTATION (VERTICAL OR HORIZONTAL) OF DATA OUTLET WITH CORRESPONDING RECEPTACLE, UNLESS OTHERWISE NOTED.

31. ALL RECEPTACLES TO BE 20A SPECIFICATION GRADE, IVORY, UNLESS OTHERWISE NOTED. WALL PLATES TO MATCH. ALL EXTERIOR RECEPTACLES SHALL BE WEATHERPROOF GFCI AND SHALL HAVE WHILE IN USE METAL WEATHERPROOF COVERS. PROVIDE GFCI, AFCI, AND TAMPER RESISTANT RECEPTACLES IN LOCATIONS REQUIRED BY NEC.

32. COORDINATE WORK WITH ALL OTHER TRADES GIVING SPECIAL CONSIDERATION TO WORK DONE ABOVE CEILINGS, OUTLET LOCATIONS AT MILLWORK, AND SWITCH LOCATIONS IN REGARDS TO DOOR SWINGS.

33. WIRING SHALL BE #12 AWG, COPPER, IN MINIMUM 3/4" CONDUIT WITH CU. EGC., UNLESS NOTED OTHERWISE.

34. INSTALL WALL MOUNTED LIGHT FIXTURES, SWITCHES, OUTLETS, AND COMMUNICATION DEVICES IN STRICT COORDINATION WITH DESIGN TEAM DETAILS, SECTIONS AND ELEVATIONS, AND ADA REQUIREMENTS.

35. REFER TO SPECIFICATIONS FOR ALL COMMUNICATION SYSTEM REQUIREMENTS. (IN LIEU OF SPECS: PROVIDE 3/4" C. W/ PULLCORD FROM COMMUNICATION OUTLETS TO 6" ABOVE LAY-IN CEILING.

36. SUPPORT ALL FIXTURES FROM STRUCTURE ABOVE CEILING TILES OR PLASTER. CEILING SHALL NOT SUPPORT FIXTURES.

37. FINISHED FLOOR ELEVATIONS FOR OUTLETS AND OTHER DEVICES ARE TO CENTER OF BOX. WHERE MILLWORK IS PRESENT, BOTTOM OF BOX SHALL BE MINIMUM OF 2" ABOVE BACK-SPLASH, REGARDLESS OF DIMENSION SHOWN ON DRAWINGS.

38. DOUBLE SET SCREW FITTINGS ARE ACCEPTABLE FOR STEEL CONDUIT AND COUPLINGS ONLY.

39. BEFORE INSTALLATION, EQUIPMENT AND DEVICES INCLUDING, BUT NOT LIMITED TO, ANY DEVICE WITH ELECTRICAL CONNECTIONS, DUCTWORK, INSULATION, PIPING, VALVES, AIR DEVICES, ETC., SHALL NOT BE STORED DIRECTLY ON GRADE OR ON A SLAB OR FLOOR. BEFORE AND AFTER INSTALLATION, SUCH EQUIPMENT AND DEVICES SHALL BE PROTECTED FROM ENTRY OF DIRT, TRASH, WATER (EXCEPT AS REQUIRED), VERMIN, ETC.

40. DEVICES THAT MIGHT CAUSE OR OPERATE WITH VIBRATION OR NOISE SHALL BE ISOLATED PER MANUFACTURER'S RECOMMENDATIONS AND/OR PER SPECIFICATIONS.

41. SWITCHBOARDS, PANEL BOARDS AND TRANSFORMERS SHALL BE CUTLER-HAMMER, SQUARE-D, OR SIMILAR APPROVED BY THE DESIGN TEAM.

42. USE THE FOLLOWING WIRING COLOR CODE:
   A. FOR WIRE SIZES 10 AWG AND SMALLER, INSTALL WIRE COLORS IN ACCORDANCE WITH THE FOLLOWING:
      1. BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS.
   B. FOR WIRE SIZES 8 AWG AND LARGER, IDENTIFY WIRE WITH COLORED TAPE AT TERMINALS, SPLICES AND BOXES. COLORS ARE AS FOLLOWS:
      1. BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS.
   C. NEUTRAL CONDUCTORS: WHITE FOR 208/120V CIRCUITS.
   D. BRANCH CIRCUIT CONDUCTORS: INSTALL THREE OR FOUR WIRE HOMERUNS WITH EACH PHASE UNIQUELY COLOR CODED.
   E. FEEDER CIRCUIT CONDUCTORS: UNIQUELY COLOR CODE EACH PHASE.
   F. GROUND CONDUCTORS:
      1. FOR 6 AWG AND SMALLER: GREEN.
      2. FOR 4 AWG AND LARGER: IDENTIFY WITH GREEN TAPE AT BOTH ENDS AND VISIBLE POINTS INCLUDING JUNCTION BOXES.

43. SMOKE ALARMS SHALL BE CONNECTED TO 120V POWER AND PROVIDED WITH INDEPENDENT, E.G. INTEGRAL WITH THE ALARM, BATTERY BACKUP. ALL ALARMS SHALL BE INTERCONNECTED AND ALL SHALL SOUND WHEN ONE IS ACTIVATED.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	MECHANICAL EQUIPMENT DESIGNATION - SEE MECHANICAL EQUIPMENT SCHEDULE
WP	WEATHERPROOF
AFF	ABOVE FINISH FLOOR
E OR EX	EXISTING
UNO	UNLESS NOTED OTHERWISE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
	SURFACE CEILING FIXTURE AND OUTLET. TYPE AS INDICATED IN FIXTURE SCHEDULE
	BRACKET LIGHT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	ROUND RECESSED DOWNLIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	ROUND RECESSED DOWNLIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	ROUND SURFACE MOUNTED LED DOWNLIGHT. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	SURFACE MOUNTED LED FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	WALL MOUNTED LED FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	JUNCTION BOX INSTALLED ABOVE THE CEILING WITH FLEXIBLE CONDUIT CONNECTION TO LAY-IN FIXTURES. MAXIMUM 6'-0" LENGTH OF CONDUIT WITH REQUIRED CONDUCTORS ALONG WITH GREEN WIRE GROUND.
	DAYLIGHT HARVESTING OCCUPANCY SENSOR
	CEILING MOUNTED OCCUPANCY SENSOR
S_0	SINGLE POLE WALL SWITCH. FLUSH MOUNTED UP 44" UNLESS OTHERWISE INDICATED. 'o' INDICATES FIXTURES CONTROLLED BY SWITCH(ES) WITH THIS LABEL
S_{3o}	THREE WAY WALL SWITCH. FLUSH MOUNTED UP 44" UNLESS OTHERWISE INDICATED. 'o' INDICATES FIXTURES CONTROLLED BY SWITCH(ES) WITH THIS LABEL
J	JUNCTION BOX.
	SPECIAL PURPOSE RECEPTACLE AT 18" A.F.F. TO CENTER OF DEVICE OR AS INDICATED.
	DUPLEX CONVENIENCE OUTLET. UP 18" TO CENTER OF RECEPTACLE OR AS INDICATED.
	FLOOR MOUNTED DUPLEX CONVENIENCE OUTLET.
	SINGLE ETHERNET DATA PORT
T	THERMOSTAT UP 44" UNLESS OTHERWISE INDICATED.
(2)	FIRE ALARM SMOKE DETECTOR, RESIDENTIAL USE.
	PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATING REQUIRED. TO BE MOUNTED IN NEMA 3R IF INSTALLED OUTDOORS.
	BRANCH CIRCUIT IN WALLS OR CEILING.
	BRANCH CIRCUIT UNDER FLOOR.
	BRANCH CIRCUIT EXPOSED.
X-X,X	HOME RUN TO PANEL WITH BRANCH CIRCUIT NUMBERS INDICATED.
	TIC MARKS REPRESENT NEUTRAL, HOT, SWITCH LEG, AND GROUND CONDUCTORS RESPECTIVELY. CONDUITS WITH NO TIC MARKS SHALL BE: "A HOT AND NEUTRAL", "A HOT AND SWITCH LEG", "A NEUTRAL AND SWITCH LEG", OR "HOT, NEUTRAL, AND GROUND OR ISOLATED GROUND", AS APPLICABLE.
	CIRCUIT BREAKER

NOTE: SOME SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT.

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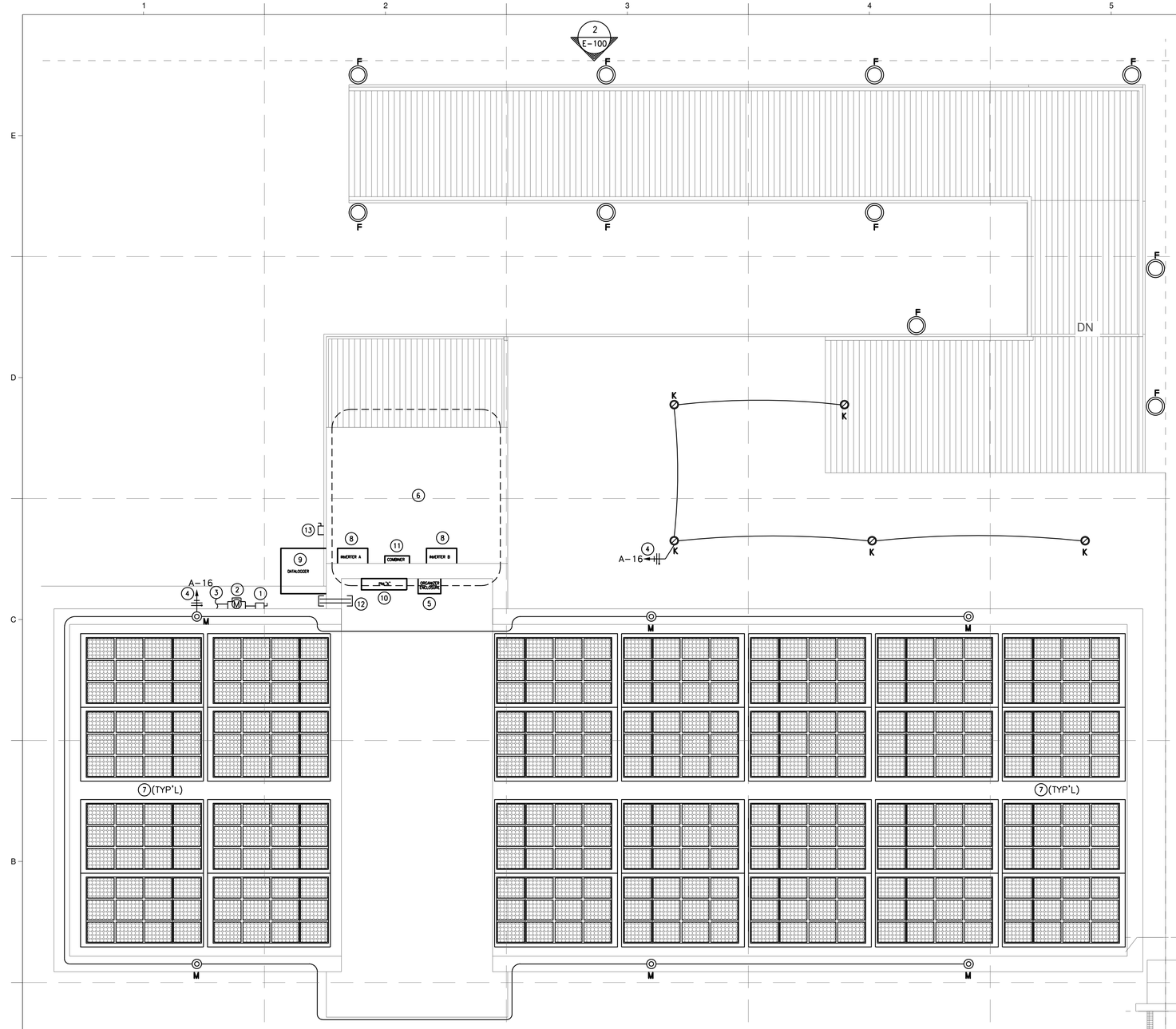
SHEET TITLE

SYMBOL LEGEND, ELECTRICAL GENERAL NOTES

E-001

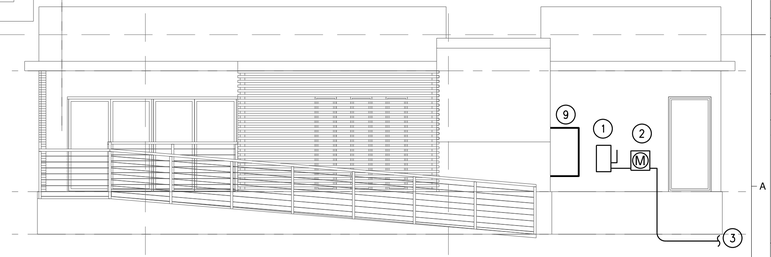


1 E-100 N

ELECTRICAL SITE PLAN

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

4 3 2 1 0 4



2 E-100 N

ELECTRICAL POWER EQUIPMENT ELEVATION

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

4 3 2 1 0 4 8 12

ELECTRICAL GENERAL NOTES:

1 SEE PANEL SCHEDULE ON SHEET E-400.

2 SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-200.

3 FIXTURE "J" ARE SOLAR POWERED LOW-LEVEL BOLLARDS AND DO NOT REQUIRE SEPARATE POWER WIRING. SEE FIXTURE SCHEDULE ON SHEET E-200. COORDINATE WITH LANDSCAPING LOCATIONS.

4 HOUSE EXTERIOR RECEPTACLES ARE SHOWN ON SHEET E-300.

5 REFER TO MECHANICAL ROOM ELEVATION ON SHEET M-200.

ELECTRICAL KEYED NOTES:

(1) MAIN SERVICE DISCONNECT. SEE THREE-LINE DIAGRAM ON SHEET E-500.

(2) ELECTRICAL METER. SEE THREE-LINE DIAGRAM ON SHEET E-500.

(3) CONNECTION TO UTILITY MICRO-GRID VIA ORGANIZER UTILITY PANEL. SEE THREE-LINE DIAGRAM ON SHEET E-500 FOR CONDUIT AND CONDUCTOR SIZING. PROTECT THE GROUND-LAID CABLE FROM DAMAGE AND FOR PREVENTING A TRIPPING HAZARD. ORGANIZER UTILITY PANEL IS LOCATED NEAR PROPERTY LINE.

(4) HOMERUN FROM EXTERIOR LIGHTING CIRCUITS AS SHOWN. CONTROL LIGHTS WITH INTERIOR LIGHTING CONTROL PANEL. SEE SHEET E-200.

(5) ORGANIZER ENCLOSURE. 12" WIDE X 24" HIGH X 8" DEEP WITH REQUIRED 6" CLEARANCE AT THE BOTTOM FOR CONNECTIONS AND WIRING BY OTHERS.

(6) SEE MECHANICAL PLANS FOR SOLAR THERMAL SYSTEMS LOCATED IN THIS AREA ON THE ROOF.

(7) TYPICAL UL1703 LISTED PHOTOVOLTAIC SOLAR PANEL. PRISM SOLAR TECHNOLOGIES BIFACIAL MODULE, MODEL B245. MOUNT ON ROOF AT 10 DEGREE ANGLE VIA SCHLETTER INC. RACKING ASSEMBLY. FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SOLAR PANEL AND RACKING ASSEMBLY. SEE THREE-LINE DIAGRAM ON SHEET E-500 FOR PHOTOVOLTAIC SYSTEM WIRING DIAGRAM. SEE ELEVATION VIEW ON SHEET M-200.

(8) INVERTER LOCATION.

(9) ORGANIZER-PROVIDED DATALOGGER ENCLOSURE.

(10) PANEL "A" LOCATION.

(11) PV CIRCUIT COMBINER BOX LOCATION.

(12) PROVIDE 2" CONDUIT STUBBED THROUGH EXTERIOR WALL, CAPPED ON BOTH ENDS FOR CONNECTIONS BY ORGANIZERS.

(13) 40A , 120V/1P, NEMA 3R LOCKABLE SAFETY DISCONNECT FUSED AT 30A FOR FIRE PUMP, 3/4" C WITH (3) #10 CU THWN AND (1) #10 CU ECG. J-BOX FOR CONNECTION TO 120V FIRE SPRINKLER PUMP CONTROL. PROVIDE POWER TO FIRE PUMP AND ASSOCIATED CONTROL PANEL FROM LINE SIDE OF MAIN SERVICE DISCONNECT AND COMPLY WITH ALL NEC REQUIREMENTS. LABEL DISCONNECT "FIRE PUMP DISCONNECTING MEANS." REFER TO THREE-LINE DIAGRAM ON E-500 FOR FURTHER INFORMATION.

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SHEET TITLE

ELECTRICAL SITE PLAN AND ELECTRICAL POWER EQUIPMENT ELEVATION

E-100

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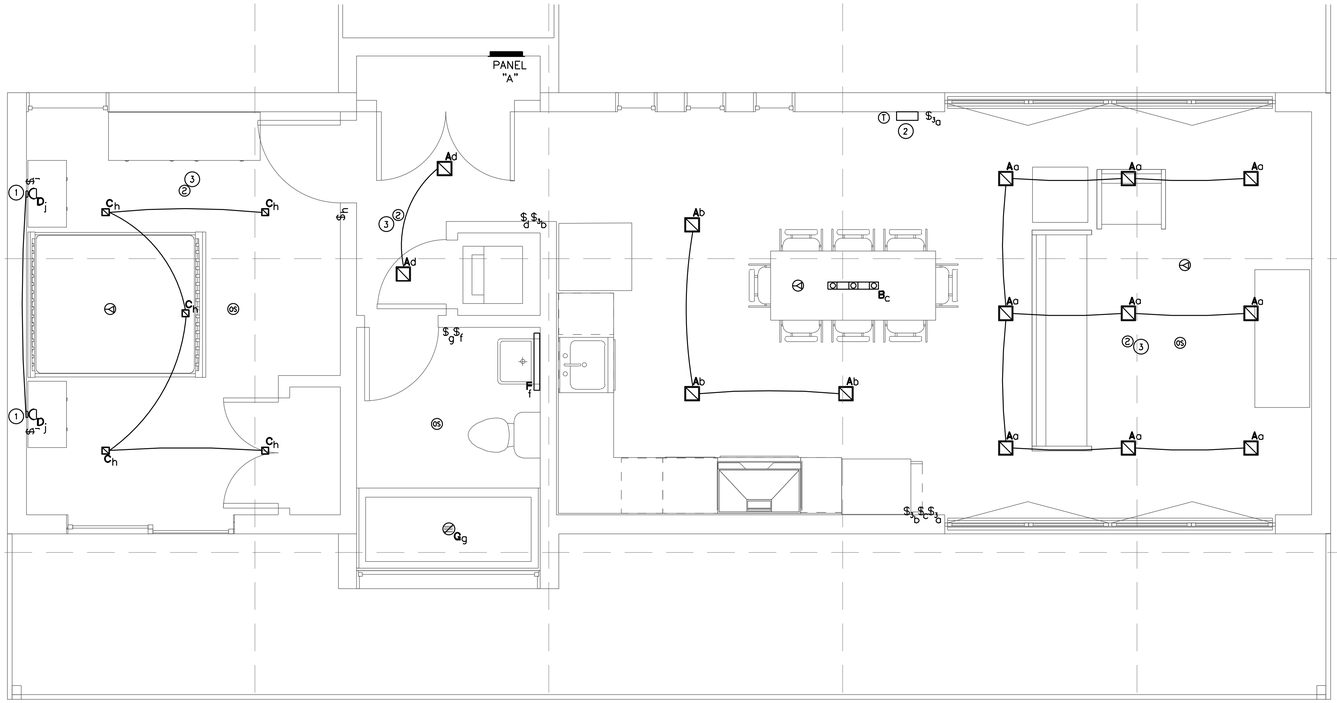

ELECTRICAL GENERAL NOTES:

1 SEE EXTERIOR LIGHTING DESIGN ON SHEET E-100.

2 INTERIOR LIGHTING CIRCUIT IS TO BE ROUTED THROUGH LIGHTING CONTROLLER.

3 ALL LIGHTING CIRCUIT HOMERUNS SHALL GO TO CIRCUIT A-1 THROUGH THE LIGHTING CONTROLLER.

4 ALL FIXTURES SHALL HAVE WIRELESS FIXTURE CONTROLLERS WITH SMARTCLICK TECHNOLOGY, ECHOFLEX ER1C-EF-120/277.

5 ALL LIGHTING CIRCUITS SHOWN FIXTURES SHALL HAVE WIRELESS SWITCHES, ECHOFLEX PTM265. SWITCHES ARE POWERED BY THE KINETIC ENERGY OF THE USER PRESSING THE BUTTON AND DO NOT REQUIRE 120V POWER.

6 INSTALL WIRELESS WINDOW OR DOOR SWITCHES AT ALL WINDOWS AND DOORS, ECHOFLEX MC-17.

7 COORDINATE ALL ECHOFLEX LIGHTING AND HVAC CONTROL WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ARCHITECTUAL AND MECHANICAL PLANS FOR A COMPLETE AND FUNCTIONAL SYSTEM.

ELECTRICAL KEYED NOTES: (#)

(1) MOUNT FIXTURE ON WALL UP +44" A,F,F WITH DIMMER SWITCH. COORDINATE LOCATION OF FIXTURE AND SWITCH WITH FURNITURE SIZE AND LOCATION.

(2) LIGHTING CONTROL PANEL LOCATION.

(3) SMOKE DETECTOR WITH ALARM. POWER TO NEAREST 120V LIGHTING CIRCUIT AND PROVIDE INDEPENDENT BATTERY BACKUP. ALL SMOKE ALARM DEVICES SHALL BE INTERCONNECTED SUCH THAT ALL SHALL SOUND WHEN ONE IS ACTIVATED.

ELECTRICAL LIGHTING FLOOR PLAN

N 1 E-200

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

4 3 2 1 0 4

LIGHTING FIXTURE SCHEDULE

GENERAL LIGHTING

SYMBOL	MANUFACTURER NAME AND NUMBER	LAMPS	VOLTAGE	ROOM	MOUNTING	DESCRIPTION
Ao/Ab	Philips Hue 426353	9.7W LED	120V	LIVING, KITCHEN	SURFACE, CEILING	SQUARE LED DOWNLIGHT
Ad	Cree 9.5-Watt (60W) A19 Warm White (2700K) Dimmable LED Light Bulb BA19-080270MF-12DE26-1U110	9.5W LED	120V	HALLS,	SURFACE, CEILING	SQUARE LED DOWNLIGHT
B	Utilitech Pro 4.5-Watt (25W) Warm White (2700K) Decorative LED Bulb LG16526C24027K2	(3) 4.5W LED	120V	DINING	PENDANT, CEILING	LINEAR SUSPENDED LED FIXTURE WITH GLASS DIFFUSER
C	Philips Hue 426353	9.7W LED	120V	BEDROOM	SURFACE, CEILING	LED DOWNLIGHT WITH GLASS DIFFUSER
D	SYLVANIA 8-Watt (40W) A15 Soft White (2700K) LED Bulb	8W GU10	120V	BEDROOM	SURFACE, WALL	BEDSIDE READING FIXTURES WITH ADJUSTABLE DIFFUSER
F	Cree 9.5-Watt (60W) A19 Warm White (2700K) Dimmable LED Light Bulb BA19-080270MF-12DE26-1U110	(3) 9.5W LED	120V	BATHROOM	SURFACE, WALL	VANITY LIGHT WITH DIE-CAST ALUMINUM AND GLASS DIFFUSERS
G	Cree 9.5-Watt (60W) A19 Warm White (2700K) Dimmable LED Light Bulb BA19-080270MF-12DE26-1U110	(1) 9.5W LED	120V	BATHROOM	SURFACE, CEILING	CEILING MOUNT FLUSH MOUNT LIGHT, SUITABLE FOR WET LOCATION

EXTERIOR LIGHTING

SYMBOL	MANUFACTURER NAME AND NUMBER	LAMPS	VOLTAGE	LOCATION	MOUNTING	DESCRIPTION
J	Malibu 4-Piece LED Solar Outdoor Ballard Light Kit	-	-	ALONG WALKWAY	SURFACE, GROUND	SURFACE MOUNTED GROUND LIGHT, SOLAR POWERED, NOT DIMMABLE
K	Utilitech BR30 Soft White (2700K) Outdoor Flood Light ENERGY STAR #LBR30DM/LED	13W LED	120V	BALCONY	SURFACE, BALCONY COVER	SURFACE MOUNTED ADJUSTABLE DIRECTIONAL LIGHT, SUITABLE FOR WET LOCATION
M	SYLVANIA White Integrated LED Remodel Recessed Lighting Kit #70733	9W LED	120V	SOFIT	SURFACE, SOFIT	DIMMABLE DOWNLIGHT, SUITABLE FOR WET LOCATION

NOTES
1. ALL LED LIGHTS ARE TO BE WHITE, 2700-2800K COLOR TEMPERATURE UNLESS OTHERWISE INDICATED.
2. ALL LED LIGHTS ARE TO BE DIMMABLE UNLESS OTHERWISE NOTED.
3. "CBA" INDICATES COLOR BY DESIGN TEAM. "FBA" INDICATES FINISH BY DESIGN TEAM.
4. LIGHT FIXTURES SHALL BE AS SPECIFIED AND NO SUBSTITUTIONS WILL BE ALLOWED UNLESS PRIOR APPROVED PER SPECIFICATIONS.
5. REFER TO PLAN FOR TYPES AND QUANTITIES USED. ALL TYPES LISTED ABOVE DO NOT NECESSARILY APPEAR ON PLAN.
6. UPON COMPLETION OF THE PROJECT THE CONSTRUCTION TEAM IS TO PROVIDE LABOR TO ADJUST THE COMPLETE INTERIOR LIGHTING PER THE DIRECTION OF TEAM TEXAS AND DESIGN TEAM. THIS ADJUSTMENT IS NECESSARY TO FINALIZE THE LIGHTING SYSTEM

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CONSULTANTS

WRIGHT AND DALBIN ARCHITECTS
HKN ENGINEERS - STRUCTURE
EMC ENGINEERS - MPE
EPCC - SCHOOL OF INTERIOR DESIGN
EPCC - SCHOOL OF CULINARY ARTS

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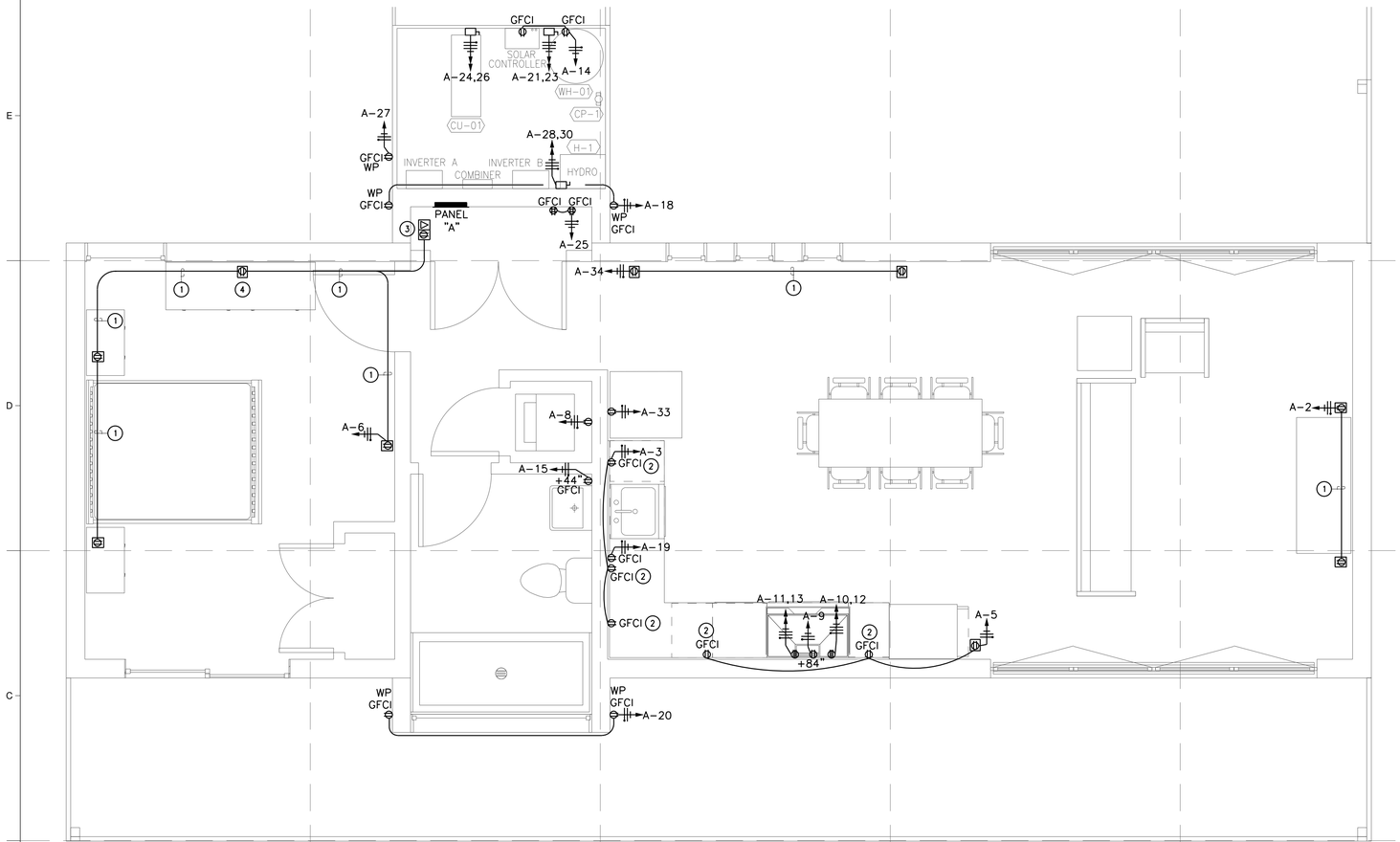
ELECTRICAL LIGHTING FLOOR PLAN AND ELECTRICAL LIGHTING SCHEDULE

E-200



ELECTRICAL POWER FLOOR PLAN

N

1 / E-300

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

4 3 2 1 0 4

APPLIANCE & ELECTRONICS SCHEDULE				
ITEM	ITEM MANUFACTURER AND MODEL	VOLTAGE	AMPS/W	COORDINATION NOTES
REFRIGERATOR	THERMADOR 30" BUILT-IN BOTTOM-FREEZER #T30BB810SS	120V	15A	DEDICATED CIRCUIT
MICROWAVE	SAMSUNG #SMH1816S 1.8 CU FT OVER-THE-RANGE WITH ECO MODE	120V	1500W (1W STANDBY)	DEDICATED CIRCUIT
COOKTOP	THERMADOR 36" MASTERPIECE SERIES FREEDOM INDUCTION COOKTOP #CIT36XKB	240V	40A	DEDICATED CIRCUIT
OVEN	THERMADOR 30" MASTERPIECE SERIES STEAM AND CONVECTION OVEN #MES301HS	240V	15A	DEDICATED CIRCUIT
DISHWASHER	SAMSUNG #DMT800RHS ENERGY STAR 24" SIZE, QUIET	120V	MOTOR 150-190W HEATER 1100W	DEDICATED CIRCUIT
WASHER/ DRYER	LG #WM3455HS WASHER/DRYER COMBO WITH STEAM WASH	120V	12A	DEDICATED CIRCUIT
TELEVISION	SAMSUNG #UN46ES8000FXZA 46" SLIM LED, 3-D, HD SMART TV, ENERGY STAR	120V	76W (NORMAL) 0.09W (STANDBY)	PART OF MULTI-OUTLET BRANCH CIRCUIT
SURROUND SOUND	SONY #BDV-N890W 3-D BLU-RAY HOME THEATRE SYSTEM	120V	115W (NORMAL) 0.3W (STANDBY)	PART OF MULTI-OUTLET BRANCH CIRCUIT
COMPUTER	CUSTOM -ADE COMPUTER	120V	520W	PART OF MULTI-OUTLET BRANCH CIRCUIT

NOTES:
1. SEE PANEL SCHEDULE FOR CONDUCTOR SIZING. MINIMUM OF #12 CU THWN IN 3/4" C. UNLESS NOTED OTHERWISE.
2. INSTALL BREAKER, WIRING AND CONDUIT PER MANUFACTER'S SPECIFICATIONS.
3. THE PURPOSE OF THIS TABLE IS FOR COORDINATION PURPOSES ONLY. APPLIANCE INFORMATION ON ARCHITECTURAL SHEETS TAKES PRECEDENCE OVER THIS TABLE.

ELECTRICAL GENERAL NOTES:

1 SEE PANEL SCHEDULE ON SHEET E-400.

2 INSTALL GFCI, AFCI AND TAMPER RESISTANT RECEPTACLES PER NEC REQUIREMENTS, ELECTRICAL GENERAL NOTES ON SHEET E-100, AND PANEL SCHEDULE ON SHEET E-400.

A. PER NEC 210.12(A), AFCI PROTECTION IS REQUIRED FOR ALL 120V, 15A AND 20A CIRCUITS SUPPLYING THE FOLLOWING AREAS: FAMILY ROOMS, DINING ROOMS, LIVING ROOMS?BEDROOMS?CLOSETS, HALLWAYS, OR OTHER SIMILAR ROOMS OR AREAS.

B. PER NEC 406.9(A) AND (B), ALL 15A AND 20A, 125V OR 250V RECEPTACLES IN DAMP AND WET LOCATIONS MUST BE LISTED AS WEATHER RESISTANT. THIS REQUIREMENT APPLIES TO THE RECEPTACLE ITSELF, NOT JUST THE COVER.

C. PER NEC 406.9(B)(1), ALL 15A OR 20A, 125V OR 250V RECEPTACLES IN WET LOCATIONS MUST HAVE AN ENCLOSURE THAT IS WEATHERPROOF WEATHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED.

D. PER NEC 406.12, ALL NON-LOCKING TYPE 15A OR 20A, 125V RECEPTACLES MUST BE LISTED AS TAMPER RESISTANT.

3 ALL FLOOR MOUNTED RECEPTACLES TO BE INSTALLED FLUSH IN FLOOR WITHIN 18" OF THE NEAREST WALL.

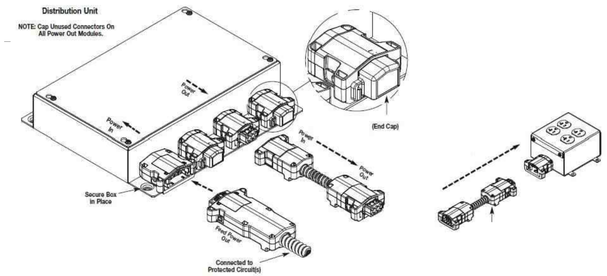
ELECTRICAL KEYED NOTES: (#)

(1) INSTALL FLOOR MOUNTED RECEPTACLES WITH MODULAR WIRING SYSTEM PER SCHEMATIC 2/E-300.

(2) INSTALL UL-LISTED, UNDER-CABINET POWER RACEWAY FOR SMALL APPLIANCE CONVENIENCE OUTLETS. LEGRAND "PLUGMOLD" OR SIMILAR. MOUNT RACEWAY TO BOTTOM OF CABINET.

(3) SINGLE ETHERNET PORT FOR USE BY WIRELESS ROUTER. PROVIDE ADAPTER AS REQUIRED FOR ORGANIZER-PROVIDED ETHERNET CABLE.

(4) PROVIDE AND INSTALL USB-CHARGING RECEPTACLE WITH TWO USB PORTS AND A SINGLE 120V RECEPTACLE.



2 / E-300

MODULAR SYSTEM WIRING DIAGRAM

SCALE: NOT TO SCALE

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ELECTRICAL POWER FLOOR PLAN, APPLIANCE SCHEDULE, MODULAR WIRING SYSTEM DIAGRAM

E-300

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PANEL "A" SCHEDULE

SERVICE: 240/120 VOLT | 1 PHASE | 3 WIRE
SIC: 10,000 AIC | MAIN: 150 AMPS | TYPE: MCB
LOCATION: | BUS: 200 AMPS | TYPE: COPPER
ENCLOSURE: NEMA 1
TYPE: SURFACE MOUNTED
GROUNDING BUS: COPPER

WIRE / CONDUIT	CKT NO.	TYPE	LOAD DESCRIPTION SERVICE	POLE	AMP	VA	PH "A"	PH "C"	VA	AMP	POLE	LOAD DESCRIPTION SERVICE	TYPE	CKT NO.	WIRE / CONDUIT
	1	C	INTERIOR LIGHTING (LED)	1	20	510	870		360	20 (AFCI)	1	LIVING ROOM RECEPTACLES	R	2	
	3	O	SPACE					0				SPACE	O	4	
	5	R	KITCHEN GEN APPLIANCE RECEPTACLES	1	20 (GFCI)	360	1,080		720	20 (AFCI)	1	BEDROOM RECEPTACLES	R	6	
	7	K	REFRIGERATOR	1	15	1,440		3,240	1,800	20 (GFCI)	1	WASHER/DRYER COMBO	K	8	
	9	K	MICROWAVE	1	20	1,500	2,220		720	15	2	CONVECTION-STEAM OVEN	K	10	3/4" C. WITH (3) #12 CU THWN
39" LONG FLEX 3-WIRE CONDUIT WITH (3) #8 CU THWN AND (1) #10 CU EGC.	11	K	INDUCTION COOKTOP	2	40	3,700		4,420	720				K	12	AND (1) #12 CU EGC.
	13	K				3,700	5,308		1,608	15	1	CP-1 AND SPL-1 (1/3 & 1/6 HP)	M	14	
	15	R	BATHROOM RECEPTACLES	1	20 (GFCI)	180		330	150	20	1	EXTERIOR LIGHTING (LED)	C	16	
	17	K	GARBAGE DISPOSAL, FUTURE	1	20 (GFCI)		360		360	20 (GFCI)	1	EXTERIOR RECEPTACLES, NORTH	R	18	
	19	K	DISHWASHER	1	15	1,290		1,650	360	20 (GFCI)	1	EXTERIOR RECEPTACLES, SOUTH	R	20	
3/4" C. WITH (3) #10 CU THWN AND (1) #10 CU EGC.	21	M	WATER HEATER	2	30	1,200	1,200		150			SPACE	O	22	
	23	M				1,200		3,360	2,160	20	2	OUTDOOR CONDENSING UNIT	M	24	3/4" C. WITH (2) #8 CU THWN
	25	M	HEATING AND COOLING PUMP QUAD RECEPT.	1	20 (GFCI)	990	3,150		2,160				M	26	AND (1) #10 EGC.
3/4" C. WITH (2) #10 CU THWN	27	M	SUBMERSIBLE PUMP SP-1 (1 HP)	1	30	2,400		4,116	1,716	20	2	HYDRO BOX	M	28	3/4" C. WITH (2) #8 CU THWN
	29	O	SPACE				1,716		1,716				M	30	AND (1) #10 EGC.
	31	O	SPACE					0				SPACE	O	32	
	33	R	KITCHEN GEN APPLIANCE RECEPTACLES	1	20 (GFCI)	360	720		360	20 (AFCI)	1	DINING ROOM RECEPTACLES	R	34	
	35	O	SPACE					0		30	2	PV PANEL INVERTER		36	3/4" C. WITH (2) #10 CU THWN
	37	O	SPACE				0			(BACKFED)				38	AND (1) #10 CU EGC
	39	O	SPARE- RESERVED FOR ORGANIZER	2	15			0		30	2	PV PANEL INVERTER		40	3/4" C. WITH (2) #10 CU THWN
	41	O					0			(BACKFED)				42	AND (1) #10 CU EGC

WIRING AND CONDUITS SHALL BE IN ACCORDANCE WITH	CONNECTED VA	16,624	17,116
E-100 ELECTRICAL GENERAL NOTES #36 AND #46, UNLESS	CONNECTED AMPS	138.5	142.6
NOTED OTHERWISE.	TOTAL CONNECTED KVA	33.7	142.6 MAX AMPS / PH
DEMAND LOADS MAY VARY FROM CONNECTED	DIVERSITY AMPS	119.6	
LOADS BECAUSE OF CODE DIVERSITIES	TOTAL DIVERSITY KVA	28.7	

PHASE UNBALANCE % 2.9

TYPE OF LOAD

	DESCRIPTION	VA	DEMAND FACTOR	DEMAND VA
C	CONTINUOUS	660.0	1.25	825.0
N	NON-CONTINUOUS	0.0	1.00	0.0
K	KITCHEN	14870.0	0.65	9665.5
R	RECEPTACLES	3060.0	1.00	3060.0
O	OTHER	0.0	1.00	0.0
M	MECHANICAL	15150.0	1.00	15150.0
	TOTAL	33740.0		28700.5

NOTES:
1. DEMAND FACTORS PER NEC 220.
2. INSTALL GFCI AND AFCI AS SHOWN AND PER NEC REQ'TS.
3. POWER APPLIANCES AND MECHANICAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S SPECS.
4. INSTALL ALL WIRING SIZED PER NEC TABLE 310.15(B)(16).

2/13/2013 11:31:47 AM

TEAM TEXAS - SOLAR DECATHLON 2013

TEAM NAME: TEAM TEXAS
ADDRESS: ORANGE COUNTY GREAT PARK, IRVINE, CALIFORNIA, LOT #106
CONTACT: ASMARSHALL@UTEP.EDU, SOLARDECATHLON.UTEP.EDU

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MARK	DATE	DESCRIPTION
01	10/11/2012	80% DOE/NR DD SUBMISSION
02	11/20/2012	80% DOE/NR DD RE-SUBMISSION
03	02/14/2013	95% DOE/NR CD SUBMISSION
03	04/05/2013	95% DOE/NR RE-SUBMISSION

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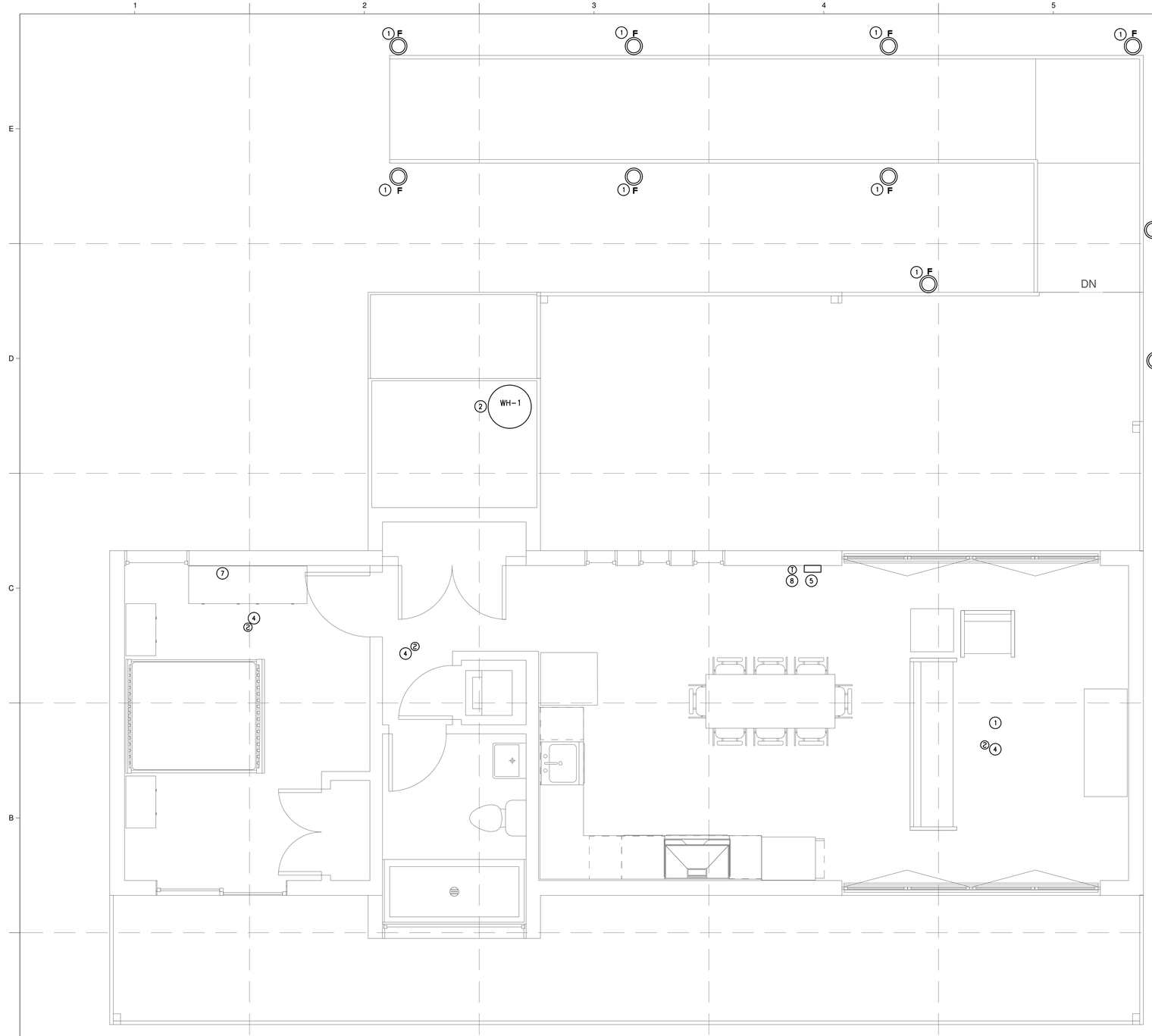
SHEET TITLE
ELECTRICAL PANEL SCHEDULE

E-400



ELECTRICAL BATTERY LOCATION FLOOR PLAN

1 / E-401

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

4 3 2 1 0 4

ELECTRICAL GENERAL NOTES:

1 THIS DRAWING SHOWS THE LOCATIONS AND QUANTITIES OF ALL PRIMARY AND SECONDARY BATTERIES AND ALL STAND-ALONE, PHOTOVOLTAIC-POWERED DEVICES.

2 LIGHT SWITCHES ARE POWERED BY THE KINETIC ENERGY OF A PERSON PUSHING THE TOGGLE PAD AND DO NOT HAVE INTEGRAL BATTERIES.

ELECTRICAL KEYED NOTES: (#)

(1) SOLAR-POWERED EXTERIOR LOW-LEVEL LIGHT BOLLARDS.

(2) SOLAR-POWERED WATER HEATER.

(3) TV REMOTE CONTROL BATTERY, TWO "AAA" 1.5V BATTERIES.

(4) SURROUND SOUND REMOTE CONTROL BATTERY, TWO "AAA" 1.5V BATTERIES.

(5) LIGHTING CONTROL PANEL.

(6) THERMOSTAT.

(7) LAPTOP WITH RECHARGEABLE BATTERY.

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ELECTRICAL BATTERY LOCATION FLOOR PLAN

E-401

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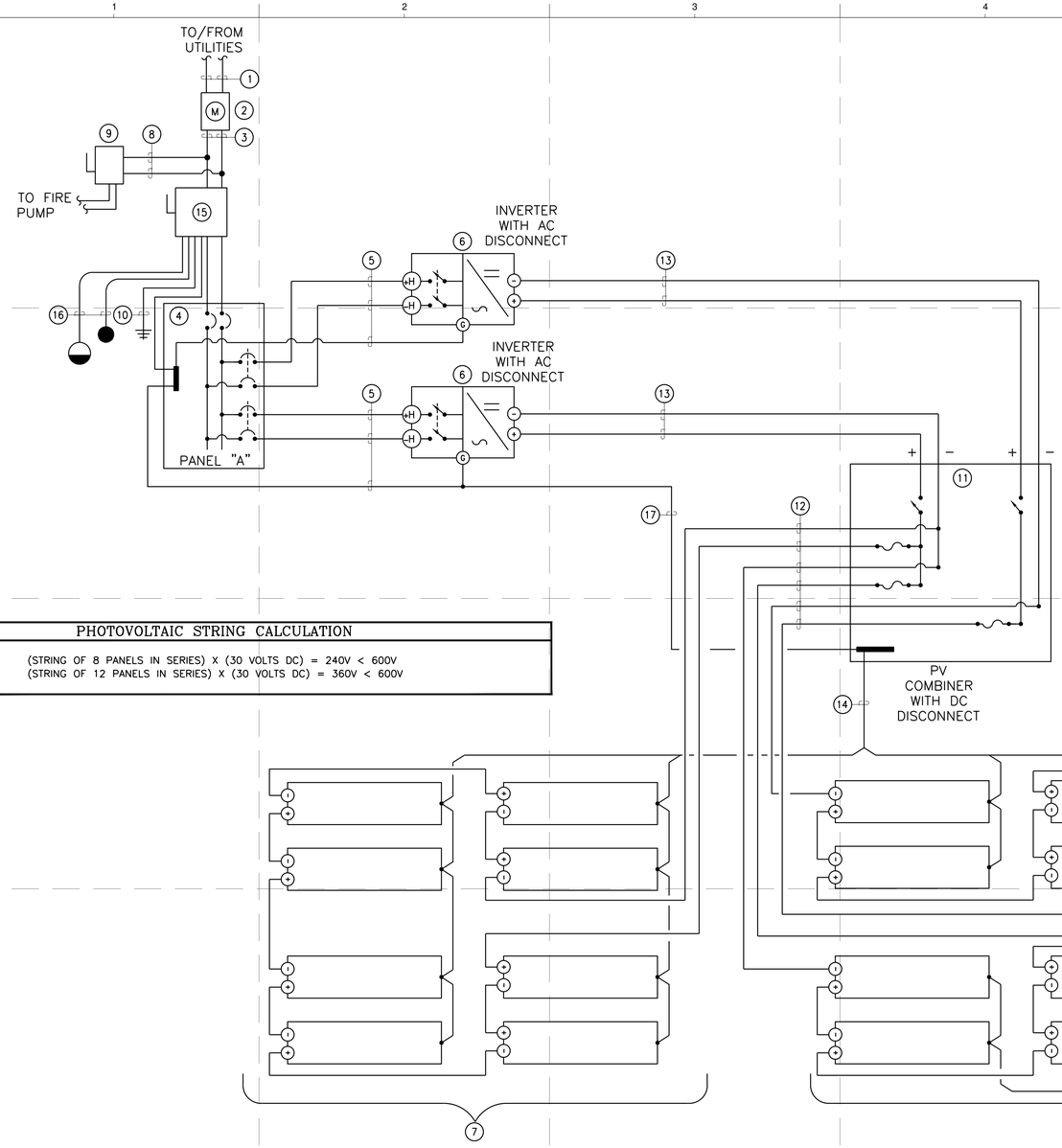

ELECTRICAL KEYED NOTES: (#)

1. 1-1/2" CONDUIT WITH (3) #2/0 CU THWN SERVICE CONDUCTORS TO ORGANIZER UTILITY PANEL J-BOX. PROVIDE THREE FEET OF ADDITIONAL CONDUCTOR FOR TERMINATION.
2. PROVIDE AND INSTALL METER HOUSING COMPATIBLE WITH GENERAL ELECTRIC KV2 ENCOMPASS 240V BI-DIRECTIONAL KWH METER. ORGANIZERS TO SUPPLY AND INSTALL METER. METER HOUSING SHALL ACCEPT A STANDARD 4-JAW, RINGLESS, ROUND UTILITY-GRADE SOCKET METER FOR USE WITH 240/120V SERVICES AND SHALL BE INSTALLED AT 50" - 65" ABOVE GRADE.
3. 1-1/2" CONDUIT WITH (3) #2/0 CU THWN.
4. SQUARE D BY SCHNEIDER MODEL #NQOD AC SERVICE PANELBOARD FOR HOUSE. 120/240V, SINGLE PHASE, THREE WIRE, 60HZ 200A PANEL WITH 150A MAIN CIRCUIT BREAKER. SEE PANEL SCHEDULE FOR MORE INFORMATION. PROVIDE INDIVIDUAL BRANCH CIRCUIT MONITORING WITH SCHNEIDER POWERLOGIC BRANCH CIRCUIT POWER MONITOR.
5. 3/4" C. WITH (2) #10 CU THWN CONDUCTORS AND (1) #10 CU GROUND.
6. 600V SCHNEIDER CONEXT INVERTER MODEL #TX 5000 NA WITH INTEGRAL AC DISCONNECT.
7. TYPICAL UL1703 LISTED PHOTOVOLTAIC SOLAR PANEL. PRISM SOLAR TECHNOLOGIES BIFACIAL MODULE, MODEL B245. MOUNT ON ROOF VIA SCHLETTER INC. RACKING ASSEMBLY. FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SOLAR PANEL AND RACKING ASSEMBLY.
8. CONDUCTORS AND DISCONNECT TO FIRE PUMP PER NEC REQUIREMENTS. SEE KEYED NOTE 13 ON SHEET E-100.
9. PROVIDE 120V POWER TO FIRE PUMP AND CONTROLLER ON LINE SIDE OF MAIN SERVICE DISCONNECT.
10. #6 CU THWN GROUNDING ELECTRODE CONDUCTOR TO 8' GROUND ROD IN ACCORDANCE WITH IRC E3608.1.4. TEST GROUND ROD TO ENSURE RESISTANCE TO EARTH IS 25 OHMS OR LESS. GROUNDING MEANS SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS AND SOLAR DECATHLON BUILDING CODE.
11. OUTBACK POWER FLEXWARE MODEL #FWPV-12 PHOTOVOLTAIC CIRCUIT COMBINER WITH 600V DC DISCONNECT IN NEMA 3R ENCLOSURE, 12.7" X 15.2" X 3.9". INSTALL 600VDC, 15A FUSES AS SHOWN. MOUNT ON UNISTRUT RACK ON ROOF PARAPET. COMPLIES WITH UL1741.
12. (2) #14 CU RHW-2 CT RATED CONDUCTORS. CONNECT PV PANELS IN SERIES.
13. 3/4" C. WITH (2) #10 CU RHW-2 CT RATED CONDUCTORS.
14. (1) #14 CU RHW-2 CT RATED GROUND WIRE.
15. 240V MAIN DISCONNECT SWITCH IN NEMA 3R ENCLOSURE, FUSED AT 150A.
16. #4 CU GROUNDING ELECTRODE CONDUCTOR, ONE EACH TO BUILDING STEEL AND TO COPPER WATER PIPE.
17. CONNECT GROUND BUS WITH #10 CU THWN, CONTINUOUS THROUGH INVERTER AND AC DISCONNECT, BACK TO MAIN SERVICE GROUND. INSTALL PV EQUIPMENT GROUNDING AND GROUNDING ELECTRODE CONDUCTORS IN ACCORDANCE WITH NEC 690.43 AND 690.47.

PHOTOVOLTAIC STRING CALCULATION

(STRING OF 8 PANELS IN SERIES) X (30 VOLTS DC) = 240V < 600V
(STRING OF 12 PANELS IN SERIES) X (30 VOLTS DC) = 360V < 600V

1 E-500 **ELECTRICAL THREE-LINE DIAGRAM**
SCALE: NOT TO SCALE

PHOTOVOLTAIC SYSTEM COMPONENTS

ITEM	ITEM MANUFACTURER AND MODEL	VOLTAGE	AMPS	WATTS	NOTES
PV PANEL	PRISM SOLAR TECHNOLOGIES MODEL B245	30.0 VMP 38.5 VOC	8.04A IMP 8.76A ISC	PMAX = 245 W (@ STC)	TYPICAL. CAN ACHIEVE 30% MORE POWER FROM REFLECTION ON THE PANEL'S REAR.
PV COMBINER	OUTBACK POWER MODEL #FWPV-12	600V DC	(3) 15 AMP FUSES	N/A	TYPICAL. NEMA 3R ENCLOSURE. 2 OUTPUT CIRCUITS, 10kA MAX FUSE SC CURRENT.
INVERTER	SCHNEIDER MODEL CONEXT #TX 5000 NA	600V INPUT 240V OUTPUT	22.5A MAX	5 KW MAX OUTPUT	TYPICAL. WITH INTEGRAL AC DISCONNECT. REQUIRES 30A OVERCURRENT PROTECTION.

NOTES:
1. SEE PANEL SCHEDULE FOR CONDUCTOR SIZING. MINIMUM OF #12 CU THWN IN 3/4" C. UNLESS NOTED OTHERWISE.
2. INSTALL WIRING AND CONDUIT IN ACCORDANCE WITH MANUFACTER'S SPECIFICATIONS.
3. ALL EQUIPMENT IS UL LISTED. SEE PROJECT MANUAL FOR DETAILS.

PHOTOVOLTAIC MAXIMUM POWER OUTPUT CALCULATION

		POWER (WATTS) STANDARD (1)	POWER (WATTS) WITH REFLECTION (2)	
A.	PRISM SOLAR BIFACIAL MODULE MODEL B245 -WATTS	245	315	
B.	DERATING FACTOR OF 6% FOR 10 DEGREE INCLINE	0.94	0.94	
C.	TOTAL NUMBER OF PV PANELS	28	28	
	A*B*C = EXPECTED WATTS MAXIMUM OUTPUT	6,448	8,291	(3)

NOTES:

(1) MAXIMUM RATED POWER AT STANDARD TESTING CONDITIONS (STC)
(2) MAXIMUM RATED POWER AT STC WITH 30% ADDITIONAL REFLECTION POWER
(3) MAX POWER IS LESS THAN 2 X 5,000 WATT INVERTERS.

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ELECTRICAL THREE-LINE DIAGRAM

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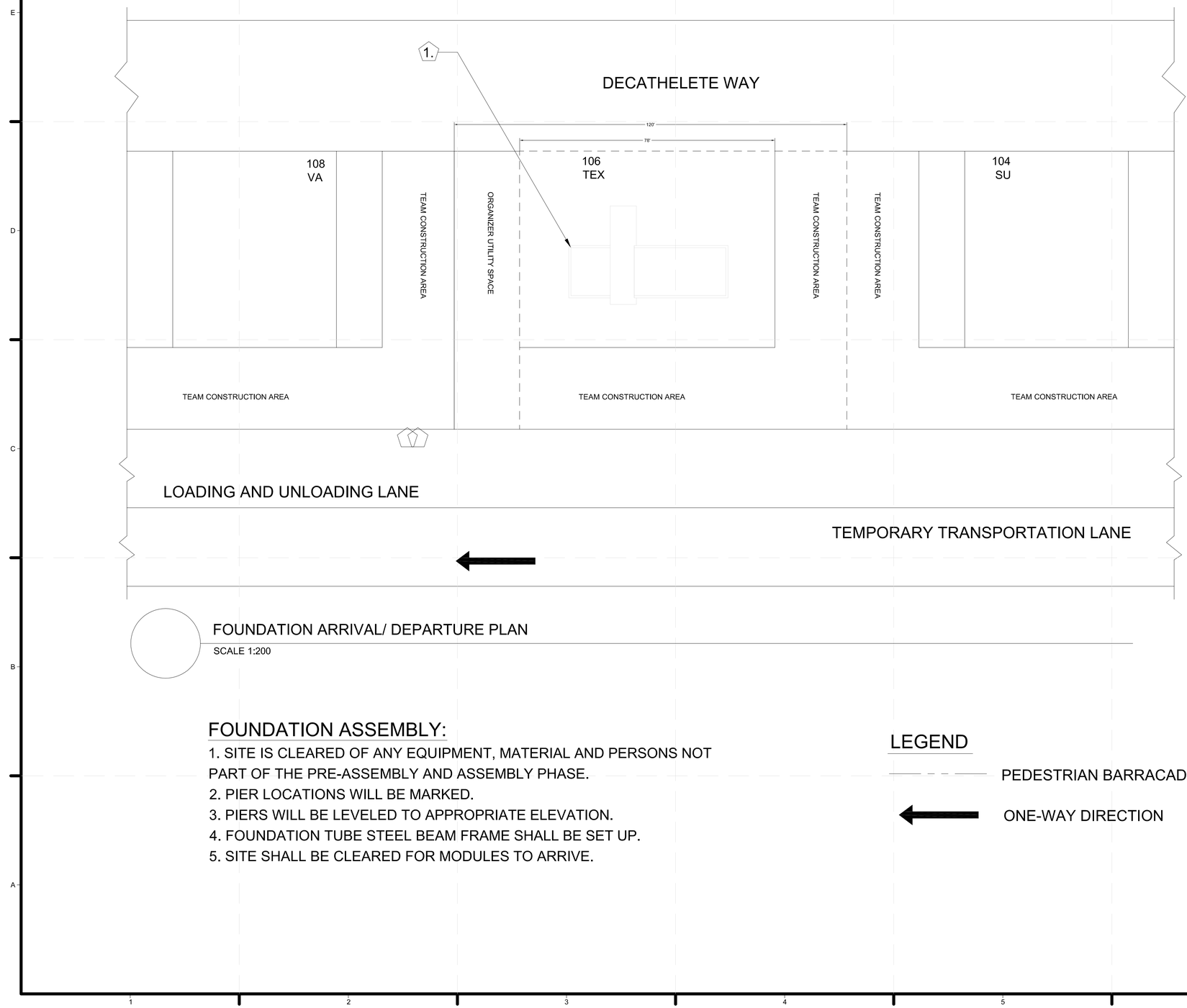

FOUNDATION ARRIVAL/ DEPARTURE PLAN

SCALE 1:200

N

GENERAL SHEET NOTES

1. THIS PLAN IS SET FOR THE CRANE USE ON LOADING W STEEL BEAMS TO BE USED AS PER THE FOUNDATION PLANS.
2. THE PIERS AND PADS MUST BE UNLOADED BY WORKER WITH PROPER CERTIFICATION.
3. PEDESTRIAN BARRICADES SHALL COVER THE GAUR LOT 106 FROM DECATHLETE WAY, THEORGANIZER/UTILITY AREA AND LOT 104.

SHEET KEYNOTES

1. FOUNDATION FRAME ASSEMBLED ON THE SEISMIC PIERS.

FOUNDATION ASSEMBLY:

1. SITE IS CLEARED OF ANY EQUIPMENT, MATERIAL AND PERSONS NOT PART OF THE PRE-ASSEMBLY AND ASSEMBLY PHASE.
2. PIER LOCATIONS WILL BE MARKED.
3. PIERS WILL BE LEVELED TO APPROPRIATE ELEVATION.
4. FOUNDATION TUBE STEEL BEAM FRAME SHALL BE SET UP.
5. SITE SHALL BE CLEARED FOR MODULES TO ARRIVE.

LEGEND

PEDESTRIAN BARRACADE

ONE-WAY DIRECTION

F:\Arrival Departure Sequences\LOGO.PNG

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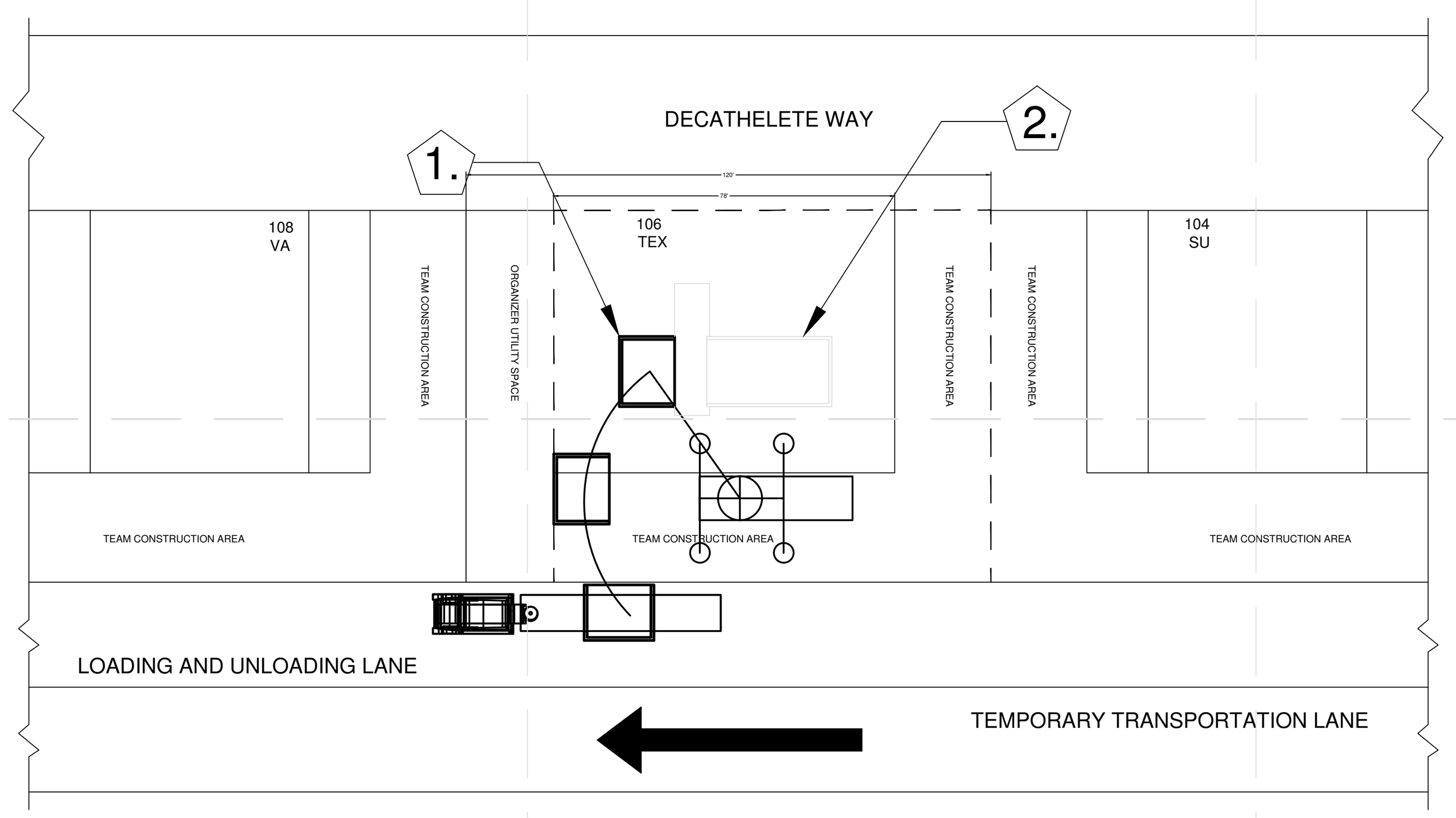
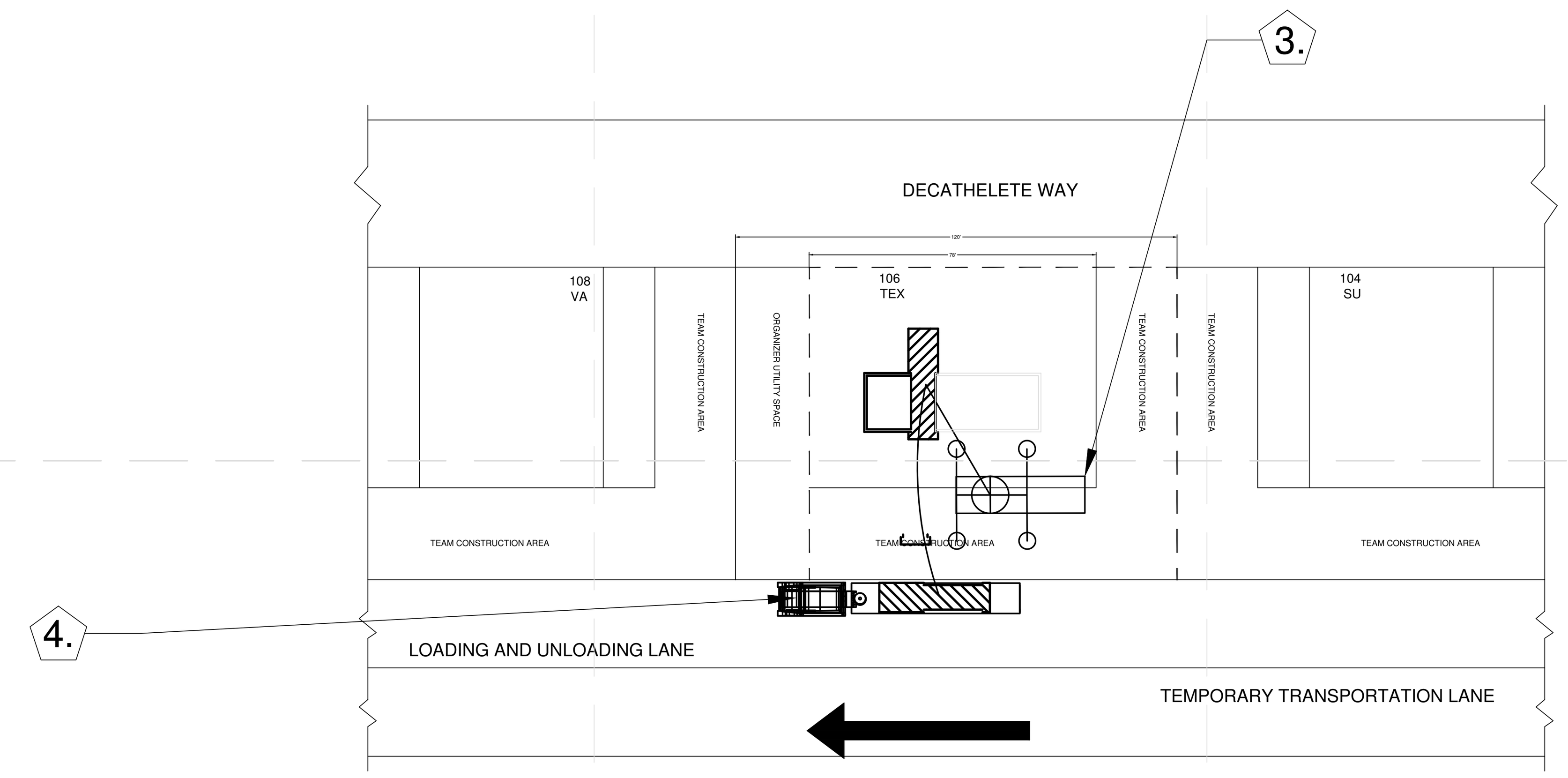
FOUNDATION ARRIVAL/ DEPARTURE SEQUENCE

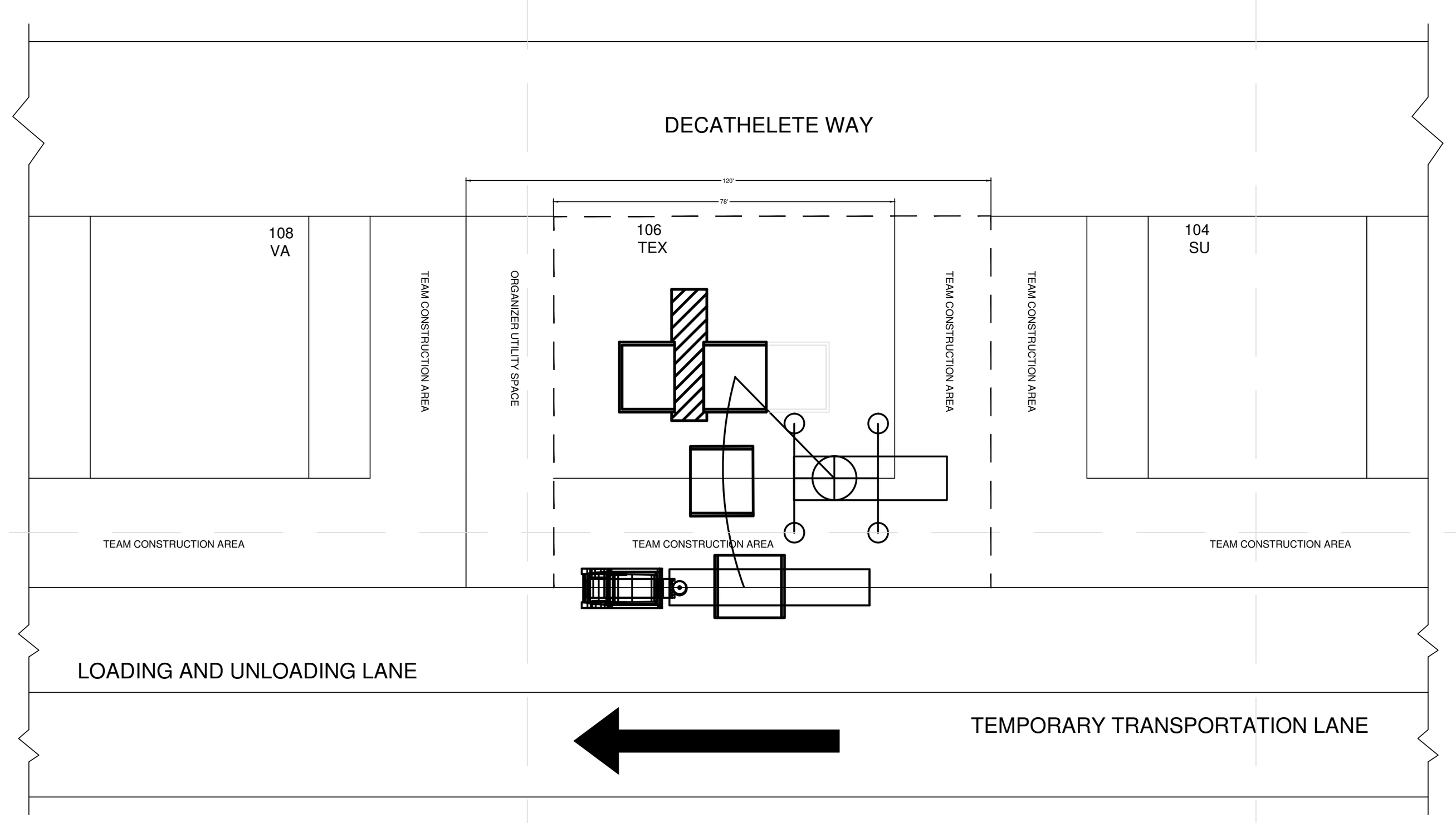
O-103



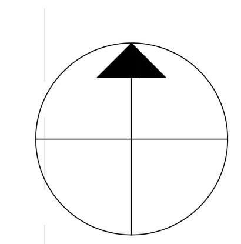
BEDROOM MODULE SETUP SCHEME.
CRANE IS SET WITHIN WORKSPACE BETWEEN TRUCK AND FRAME.



BATHROOM MODULE SETUP SCHEME.
CRANE IS SET WITHIN WORKSPACE BETWEEN TRUCK AND FRAME. CRANE MAY NEED TO RESET.



KITCHEN MODULE SETUP SCHEME.
CRANE IS SET WITHIN WORKSPACE BETWEEN TRUCK AND FRAME. CRANE MAY NEED TO RESET.



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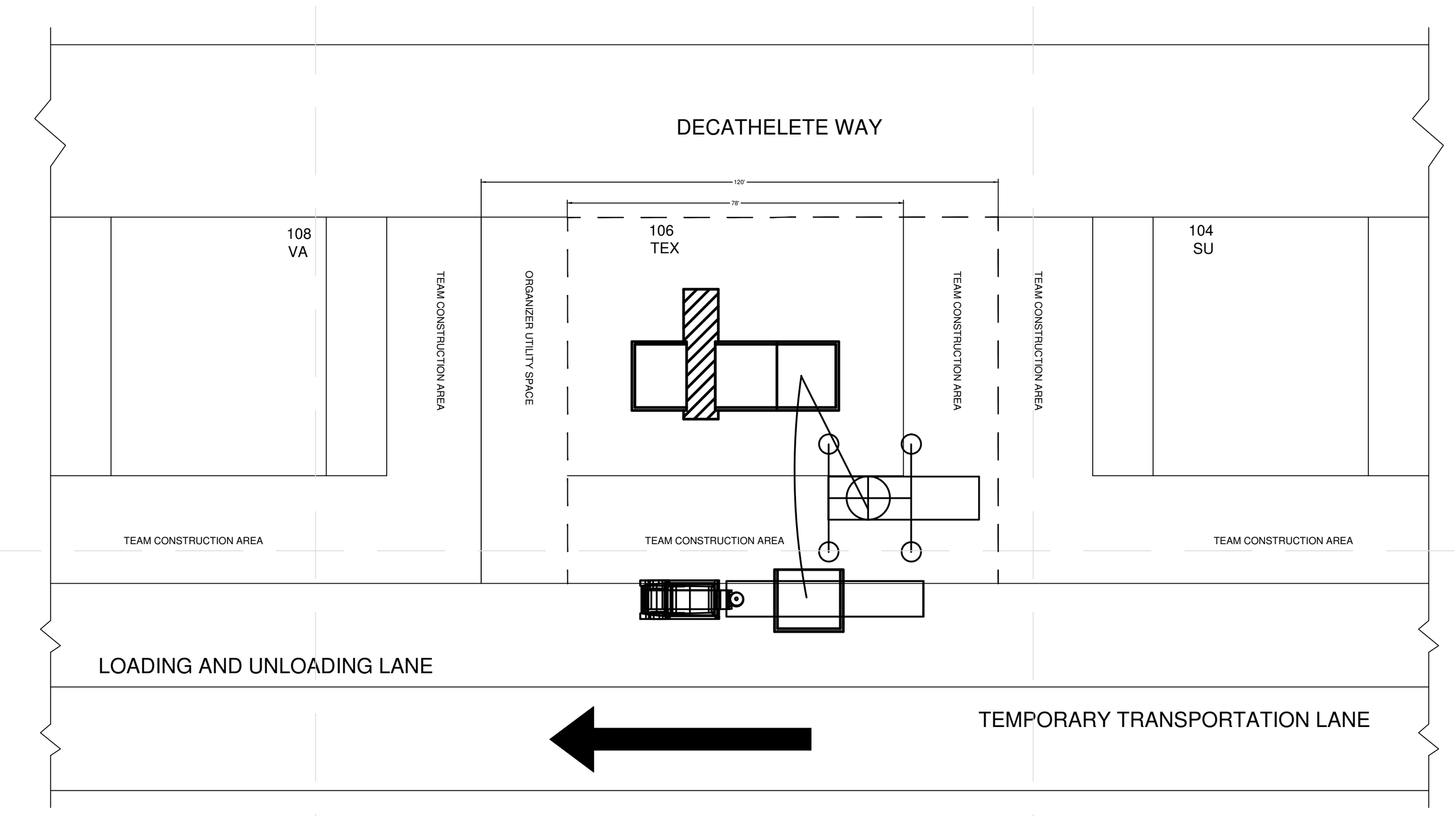

LIVING ROOM MODULE SETUP SCHEME.
CRANE IS SET WITHIN WORKSPACE BETWEEN TRUCK AND FRAME. CRANE MAY NEED TO RESET.

GENERAL SHEET NOTES

1. THIS PLAN IS SET FOR THE CRANE USE ON LOADING THE MECHANICAL ROOM AND MAIN MODULE.
2. PEDESTRIAN BARRICADES SHALL COVER THE GAUR LOT 106 FROM DECATHLETE WAY, THEORGANIZER/UTILITY AREA AND LOT 104.

SHEET KEYNOTES

1. MODULE BLOCK.
2. FOUNDATION FRAME BLOCK.
3. CRANE BLOCK SET TO FIT AN 80 TON HYDRAULIC CRANE RTC-780
4. LOW-BOY TRUCKS DELIVERING MODULES.

MODULE ARRIVAL/ DEPARTURE PLAN

SCALE 1:500

MODULE ASSEMBLY SEQUENCE:

1. CLEAR SITE OF ANY EQUIPMENT, MATERIAL, OR PERSONAL NOT PART OF MODULE ASSEMBLY PHASE.
2. SET UP CRANE GIVEN CRANE OPERATION SPACE BETWEEN TRUCK AND FOUNDATION FRAME
3. TRUCKS COORDINATE WITH CRANE TO SET UP MODULES.
4. ONLY CRANE COMPANY CERTIFIED RIGGERS AND OPERATOR SHALL UNLOAD THE MODULES.
5. THE BEDROOM AND BATHROOM MODULES ARE EXPECTED TO BE SET UP ON SEPTEMBER 23, 2013.
6. THE KITCHEN AND LIVING ROOM MODULES ARE EXPECTED TO BE SET UP ON SEPTEMBER 24, 2013.

LEGEND

- PEDESTRIAN BARRACADE
- MODULE AND MECHANICAL PLAN AREA
- ONE-WAY DIRECTION

F:\Arrival Departure Sequences\LOGO.PNG

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MODULE ARRIVAL/ DEPARTURE SEQUENCE

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