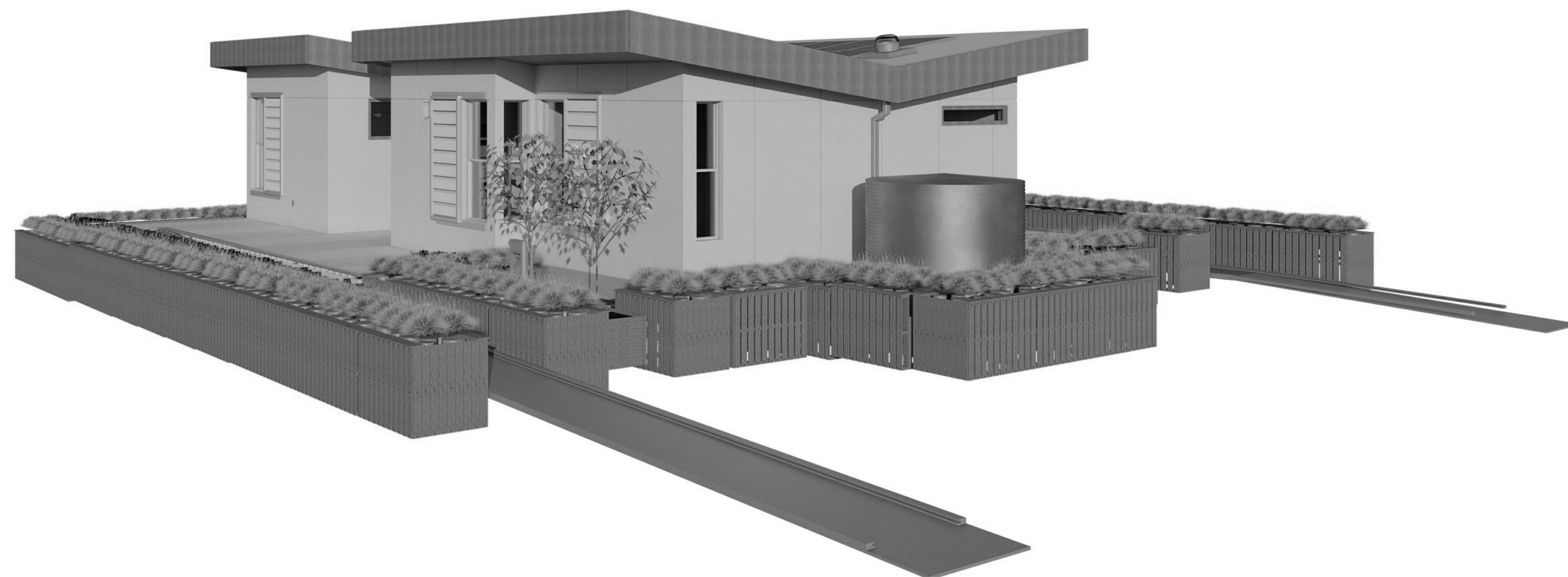


TEAM AGGIE SOL

UNIVERSITY OF CALIFORNIA, DAVIS



PROJECT MANAGERS:
 ROBERT GOOD
 RTGOOD@UCDAVIS.EDU
 (916)747-1022

UNIVERSITY OF CALIFORNIA, DAVIS
 ONE SHIELDS AVENUE
 DAVIS, CALIFORNIA
 95616



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

TITLE PAGE

G-001

SYMBOL	DESCRIPTION
	SECTION TAG
	GRID TAG
	NORTH ARROW
	GRAPHIC SCALE
	INTERIOR ELEVATION TAG
	ROOM TAG
	ELEVATION LEVEL MARKER

GENERAL INDEX OF DRAWINGS	
SHEET NUMBER	SHEET NAME
A-502	SIDING DETAILS
A-503	SIDING DETAILS
A-504	SIDING DETAILS
L-602	PLANTER BED DETAIL
G-001	TITLE PAGE
G-002	TABLE OF CONTENTS, GENERAL NOTES AND SYMBOLS
G-101	FINISHED SQUARE FOOTAGE COMPLIANCE PLAN
G-102	EGRESS PLAN
G-103	ADA TOUR ROUTE COMPLIANCE PLAN
G-104	LIQUID CONTAINERS PLAN
G-201	SOLAR ENVELOPE COMPLIANCE ELEVATIONS
L-001	LANDSCAPE NOTES, SYMBOLS, AND SCHEDULE
L-101	LANDSCAPE AND PLANTING SITE PLAN
L-201	LANDSCAPE ELEVATIONS
L-202	LANDSCAPE ELEVATIONS
L-601	PLANTING DETAILS
L-603	PLANTER BED RAILING DETAIL
S-001	STRUCTURAL NOTES AND SYMBOLS
S-002	FRAMING SCHEDULES
S-003	TYPICAL NOTES AND DETAILS
S-101	ENGINEERED ANCHOR FOUNDATION PLAN
S-102	ENGINEERED STANDARD FOUNDATION PLAN
S-103	FOUNDATION PLAN
S-104	FOUNDATION PLAN
S-105	FIRST FLOOR FRAMING PLAN
S-106	WALL FRAMING PLAN
S-107	ROOF FRAMING PLAN
S-108	SHEAR WALL PLAN
S-109	DECK FRAMING
S-201	FRAMING ELEVATIONS
S-202	FRAMING ELEVATIONS
S-203	FRAMING ELEVATIONS
S-301	FRAMING SECTIONS
S-302	FRAMING SECTIONS
S-501	FRAMING DETAILS
S-502	FRAMING DETAILS
S-503	DECK DETAILS
S-504	TRAILER FRAME DETAILS
S-701	TRAILER AXLE LOACTION
S-901	FRAMING ISOMETRIC
S-902	EXTERIOR FRAMING VIEWS
A-001	ARCHITECTURAL SYMBOLS AND NOTES
A-101	SITE PLAN
A-102	FURNITURE PLAN
A-111	FIRST FLOOR PLAN
A-112	ROOF PLAN
A-121	FIRST FLOOR REFLECTED CEILING PLAN
A-211	EXTERIOR ELEVATIONS
A-212	EXTERIOR ELEVATIONS
A-213	INTERIOR ELEVATIONS
A-214	BATHROOM ADA COMPLIANCE
A-215	KITCHEN ADA COMPLIANCE AND ENLARGED PLAN
A-301	BUILDING SECTIONS
A-311	WALL SECTIONS
A-401	SCHEDULES
A-501	SIDING DETAILS
A-506	ROOF DETAILS
A-531	WINDOW DETAILS
A-532	WINDOW DETAILS
A-533	DOOR DETAILS
F-001	FIRE PROTECTION NOTES, SYMBOLS, AND SCHEDULE
F-101	FIRE DETECTION AND SUPPRESSION PLAN
F-201	FIRE CONNECTION DETAILS
P-001	PLUMBING NOTES, SYMBOLS, AND SCHEDULE
P-101	DOMESTIC SUPPLY PLAN
P-102	DOMESTIC RETURN PLAN
P-301	NORTH SECTIONS
P-302	WEST SECTIONS
P-303	EAST SECTIONS
P-601	PLUMBING SYSTEM DIAGRAM
P-901	ISOMETRIC PIPING SUPPLY PLAN
P-902	ISOMETRIC PIPING RETURN PLAN
M-001	MECHANICAL SYMBOLS AND SCHEDULE
M-101	RADIANT FLOOR PLAN
M-102	NIGHT SKY ROOFTOP
M-501	NIGHTSKY DETAILS
M-502	MECHANICAL SYSTEM DETAIL
M-601	HVAC DIAGRAM
M-602	MECHANICAL WIRING DIAGRAMS
E-001	ELECTRICAL SYMBOLS AND NOTES
E-101	ELECTRICAL DISTRIBUTION PLAN
E-102	LIGHTING AND SMOKE DETECTOR PLAN
E-103	PV WIRING PLAN
E-201	ELECTRICAL ELEVATION
E-501	PV MOUNTING DETAILS
E-601	ONE-LINE DIAGRAM
E-602	THREE-LINE DIAGRAM
E-603	ELECTRICAL SCHEDULES
O-001	OPERATIONS SYMBOLS AND NOTES
O-101	ARRIVAL SEQUENCE PLAN 1
O-102	ARRIVAL SEQUENCE PLAN 2
O-103	ARRIVAL SEQUENCE PLAN 3
O-104	ARRIVAL SEQUENCE PLAN 4
O-201	DEPARTURE SEQUENCE PLAN 1
O-202	DEPARTURE SEQUENCE PLAN 2
O-203	DEPARTURE SEQUENCE PLAN 3

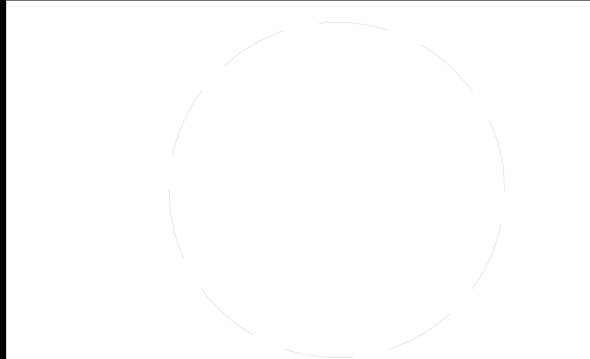
1 GENERAL SYMBOLS LEGEND

1/2" = 1'-0"

- GENERAL NOTES**
1. ALL PIPING THAT PENETRATE FLOOR SLABS SHALL BE INSTALLED IN A MANNER THAT WILL PRESERVE THE INDICATED STRUCTURAL INTEGRITY OF THE HOUSE
 2. ALL JOINTS AND PENETRATIONS IN INSULATION BARRIER SHALL BE FULLY SEALED WITH ADHESIVE SEALANT TO PROVIDE CONTINUOUS AIR TIGHT INSULATION
 3. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE DETAILED
 4. ALL SILLS, WINDOW HEADS, AND SHELF ANGLES SHALL HAVE FLASHING EXTENDED TO THE OUTSIDE OF THE WALL WHETHER OR NOT SHOWN ON THE DRAWINGS
 5. WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS OF THE VARIOUS TRADES, CONSULT THE ARCHITECT PRIOR TO PROCEEDING WITH WORK
 6. ALL GLAZING SHALL BE SAFETY GLAZED WHEN WITHIN 18" OF THE FLOOR OR WITHIN 3'-0" HORIZONTAL DISTANCE FROM ANY DOOR
 7. UNLESS NOTED OTHERWISE, INTERIOR WALLS ARE PAINTED GYP-BD. W/ LEVEL 4 FINISH.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/



CLIENT: U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

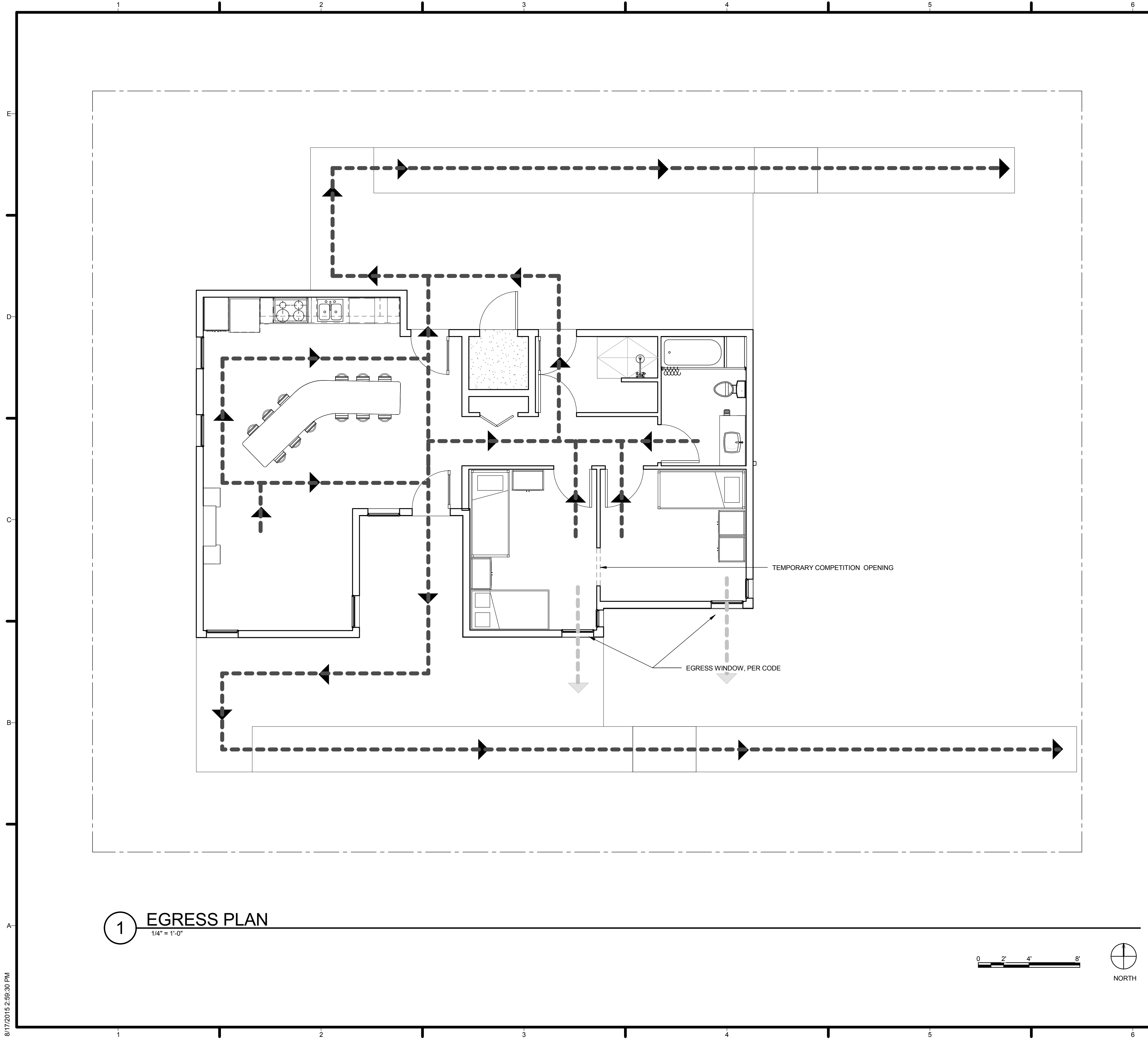


MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

TABLE OF CONTENTS, GENERAL NOTES AND SYMBOLS

G-002



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

GENERAL SHEET NOTES

- 1. TEMPORARY OPENING THROUGH BEDROOM 1 AND BEDROOM 2 FOR EXHIBITION ACCESSIBILITY AND TRAFFIC PURPOSES SHALL NOT BE PRESENT IN BUILT-MODEL POST-COMPETITION.
- 2. EGRESS WINDOWS TO BE LOCATED IN EACH BEDROOM AND FOLLOW IRC 2013 GUIDELINES:
 - THE BOTTOM OF THE OPENING SHALL NOT BE MORE THAN 44" ABOVE FINISHED FLOOR
 - MINIMUM NET CLEAR OPENING HEIGHT OF 24" AND WIDTH OF 20"
 - MINIMUM NET CLEAR OPENING OF 5.7 SQ FT

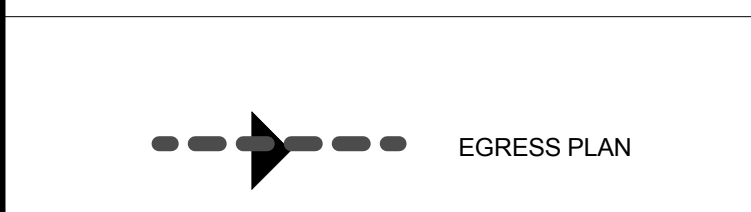
REFERENCE KEYNOTES

NOT USED AT THIS TIME

SHEET KEYNOTES

NOT USED AT THIS TIME

LEGEND



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT

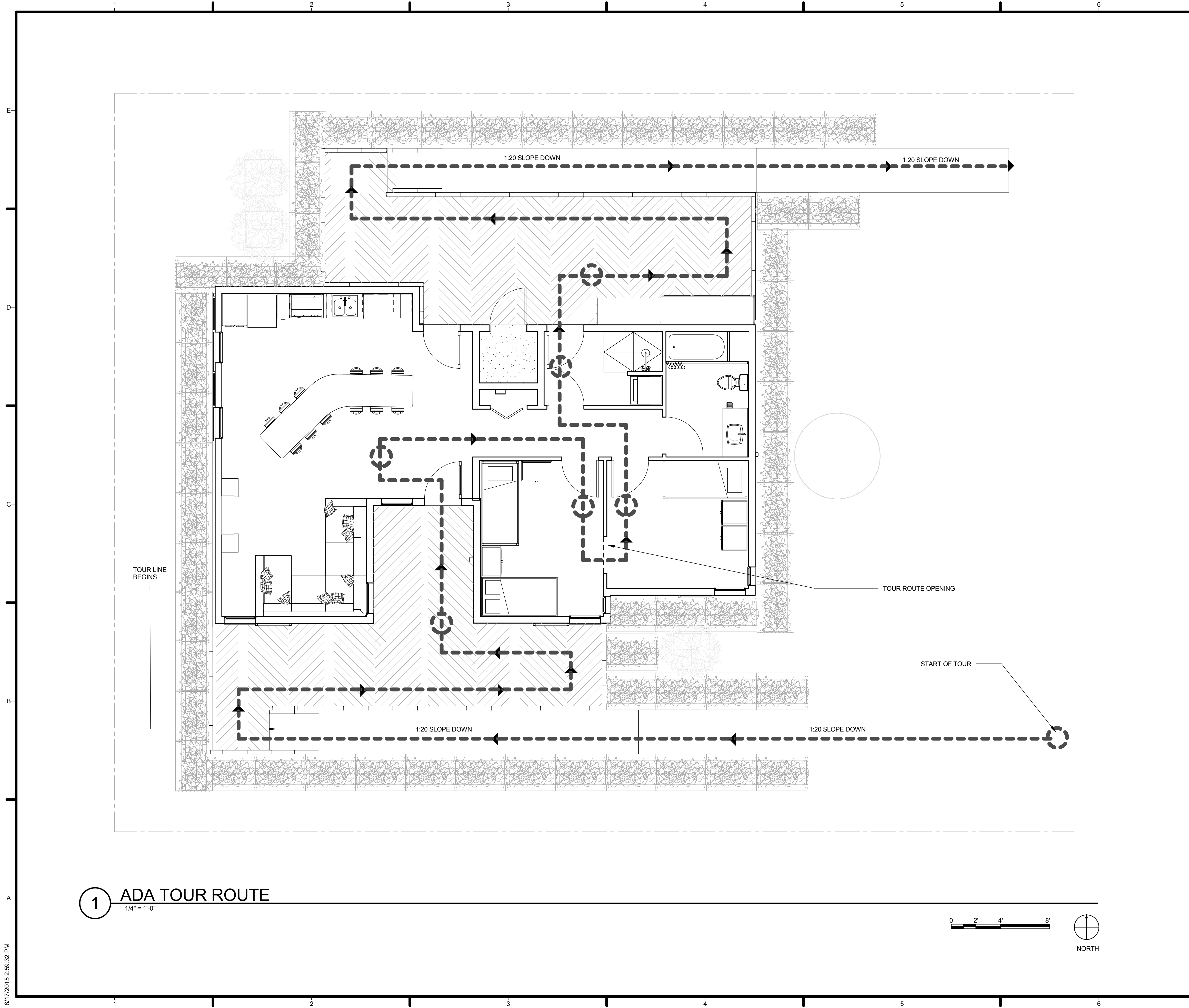
U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
EGRESS PLAN

G-102



GENERAL SHEET NOTES

1. TOUR ROUTE OPENING ACCOMODATES

REFERENCE KEYNOTES

SHEET KEYNOTES

- ADA COMPLIANT TOUR ROUTE
- TOUR STOPPING POINT



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://SOLARDECATHLON2015.UCDAVIS.EDU/)

CONSULTANTS

CLIENT

U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



CD 2.12.15 CONSTRUCTION DOCS

MARK	DATE	DESCRIPTION
------	------	-------------

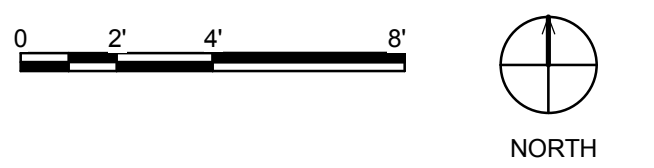
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

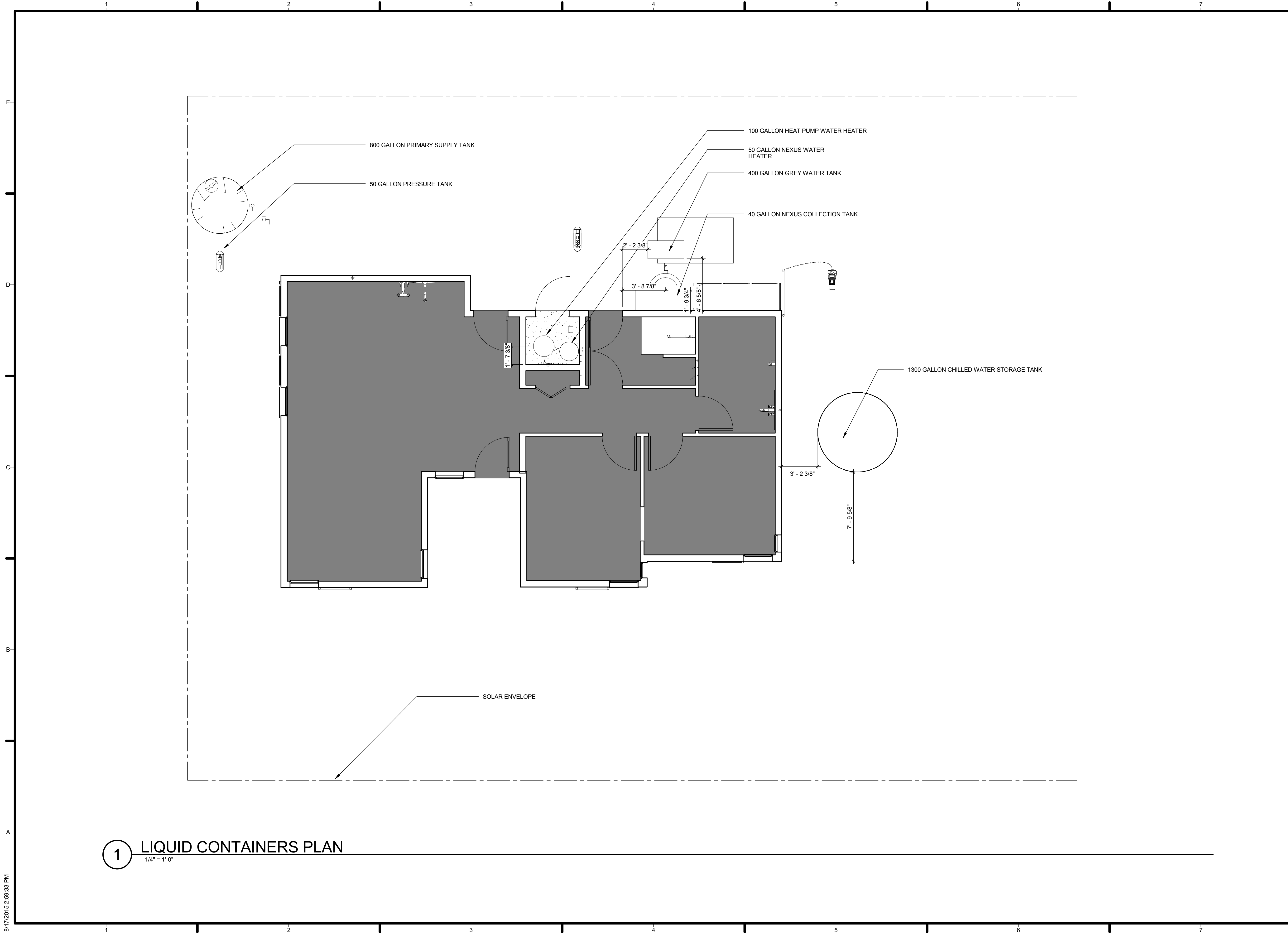
SHEET TITLE

ADA TOUR ROUTE COMPLIANCE PLAN

G-103

1 ADA TOUR ROUTE
 1/4" = 1'-0"





TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



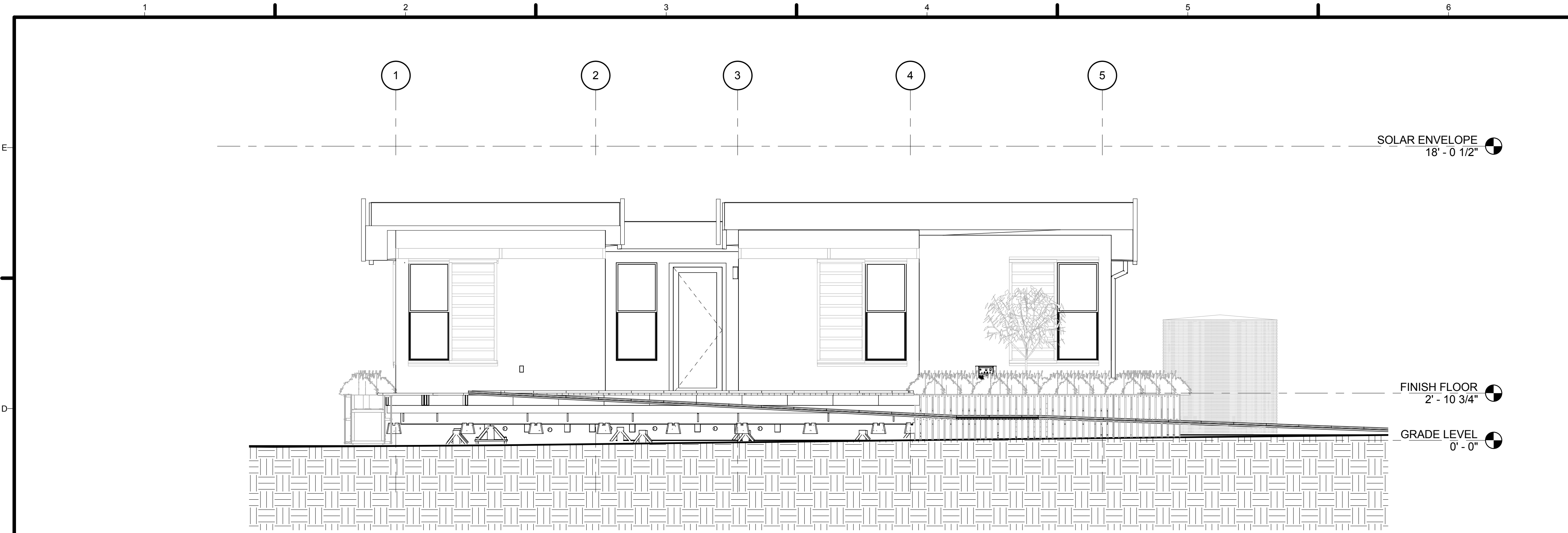
MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

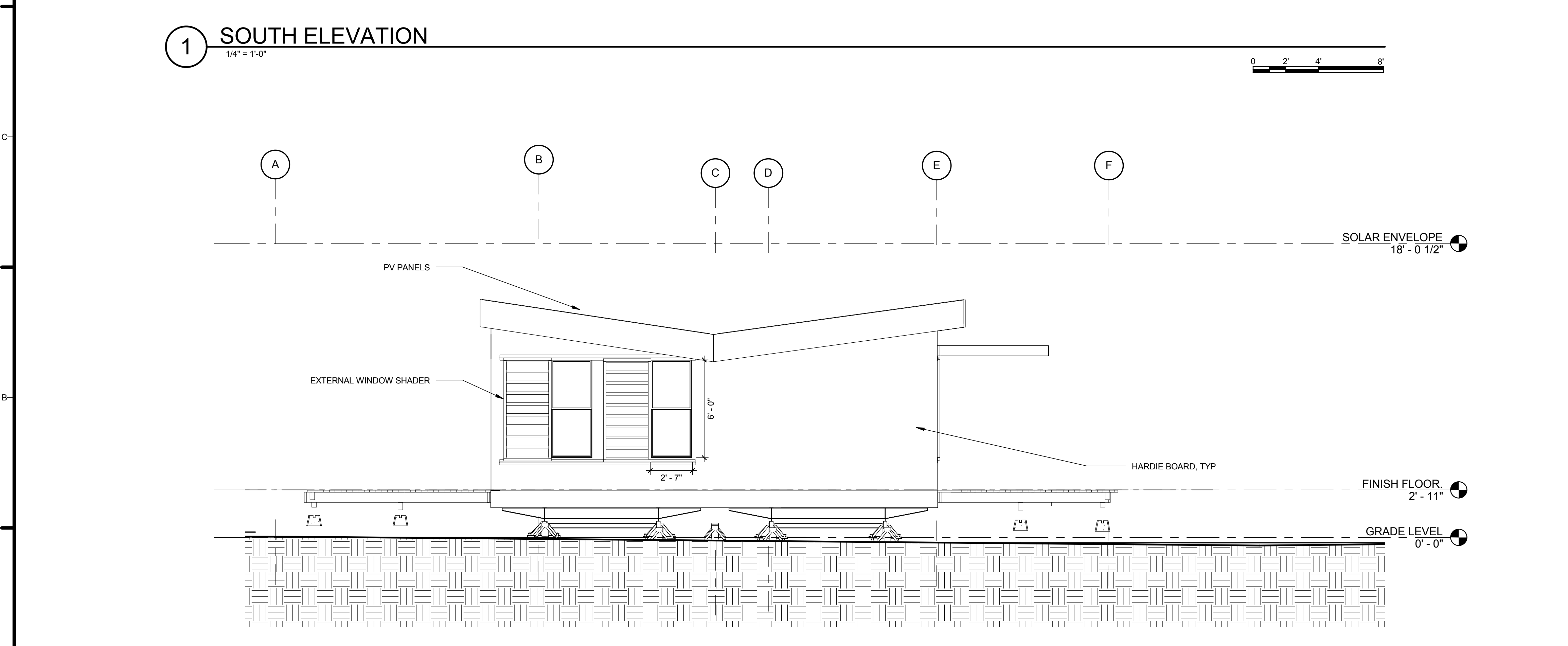
SHEET TITLE
LIQUID CONTAINERS PLAN

G-104

1 LIQUID CONTAINERS PLAN
 1/4" = 1'-0"



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



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

GENERAL SHEET NOTES

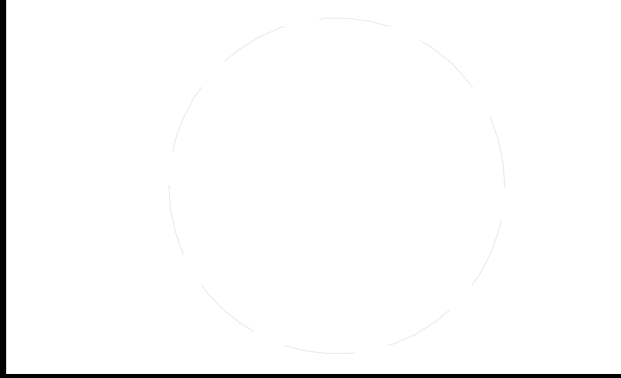
1. THE HEIGHT OF SOLAR ENVELOPE IS THE VERTICAL DISTANCE FROM THE HIGHEST POINT OF HIGHEST GRADE ALONG THE OUTSIDE PERIMETER, PER RULE 5-2



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530) 752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	

REFERENCE KEYNOTES

NOT USED AT THIS TIME



CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON

SHEET KEYNOTES

NOT USED AT THIS TIME







MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN


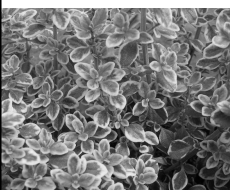
SHEET TITLE
**SOLAR ENVELOPE
COMPLIANCE
ELEVATIONS**

G-201

LANDSCAPE PLANTS INDEX

ABREVIATION	BINOMIAL NAME	COMMON NAME	FAMILY	DURATION	POT SPECIFICS	PLANT SIZE	# OF PLANTS	PRICE	COLOR	PICTURE	DESCRIPTION
BG	BOUPELLOUA GRACILIS	BLUE GRAMA	POACEAE	PERENNIAL	1 GALLON DIAMETER - 7.5" HEIGHT - 7"	HEIGHT - X < 1 FT WIDTH - X < 1 FT	40	\$21.99 / PER PLANT	GREEN		FLOWER COLOR: WHEAT BLOOMTIME: SUMMER EXPOSURE: FULL SUN IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: < 0 °F TIPS: PLANTS FILL IN FASTER AND LOOK BEST WHEN IRRIGATED BUT THIS IS A DROUGHT TOLERANT GRASS AND IS VERY COLD TOLERANT
DG	MUHLBERGIA RIGENS	DEERGRASS	POACEAE	PERENNIAL	5 GALLON DIAMETER - 10" HEIGHT - 11"	HEIGHT - 4-5 FT WIDTH - 4-6 FT	40	\$21.99 / PER PLANT	GREEN/SILVER		FLOWER COLOR: SILVER BLOOMTIME: SUMMER EXPOSURE: SUN OR SHADE SEASIDE: YES DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: < 15° F TIPS: ONCE ESTABLISHED, DEER GRASS CAN GO THE ENTIRE SUMMER WITHOUT WATER BUT IT CAN ALSO TOLERATE REGULAR GARDEN WATER WHICH KEEPS THE FOLIAGE NEARLY EVERGREEN
BF	FESTUCA GLAUCA	BLUE FESCUE	POACEAE	PERENNIAL	1 GALLON DIAMETER - 7.5" HEIGHT - 7"	HEIGHT - X < 1 FT WIDTH - 1-2 FT	43	\$9.50 / PER PLANT	TURQUOISE		FLOWER COLOR: GOLDEN BLOOMTIME: SUMMER EXPOSURE: FULL SUN DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: < 0 °F TIPS: FESTUCAS SHOULD BE TRIMMED ANNUALLY DURING COOLER MONTHS TO KEEP UP A NEATER APPEARANCE
HT	EPILOBIUM CANUM	HUMMINGBIRD TRUMPET	ONAGRACEAE	PERENNIAL	1/2 GALLON DIAMETER - 6" HEIGHT - 6.5"	HEIGHT - 1-2 FT WIDTH - 4-5 FT	40	\$12.50 / PER PLANT	ORANGE RED		FLOWER COLOR: ORANGE RED BLOOMTIME: SUMMER/FALL EXPOSURE: FULL SUN DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: < 15° F TIPS: REDDISH-ORANGE TUBULAR FLOWERS ATTRACT HUMMINGBIRDS WHEN THEY BLOOM IN THE SUMMER AND FALL
LVND	LAVNADULA STOECHAS	SPANISH LAVENDAR	LAMIACEAE	PERENNIAL	1/2 GALLON DIAMETER - 6" HEIGHT - 6.5"	HEIGHT - 2-3 FT WIDTH - 2-4 FT	40	\$10.50 / PER PLANT	PURPLE		FLOWER COLOR: VIOLET BLOOMTIME: SPRING/FALL EXPOSURE: FULL SUN DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: 25-30° F TIPS: THE TALL BRANCHING SPIKES OF PALE VIOLET FLOWERS APPEAR FROM SPRING TO FALL
MO	CITRUS RETICULATA	MANDARIN ORANGE	RUTACEAE	EVERGREEN	15 GALLON DIAMETER - 36" HEIGHT - 36"	HEIGHT - 7-10 FT WIDTH - 2 FT	5	\$230.00 / PER PLANT	GREEN + ORANGE		BLOOMTIME: SPRING/FALL EXPOSURE: FULL SUN DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): MEDIUM WATER NEEDS WINTER HARDINESS: NO TIPS: IT IS MOST IMPORTANT NOT TO OVER-WATER THEM AND TO PLANT THEM IN SOIL WITH EXCELLENT DRAINAGE; THEY ARE SUBJECT TO ROOT ROT AND FUNGICIDES THAT WILL KILL THEM IF THEY ARE TOO MOIST.

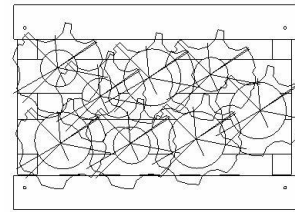
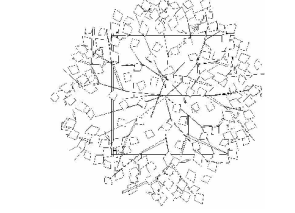
LANDSCAPE HERBS INDEX

ABREVIATION	BINOMIAL NAME	COMMON NAME	FAMILY	DURATION	POT SPECIFICS	PLANT SIZE	# OF PLANTS	PRICE	COLOR	PICTURE	DESCRIPTION
ST	MENTHA SPICATA	SPEARMINT	LAMIACEAE	PERENNIAL	1/2 GALLON DIAMETER - 6" HEIGHT - 6.5"	HEIGHT - 30-100 CM WIDTH - 8 FT	5	\$3.50 / PER PLANT	GREEN		EXPOSURE: FULL SUN DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: NO TIPS: OFTEN GROWN AS A CULINARY HERB IN THE HERB GARDEN, SPEARMINT IS ALSO COMMERCIALY CULTIVATED FOR ITS ESSENTIAL OIL, THE YIELDS ARE ABOUT 3.5 TO 4.5 KILOS PER TONNE OF LEAVES.
LT	HYMUS X CITRIODUS	LEMON THYME	LAMIACEAE	PERENNIAL	1/2 GALLON DIAMETER - 6" HEIGHT - 6.5"	HEIGHT - 1 FT WIDTH - 18 IN	5	\$2.00 / PER PLANT	GREEN/YELLOW		FLOWER COLOR: VIOLET BLOOMTIME: SUMMER EXPOSURE: FULL SUN DROUGHT TOLERANT: YES IRRIGATION (H2O INFO): LOW WATER NEEDS WINTER HARDINESS: 25-30° F TIPS: THIS PLANT IS ATTRACTIVE TO BEES, BUTTERFLIES AND/OR BIRDS DROUGHT-TOLERANT; SUITABLE FOR XERISCAPING AVERAGE WATER NEEDS; WATER REGULARLY; DO NOT OVERWATER

LANDSCAPE SHEET INDEX

SHEET NUMBER	SHEET NAME
L-001	LANDSCAPE NOTES, SYMBOLS, AND SCHEDULE
L-101	LANDSCAPE AND PLANTING SITE PLAN
L-201	LANDSCAPE ELEVATIONS
L-202	LANDSCAPE ELEVATIONS
L-601	PLANTING DETAILS
L-602	PLANTER BED DETAIL
L-603	PLANTER BED RAILING DETAIL

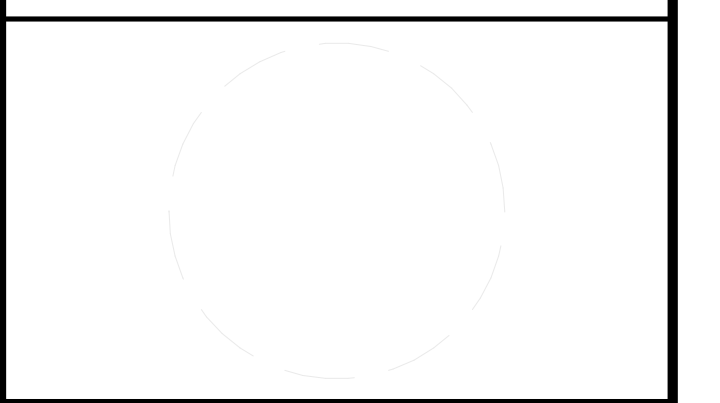
LANDSCAPE PLANT SYMBOLS

SYMBOL	NAME	COUNT
	PLANTER BOX	45
	36"X36" MANDARIN ORANGE TREE	5



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)

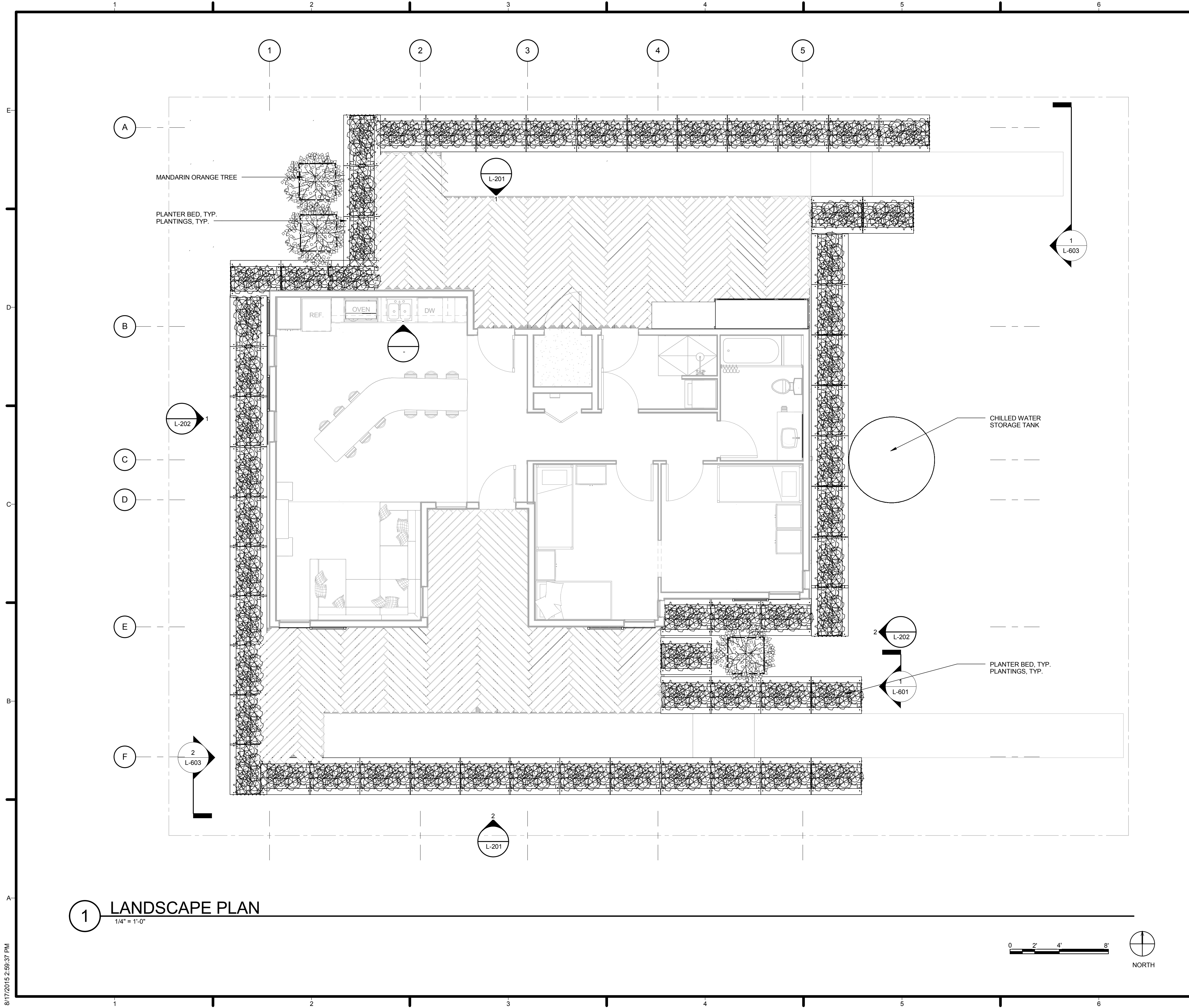


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
**LANDSCAPE NOTES,
 SYMBOLS, AND
 SCHEDULE**

L-001



GENERAL SHEET NOTES

1. PLANTINGS, TYP. INCLUDE THE FOLLOWING PLANTS:
- BOUTELOUA GRACILIS
 - MUHLENBERGIA RIGENS
 - FESTUCA GLAUCA
 - EPILOBIUM CANUM
 - LAVNADULA STOECHAS

REFERENCE KEYNOTES

NOT USED AT THIS TIME

SHEET KEYNOTES

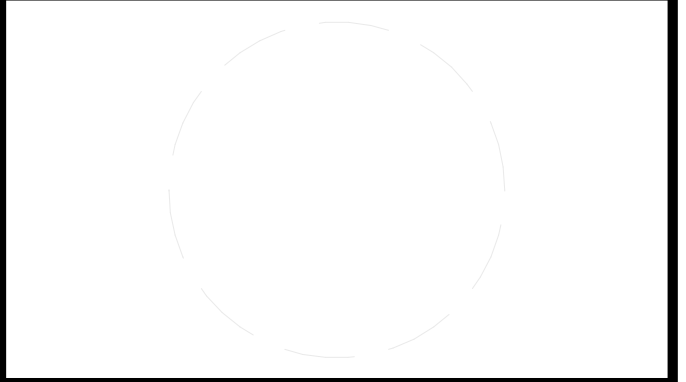
- PLANTER TYP. & PLANTINGS TYP. PLEASE REFER TO L-601 FOR DETAILS.

PLANT SYMBOLS

SYMBOL	NAME	COUNT
	PLANTER BED TYP.	45
	36"X36" MANDARIN ORANGE TREE	5



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530)-752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	



CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
--------	---



DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

SHEET TITLE

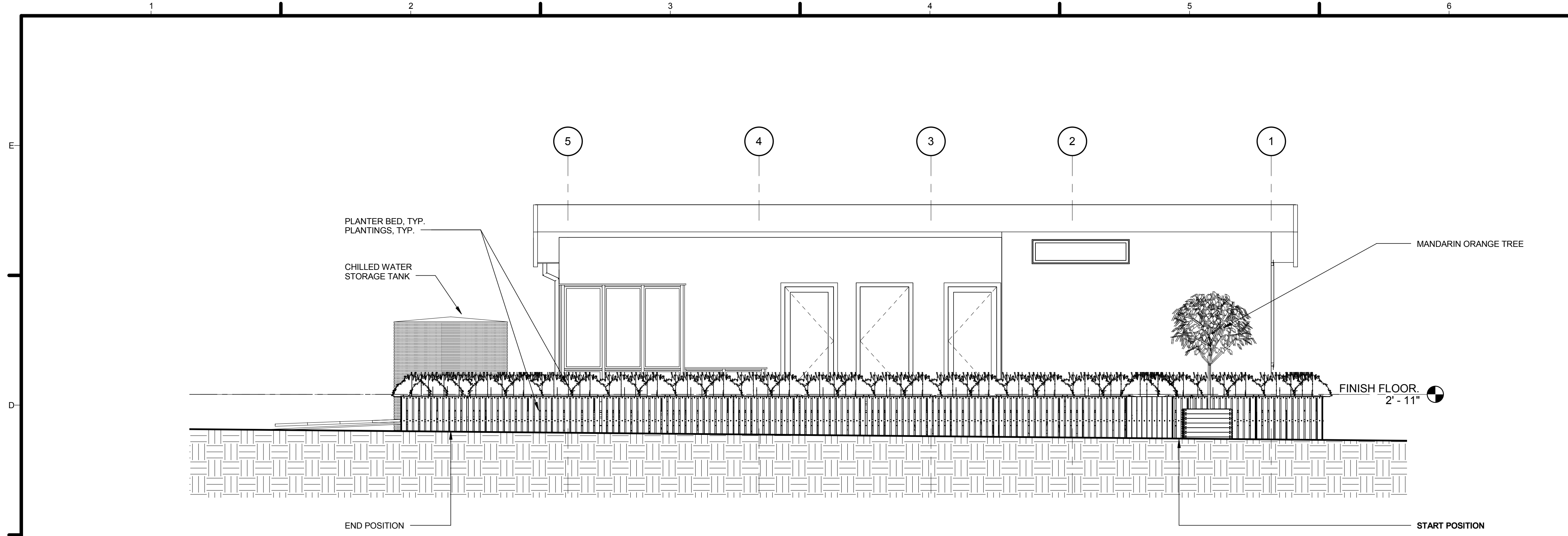
LANDSCAPE AND PLANTING SITE PLAN

L-101

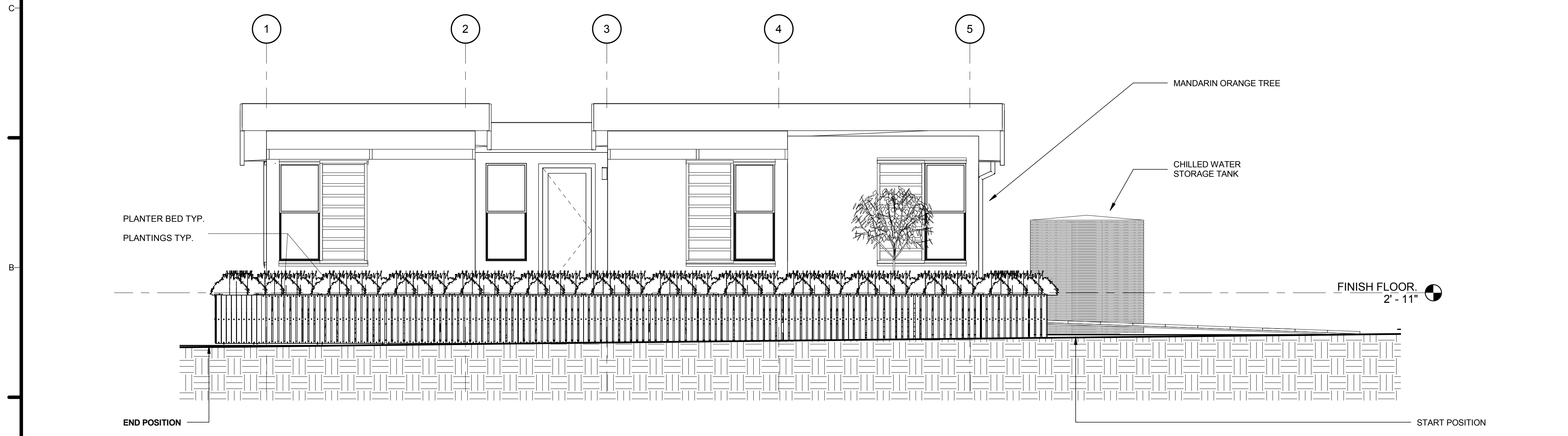
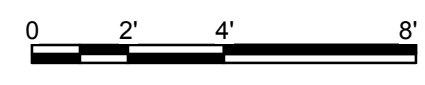
1 LANDSCAPE PLAN
1/4" = 1'-0"



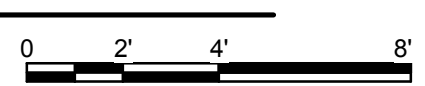
8/17/2015 2:59:37 PM



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



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



GENERAL SHEET NOTES

1. PLANTINGS, TYP. INCLUDE THE FOLLOWING PLANTS:
 • BOUTELOUA GRACILIS
 • MUHLENBERGIA RIGENS
 • FESTUCA GLAUCA
 • EPILOBIUM CANUM
 • LAVNADULA STOECHAS
 • MENTHA SPICATA
 • HYMUS X CITRIODUS
 PLEASE REFER TO L-601 FOR DETAILS.

REFERENCE KEYNOTES

• PLANTER TYP. & PLANTINGS TYP.
 PLEASE REFER TO L-601 FOR DETAILS.

SHEET KEYNOTES

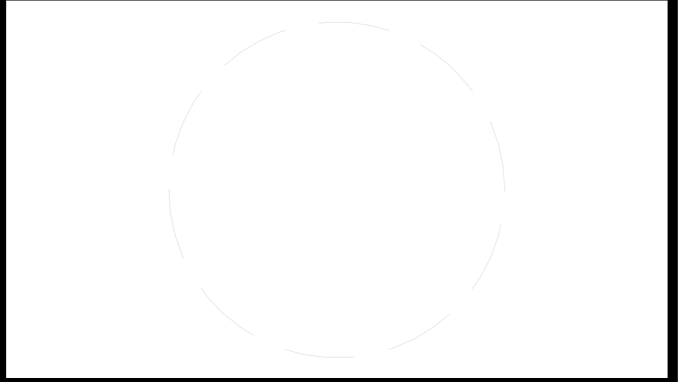
NOT USED AT THIS TIME

PLANT SYMBOLS

SYMBOL	NAME	COUNT
	PLANTER BED TYP.	45
	36"X36" MANDARIN ORANGE TREE	5



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530)-752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	



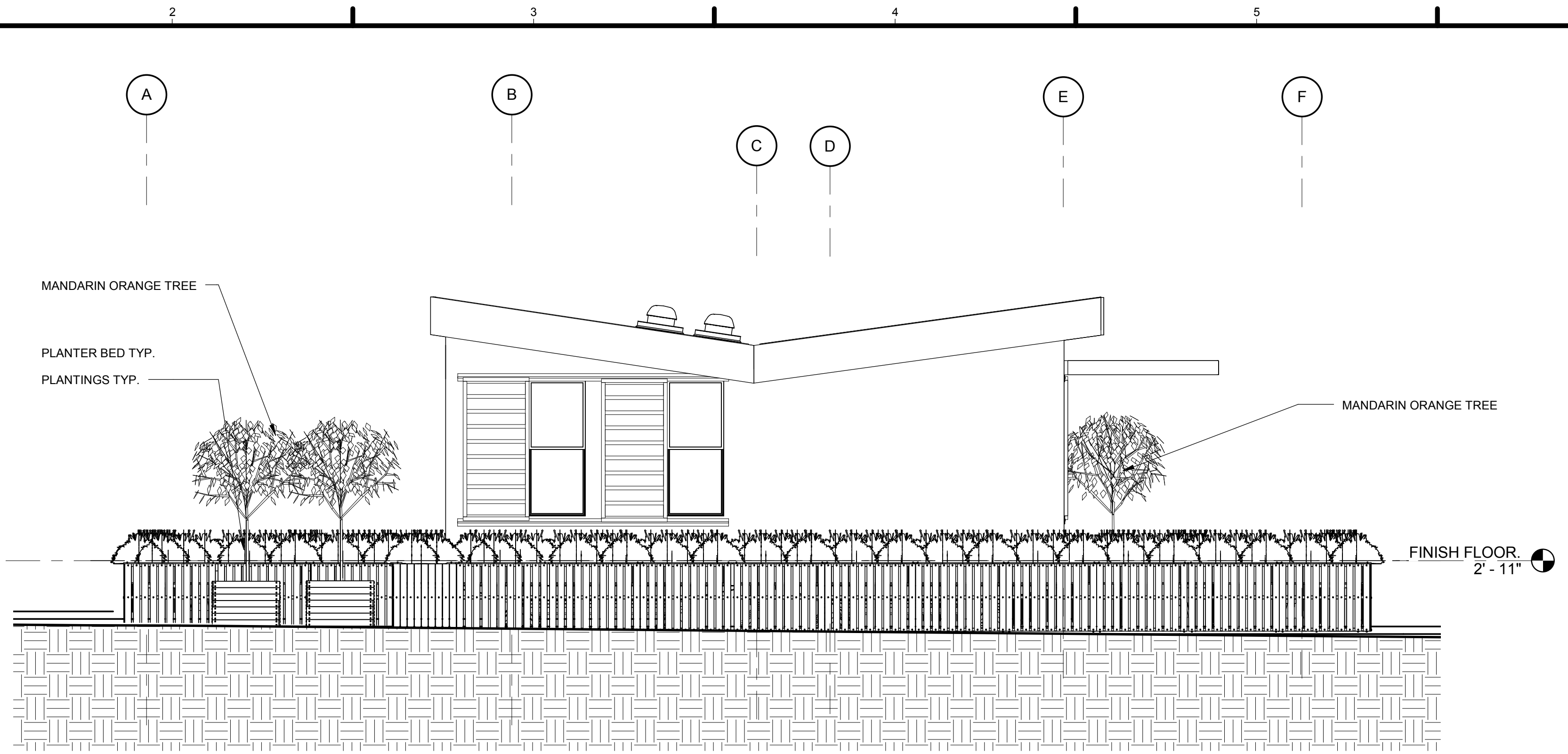
CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON

MARK	DATE	DESCRIPTION
DD	02.12.15	DESIGN DEVELOPMENT

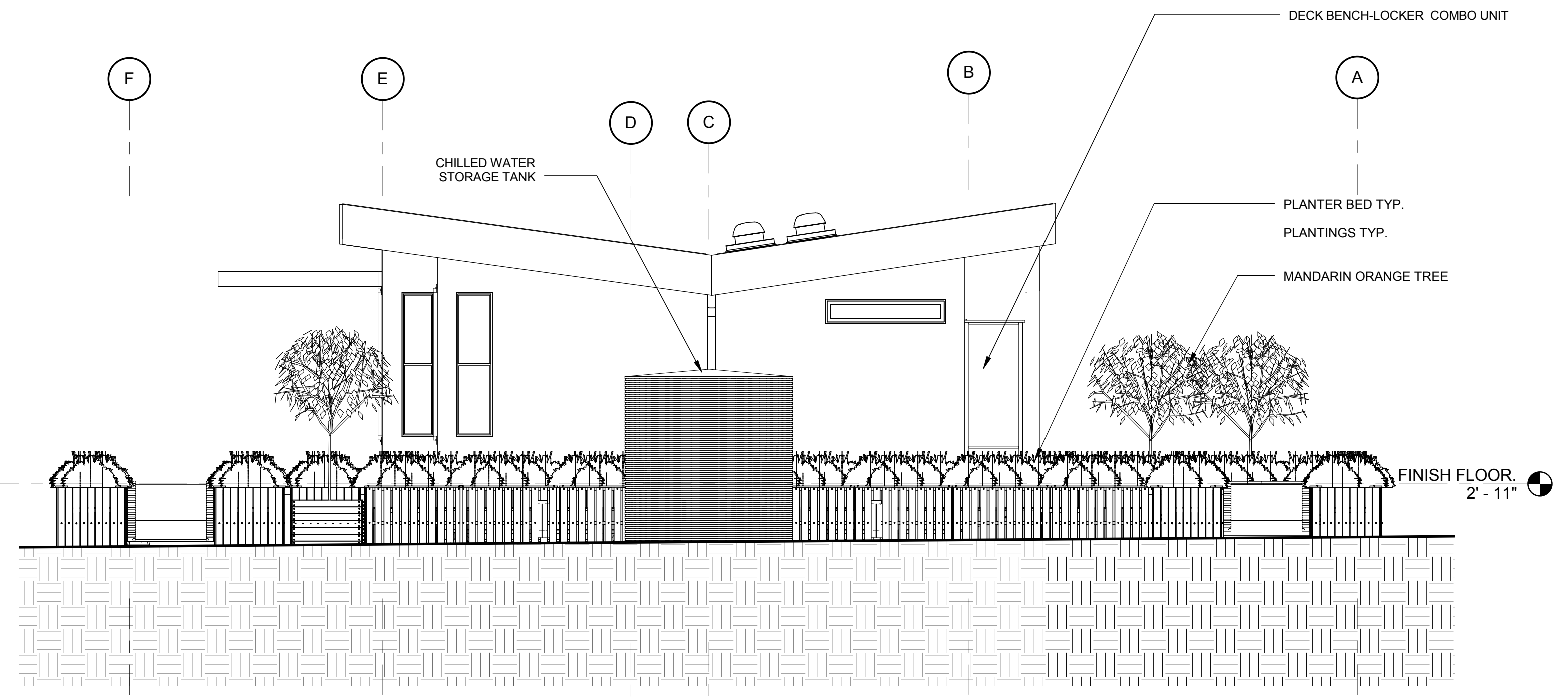
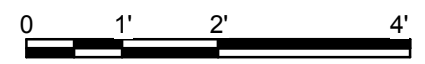
LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
LANDSCAPE ELEVATIONS

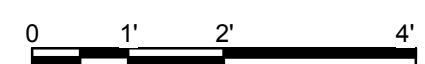
L-201



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



2 LANDSCAPE EAST ELEVATION
1/4" = 1'-0"



GENERAL SHEET NOTES

1. PLANTINGS, TYP. INCLUDE THE FOLLOWING PLANTS:
- BOUTELOUA GRACILIS
 - MUHLENBERGIA RIGENS
 - FESTUCA GLAUCA
 - EPILOBIUM CANUM
 - LAVNADULA STOECHAS
 - MENTHA SPICATA
 - HYMUS X CITRIODUS
- PLEASE REFER TO L-601 FOR DETAILS.

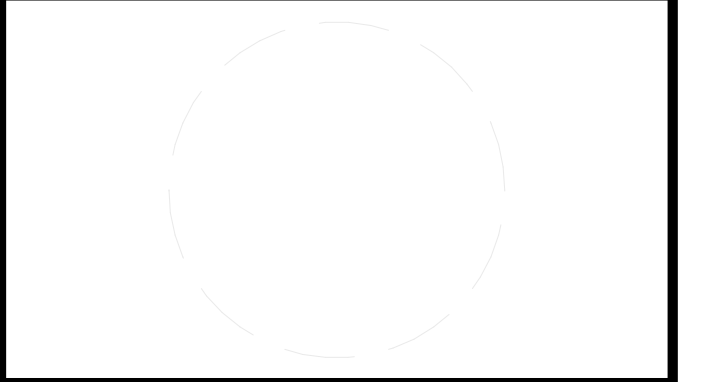


TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

REFERENCE KEYNOTES

- PLANTER TYP. & PLANTINGS TYP.
- PLEASE REFER TO L-601 FOR DETAILS.



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



SHEET KEYNOTES

NOT USED AT THIS TIME

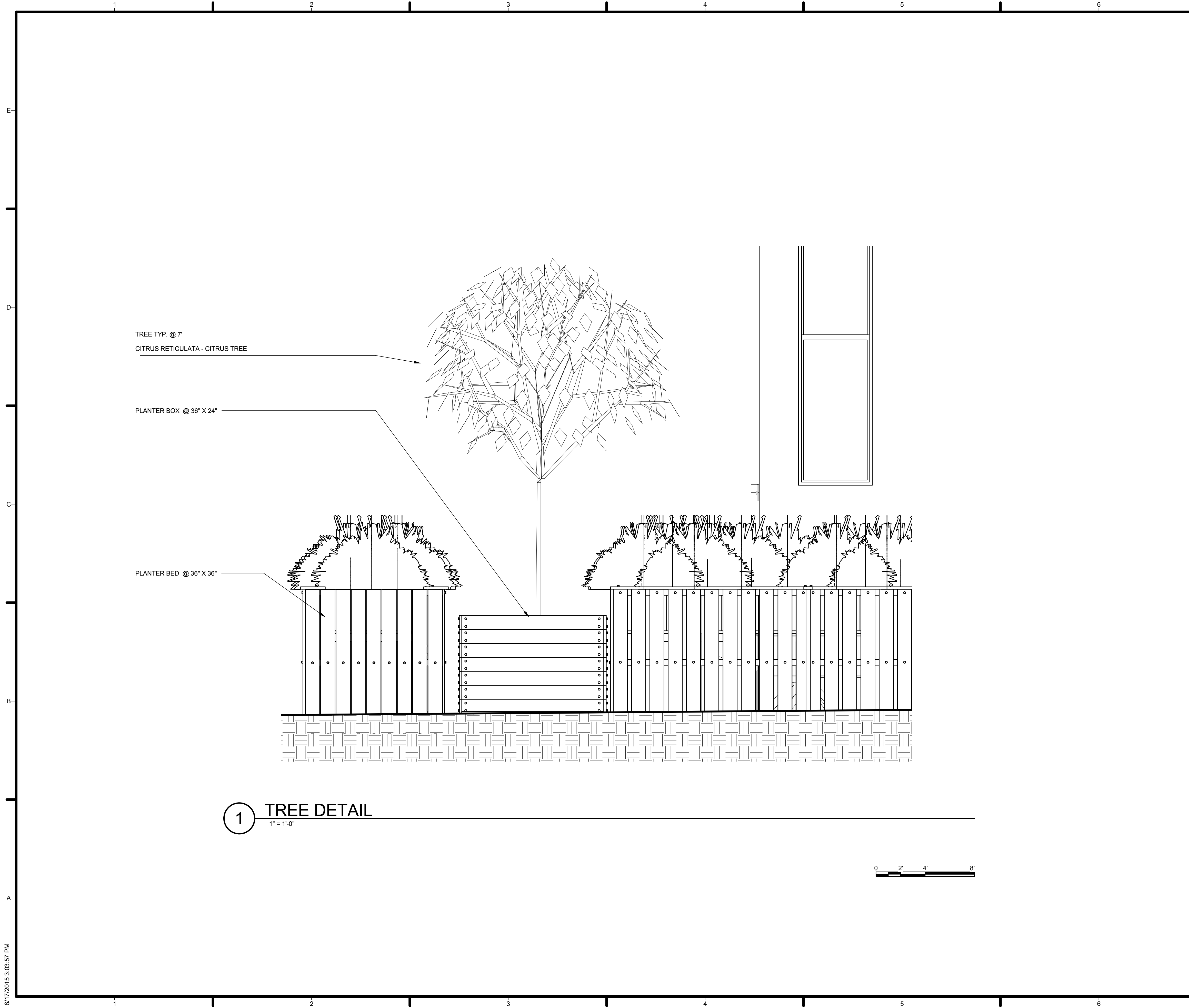
CD	2.12.15	CONSTRUCTION DOCS
MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

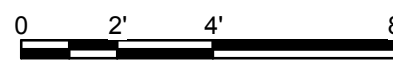
SHEET TITLE
LANDSCAPE ELEVATIONS

L-202

8/17/2015 2:59:44 PM



1 TREE DETAIL
1" = 1'-0"



8/17/2015 3:03:57 PM

GENERAL SHEET NOTES

- PLANTER BEDS ARE APPROXIMATELY 3' IN HEIGHT FROM GRADE LEVEL.
- PLANTER BEDS DIMENSIONED TO PROVIDE SUFFICIENT BUFFER ZONE FOR SAFETY REGULATION, REPLACING THE NEED FOR HANDRAILS FOR ALL DECK AREAS.
- TO COMPENSATE FOR GRADE CHANGES, ALL PLANTER BED UNITS TO BE SHIMMED AS NECESSARY AND SECURED TO ADJACENT UNITS WITH #8X3" EXTERIOR SCREWS.

REFERENCE KEYNOTES

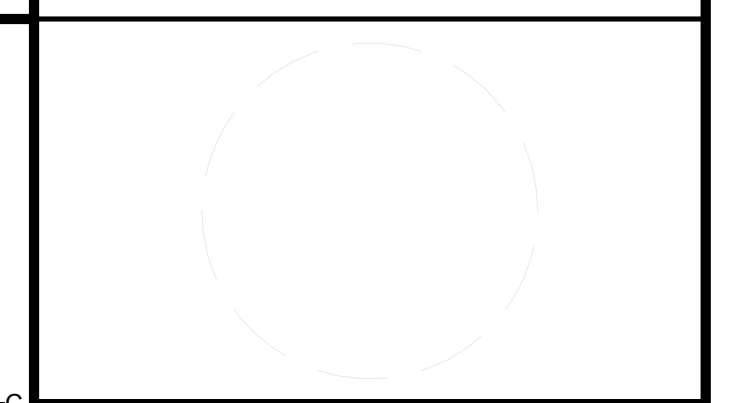
NOT USED AT THIS TIME


SHEET KEYNOTES

NOT USED AT THIS TIME



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530) 752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	



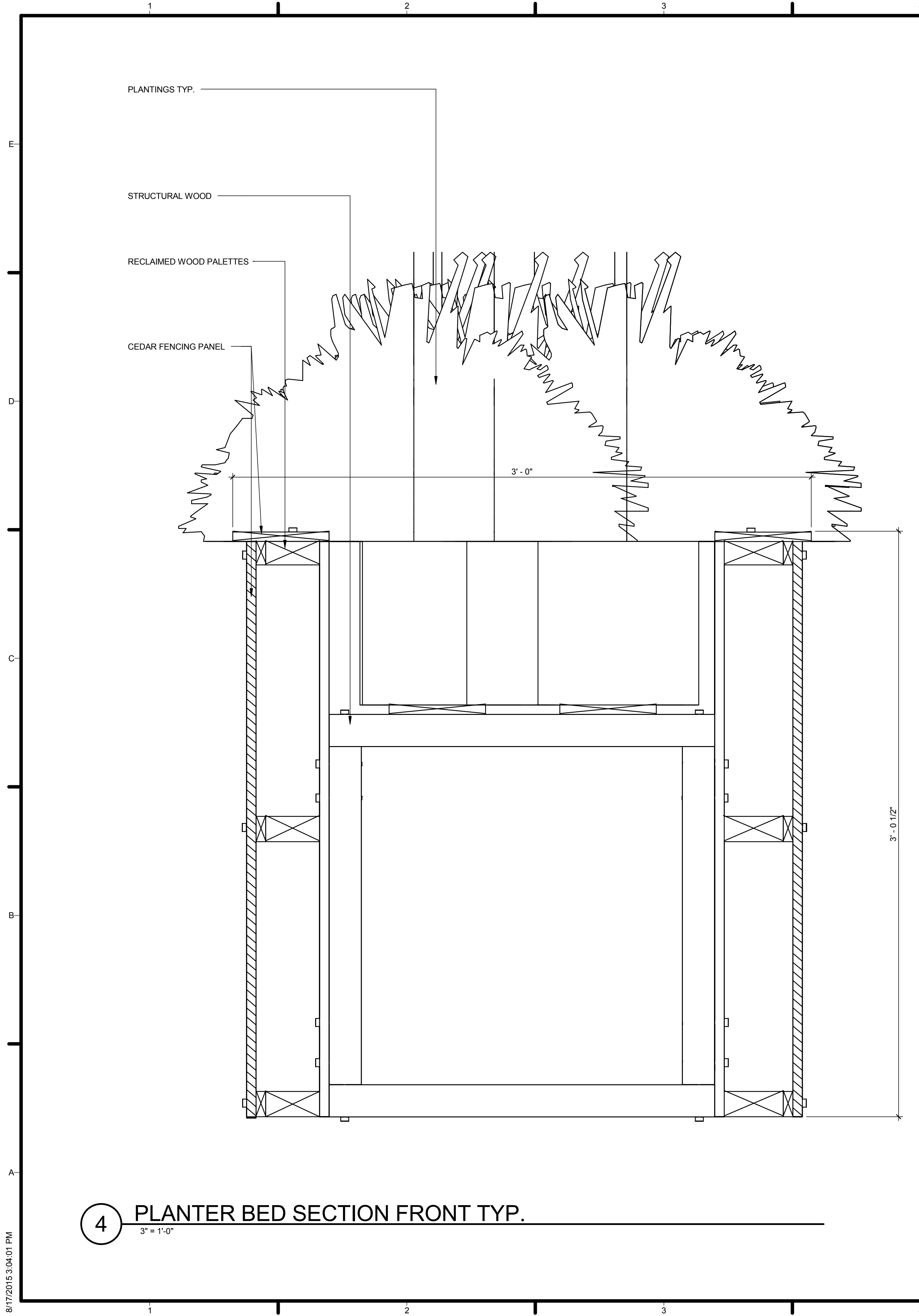
CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
	

MARK	DATE	DESCRIPTION

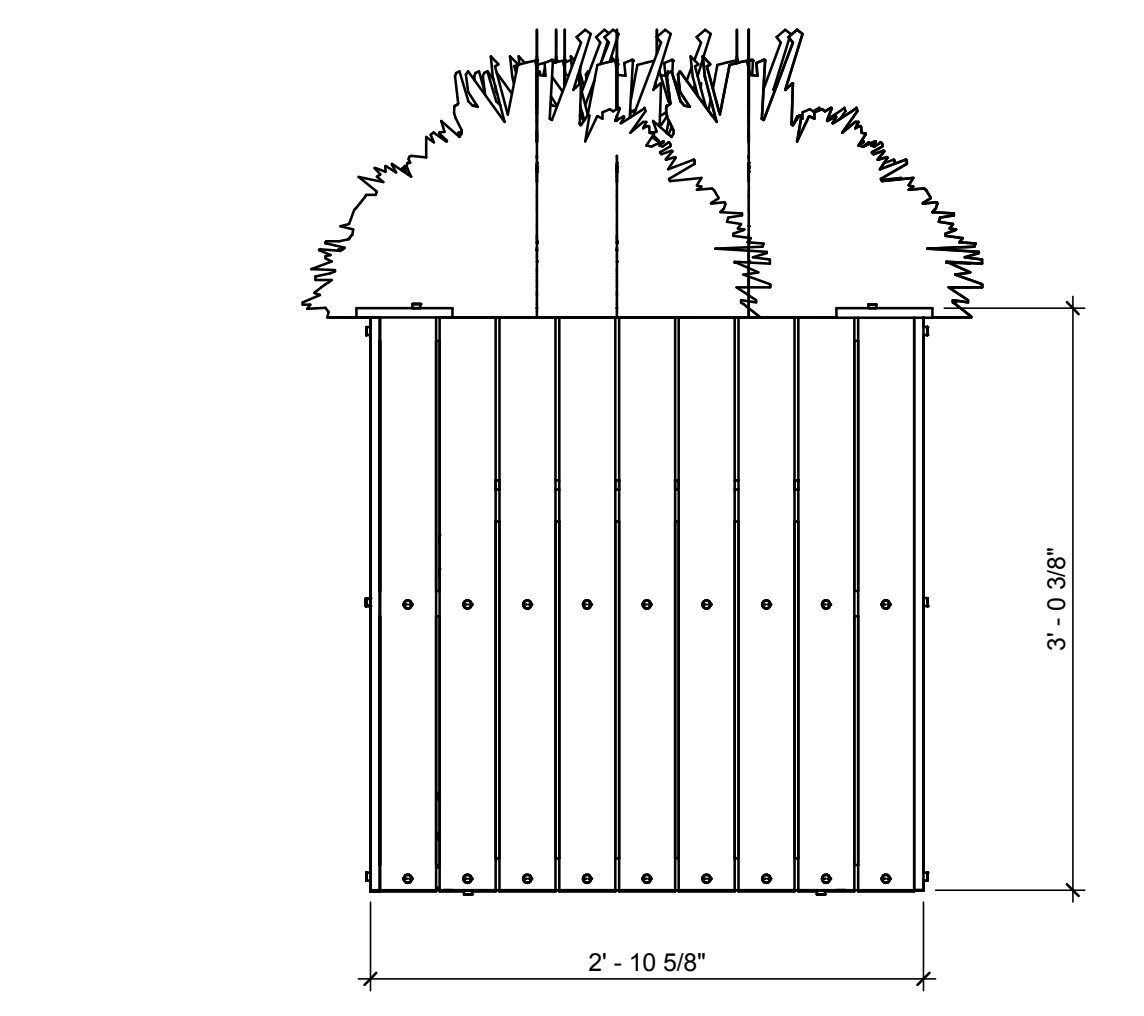
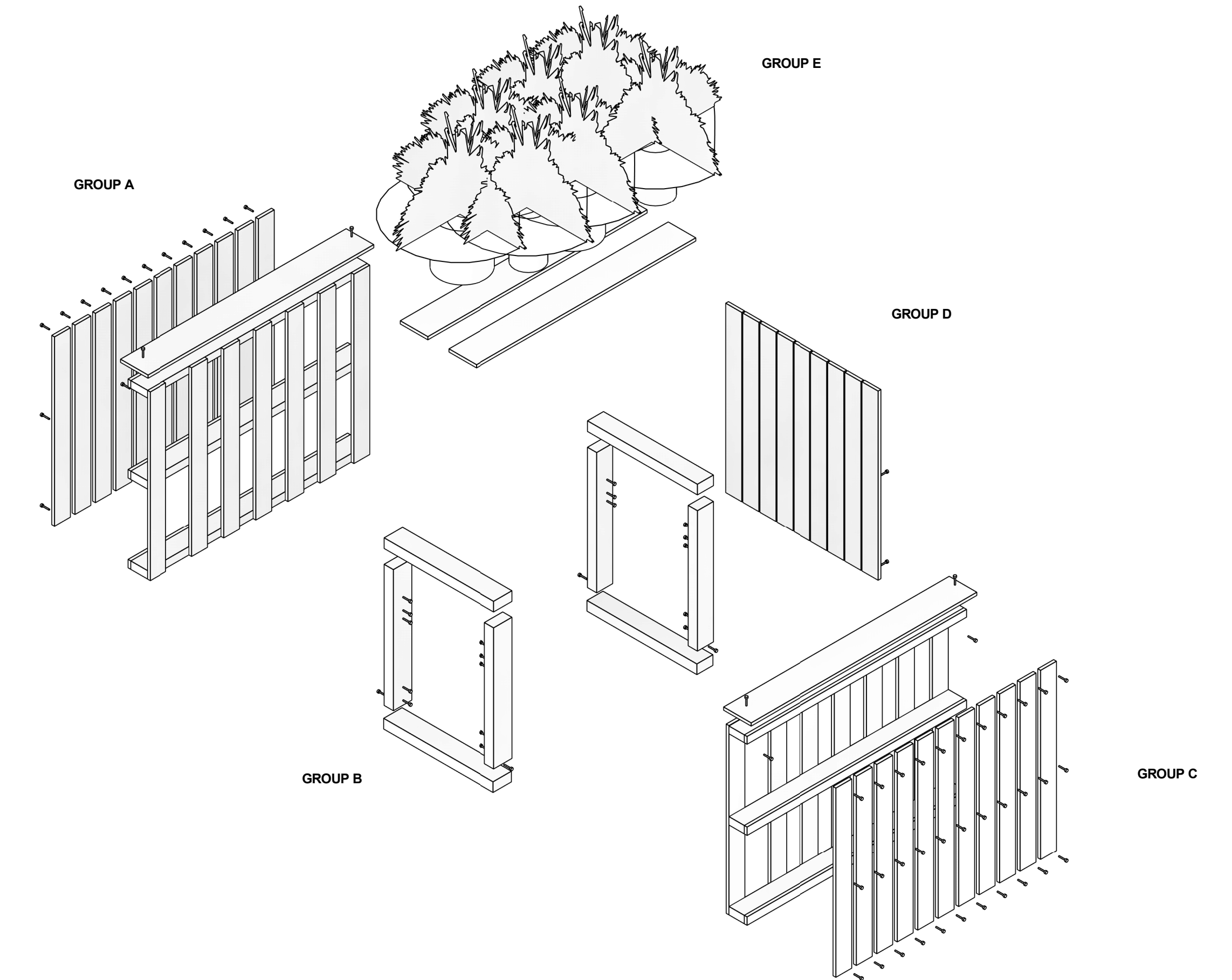
LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
PLANTING DETAILS

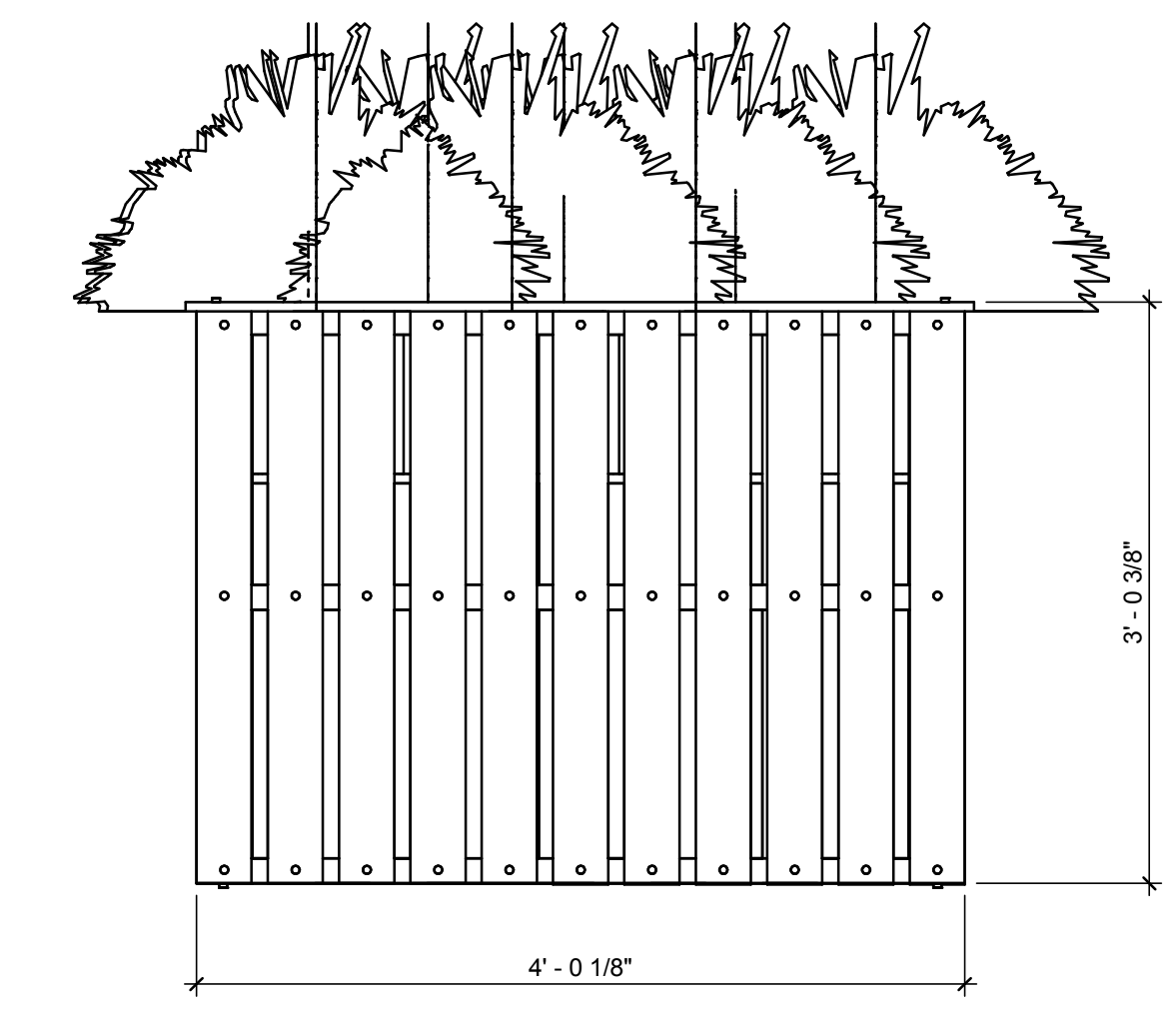
L-601



1 PLANTER BED ISOMETRIC TYP. 36IN X 36IN X 36IN



3 FRONT SECTION W/PANEL TYP. 1" = 1'-0"



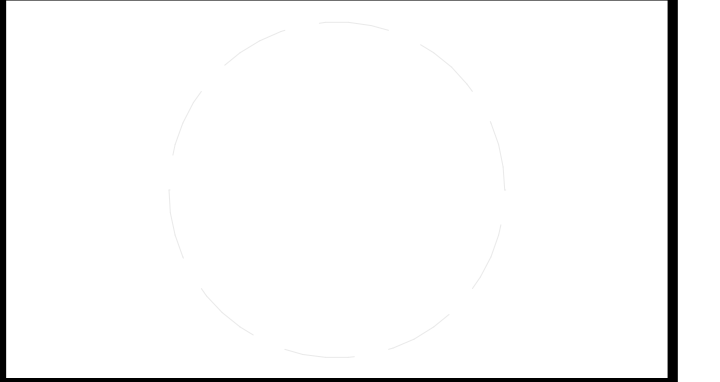
2 SIDE SECTION TYP. 1" = 1'-0"

4 PLANTER BED SECTION FRONT TYP. 3" = 1'-0"



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

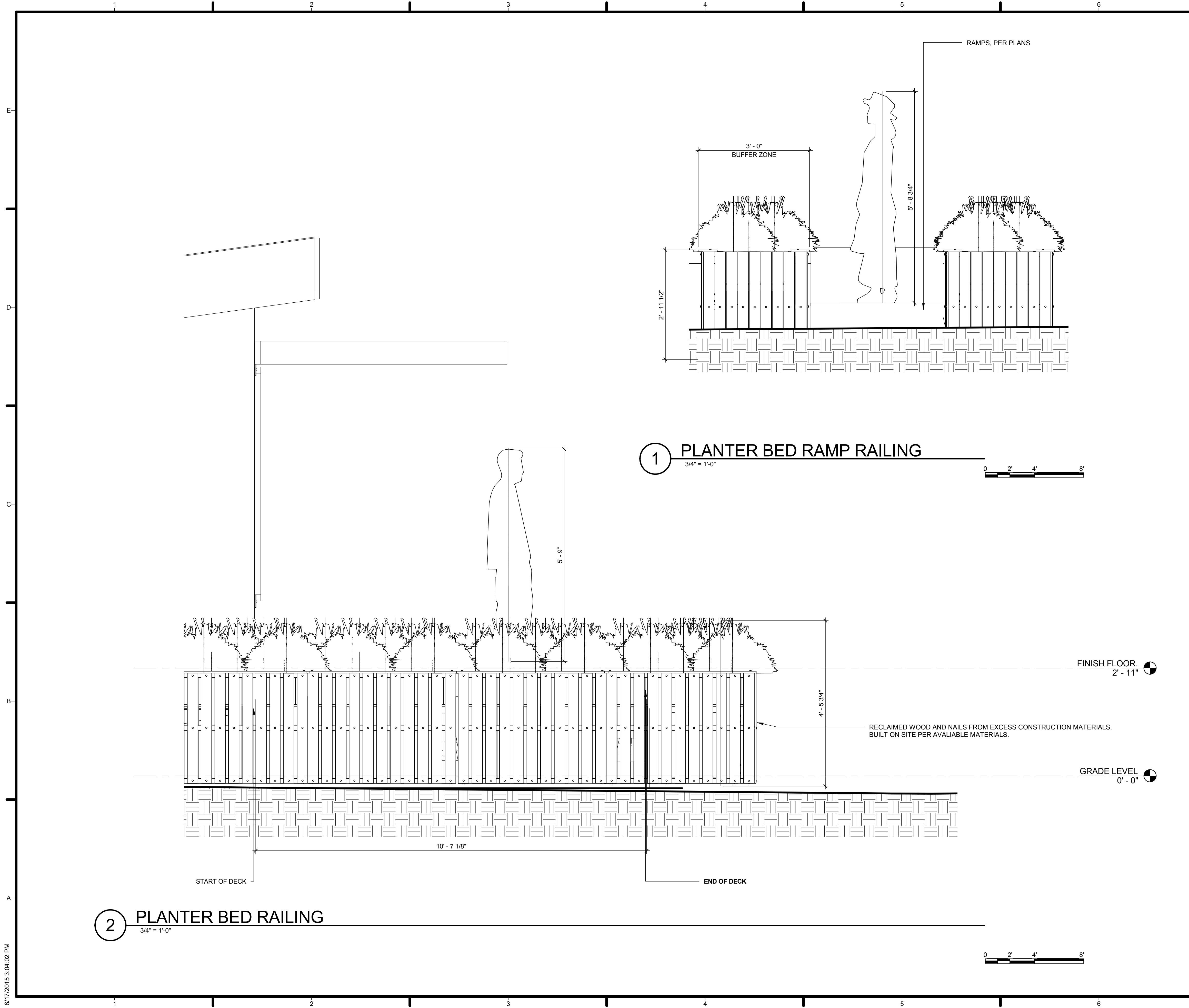


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
PLANTER BED DETAIL

L-602



GENERAL SHEET NOTES

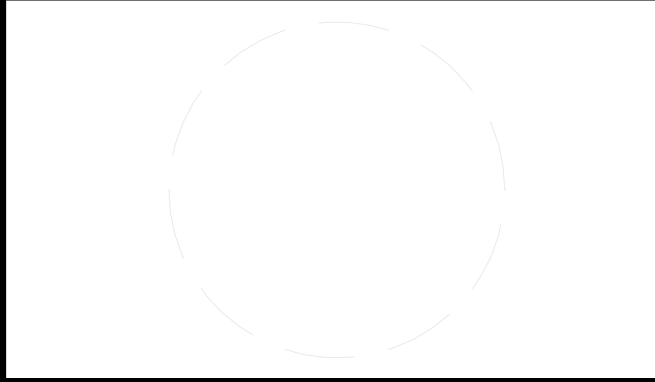
- PLANTER BEDS ARE APPROXIMATELY 3' IN HEIGHT FROM GRADE LEVEL
- PLANTS WILL BE SUFFICIENT TO DISCOURAGE WALKING ON OR OVER THE PLANTERS.
- PLANTER BEDS DIMENSIONED TO PROVIDE SUFFICIENT BUFFER ZONE FOR SAFETY REGULATION, REPLACING THE NEED FOR HANDRAILS FOR ALL DECK AREAS.
- TO COMPENSATE FOR GRADE CHANGES, ALL PLANTER BED UNITS TO BE SHIMMED AS NECESSARY AND SECURED TO ADJACENT UNITS WITH #8X3\"



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

REFERENCE KEYNOTES

NOT USED AT THIS TIME



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



SHEET KEYNOTES

NOT USED AT THIS TIME

MARK	DATE	DESCRIPTION
CD	2.12.15	CONSTRUCTION DOCS

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: BEN WHITE
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 PLANTER BED RAILING
 DETAIL

L-603

8/17/2015 3:04:02 PM

8/17/2015 3:04:31 PM

LATERAL FORCE RESISTANCE SYSTEM NOTES

- ROOF SHEATHING IS ATTACHED TO THE ROOF JOISTS WITH NAILING AND FASTENERS PER PLANS AND SCHEDULES.
- ROOF JOISTS ARE MECHANICILLY CONNECTED TO TOP PLATES WITH VPA SIMPSON CONNECTORS
- ROOF JOISTS ARE MECHANICILLY CONNECTED TO ROOF RIDGE WITH SIMPSON LSSU2.1 HANGERS.
- WALLS ARE SHEATHED WITH 3/8" STRUCTURAL 1, APA RATED SHEATHING OR SIMILAR NAILED PER PLANS AND SCHEDULE. WALL SHEATHING SHALL CONTINUE TO THE ROOF AND BE NOTCHED FOR EXPOSED ROOF RAFTERS
- WALL STUDS SHALL BE MECHANICILLY CONNECTED TO SILL PLATES WITH H8 SIMPSON HANGERS OR SIMILAR.
- SILL PLATES SHALL BE ATTACHED TO FLOOR JOISTS WITH ANCHOR BOLTS, PER PLANS AND SCHEDULES.
- FLOOR JOISTS SHALL BE ATTACHED TO THE TRAILER WITH LAG BOLTS PER PLANS AND SCHEDULES.
- TRAILER FRAME SHALL BE ANCHORED TO GRADE WITH CP ANCHOR PIERS OR SIMILAR, PER PLANS.
- ANCHOR PIERS SHALL BE ANCHORED TO GRADE WITH ANCHOR RODS AS SPECIFIED BY MANUFACTURER.

STRUCTURAL LOADS AND ASSUMPTIONS

1. ASSUMPTIONS:	
BASIC WIND SPEED	110 MPH
EXPOSURE CATEGORY	C
RISK CATEGORY	II
SITE CLASSIFICATION	D
SEISMIC DESIGN CATEGORY	D
Ib	1
R	6.5
2. STRUCTURAL LOADS	
VERTICAL LOADS	
ROOF LOAD	21315 lbs
FLOOR LOAD	25594 lbs
INTERIOR WALL LOAD	9287 lbs
EXTERIOR WALL LOAD	14452 lbs
TOTAL	70548 lbs
LATERAL LOADS	
SEISMIC LOAD	6024 lbs
WIND LOAD	5984 lbs

Structural Design Narrative

The Aggie Sol home is a unique single family residence that aims to be an affordable net zero house. The intent of this structural design is not only to comply with the codes and requirements of the competition but also to be compliant with local codes for residential use in Davis, CA and meet the transportation requirements to transport a 2 unit mobile home via DOT standards. The Aggie Sol home will be constructed on (2) salvaged and recertified two axle trailers that are hauled from Davis, CA to the competition location in Irvine, CA by Class A trucks and connected to complete the house. At the end of the competition the mobile housing units will be separated and hauled back to Davis, CA. The single story residential home will be comprised of in-line 2 x 6 wood framing. Load-bearing wood stud walls with OSB shear sheathing will support gravity and shear loads and transfer them to the LVL floor system and central pier foundation system; the in line framing eliminates the need for blocking, and increases the stud spacing. The foundation system is typical of semi-permanent mobile housing; the thirteen (13) standard piers carry the majority of the weight to the ground and the sixteen (16) anchor piers are embedded to prevent lateral and seismic movement. Interior walls are designed to be non-loading bearing 2 x 4 conventional wood construction. All site features such as decking, shade structures, sloped walkways and shrouds for water storage will stand structurally independent from the housing unit.

GENERAL NOTES

- DETAILS OF CONSTRUCTION NOT FULLY SHOWN SHALL BE OF THE SAME NATURE AS SHOWN FOR SIMILAR CONSTRUCTION
- CONSTRUCTION SHALL CONFORM TO THE 2013 CBC AND ALL APPLICABLE CODES AND REGULATIONS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AND ARCHITECT WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DRAWINGS OR DOCUMENTS. CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE BUILDING THAT IS IN CONFLICT, UNTIL THE CONFLICT IS RESOLVED WITH THE AFFECTED PARTIES.
- ALL PRE-MANUFACTURED ROOF TRUSSES, PRE-MANUFACTURED "I" JOISTS, PRE-MANUFACTURED LAMINATED VENEER & PARALLEL STRESS LUMBER BEAMS, AND BLUE LAMINATED BEAMS TO BE SUBMITTED TO THE PROJECT ARCHITECT AND/OR THE ENGINEER FOR REVIEW AND COORDINATION. A SUBMITTAL MAY THEN BE MADE TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL. INCLUDE A LETTER STATING THIS REVIEW AND COORDINATION HAS BEEN PERFORMED AND COMPLETED AND PLANS AND CALCULATIONS ARE FOUND TO BE ACCEPTABLE. TRUSS DRAWINGS AND LAYOUTS TO BE SUBMITTED PRIOR TO CONSTRUCTION AS PART OF DEFERRED SUBMITTAL PER 2013 CDC 107.3.4.1
- THE DESIGN, ADEQUACY, AND SAFETY OF ERECTED BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAS NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF ALL SHEAR WALLS AND AFFORMENTIONED MATERIALS. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- IN NO CASE SHOULD DRAWINGS, DETAILS, OR ANY PART OF THESE PLANS BE SCALED FOR ANY PURPOSE. IF ANY DIMENSION NOT SHOWN ARE REQUIRED IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE ENGINEER OR ARCHITECT FOR ADDITIONAL INFORMATION.

SHEAR AND BRACED WALL PANEL NOTES

- SHEATHING USED IN THE CONSTRUCTION OF SHEAR WALLS TO BE 4"x8" MINIMUM EXCEPT AT BOUNDARIES OR AT CHANGES IN FRAMING.
- FRAMING MEMBERS OR BLOCKING REQUIRED AT ALL PANEL EDGES IN SHEAR WALLS.
- DO NOT BREAK FACE PLY WHEN NAILING ANY SHEAR WALLS.
- NAILS SPECIFIED FOR SHEAR WALLS.
8d - 2 1/2" LONG, 0.131 SHANK DIAMETER, 9/32" HEAD DIAMETER. SPACING: 4 INCH EDGE AND 8 INCH FIELD NAILING
- MOISTURE CONTENT OF LUMBER NOT TO EXCEED 19% AT TIME OF FABRICATION OR CONSTRUCTION.
- ALL FRAMING MEMBERS USED IN THE CONSTRUCTION OF THE SHEAR WALLS MUST BE DOUGLAS FIR. NO HEM FIR OR SPF FRAMING IS TO BE USED UNLESS NOTED ON FRAMING PLANS.
- NOTE THAT HORIZONTAL JOINTS DO NOT REQUIRE BLOCKING FOR BRACED WALL PANEL TYPES A & B PER TABLE 2308.9.3 (1) 2013 CBC.
- BRACED WALL PANEL SOLE PLATES TO BE NAILED TO THE FLOOR FRAMING AND TOP PLATES, SHALL BE CONNECTED TO THE FRAMING ABOVE PER TABLE 2304.9.1. SILLS SHALL BE CONNECTED TO THE FRAMING ABOVE PER 2013 CBC 2308.3.3, 2308.6. WHERE JOIST ARE PERPENDICULAR TO BRACED WALL LINES ABOVE, BLOCKING SHALL BE PROVIDED UNDER AND IN LINE WITH THE BRACED WALL PANELS. PROVIDE (3)-16d NAILS @ 16" O.C. (TYP.)

FOUNDATIONS

- THE FOUNDATION DESIGN IS BASED ON SOLAR DECATHLON WIND AND SEISMIC LOAD ASSUMPTIONS.
- FOUNDATION TYPE: A MIX DESIGN OF BOTH: SEISMIC PIER SPA 30-5F BY CENTRAL PIERS, INC. STANDARD PIER BY CENTRAL PIER, INC
- ALLOWABLE LOADS PER PIER PRE-APPROVAL:

VERTICAL RESISTANCE:	
SEISMIC PIER SPA 30-5F	8251 lbs
STANDARD PIER	6000 lbs
LATERAL RESISTANCE:	
SEISMIC PIER SPA 30-5F	1893 lbs
STANDARD PIER	0 lbs (NOT APPROVED FOR LATERAL RESISTANCE)
UPLIFT RESISTANCE:	
SEISMIC PIER SPA 30-5F	2133 lbs
STANDARD PIER	0 lbs (NOT APPROVED FOR UPLIFT RESISTANCE)

STRUCTURAL SHEET INDEX OF DRAWINGS

Sheet Number	Sheet Name
S-001	STRUCTURAL NOTES AND SYMBOLS
S-002	FRAMING SCHEDULES
S-003	TYPICAL NOTES AND DETAILS
S-101	ENGINEERED ANCHOR FOUNDATION PLAN
S-102	ENGINEERED STANDARD FOUNDATION PLAN
S-103	FOUNDATION PLAN
S-104	FOUNDATION PLAN
S-105	FIRST FLOOR FRAMING PLAN
S-106	WALL FRAMING PLAN
S-107	ROOF FRAMING PLAN
S-108	SHEAR WALL PLAN
S-109	DECK FRAMING
S-201	FRAMING ELEVATIONS
S-202	FRAMING ELEVATIONS
S-203	FRAMING ELEVATIONS
S-301	FRAMING SECTIONS
S-302	FRAMING SECTIONS
S-501	FRAMING DETAILS
S-502	FRAMING DETAILS
S-503	DECK DETAILS
S-504	TRAILER FRAME DETAILS
S-701	TRAILER AXLE LOCATION
S-901	FRAMING ISOMETRIC
S-902	EXTERIOR FRAMING VIEWS

WOOD

- ALL STRUCTURAL WOOD SHALL CONFORM WITH THE FOLLOWING SPECIFICATIONS.

DOUGLAS FIR LARCH	WEST COAST LUMBER INSPECTION BUREAU GRADING RULES # 17
REDWOOD	CALIFORNIA REDWOOD ASSOCIATION GRADING RULES
GLUE LAMINATED BEAMS	GLUE LAMINATED FABRICATION SHALL BE PERFORMED IN AN APPROVED FABRICATOR'S SHOP IN ACCORDANCE WITH 2013 CBC 1704.2 STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER, ANSI/APA 1901-02. GLUE LAMINATED BEAMS SHALL BE INSPECTED AND A CERTIFICATE PROVIDED TO FIELD INSPECTOR AT THE TIME OF FRAMING INSPECTION.
OSB PLYWOOD	U.S. PRODUCT STANDARDS P.S. 2-92 FOR WOOD BASED STRUCTURAL USE PANELS.
MICROLAM LVL BEAMS	NATIONAL EVALUATION REPORT NO. ICC ESR-1387 BEAM SHALL BE 1 3/4" STANDARD WIDTH.
PARALLAM PSL BEAMS	NATIONAL EVALUATION REPORT NO. ICC ESR-1387
PARALLAM PSL BEAMS	NATIONAL EVALUATION REPORT NO. ICC ESR-1153
- MINIMUM GRADES SHALL BE:

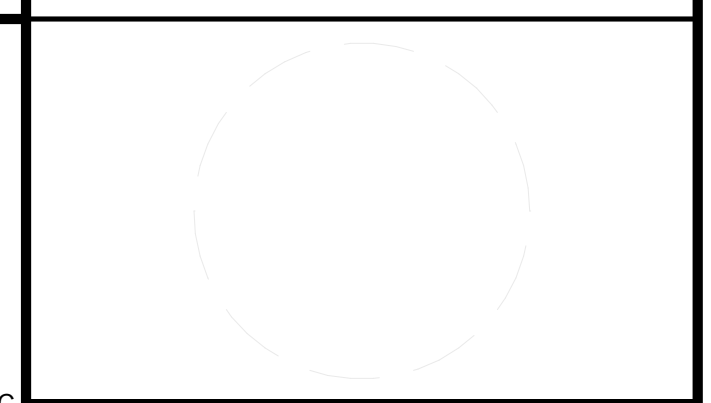
HORIZONTAL FRAMING	
2X FRAMING: #2 D.F.L	
4X FRAMING: #2 D.F.L.	
2X10 FRAMING: #1 D.F.L.	
WALL FRAMING	
2X4 FRAMING: #2 D.F.L.	
2X6 AND LARGER FRAMING: #2 D.F.L.	
GLUED LAMINATED COMBINATION 24"-V4 3000" RADIUS	
STRUCTURAL PLYWOOD	
APA RATED SHEATHING	
MICROLAM LVL BEAMS	2.0E
PARALLAM PSL BEAMS	2.0E
- BEARING AND SHEAR WALLS HAVE SINGLE TOP PLATES, LAPPED AT WALL AND PARTITION INTERSECTIONS W/3-16d NAILS. SPLICE UPPER AND LOWER PLATES BY LAPPING 48" MINIMUM WITH (24) 16d NAILS IN LAP.
- PROVIDE SOLID BLOCKING BETWEEN RAFTERS OR JOISTS AT ALL SUPPORTS.
- Holes for bolts in wood shall be bored of the same nominal diameter as the bolt + 1/16".
- LAG SCREWS AND WOOD SCREWS SHALL BE SCREWED AND NOT DRIVEN INTO PLACE.
- ALL BOLTS SHALL BE PROVIDED WITH METAL WASHERS UNDER HEADS AND NUTS WHICH BEAR ON WOOD. APPLIES ALSO TO INSERTED EXPANDING FASTENERS, RED HEADS, ETC.
- WASHERS FOR WOOD TO WOOD CONNECTIONS TO BE AS FOLLOWS:

BOLT DIAMETER	M.I. WASHER	STEEL WASHER
1/2" O.D.	2 1/2" O.D. X 1 1/4" X 2" X 1/4"	2 1/2" X 2 1/2" X 1/4"
5/8" O.D.	2 3/4" O.D. X 5/16"	2 1/2" X 3" X 5/16"
3/4" O.D.	3" O.D. X 7/8"	3" X 3" X 5/16"
7/8" O.D.	3 1/2" O.D. X 7/16"	3 1/2" X 3 1/2" X 3/8"
1" O.D.	4" O.D. X 1/2"	3 3/4" X 3 3/4" X 3/8"
- ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED AT THE TIME OF INSTALLATION AND RE-TIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB.
- INSTALL ALL STRUCTURAL PLYWOOD ON ROOF AND FLOORS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS.
- ALL WOOD STRUCTURAL MEMBERS, WHEN DESIGNED TO BE EXPOSED IN OUTDOOR APPLICATIONS, SHALL BE WOOD OF NATURAL RESISTANCE TO DECAY OR TREATED WOOD. 2013 CBC 2304.11.5



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

STRUCTURAL NOTES AND SYMBOLS

S-001

8/17/2015 3:04:32 PM

NAILING SCHEDULE

NOTE: THIS 2013 CBC NAILING SCHEDULE TO BE USED UNLESS NOTED OTHERWISE ON PLAN AND ENGINEERING SHEETS.		2013 CBC	NOTE: THIS 2013 CBC NAILING SCHEDULE TO BE USED UNLESS NOTED OTHERWISE ON PLAN AND ENGINEERING SHEETS.		2013 CBC
TABLE 2304.9.1 NAILING SCHEDULE			TABLE 2304.9.1 NAILING SCHEDULE		
CONNECTION	NAILING		CONNECTION	NAILING	
1. JOIST TO SILL OR GIRDER, TOENAIL	3-6d		25. 7" PLANKS	16d AT EACH BEARING	
2. BRIDGING TO JOIST, TOENAIL, EACH END	3-6d		26. COLLAR TIE TO RAFTER, FACE NAIL	2-10d	
3. 1"x6" SHEATHING OR LESS TO EACH JOIST, FACE NAIL	2-6d		27. JACK RAFTER TO HIP	3-10d TOENAIL	
4. WIDER THAN 1"x6" SHEATHING TO EACH JOIST, FACE NAIL	2-6d		28. ROOF RAFTER TO 2-4BY RIDGE BEAM	2-16d FACE NAIL	
5. 2" SHEATHING TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d		29. JOIST TO RAND JOIST, FACE NAIL	2-16d FACE NAIL	
6. SOLE PLATE TO JOIST OR BLOCKING, TYP. FACE NAIL	16d @ 16" O.C.		30. LEDGER STRIP, FACE NAIL	3-16d AT EACH JOIST	
7. SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANEL	(3) 16d @ 16" O.C.		31. WOOD STRUCTURAL PANELS AND PARTICLEBOARD ^a		
8. TOP PLATE TO STUD, END NAIL	2-16d		SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING):		
9. DOUBLE STUDS, FACE NAIL	4-8d TOENAIL OR		1 1/2" AND LESS	6d ^{1,f}	
10. DOUBLE TOP PLATES, TYPICAL FACE NAIL	2-16d END NAIL		1 3/8" TO 1 3/4"	8d ¹ OR 6d ¹	
11. DOUBLE TOP PLATES, LAP SPICE	16d @ 24" O.C.		1 3/4" TO 1 7/8"	8d ¹	
12. BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL	8d		1 7/8" TO 1 1/4"	10d ¹ OR 8d ¹	
13. RIM JOIST TO TOP PLATE, TOENAIL	8d @ 6"		COMBINATION SUBFLOOR-UNDERLAYMENT (TO FRAMING):		
14. TOP PLATES, LAPS AND BUTT JOINTS, FACE NAIL	2-16d		3/4" AND LESS	6d ¹	
15. CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EDGE		3/4"-1"	8d ¹	
16. CEILING JOISTS TO PLATE, TOENAIL	3-6d		1 1/8"-1 1/4"	10d ¹ OR 8d ¹	
17. CONTINUOUS HEADER TO STUD, TOENAIL	2-6d		1 1/4" TO 1 1/2"	6d ¹	
18. CEILING JOISTS TO PLATE, TOENAIL	2-16d		1 1/2" OR LESS	8d ¹	
19. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d				
20. RAFTER TO PLATE, TOENAIL	2-6d		33. FIBERBOARD SHEATHING ¹		
21. 1" DIAGONAL BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d		1/2"	NO. 11 GA. ROOFING NAIL ^h	
22. 1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2-8d			6d	
23. WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	2-8d			NO. 16 GA. STAPLE ⁱ	
24. BUILD-UP CORNER STUDS	16d @ 24" O.C.			NO. 11 GA. ROOFING NAIL ^h	
25. BUILD-UP GIRDER AND BEAMS	20d @ 32" O.C. FACE NAIL AT TOP & BOTTOM AND STAGGERED 2-20d FACE NAIL AT ENDS AND AT EACH SPICE		34. INTERIOR PANELING		
			1 1/4"	8d	
			3/8"	6d ⁴	

- ALL FASTENERS INSTALLED IN DECAY RESISTANT LUMBER TO BE HOT DIPPED GALVANIZED PER THE 2013 CBC 2304.9.5.1
- FOR SI: 1 INCH = 25.4 mm
- FOOTNOTES
- a COMMON OR BOX NAILS MAY BE USED EXCEPT WHERE OTHERWISE STATED.
 - b NAILS SPACED AT 6" ON CENTER AT EDGES, 12" AT INTERMEDIATE SUPPORTS EXCEPT 6" AT ALL SUPPORTS WHERE SPANS ARE 48" OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING TO BE COMMON, BOX OR CASING.
 - c COMMON OR DEFORMED SHANK (6d, 8d, 10d)
 - d COMMON (6d, 8d, 10d)
 - e DEFORMED SHANK (6d, 8d, 10d)
 - f CORROSION-RESISTANT SIDING (6d, 8d) OR CASING (6d, 8d) NAILS.
 - g FASTENERS SPACED 3" ON CENTER AT EXTERIOR EDGES AND 6" ON CENTER AT INTERMEDIATE SUPPORTS, WHEN USED ON STRUCTURAL SHEATHING. SPACING SHALL BE 6" O.C. EDGE AND 12" O.C. AT INTERMEDIATE SUPPORTS FOR NON-STRUCTURAL APPLICATIONS.
 - h CORROSION-RESISTANT ROOFING NAILS WITH 1/4"-DIAMETER HEAD AND 1 1/2" LENGTH FOR 3/4" SHEATHING AND 1 3/4" LENGTH FOR 1/2" SHEATHING.
 - i CORROSION-RESISTANT STAPLES WITH NOMINAL 3/16" CROWN OR 1" CROWN AND 1 1/2" LENGTH FOR 3/4" SHEATHING AND 1 3/4" LENGTH FOR 1/2" SHEATHING. PANEL SUPPORTS AT 24 INCHES, CASING OR FINISH NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
 - j FOR ROOF SHEATHING APPLICATIONS, ALL NAILS ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.
 - k STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 3/16" INCH.
 - l FOR ROOF SHEATHING APPLICATIONS, FASTENERS SPACED 6" ON CENTER AT EDGES, 8" AT INTERMEDIATE SUPPORTS.
 - m FASTENERS SPACED 4" ON CENTER AT EDGES, 8" AT INTERMEDIATE SUPPORTS FOR SUBFLOOR AND WALL SHEATHING AND 2" ON CENTER AT EDGES, 6" AT INTERMEDIATE SUPPORTS FOR ROOF SHEATHING.
 - n FASTENERS SPACED 4" ON CENTER AT EDGES, 8" AT INTERMEDIATE SUPPORTS.

NAILING SCHEDULE
1. FOR ENGINEERED WOOD PRODUCTS, FOLLOW THE MANUFACTURE'S GUIDELINES.

SHEAR WALL SCHEDULE							
MARK	WIND CAPACITY (plf)	SEISMIC CAPACITY (plf)	UPLIFT CAPACITY (plf)	SHEATHING	NAILING	SILL ANCHOR	COMMENTS
1	365	260	745	3/8" STRUCTURAL 1, APA RATED	8d COMMON 6" O.C. EDGE 12" O.C. FIELD	SIMPSON, 18-GAUGE HURRICANE TIE, H8	

SHEAR WALL SCHEDULE

GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616
CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



DD	02.12.15	DESIGN DEVELOPMENT

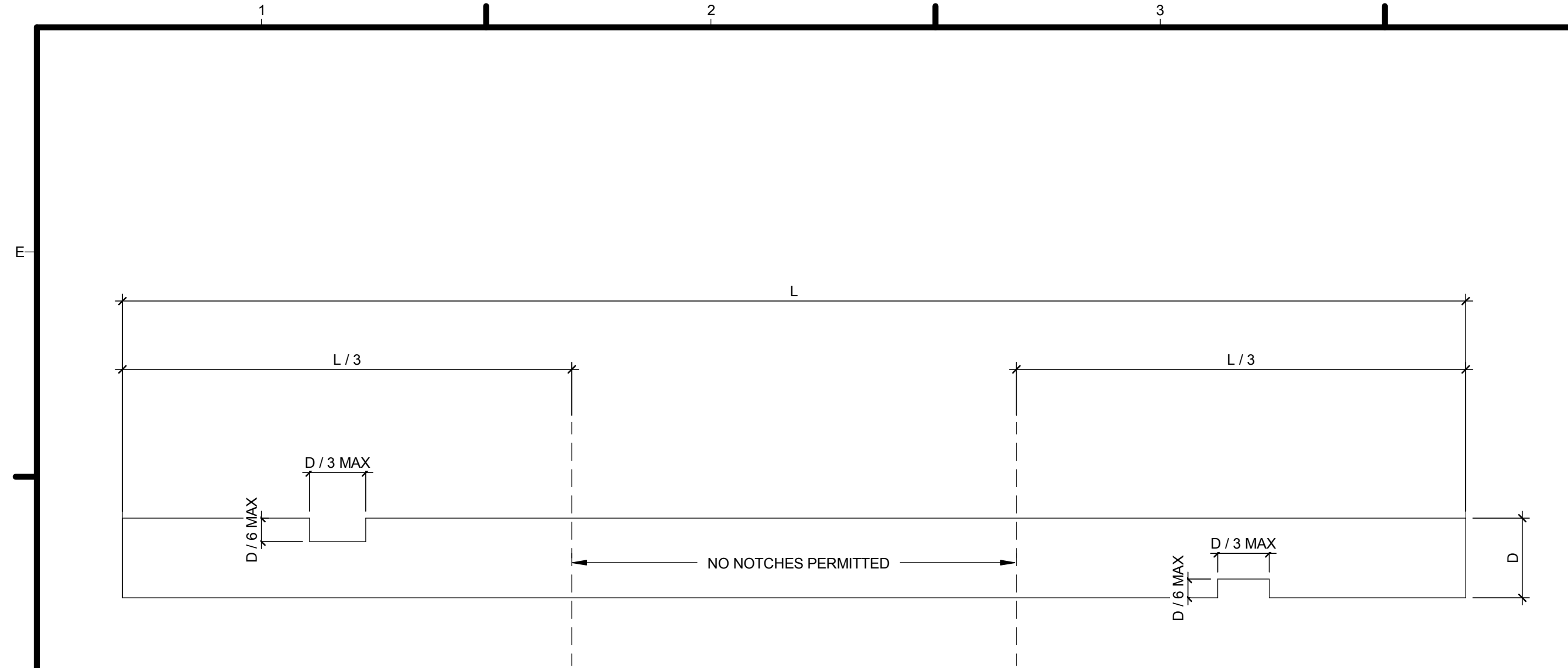
MARK	DATE	DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: BEN WHITE
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

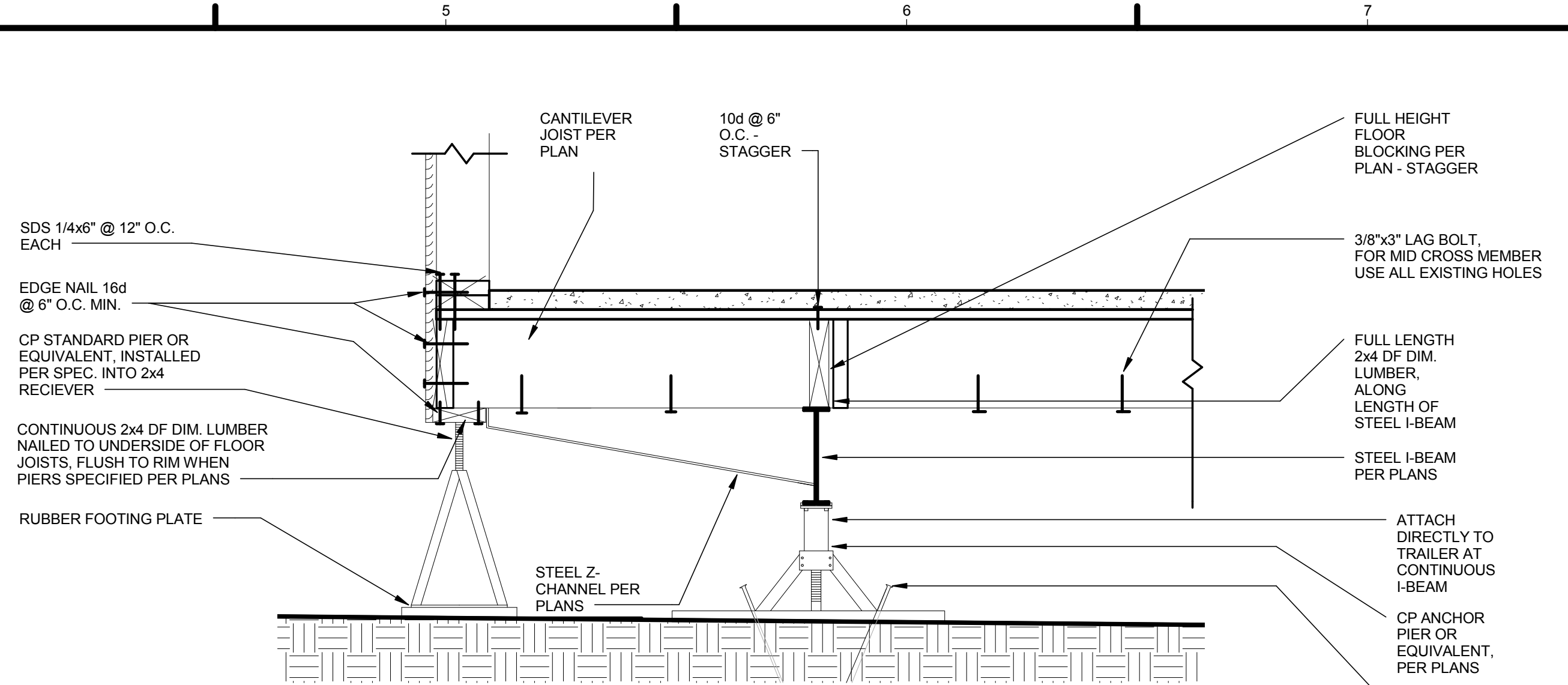
SHEET TITLE

FRAMING SCHEDULES

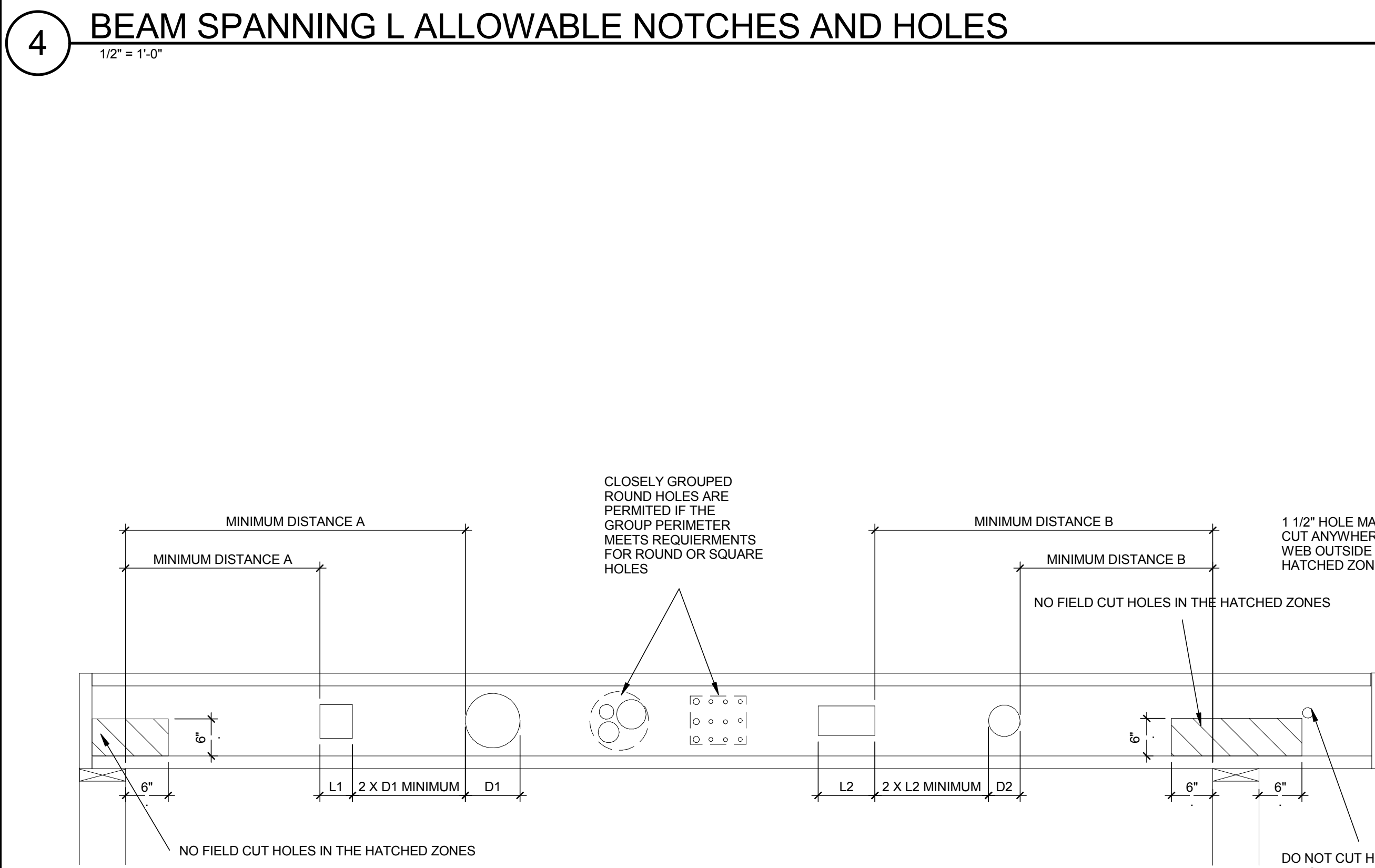
S-002



4 BEAM SPANNING L ALLOWABLE NOTCHES AND HOLES
1/2" = 1'-0"



1 FLOOR SHEAR TRANSFER
1" = 1'-0"



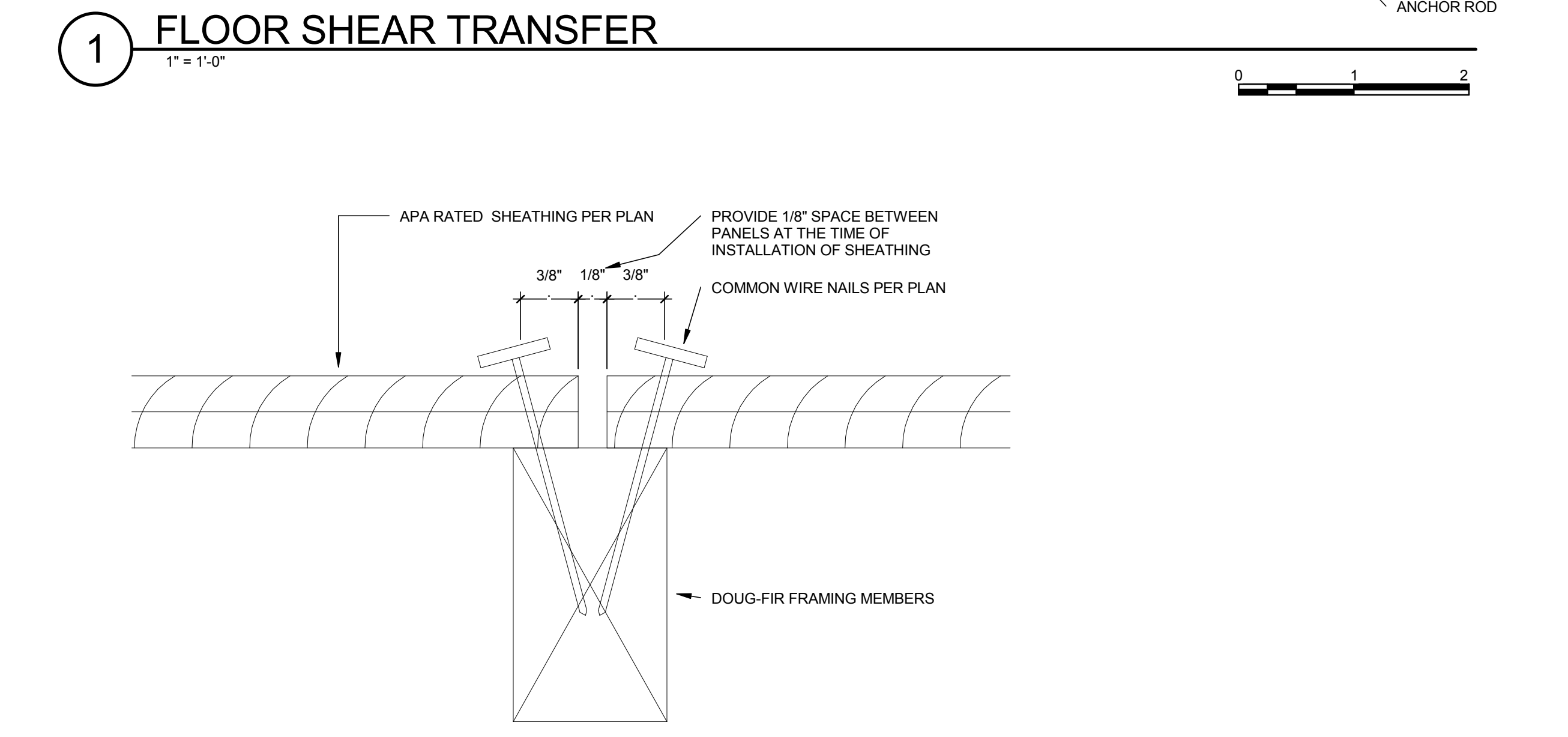
MINIMUM DISTANCE FROM EDGE OF HOLE TO INSIDE FACE OF NEAREST END SUPPORT

HOLE DIAMETER	2"	3"	4"	5"	6.5"	7"	8 7/8"
MINIMUM DISTANCE A, ROUND HOLE	1"	1'-6"	2'-0"	2'-0"	3'-0"	3'-6"	6'
MINIMUM DISTANCE A, SQUARE HOLE	1"	1'-6"	2'-6"	3'-0"	5'-0"	5'-6"	6'-6"

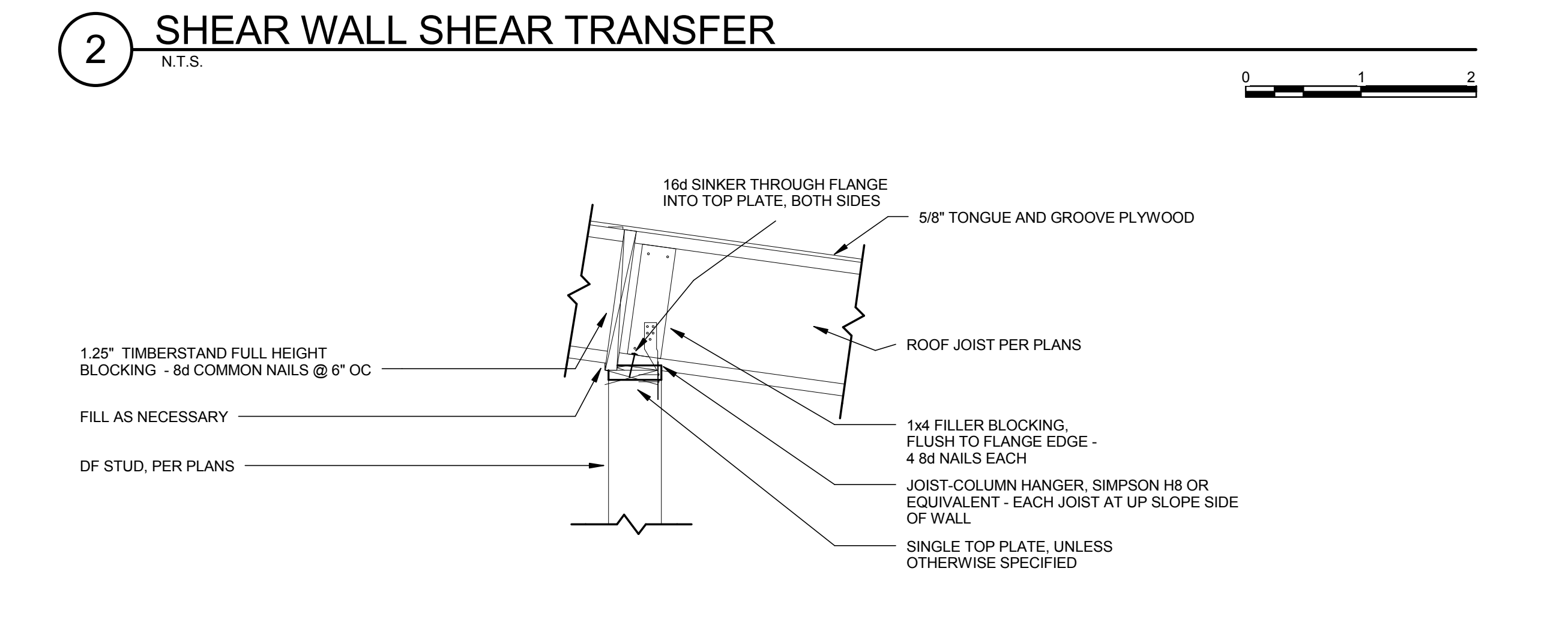
MINIMUM DISTANCE FROM EDGE OF HOLE TO INSIDE FACE OF NEAREST INTERMEDIATE OR CANTILEVER SUPPORT

HOLE DIAMETER	2"	3"	4"	5"	6.5"	7"	8 7/8"
MINIMUM DISTANCE B, ROUND HOLE	1"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	9'-0"
MINIMUM DISTANCE B, SQUARE HOLE	1"	2'-0"	3'-0"	4'-6"	8'-0"	8'-0"	10'-0"

5 TJI ALLOWABLE NOTCHES AND HOLES
1/2" = 1'-0"



2 SHEAR WALL SHEAR TRANSFER
N.T.S.

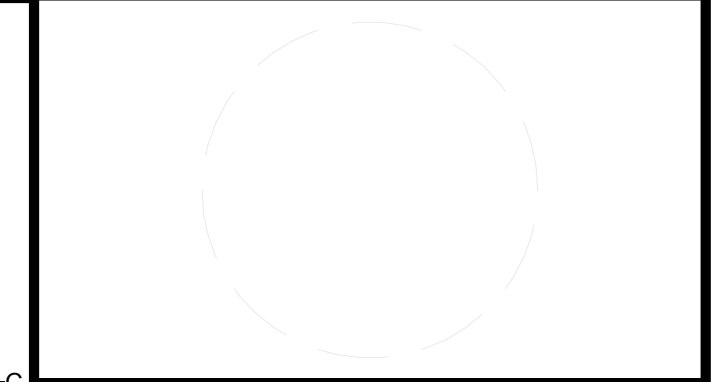


3 ROOF SHEAR TRANSFER
1" = 1'-0"



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616
CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
TYPICAL NOTES AND DETAILS

S-003

Technicon Engineering Services, Inc.

Project: Central Piers, Inc.
Product: Standard Perimeter Pier
Tested By: CH & SA
Company: Technicon
Location: Fresno

Pier Size (Loading)	Actual Ht. (Inches)	Lead (Pounds)	Remarks	Average Load (Lbs)	Load Rating (Average Load)
6	7	13,800	14,010	13,900	3920
8	7	15,000	15,100	15,050	4230
10	7	16,200	16,300	16,250	4540
12	10	17,400	17,500	17,450	4850
14	13	18,600	18,700	18,650	5160
16	16	19,800	19,900	19,850	5470
18	19	21,000	21,100	21,050	5780
20	22	22,200	22,300	22,250	6090
22	25	23,400	23,500	23,450	6400
24	28	24,600	24,700	24,650	6710
26	31	25,800	25,900	25,850	7020
28	34	27,000	27,100	27,050	7330
30	37	28,200	28,300	28,250	7640
32	40	29,400	29,500	29,450	7950
34	43	30,600	30,700	30,650	8260
36	46	31,800	31,900	31,850	8570

Remarks:
1. Maximum Load Rating = 3000 pounds per pier

CP STANDARD PIER DOCUMENTATION - PAGE 10

5. Test Results and Conclusions
 b. In accordance with Title 25, Section 1334, the average load for each pier height was divided by 3 to determine the safe operating load.
 c. For the Standard Pier, the safe operating load exceeded the rating of 6000 pounds. Therefore all of the Standard Piers have been assigned a pass.
 d. For the Perimeter Pier, the safe operating load exceeded the rating of 3000 pounds. Therefore all of the Perimeter Piers have been assigned a pass.
 e. Complete test results are presented Appendix A.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,
 TECHNICON ENGINEERING SERVICES, INC.
 Darren G. Williams, PE, RCE
 Principal

Attachments: Appendix A - Test Data Sheets

CP STANDARD PIER DOCUMENTATION - PAGE 7

Appendix A
TEST DATA SHEETS

CP STANDARD PIER DOCUMENTATION - PAGE 8

Technicon Engineering Services, Inc.

Project: Central Piers, Inc.
Product: Standard Pier
Tested By: CH & SA
Company: Technicon
Location: Fresno

Pier Size (Loading)	Actual Ht. (Inches)	Lead (Pounds)	Remarks	Average Load (Lbs)	Load Rating (Average Load)
6	7	13,800	14,010	13,900	3920
8	7	15,000	15,100	15,050	4230
10	7	16,200	16,300	16,250	4540
12	10	17,400	17,500	17,450	4850
14	13	18,600	18,700	18,650	5160
16	16	19,800	19,900	19,850	5470
18	19	21,000	21,100	21,050	5780
20	22	22,200	22,300	22,250	6090
22	25	23,400	23,500	23,450	6400
24	28	24,600	24,700	24,650	6710
26	31	25,800	25,900	25,850	7020
28	34	27,000	27,100	27,050	7330
30	37	28,200	28,300	28,250	7640
32	40	29,400	29,500	29,450	7950
34	43	30,600	30,700	30,650	8260
36	46	31,800	31,900	31,850	8570

Remarks:
1. Maximum Load Rating = 6000 pounds per pier

CP STANDARD PIER DOCUMENTATION - PAGE 9

TEST REPORT
VERTICAL LOAD TESTS OF
STANDARD PIER AND STANDARD PERIMETER PIER

FOR:
CENTRAL PIERS, INC.
284 N. Thorne Avenue
Fresno, California 93706

Technicon Engineering Services, Inc.
June 17, 2013

CP STANDARD PIER DOCUMENTATION - PAGE 4

TABLE OF CONTENTS

1. Introduction.....1
2. Purpose.....1
3. Test Arrangements.....1
4. Test Procedure.....1
5. Test Results and Conclusions.....2

Appendix A: Test Data Sheets

CP STANDARD PIER DOCUMENTATION - PAGE 5

June 17, 2013

Central Piers, Inc.
284 N. Thorne Avenue
Fresno, California 93706

ATTN: Mr. Andy Nease

SUBJECT: TEST REPORT
Standard Pier and Standard Perimeter Pier
Listing Agency: Technicon Engineering Services, Inc.
Listing #: Technicon 21025.001-Q-02

REFERENCE: California Code of Regulations, Title 25, Housing and Community Development, Division 1, Chapter 2, Section 1334, Updated December 29, 2005.

Dear Mr. Nease:

1. Introduction
The following report presents the results of the vertical load capacity testing program for the Standard Pier and Standard Perimeter Pier manufactured by Central Piers, Inc.

2. Purpose
The purpose of this testing program was to verify the design allowable vertical capacity for each pier.

3. Test Arrangements
The testing was conducted on the premises of Technicon Engineering Services, Inc. in Fresno, California on June 6 and June 7, 2013. The piers tested were sampled on May 20, 2013. Complete test data sheets are included in Appendix A.

4. Test Procedure

- Vertical Load
 - The purpose of the vertical load test was to verify the capacity of the Standard Pier and Standard Perimeter Pier in accordance with Title 25, Section 1334.
 - The piers were tested at varying heights. Three tests were completed at each height and the test result averaged over the three tests.
 - The testing apparatus consisted of an APO load cell (Serial No. V0202) with a vertical range of 50,000 lbs.) The test was read by means of a digital readout with a 10 pound capacity. The standard pier was oriented underneath the loading head of the test and the load was applied until failure. For the standard perimeter pier, the test was also applied until failure. The test was repeated for each of the pier sizes ranging from 6 inches to 36 inches, taking an average of three piers for each size.

CP STANDARD PIER DOCUMENTATION - PAGE 6

Standard Perimeter Pier

Standard Pier

Central Piers Inc.
Listing Agency: Technicon Engineering Services, Inc.
Listing #: TCEC-041-010

CP STANDARD PIER DOCUMENTATION - PAGE 1

ADJUSTABLE TOPS

INSTALLATION INSTRUCTIONS

- NO. 1 ATTACH BOLT ON TOP TO 1" x 4" BEAM WITH (4) 3/8" BOLT AND NUTS - BESS 2-1/2" NUT. ATTACH BOLT ON TOP TO PIER - MAXIMUM BESS ADJUSTMENT IS 2.5inches
- NO. 2 ATTACH BARGE TOP TO REDUCE BEAM THAT JOIN THE TWO HALVES OF THE MOBILE HOME TOGETHER ON THE BARGE END. THE (4) LAG BOLTS MAXIMUM BESS ADJUSTMENT IS 2.5inches.
- NO. 3 ATTACH 'L' TOP TO BEAM AGAINST BARGE END - ALTERNATE 'L' DIRECTION EVERY OTHER PIER - MAXIMUM BESS ADJUSTMENT IS 2.5inches.
- NO. 4 ATTACH SADDLE TOP FLANGE AGAINST MAIN CHASSIS BEAM AND OR RIDGE BEAM - MAXIMUM BESS ADJUSTMENT IS 2.5inches.

CENTRAL PIERS INC.

CP STANDARD PIER DOCUMENTATION - PAGE 2

Central Piers Inc.
559-258-0526

New Standard Pier Labels:

Standard Steel Pier

Standard Perimeter Pier

CP STANDARD PIER DOCUMENTATION - PAGE 3



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



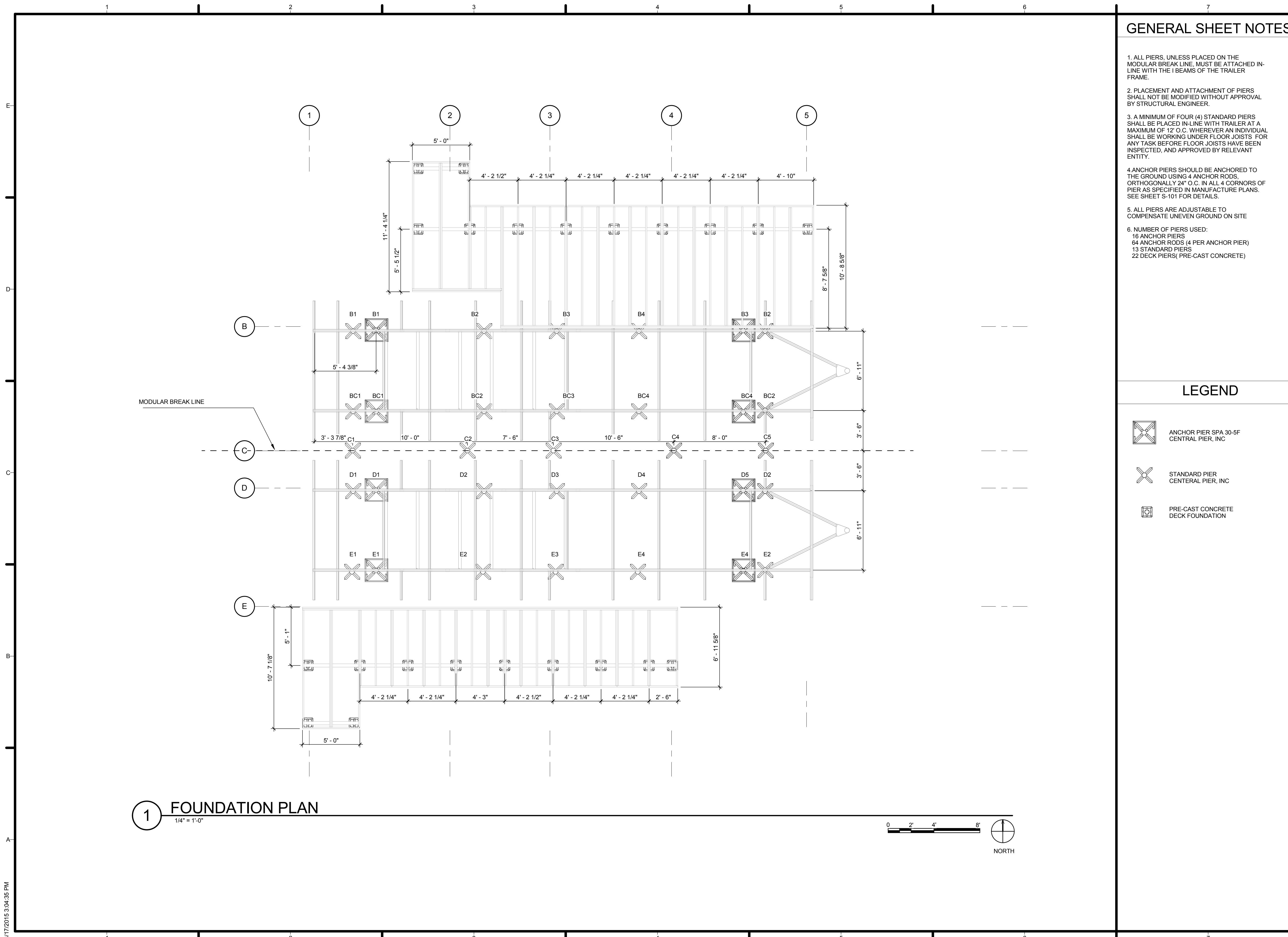
MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

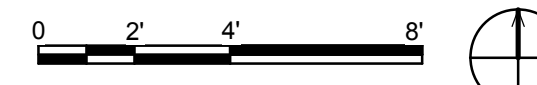
ENGINEERED
STANDARD
FOUNDATION PLAN

S-102



1 FOUNDATION PLAN

1/4" = 1'-0"

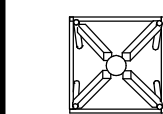


8/17/2015 3:04:35 PM

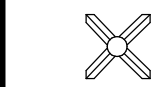
GENERAL SHEET NOTES

1. ALL PIERS, UNLESS PLACED ON THE MODULAR BREAK LINE, MUST BE ATTACHED IN-LINE WITH THE I BEAMS OF THE TRAILER FRAME.
2. PLACEMENT AND ATTACHMENT OF PIERS SHALL NOT BE MODIFIED WITHOUT APPROVAL BY STRUCTURAL ENGINEER.
3. A MINIMUM OF FOUR (4) STANDARD PIERS SHALL BE PLACED IN-LINE WITH TRAILER AT A MAXIMUM OF 12' O.C. WHEREVER AN INDIVIDUAL SHALL BE WORKING UNDER FLOOR JOISTS FOR ANY TASK BEFORE FLOOR JOISTS HAVE BEEN INSPECTED, AND APPROVED BY RELEVANT ENTITY.
4. ANCHOR PIERS SHOULD BE ANCHORED TO THE GROUND USING 4 ANCHOR RODS. ORTHOGONALLY 24" O.C. IN ALL 4 CORNERS OF PIER AS SPECIFIED IN MANUFACTURE PLANS. SEE SHEET S-101 FOR DETAILS.
5. ALL PIERS ARE ADJUSTABLE TO COMPENSATE UNEVEN GROUND ON SITE
6. NUMBER OF PIERS USED:
16 ANCHOR PIERS
64 ANCHOR RODS (4 PER ANCHOR PIER)
13 STANDARD PIERS
22 DECK PIERS(PRE-CAST CONCRETE)

LEGEND



ANCHOR PIER SPA 30-5F
CENTRAL PIER, INC



STANDARD PIER
CENTRAL PIER, INC

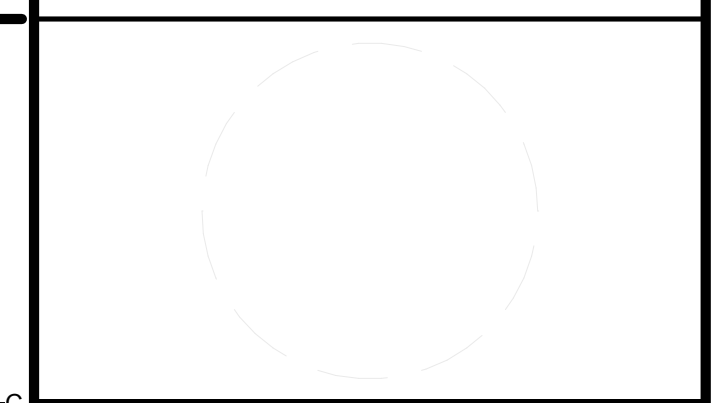


PRE-CAST CONCRETE
DECK FOUNDATION



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET
DAVIS, CA 95616
CONTACT: (530)-752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



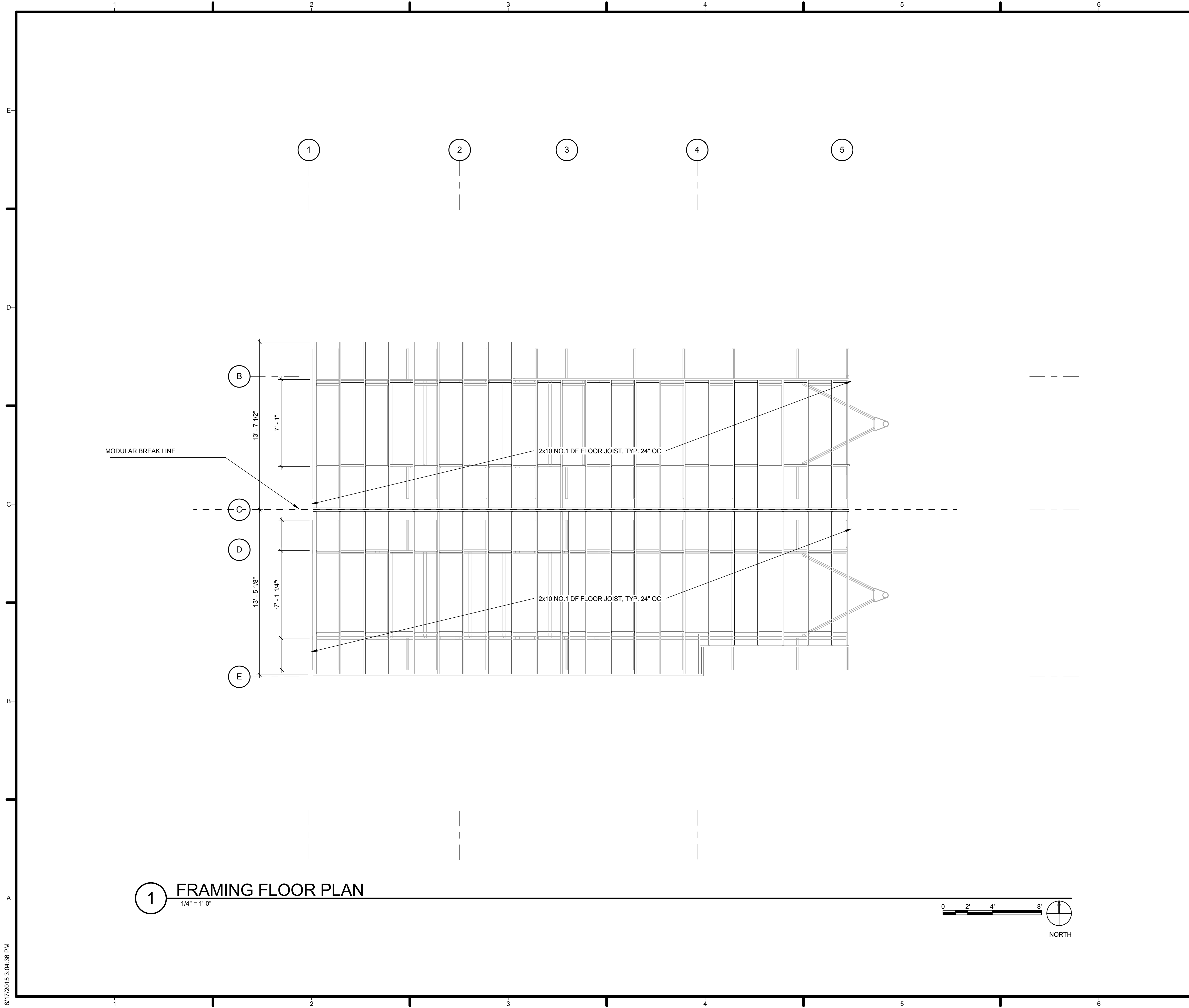
DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

SHEET TITLE

FOUNDATION PLAN

S-103



GENERAL SHEET NOTES

1. 2x10 LVL CONTINUOUS RIM JOIST UNLESS OTHERWISE SPECIFIED.
2. 2x10 NO.1 DF DIMENSIONAL LUMBER FLOOR JOISTS UNLESS OTHERWISE SPECIFIED.
3. 2x10 LVL CONTINUOUS FLOOR RIDGE UNLESS OTHERWISE SPECIFIED.
4. ALL BLOCKING SHALL BE FULL HEIGHT NO.1 DF UNLESS OTHERWISE SPECIFIED.
5. FLOOR RIDGE SHALL NOT BE MODIFIED, CUT, OR NOTCHED UNLESS SPECIFIED IN PLANS OR WITH STRUCTURAL ENGINEER APPROVAL.

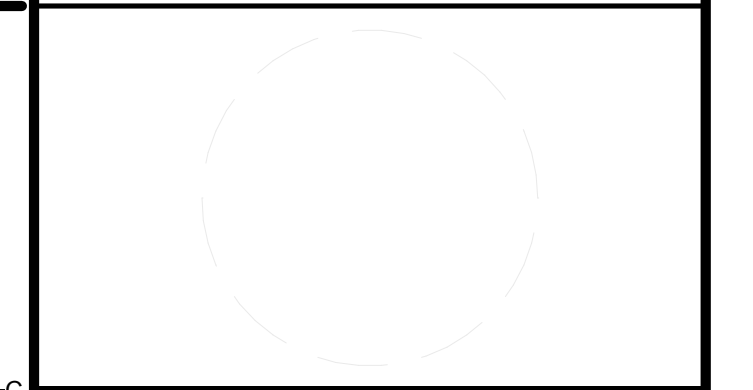
LEGEND

NOT USED AT THIS TIME



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



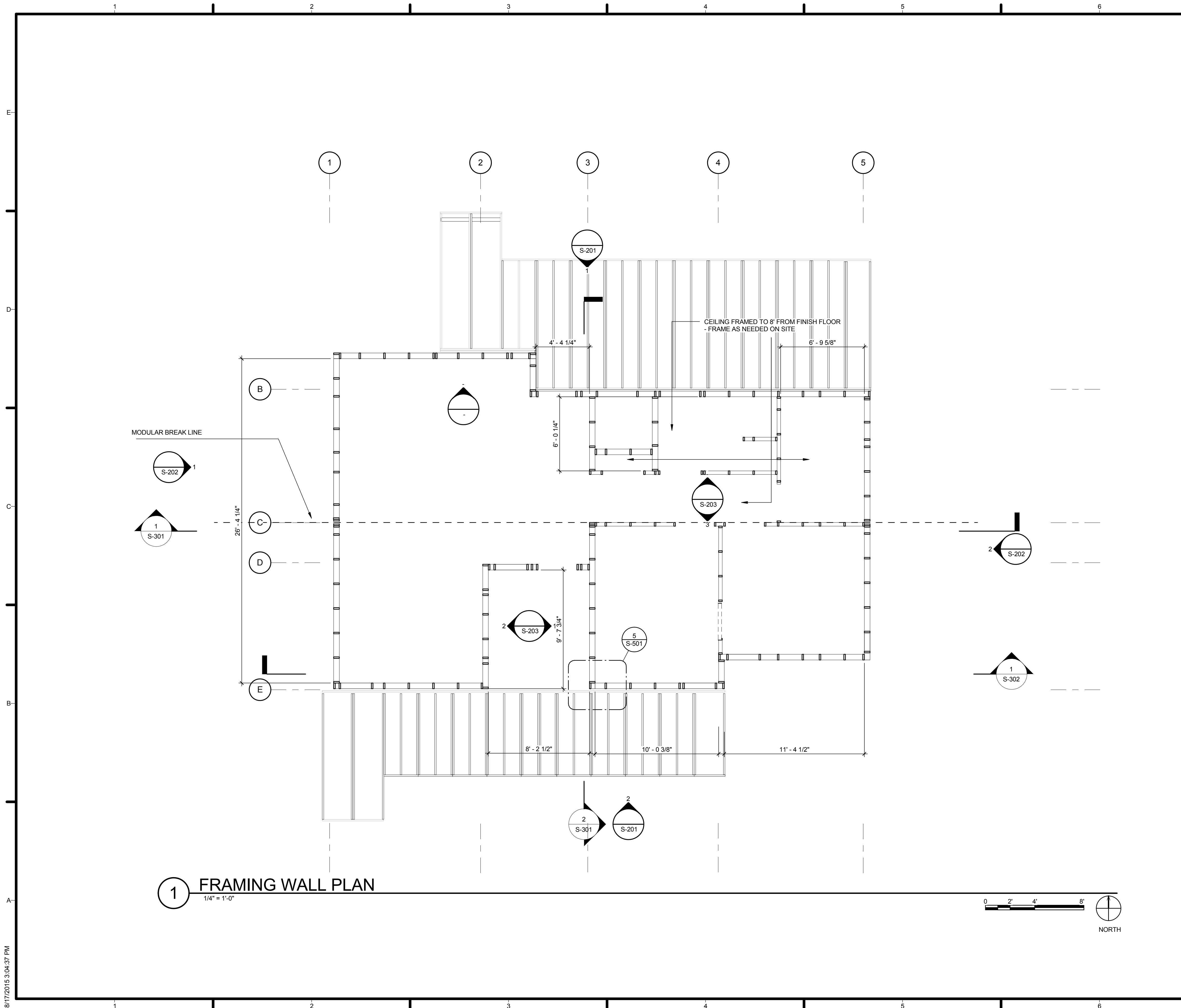
MARK	DATE	DESCRIPTION
DD	02.12.15	DESIGN DEVELOPMENT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FIRST FLOOR FRAMING PLAN

S-105

8/17/2015 3:04:36 PM



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



8/17/2015 3:04:37 PM

GENERAL SHEET NOTES

1. 2x6 DOUGLAS FIR NO.1 DIM. LUMBER 24" OC AT ALL EXTERIOR WALLS UNLESS OTHERWISE NOTED.
2. 2x4 DOUGLAS FIR NO.1 DIM. LUMBER 24" OC AT ALL INTERIOR WALLS UNLESS OTHERWISE NOTED.
3. 2 STUD CORNER FRAMING WITH 2x4 NAILER FOR GYPSUM CONNECTION AT ALL WALL CORNERS UNLESS OTHERWISE NOTED.
4. 4x6 DOUGLAS FIR NO.1 DIM. LUMBER SILL PLATE AT ALL EXTERIOR WALLS UNLESS OTHERWISE NOTED.
5. 4x4 DOUGLAS FIR NO.1 DIM. LUMBER SILL PLATE AT ALL INTERIOR WALLS UNLESS OTHERWISE NOTED.
6. 2x6 DOUGLAS FIR NO.1 DIM. LUMBER TOP PLATE AT ALL EXTERIOR WALLS UNLESS OTHERWISE NOTED.
7. 2x4 DOUGLAS FIR NO.1 DIM. LUMBER TOP PLATE AT ALL INTERIOR WALLS UNLESS OTHERWISE NOTED.

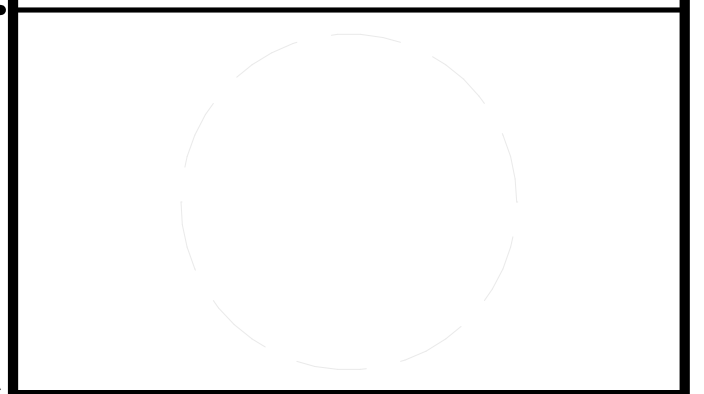
LEGEND

NOT USED AT THIS TIME



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

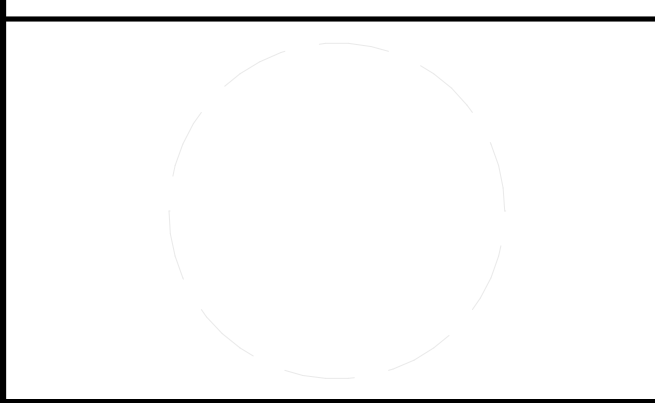
SHEET TITLE
WALL FRAMING PLAN

S-106



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://SOLARDECATHLON2015.UCDAVIS.EDU/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



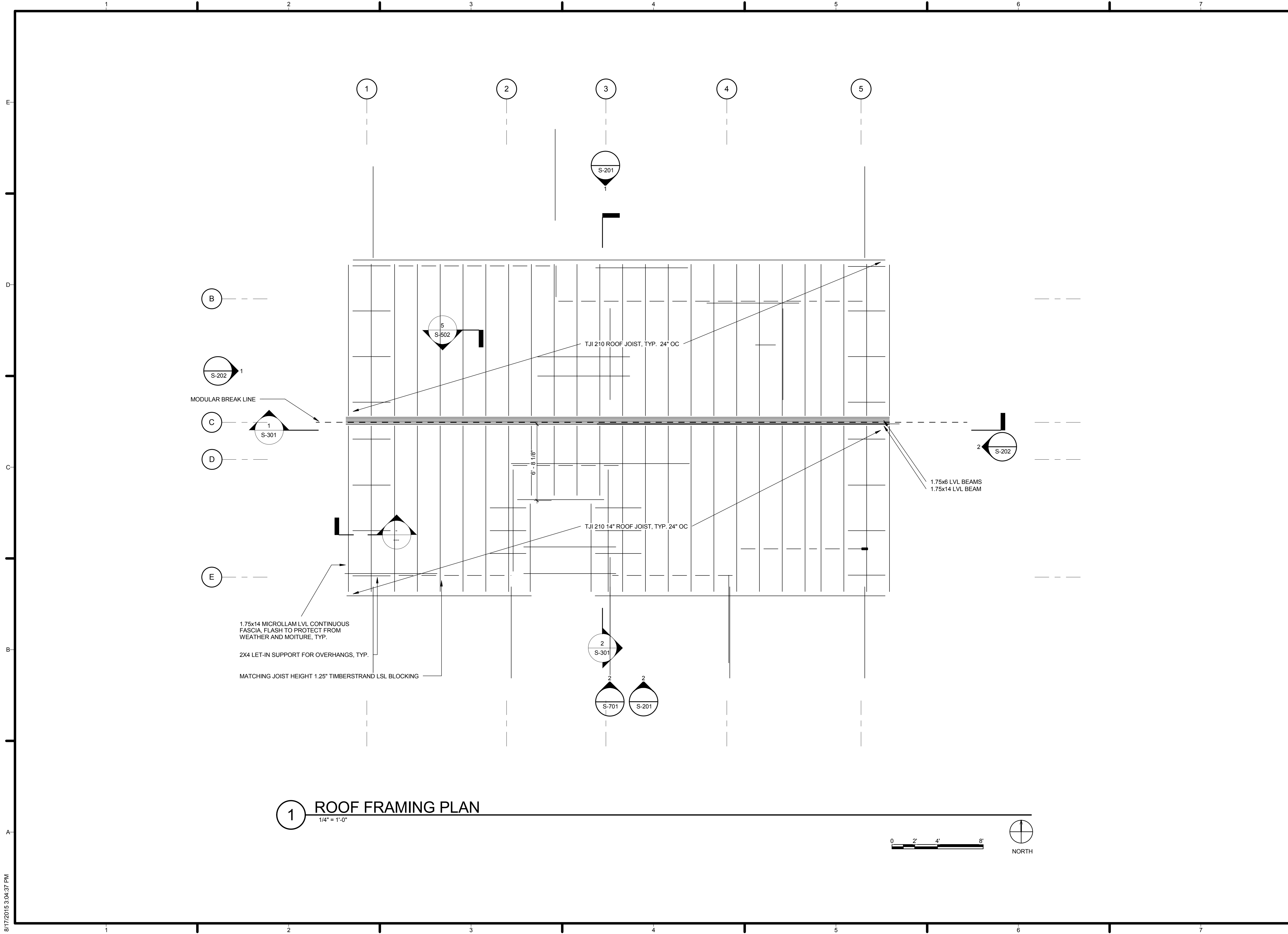
AB	08.17.15	AS BUILT

MARK	DATE	DESCRIPTION

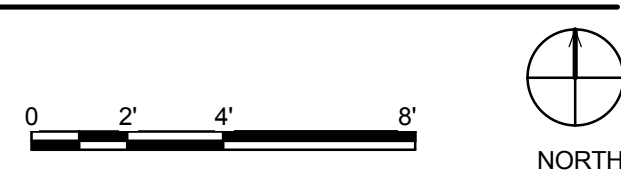
SHEET TITLE

ROOF FRAMING PLAN

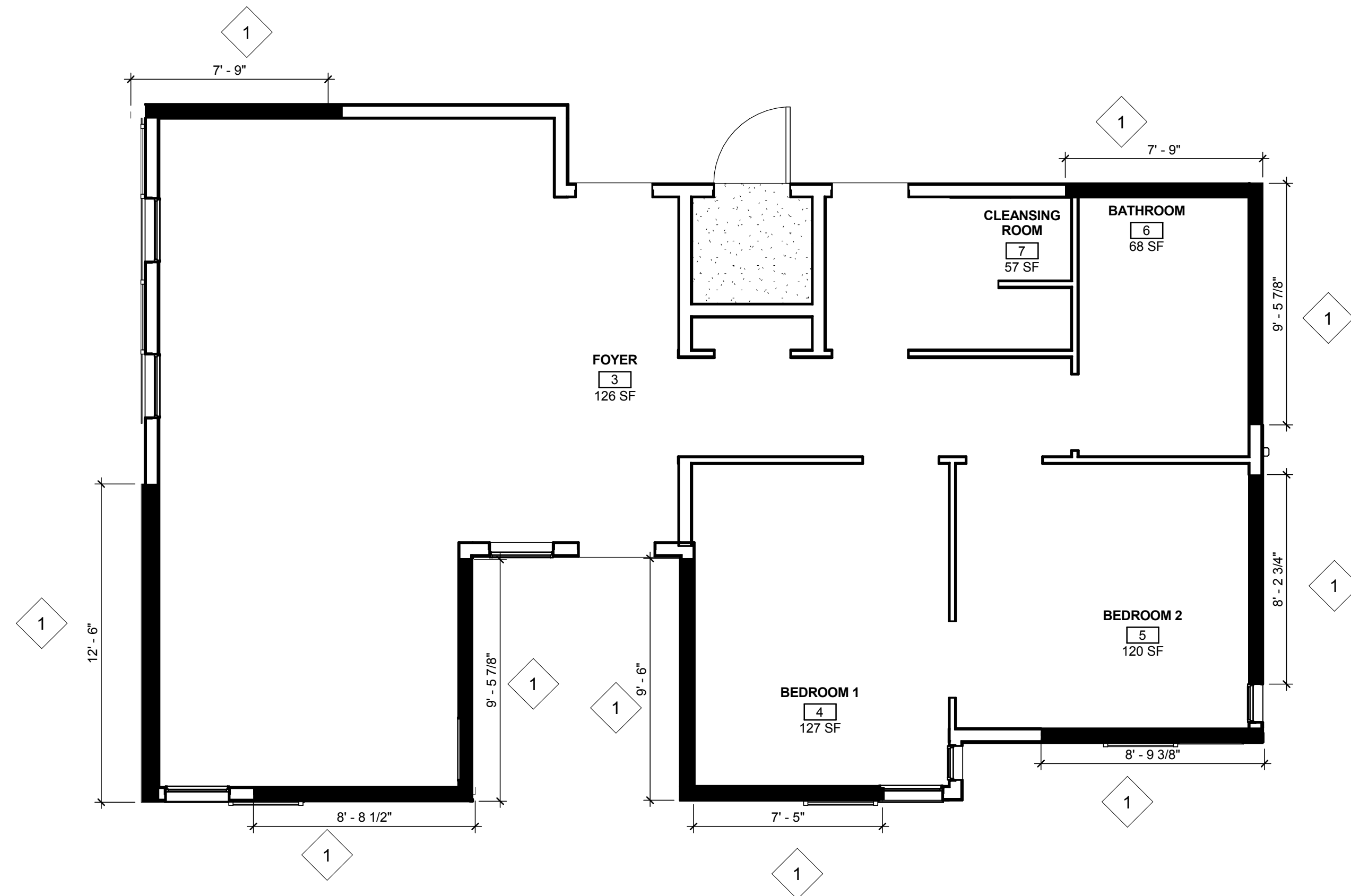
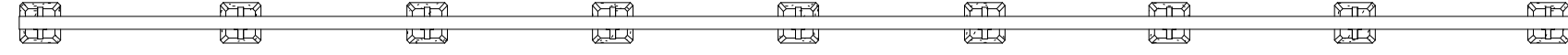
S-107



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



8/17/2015 3:04:37 PM



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



GENERAL SHEET NOTES

1. LINEAR LENGTH OF ALL SHEAR WALL PANELS AS INDICATED SHALL BE EQUAL TO OR LONGER THAN THE INDICATED LENGTHS.
2. SHEAR WALLS SHALL BE ANCHORED TO THE SILL PLATES WITH AT LEAST ONE SIMPSON H8 HANGER OR SIMILAR AT EACH END STUD OF THE SHEAR WALL PANEL.

REFERENCE KEYNOTES

NOT USED AT THIS TIME

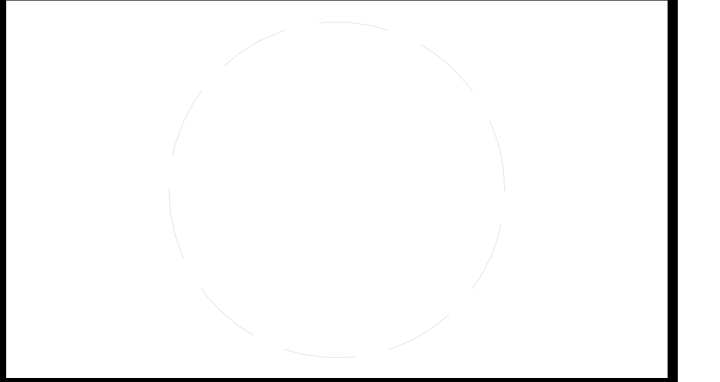
SHEET KEYNOTES

NOT USED AT THIS TIME



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS	



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)

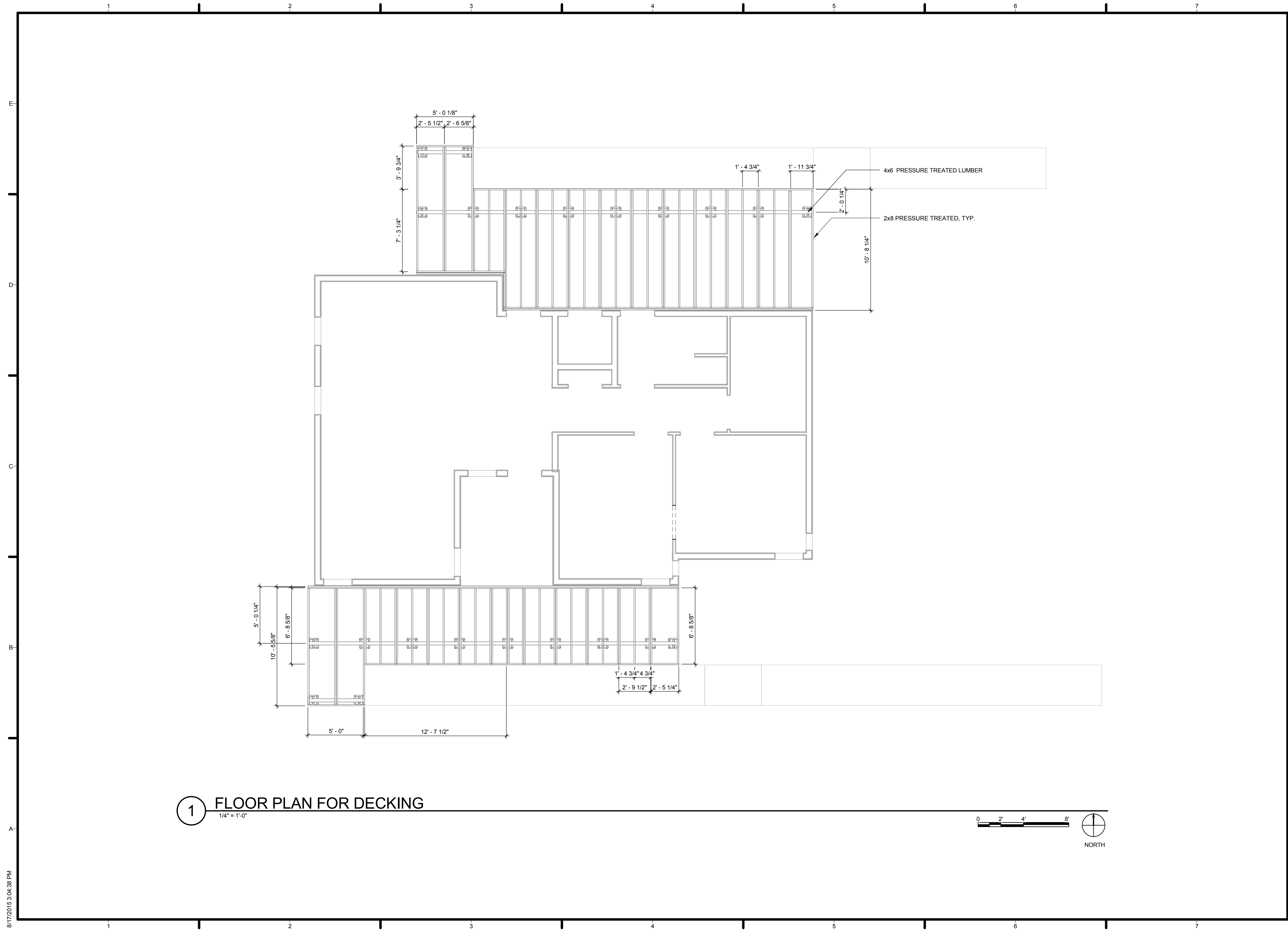


MARK	DATE	DESCRIPTION
DD	02.12.15	DESIGN DEVELOPMENT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: BEN WHITE
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 SHEAR WALL PLAN

S-108



1 FLOOR PLAN FOR DECKING
1/4" = 1'-0"

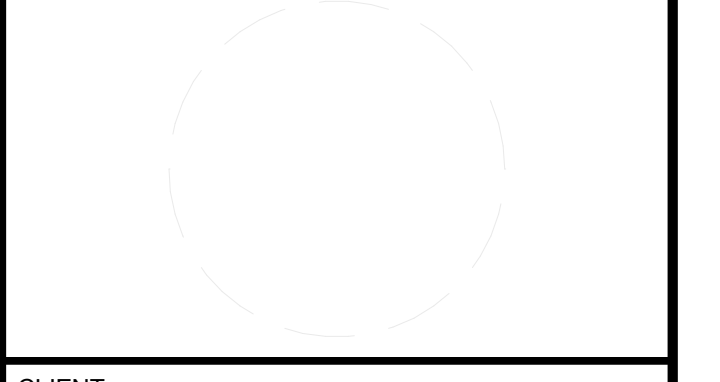


8/17/2015 3:04:38 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

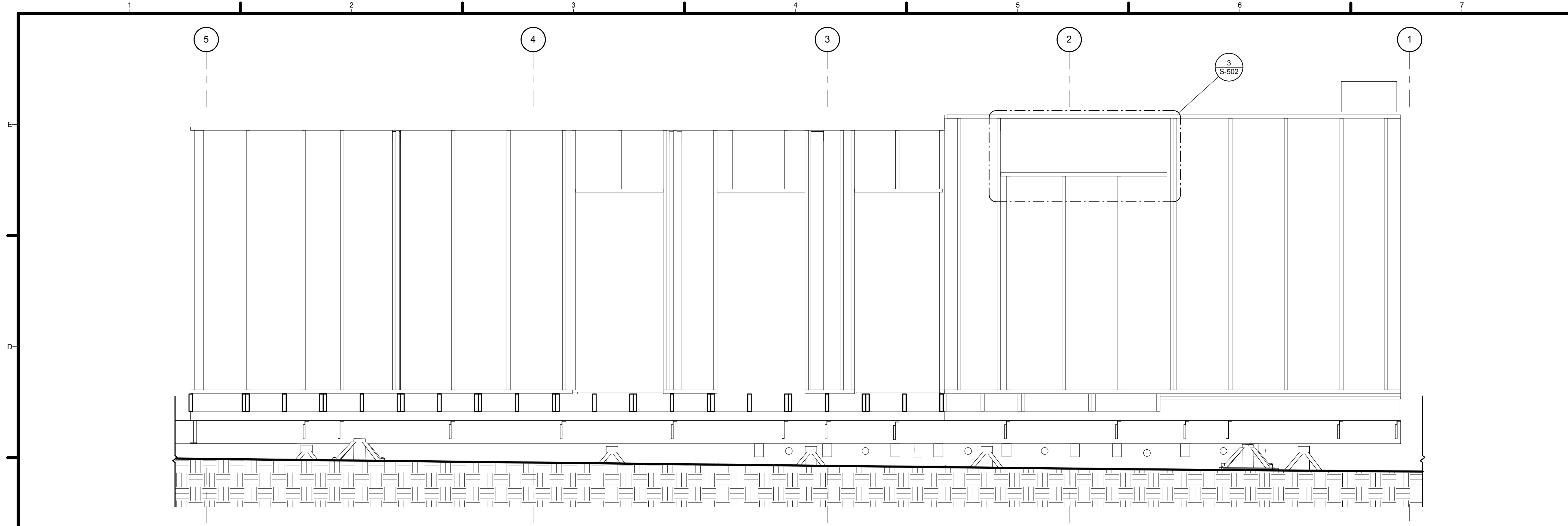


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

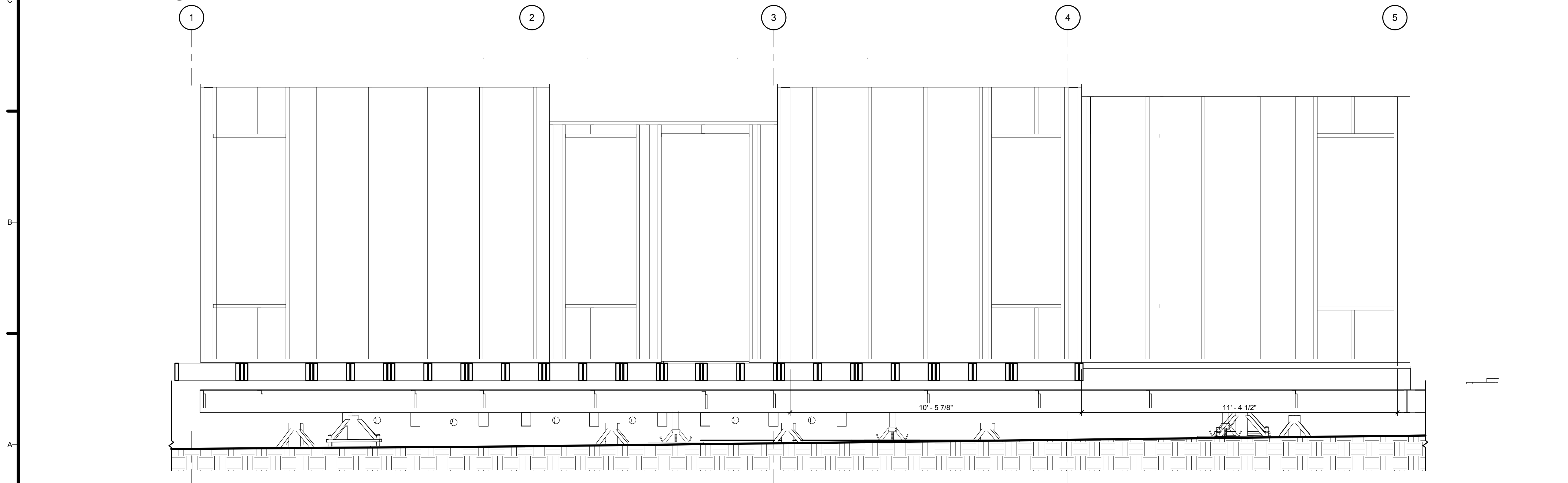
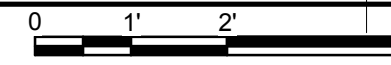
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 DECK FRAMING

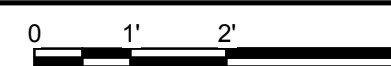
S-109



1 NORTH EXTERIOR FRAMING ELEVATION
1/2" = 1'-0"



2 SOUTH EXTERIOR FRAMING ELEVATION
1/2" = 1'-0"



8/17/2015 3:04:39 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



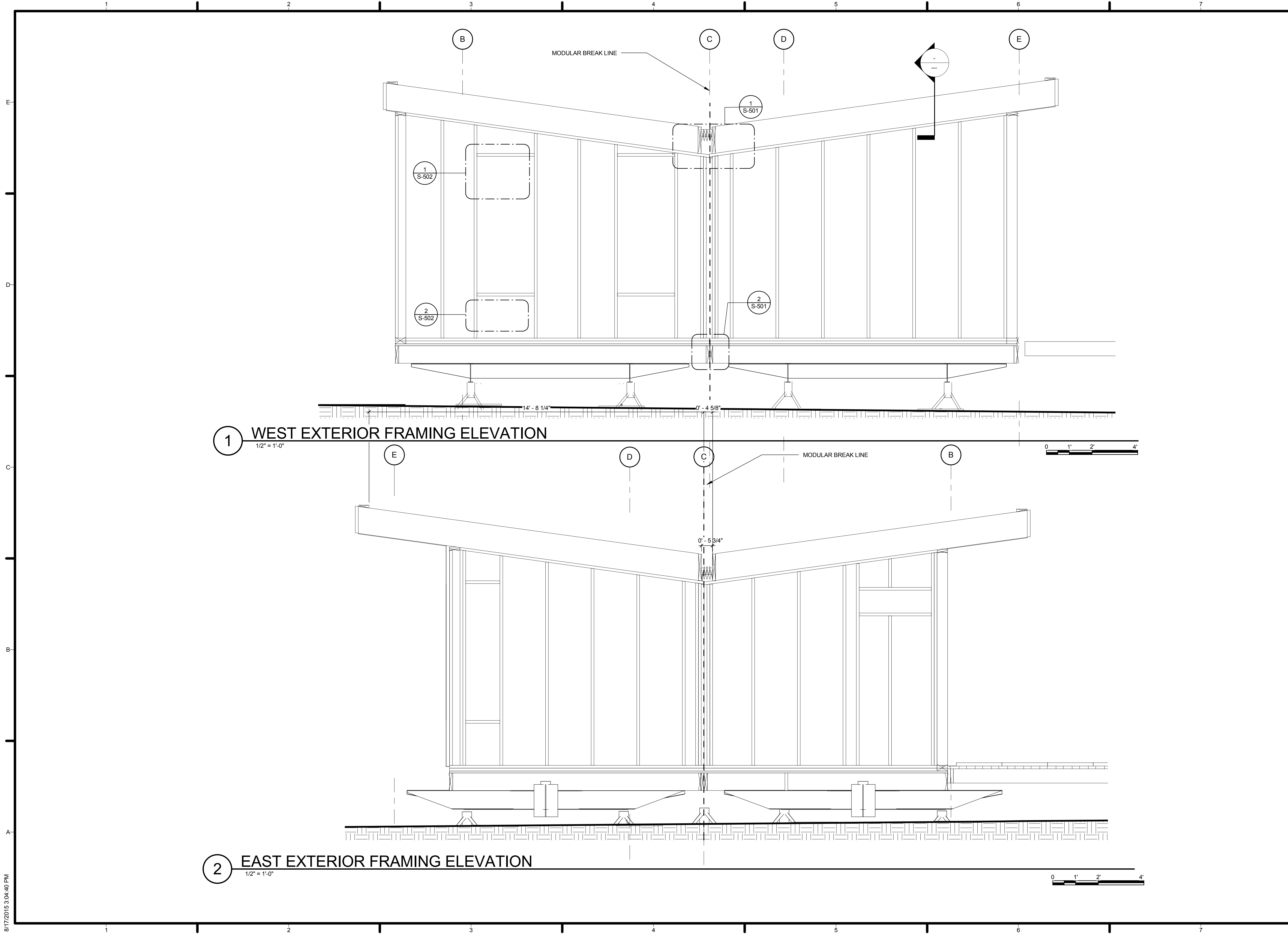
AB	08.17.15	AS BUILT
----	----------	----------

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 FRAMING ELEVATIONS

S-201



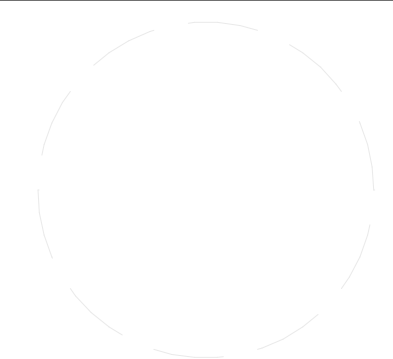
1 WEST EXTERIOR FRAMING ELEVATION
1/2" = 1'-0"

2 EAST EXTERIOR FRAMING ELEVATION
1/2" = 1'-0"



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://SOLARDECATHLON2015.UCDAVIS.EDU/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT
 PUBLIC DOMAIN

SHEET TITLE
 FRAMING ELEVATIONS

S-202

8/17/2015 3:04:40 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)

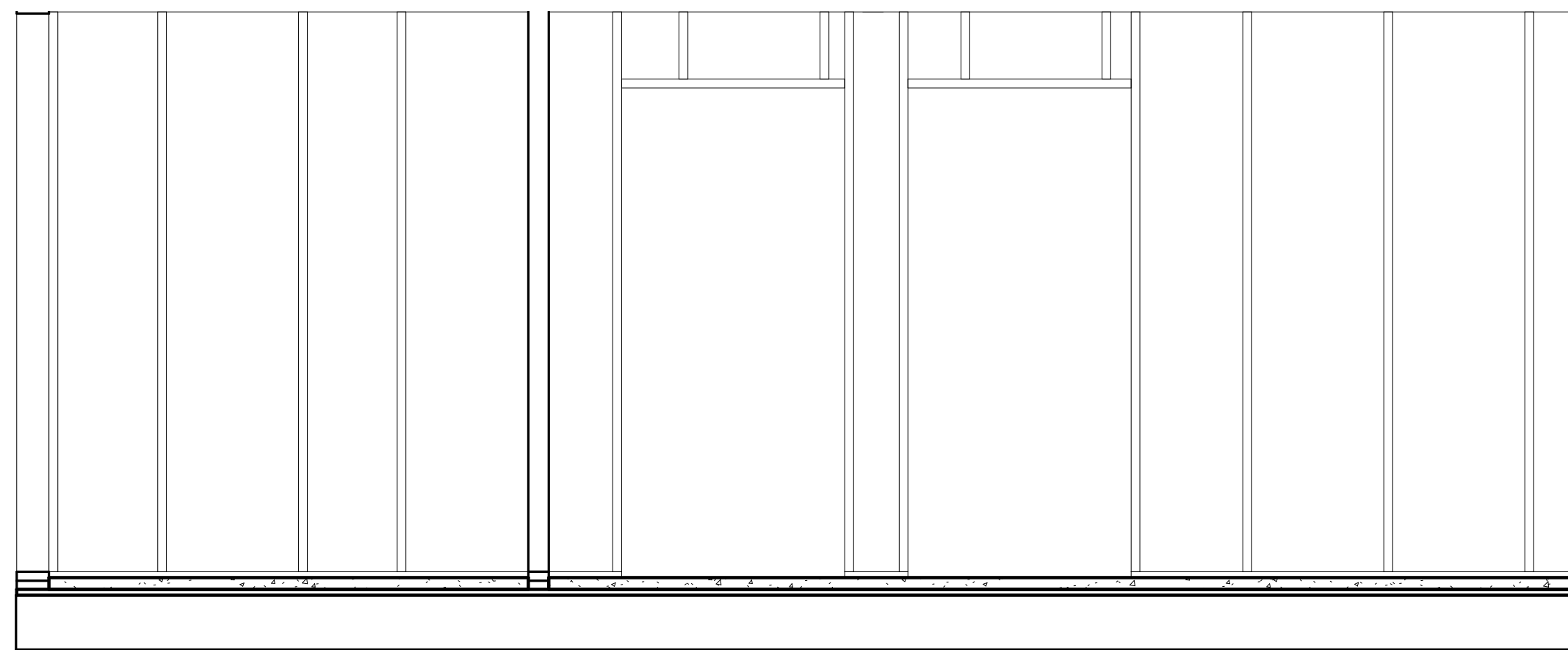


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

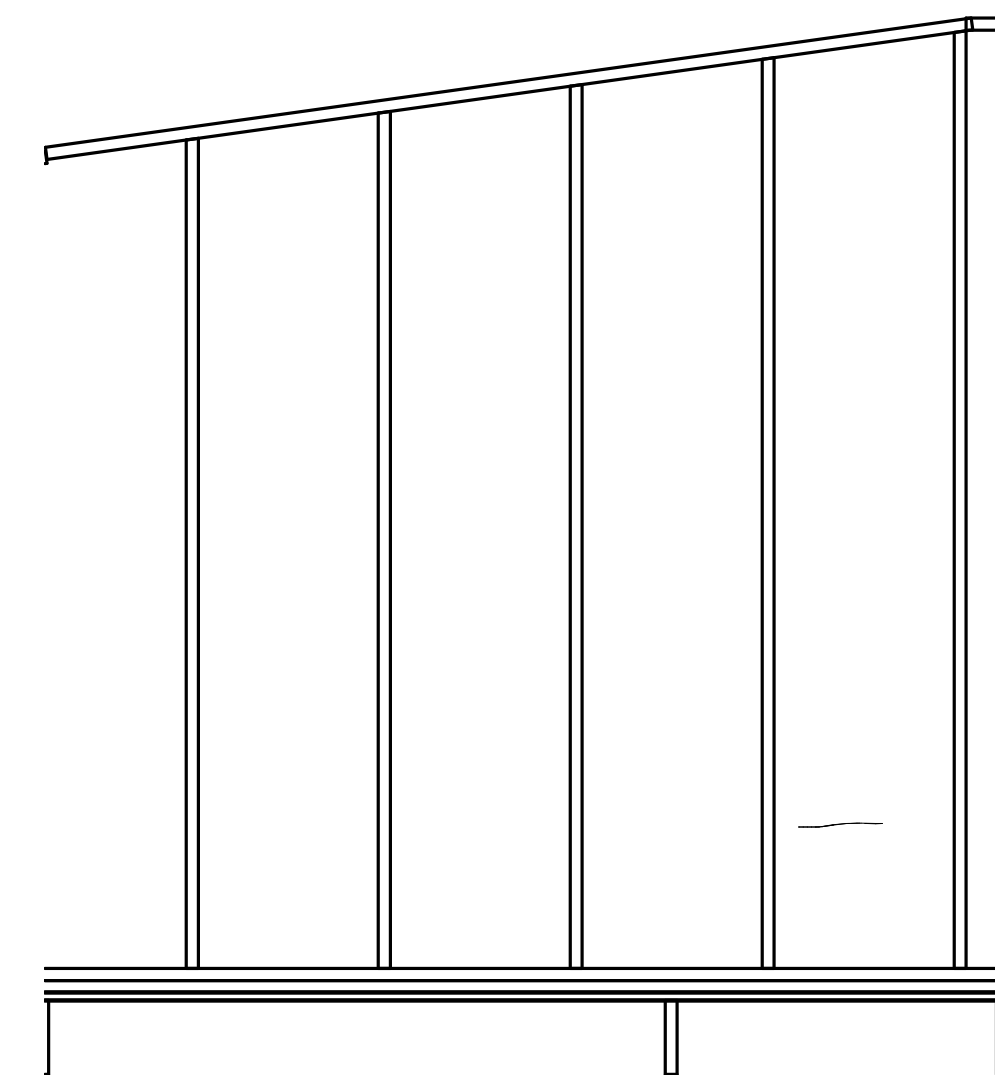
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FRAMING ELEVATIONS

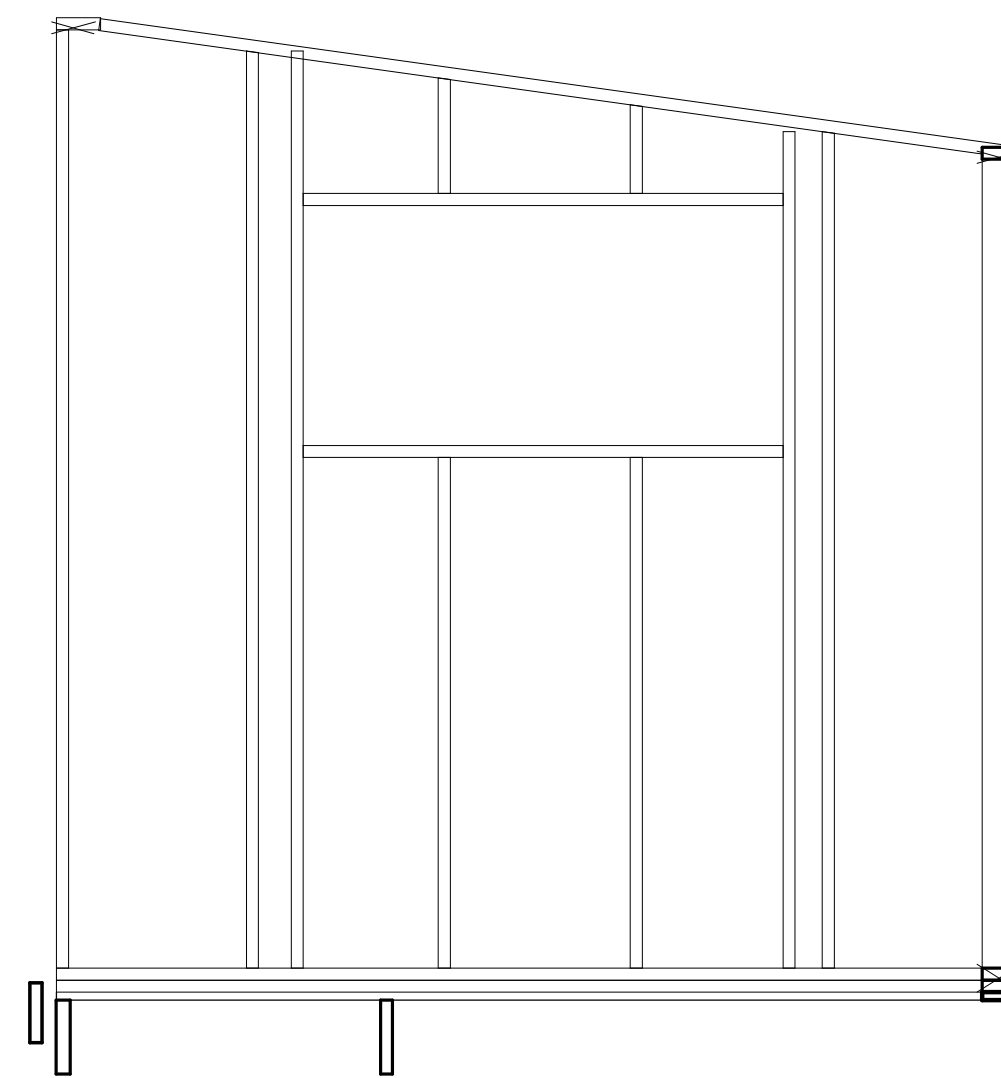
S-203



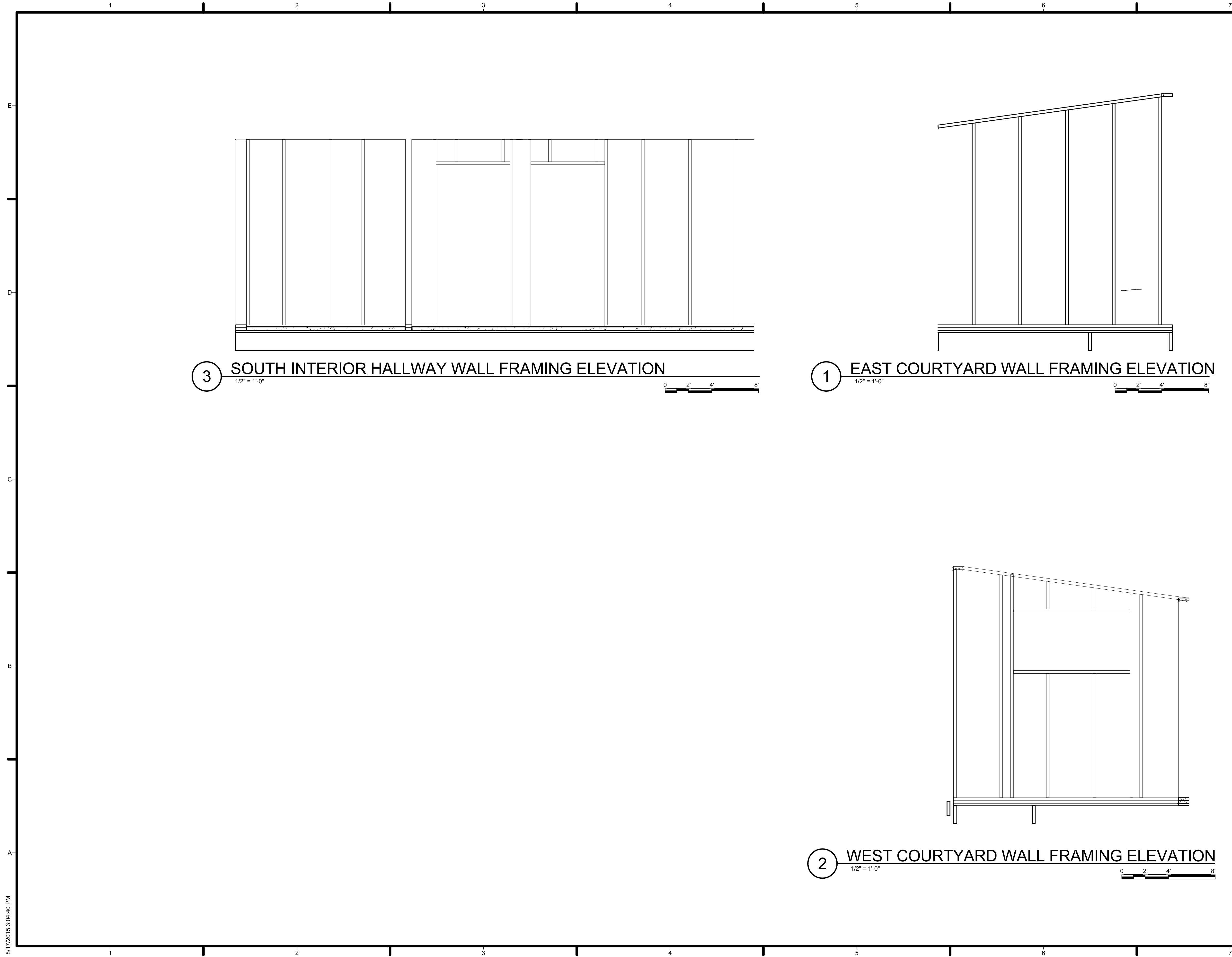
③ SOUTH INTERIOR HALLWAY WALL FRAMING ELEVATION
 1/2" = 1'-0" 0 2' 4' 8"



① EAST COURTYARD WALL FRAMING ELEVATION
 1/2" = 1'-0" 0 2' 4' 8"



② WEST COURTYARD WALL FRAMING ELEVATION
 1/2" = 1'-0" 0 2' 4' 8"





TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

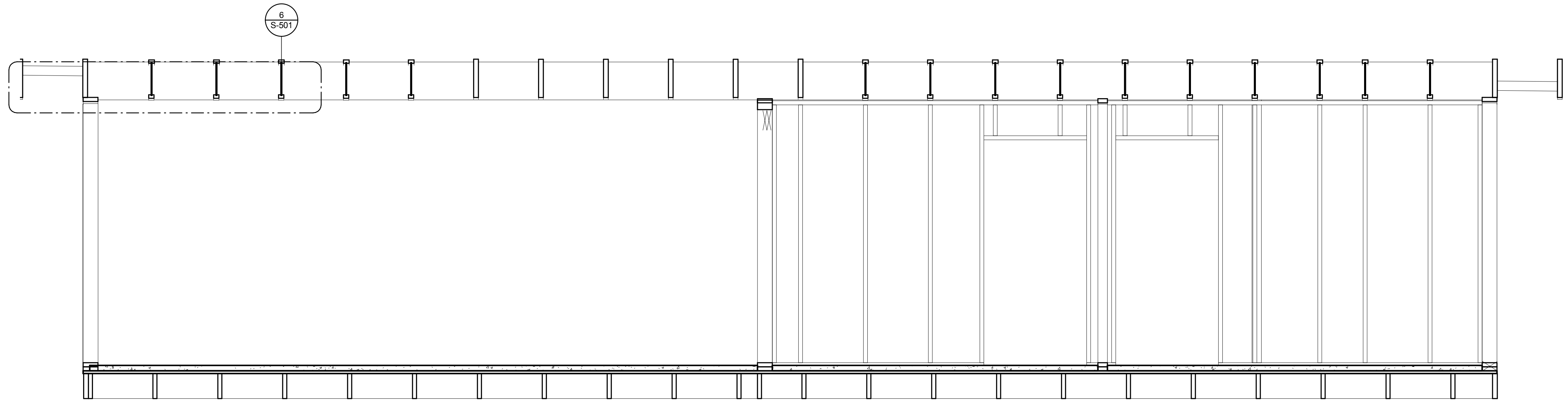


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

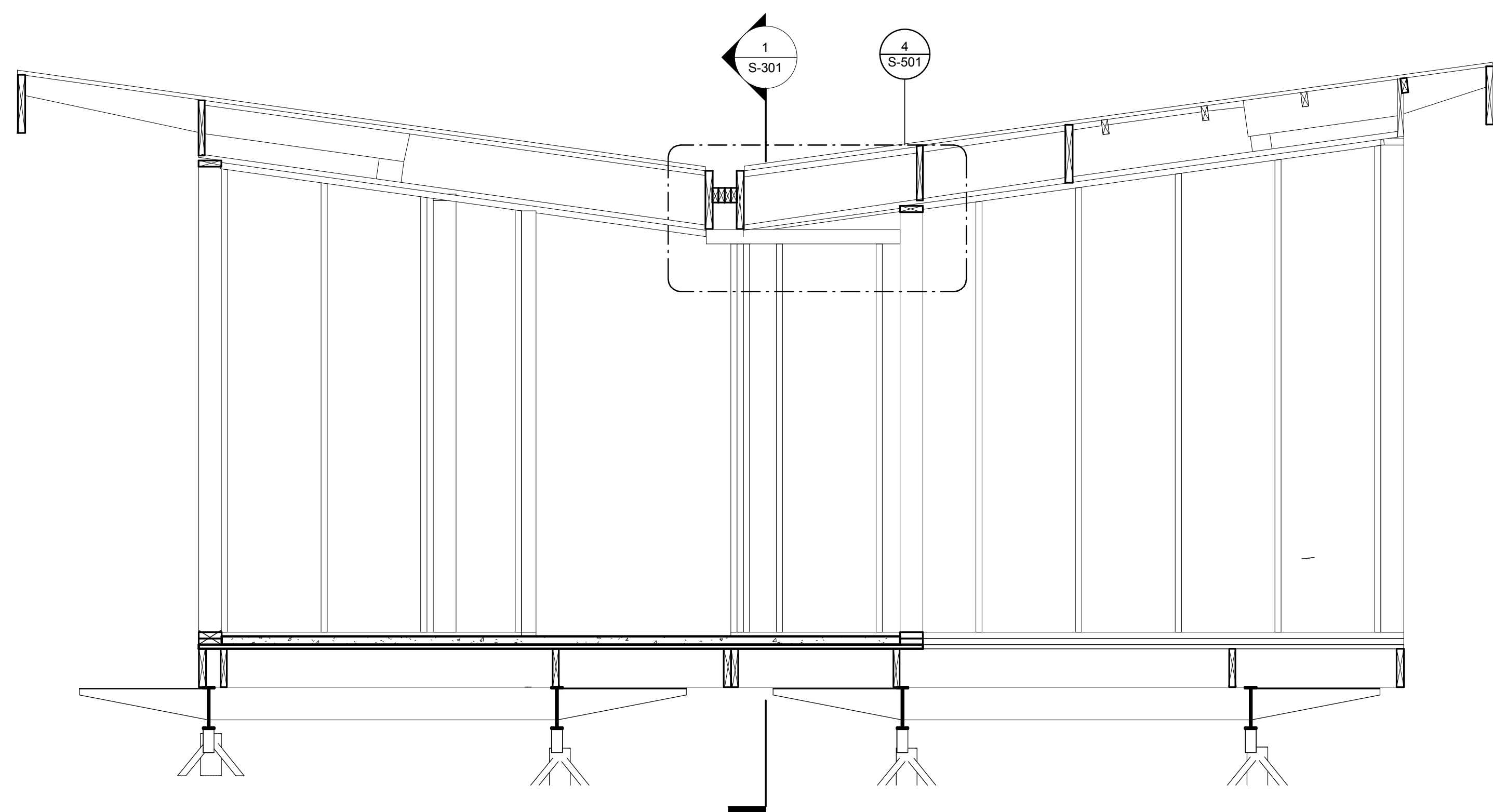
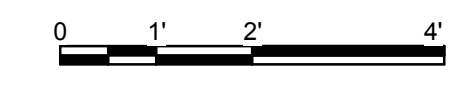
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 FRAMING SECTIONS

S-301



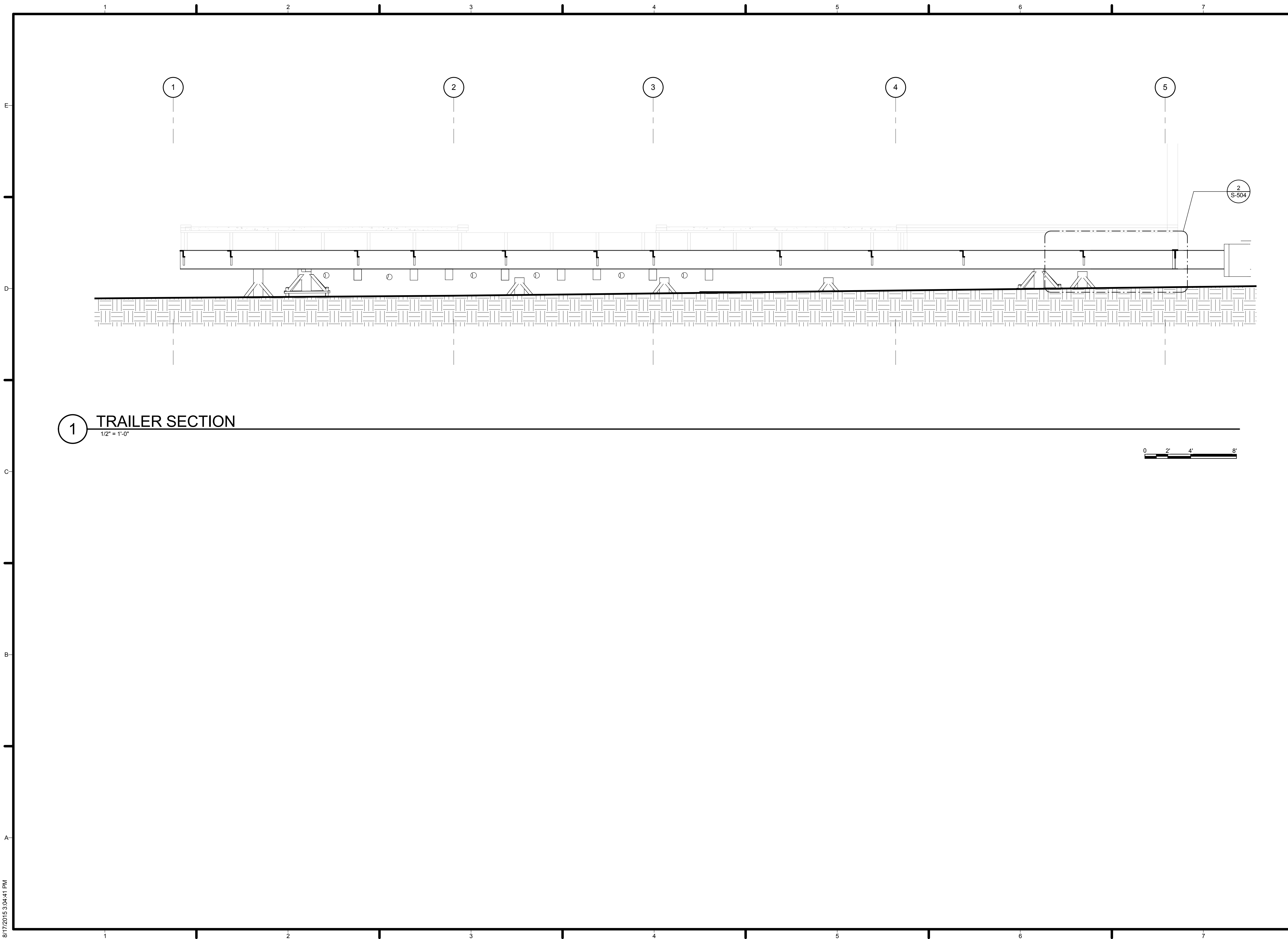
1 MODULAR BREAK LINE BUILDING FRAMING SECTION
 1/2" = 1'-0"



2 EAST FACING BUILDING FRAMING SECTION
 1/2" = 1'-0"



8/17/2015 3:04:41 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



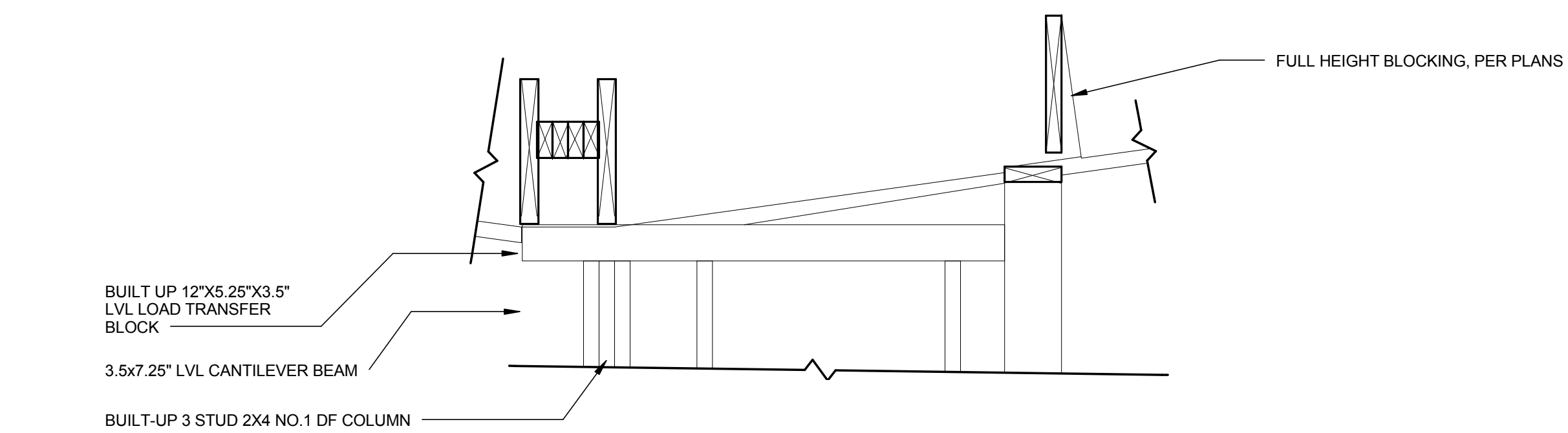
MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT
 PUBLIC DOMAIN

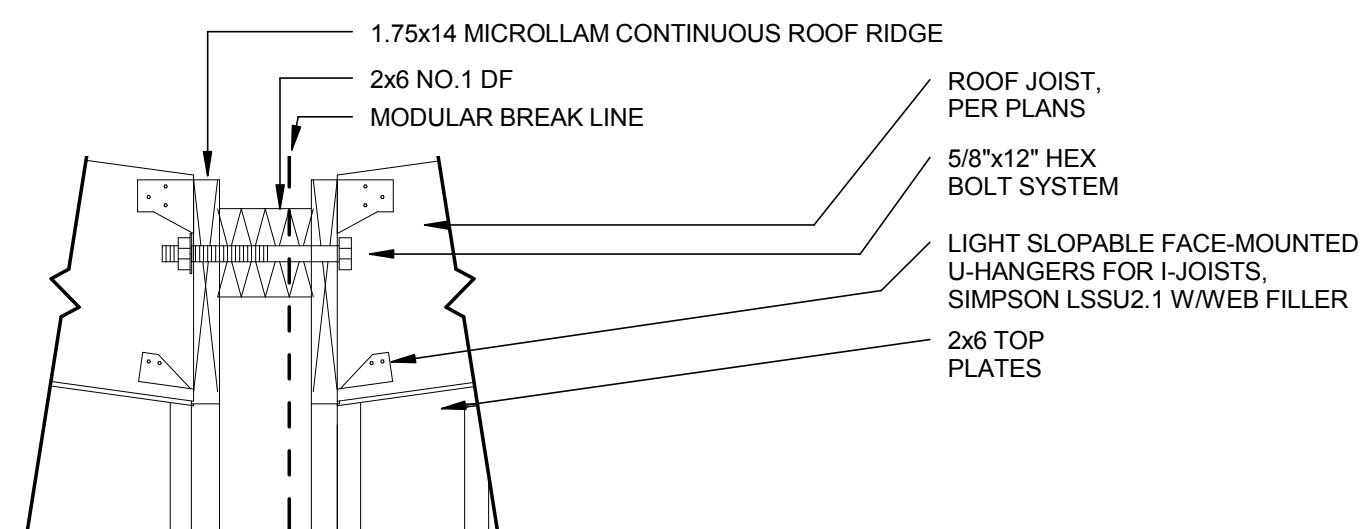
SHEET TITLE
FRAMING SECTIONS

S-302

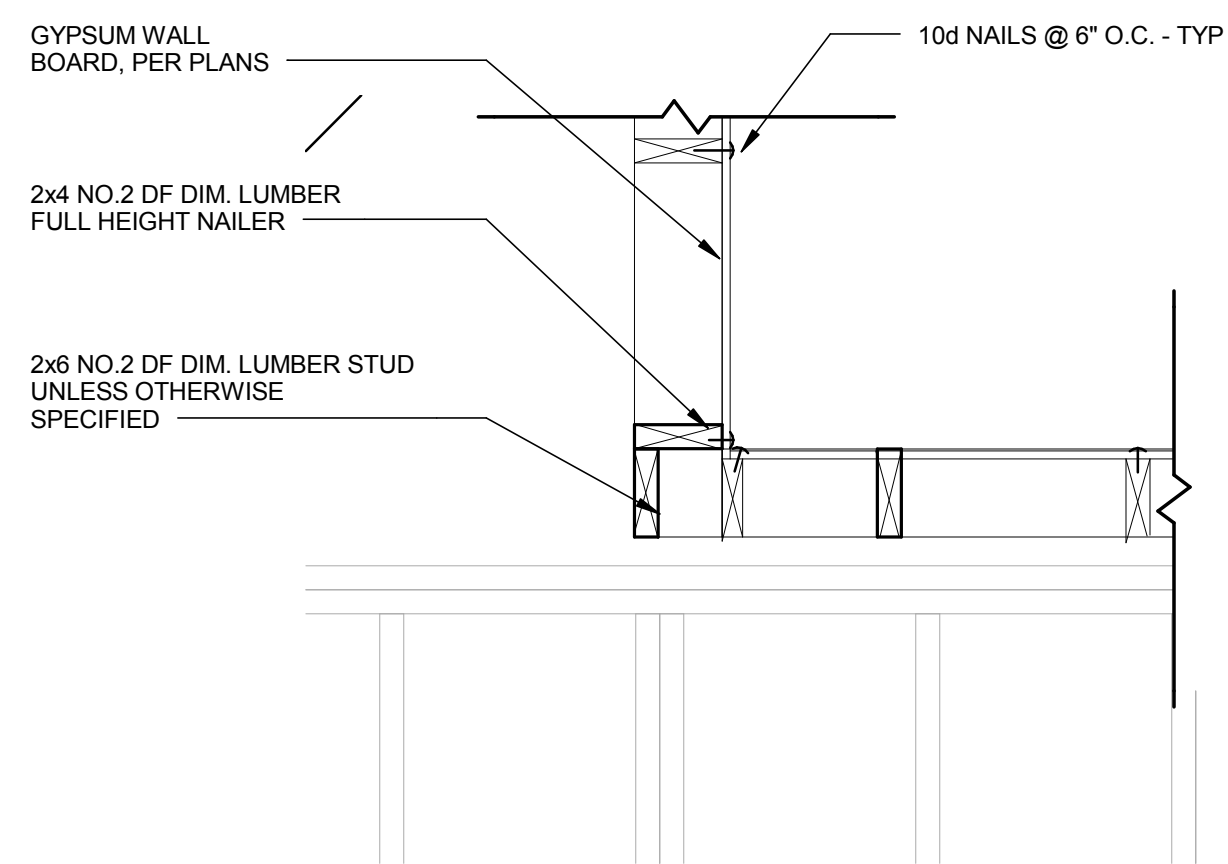
8/17/2015 3:04:42 PM



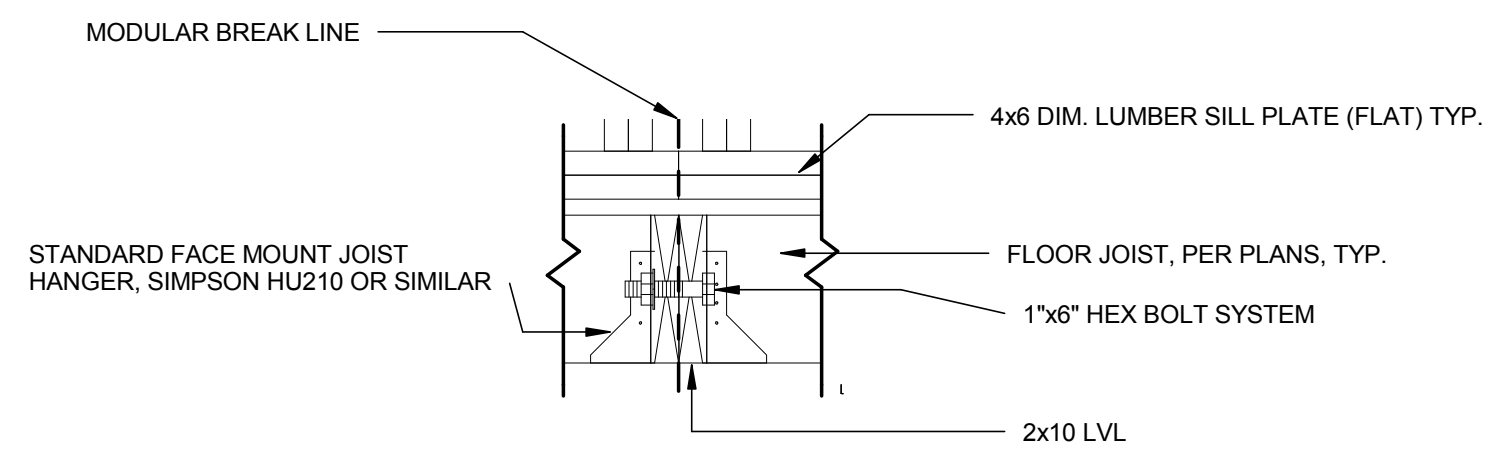
4 CENTRAL COLUMN AND WALL BEAM DETAIL
 1" = 1'-0" 



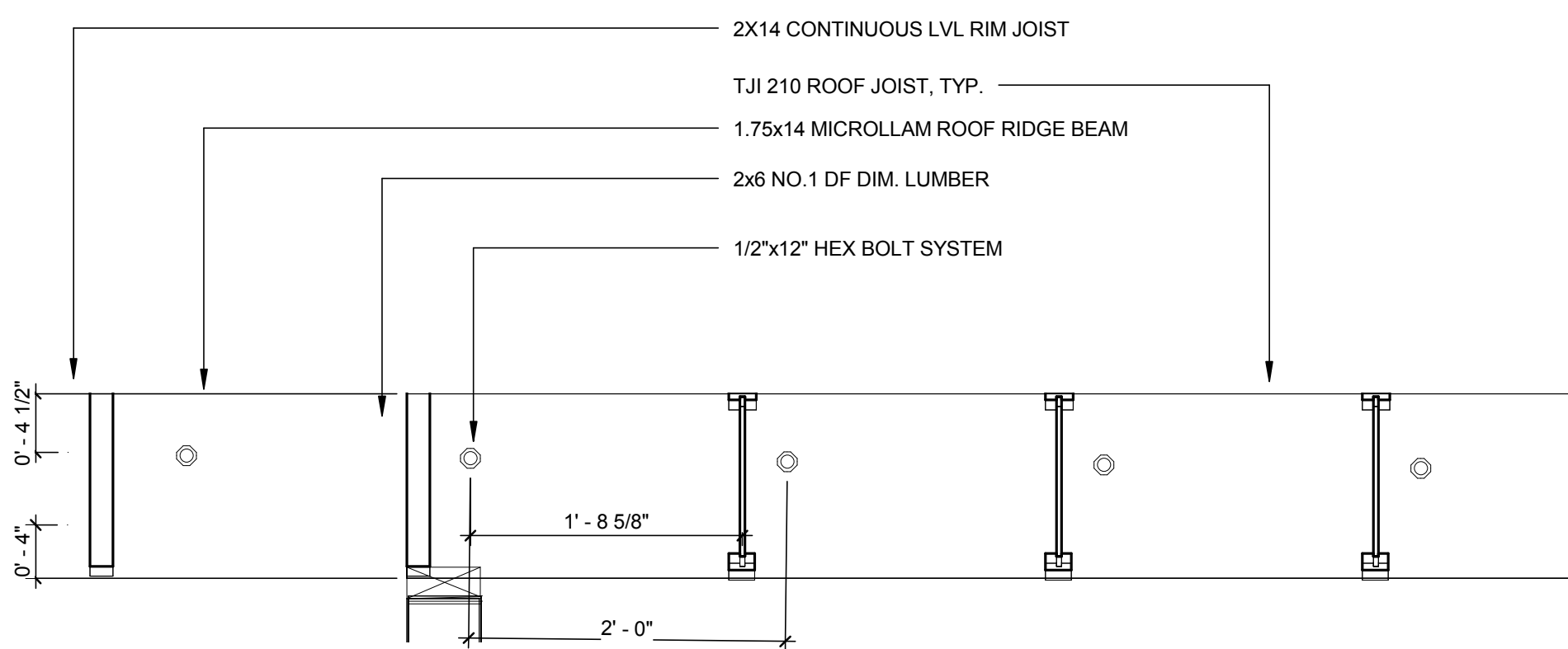
1 ROOF MODULAR INTERSECTION DETAIL
 1" = 1'-0" 



5 TWO STUD CORNER DETAIL
 1" = 1'-0" 



2 FLOOR MODULAR INTERSECTION DETAIL
 1" = 1'-0" 



6 ROOF RIDGE FRAMING DETAIL
 1" = 1'-0" 

GENERAL SHEET NOTES

NOT USED AT THIS TIME.

REFERENCE KEYNOTES

NOT USED AT THIS TIME.

SHEET KEYNOTES

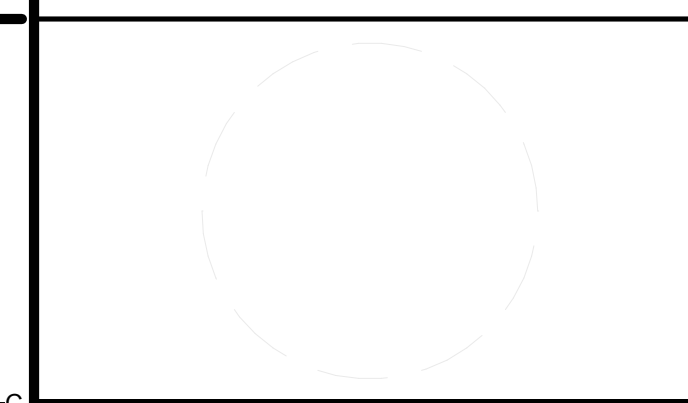
NOT USED AT THIS TIME.

LEGEND

NOT USED AT THIS TIME.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)
 CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)

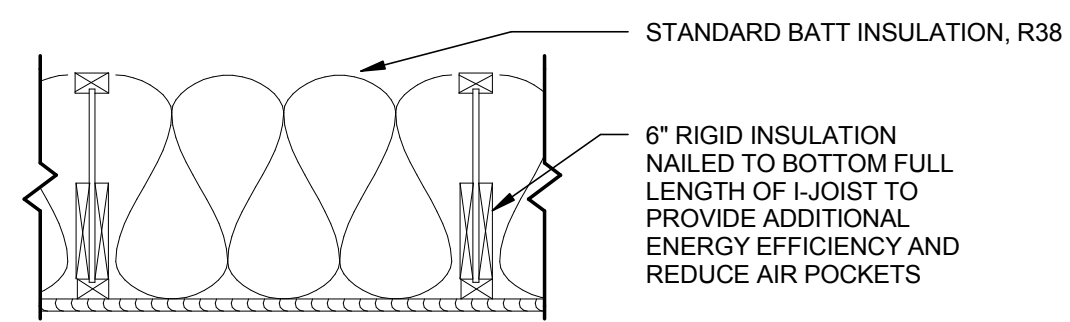


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

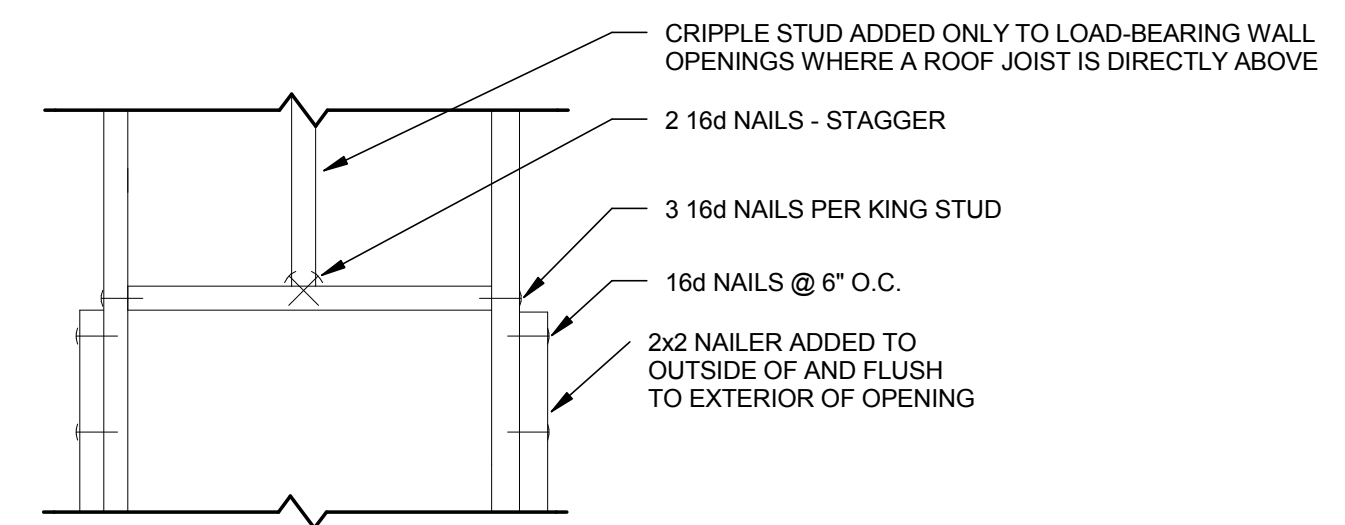
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FRAMING DETAILS

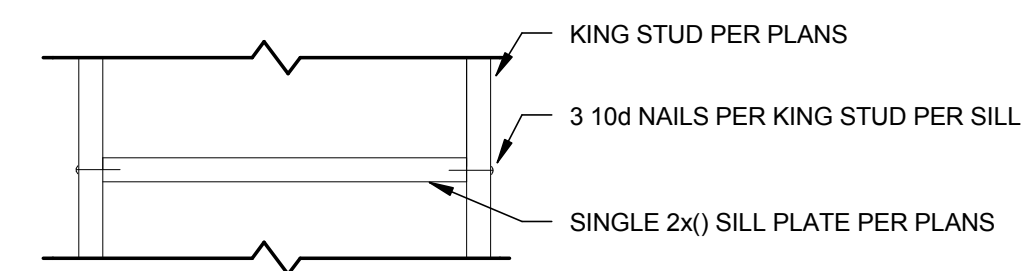
S-501



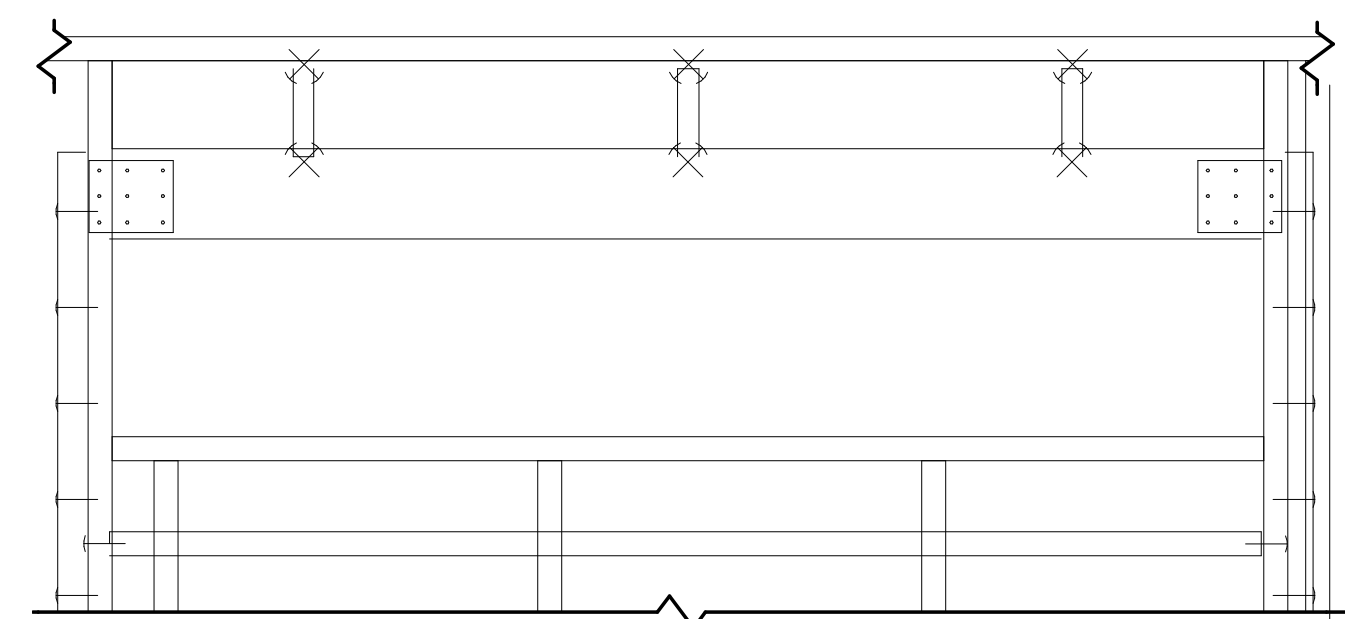
5 I-JOIST INSULATION DETAIL
1" = 1'-0"



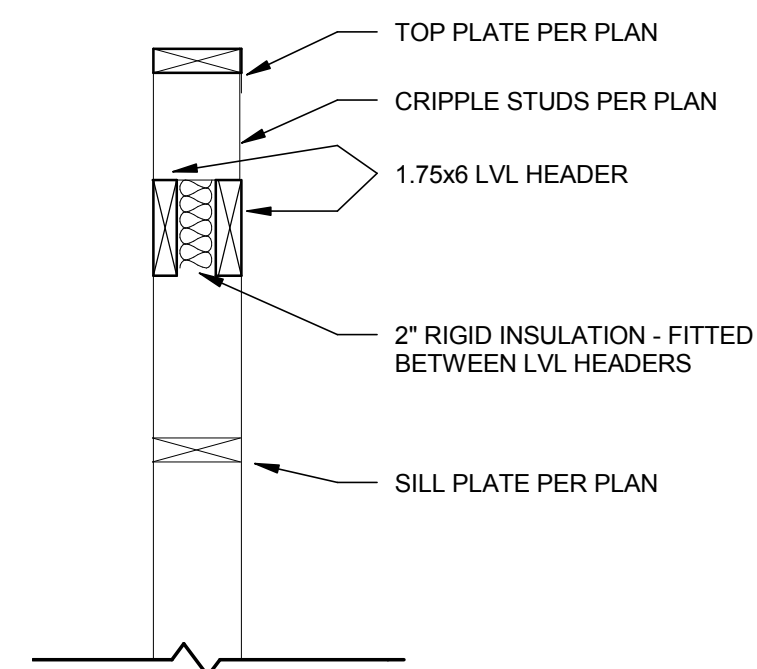
1 TYPICAL HEADER DETAIL
1" = 1'-0"



2 SILL FRAMING DETAIL
1" = 1'-0"



3 INSULATED HEADER DETAIL
1" = 1'-0"



4 INSULATED HEADER SECTION
1" = 1'-0"



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616
CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



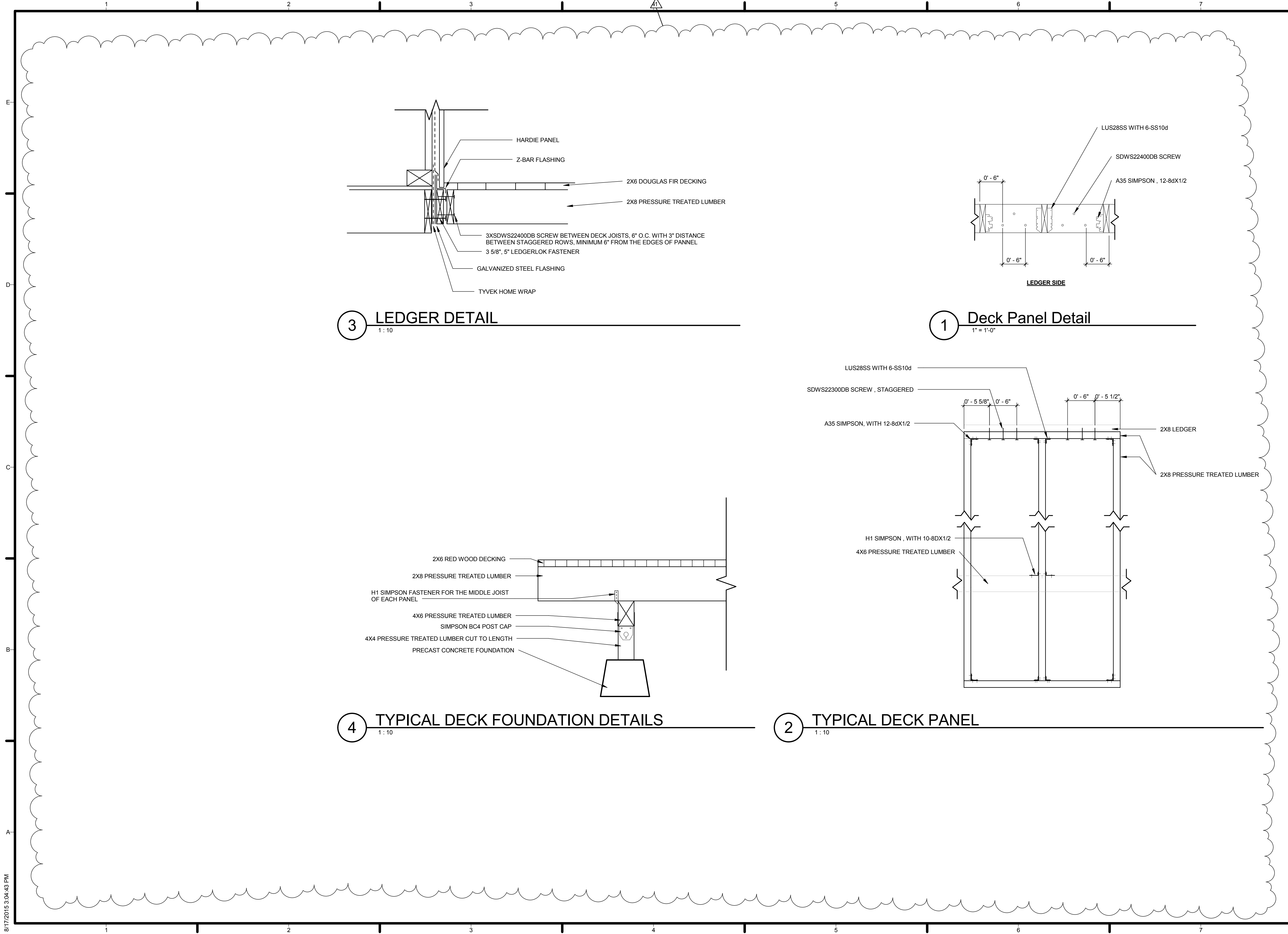
AB	08.17.15	AS BUILT
		NOT USED AT THIS TIME.

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

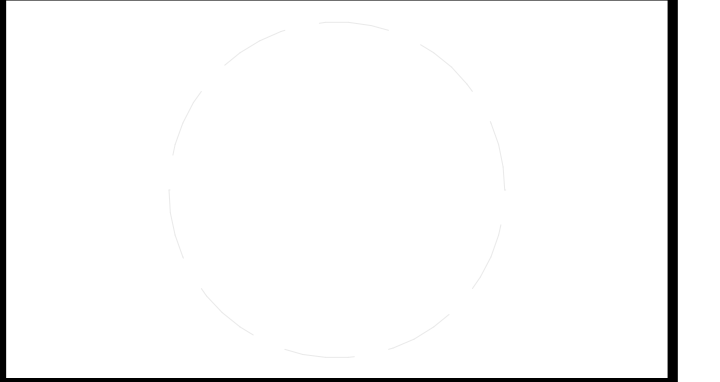
SHEET TITLE
FRAMING DETAILS

S-502



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
DECK DETAILS

S-503

8/17/2015 3:04:43 PM

GENERAL SHEET NOTES

- 1. WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS IN ACCORDANCE WITH AMERICAN WELDING SOCIETY STANDARD, USING ONLY CERTIFIED STRUCTURAL STEEL WELDERS. ALL GROOVE WELDS SHALL BE GROUNDED. ALL WELDING TO BE DONE USING E70XX ELECTRODES. IN ADDITION, WELDING OF ASTM A572 GRADE STEEL 50 WITH A MAXIMUM DIFFUSIBLE HYDROGEN CONTENT OF 16ML/100G (H16).
- 2. ONLY WELD ON THE WEB OF I BEAMS



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

LEGEND

NOT USED AT THIS TIME

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



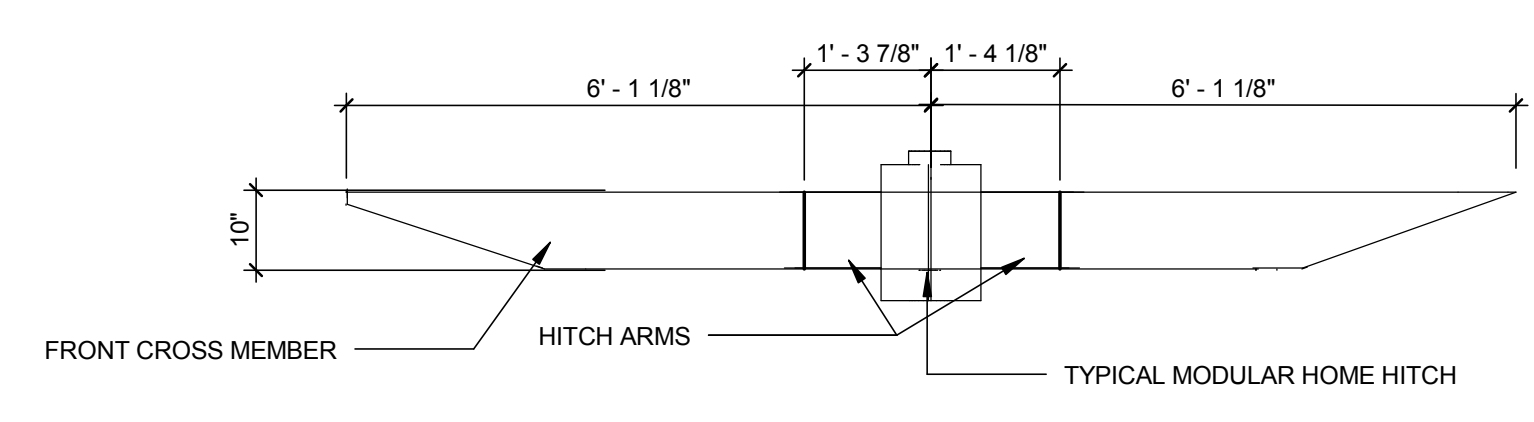
DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

SHEET TITLE

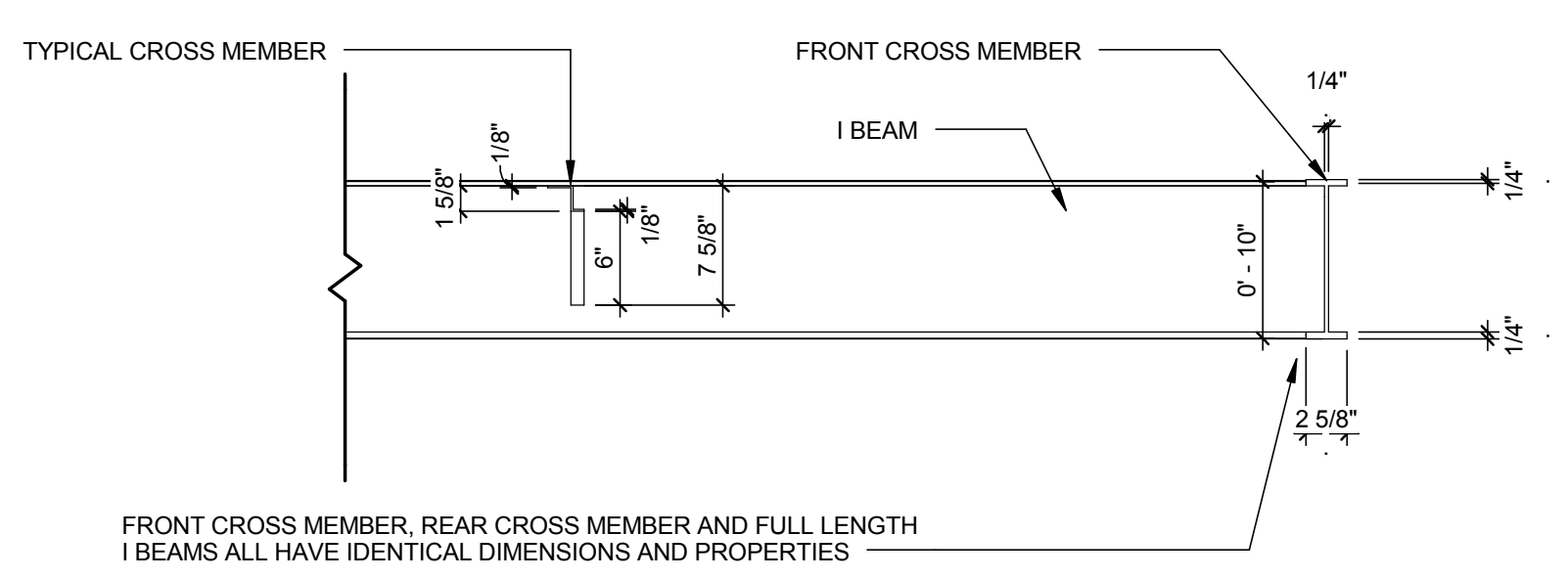
TRAILER FRAME DETAILS

S-504



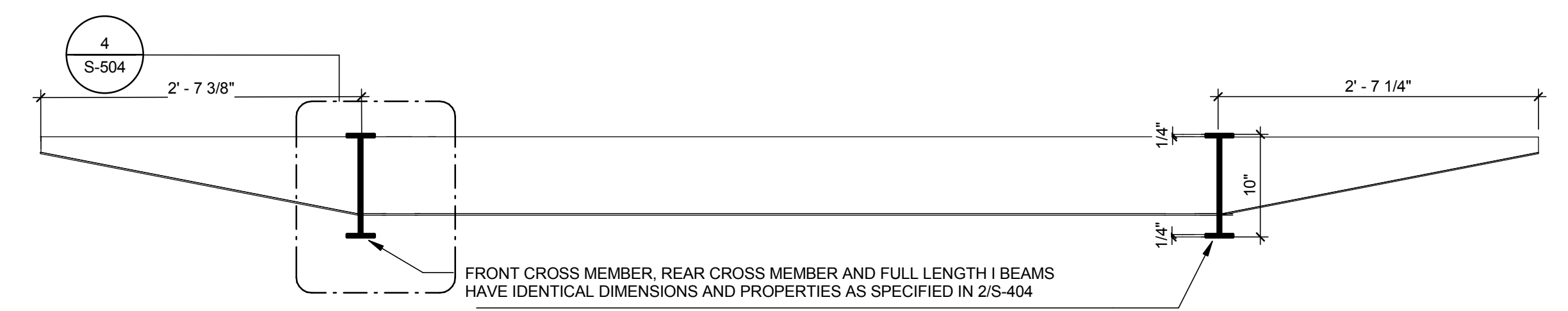
1 FRONT TRAILER FRAME ELEVATION

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



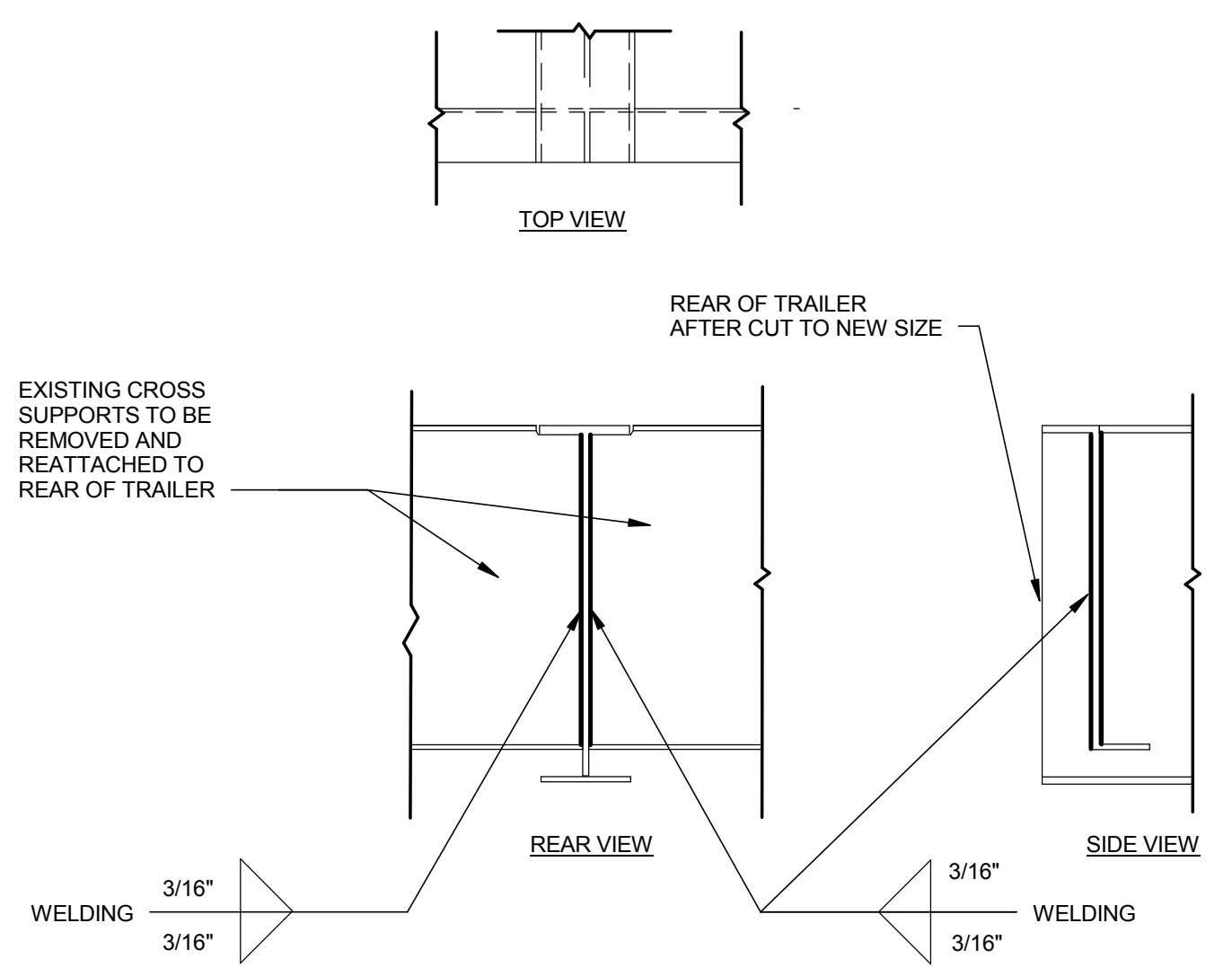
2 TRAILER FRAME CROSS MEMBER ELEVATION

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



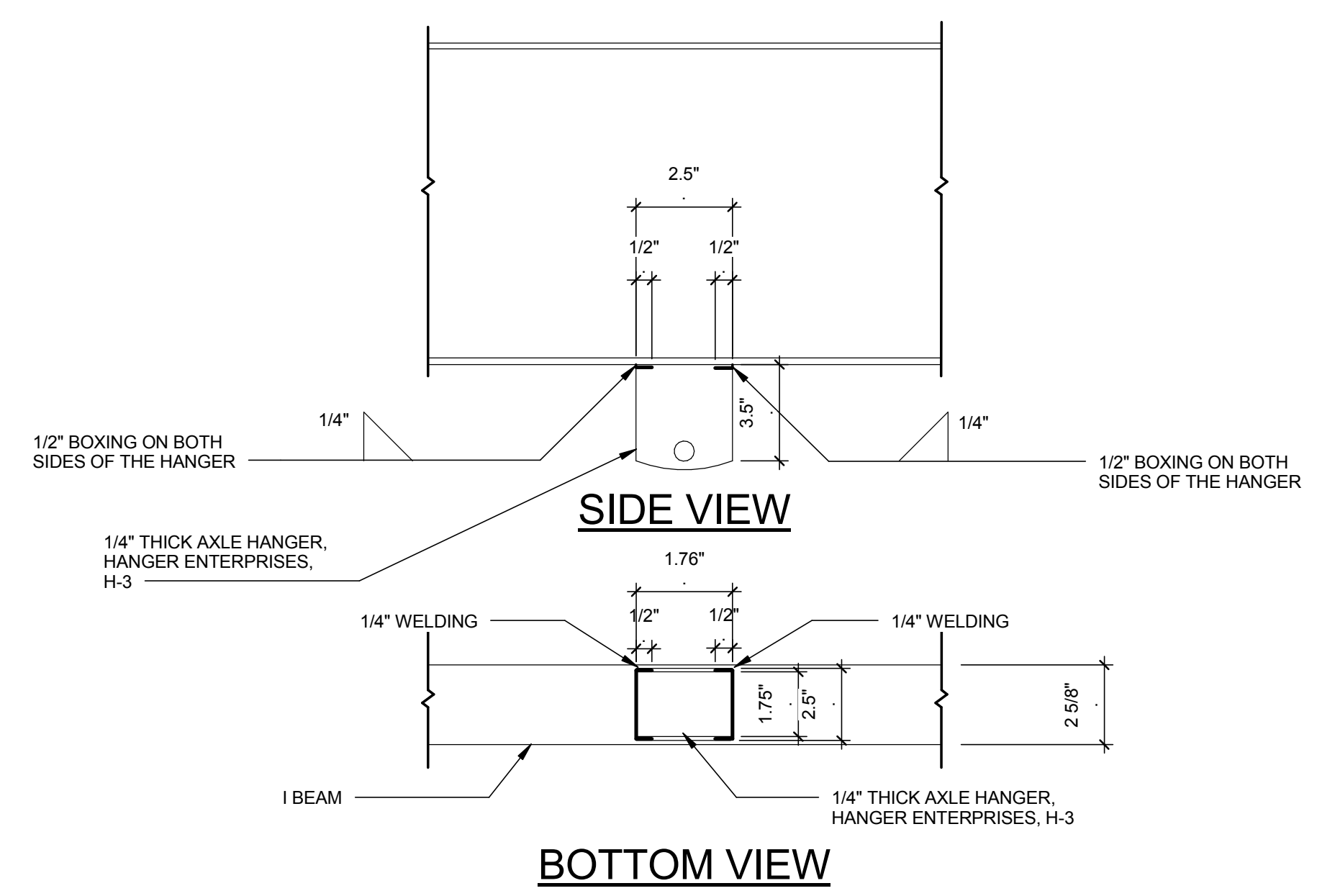
3 TRAILER FRAME SECTION

1" = 1'-0" 0 2' 4' 8'



4 CROSS SUPPORT WELDING DETAILS

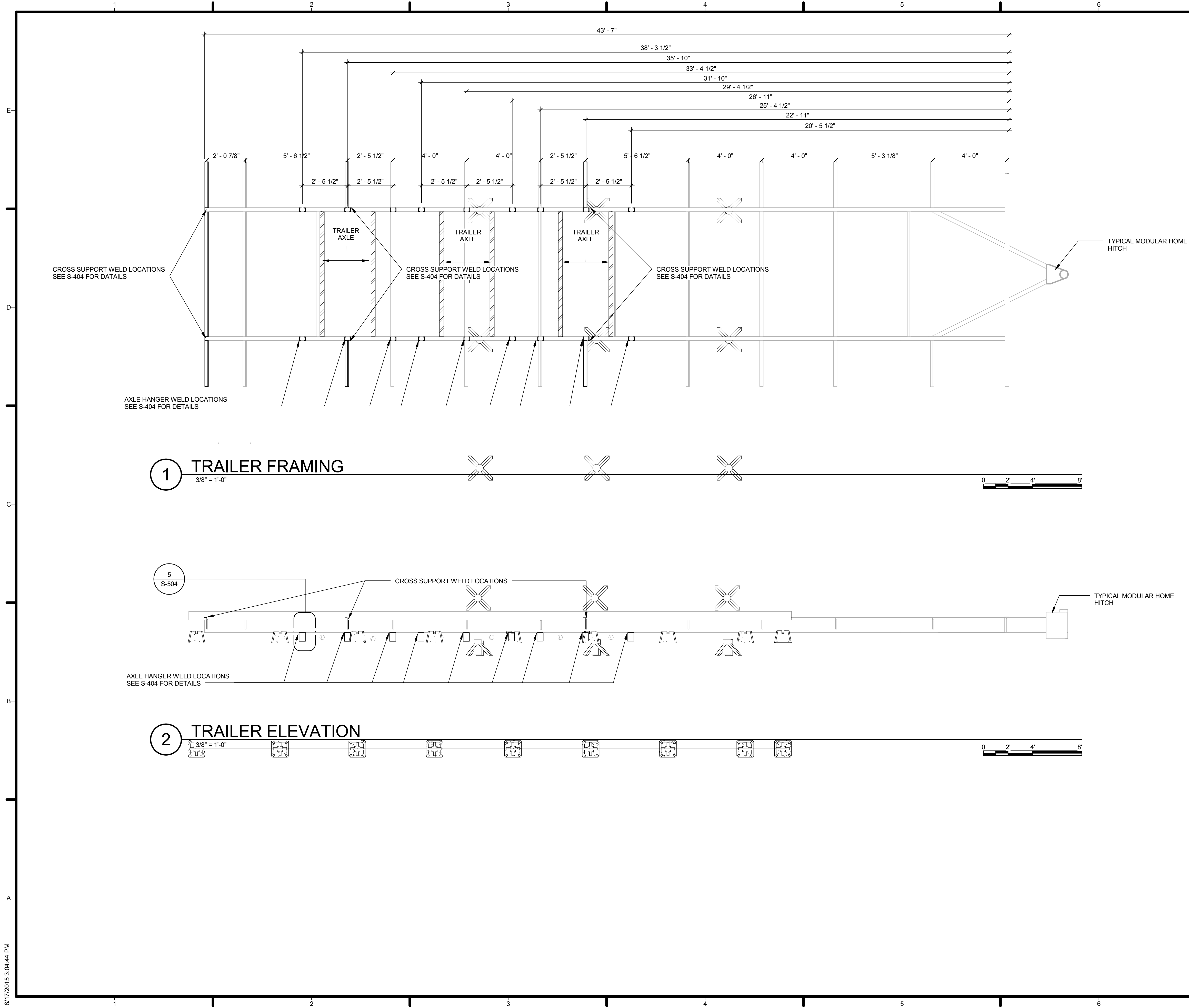
1/2" = 1'-0" 0 2' 4' 8'



5 AXLE HANGER WELDING DETAILS

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

8/17/2015 3:04:44 PM



GENERAL SHEET NOTES

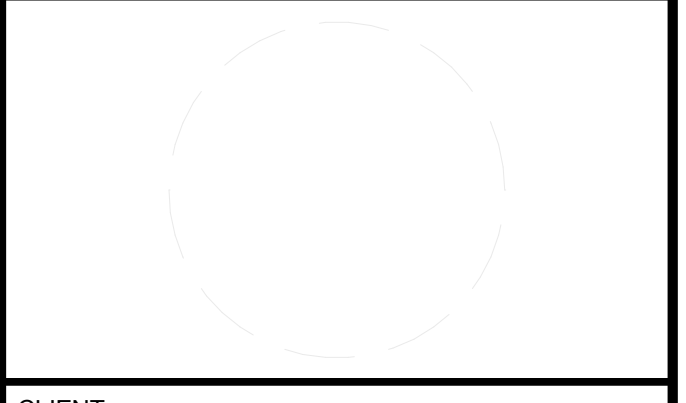
- WELDING NOTES:
 1. RECLAIMED TRAILER FRAMES ARE BEING USED
 2. TRAILERS ARE CUT TO 44' LENGTH
 3. WELD THE LAST BRACING ACCORDING TO WELDING DETAILS
 4. WELD 18 AXLE HANGERS AT SPECIFIED LOCATIONS ACCORDING TO WELDING DETAILS

LEGEND

SYMBOL	DESCRIPTION
[]	AXLE HANGER WELD LOCATION SEE S-404 FOR DETAILS



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

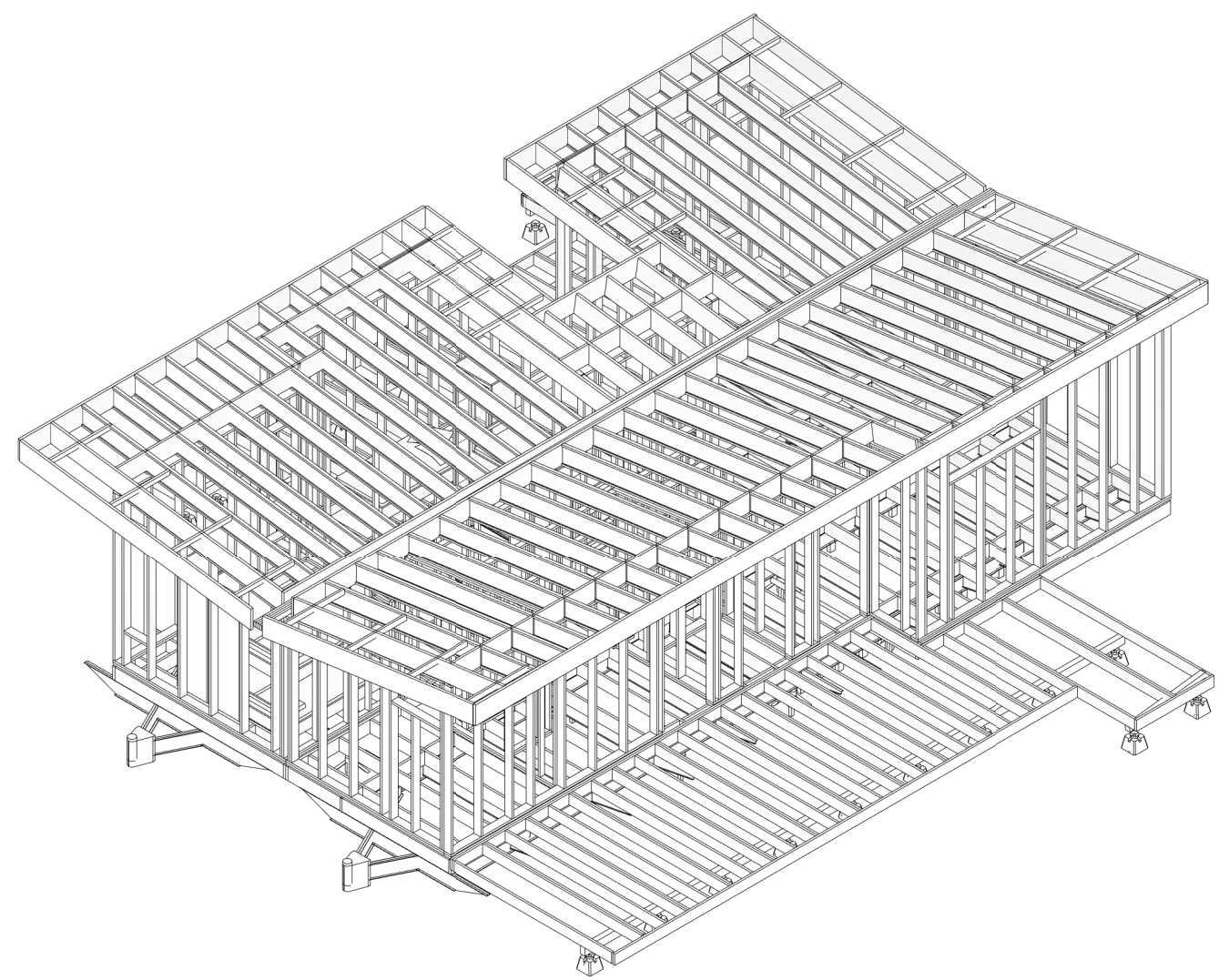


DD	DATE	DESCRIPTION
	02.12.15	DESIGN DEVELOPMENT

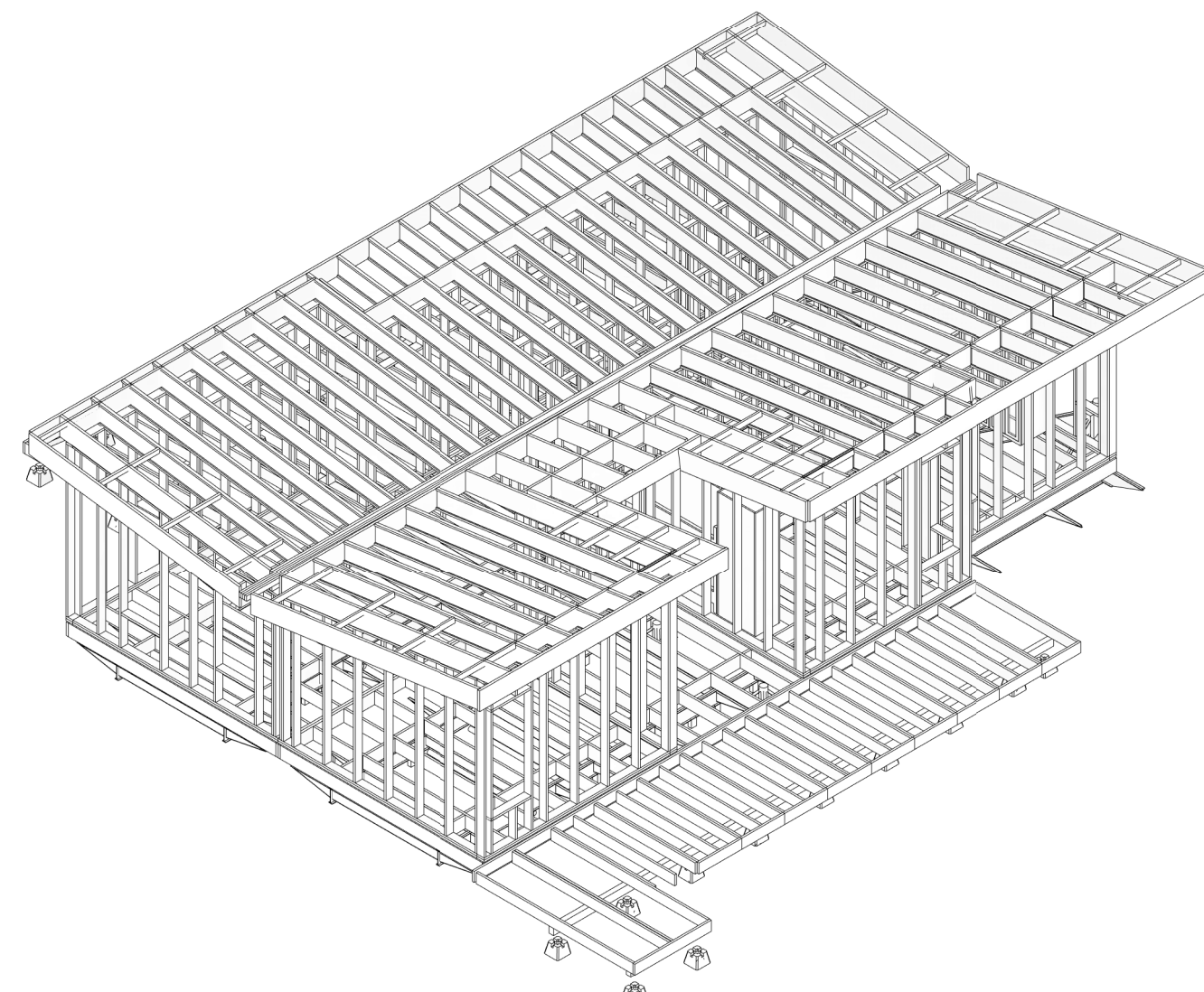
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
TRAILER AXLE LOCATION

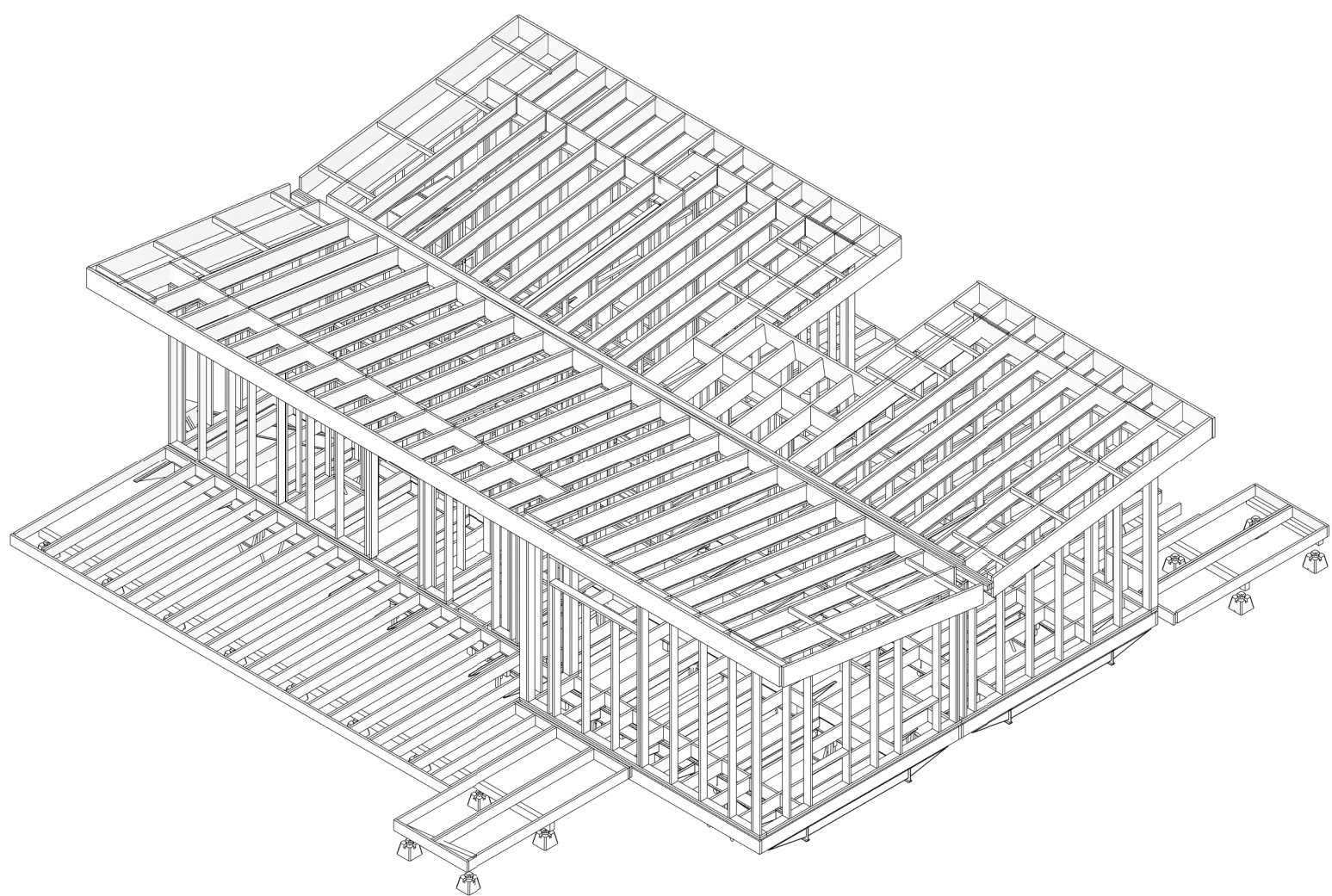
S-701



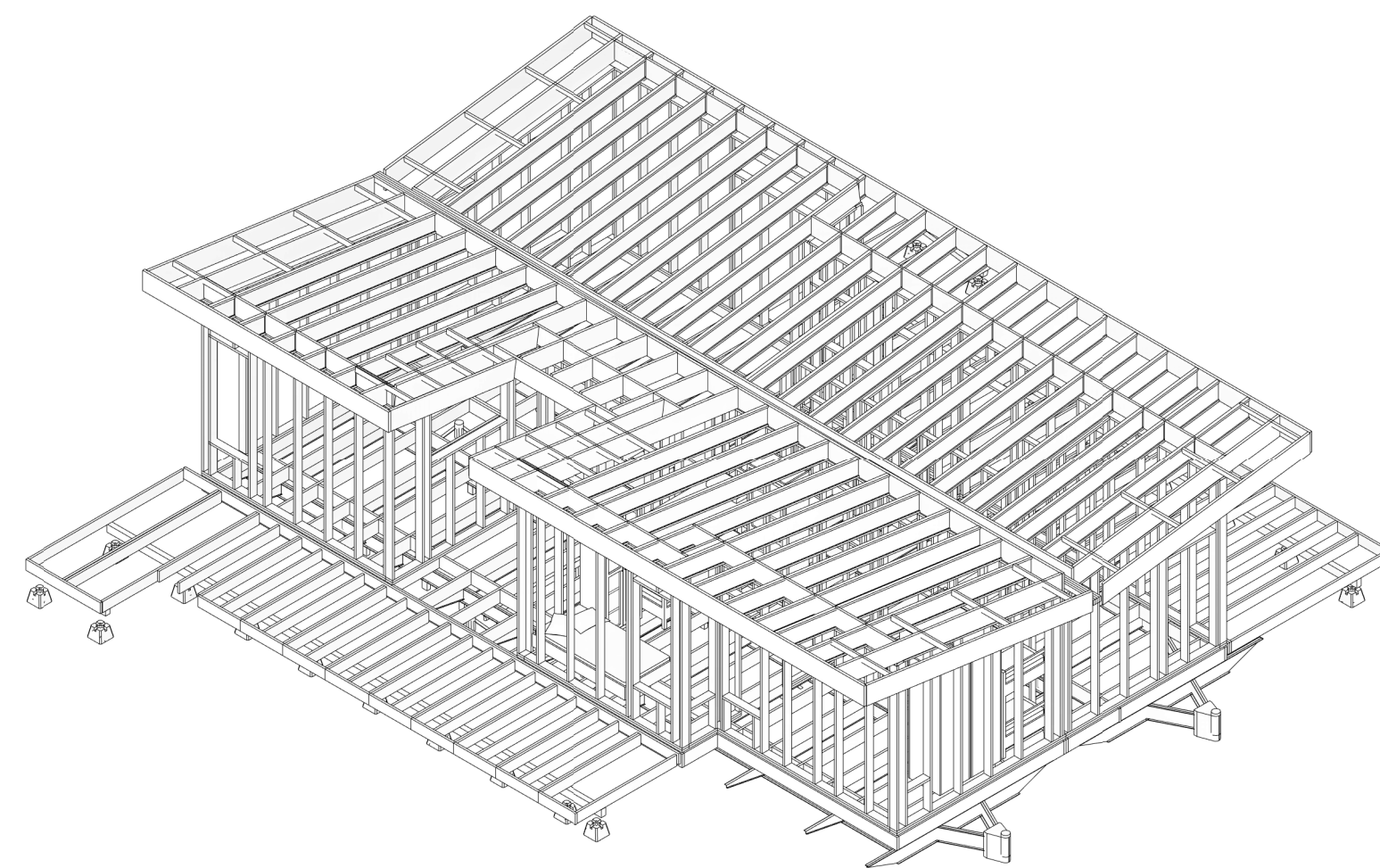
3 FRAMING ISOMETRIC, 3



1 FRAMING ISOMETRIC, 1



4 FRAMING ISOMETRIC, 4



2 FRAMING ISOMETRIC, 2



TEAM NAME: AGGIE SOL

ADDRESS: 215 SAGE STREET
DAVIS, CA 95616

CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://SOLARDECATHLON2015.UCDAVIS.EDU/)

CONSULTANTS

CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



AB	08.17.15	AS BUILT

MARK DATE DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FRAMING ISOMETRIC

S-901



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



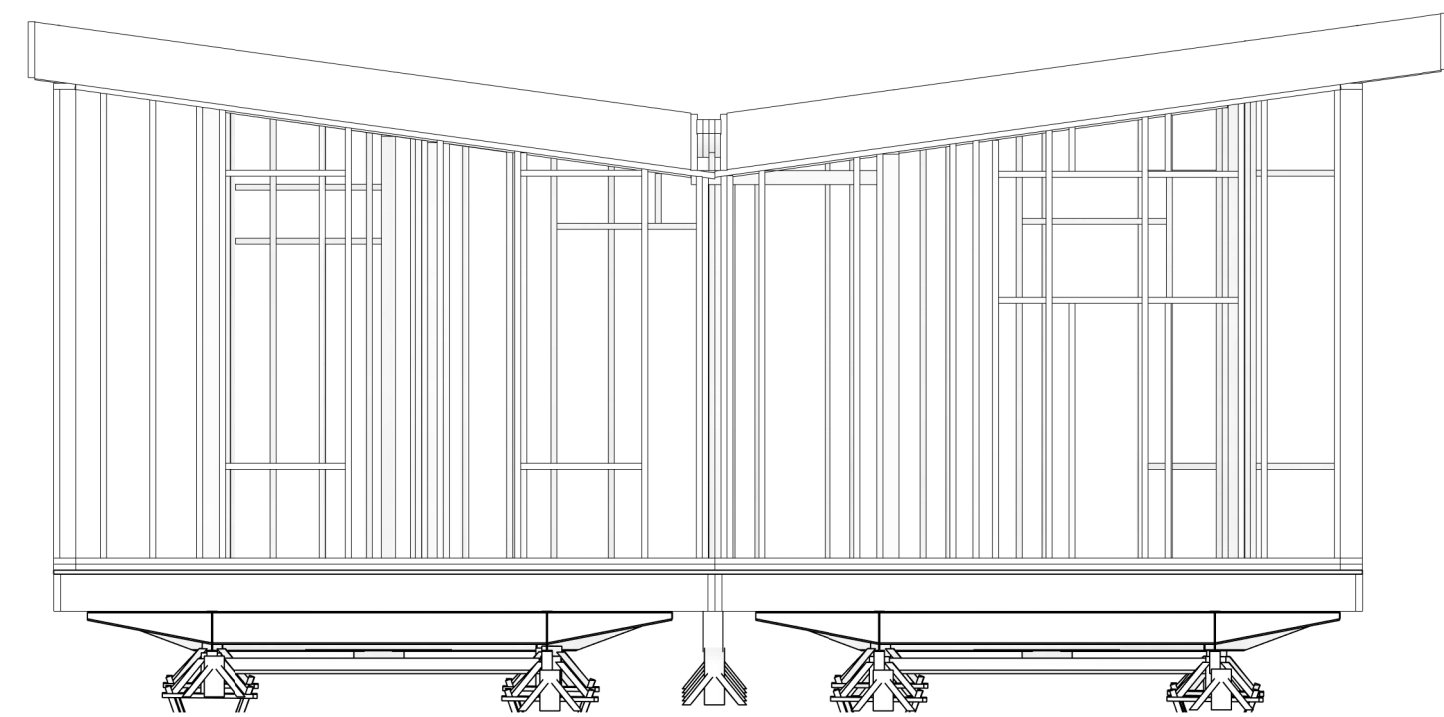
AB	08.17.15	AS BUILT
----	----------	----------

MARK	DATE	DESCRIPTION
------	------	-------------

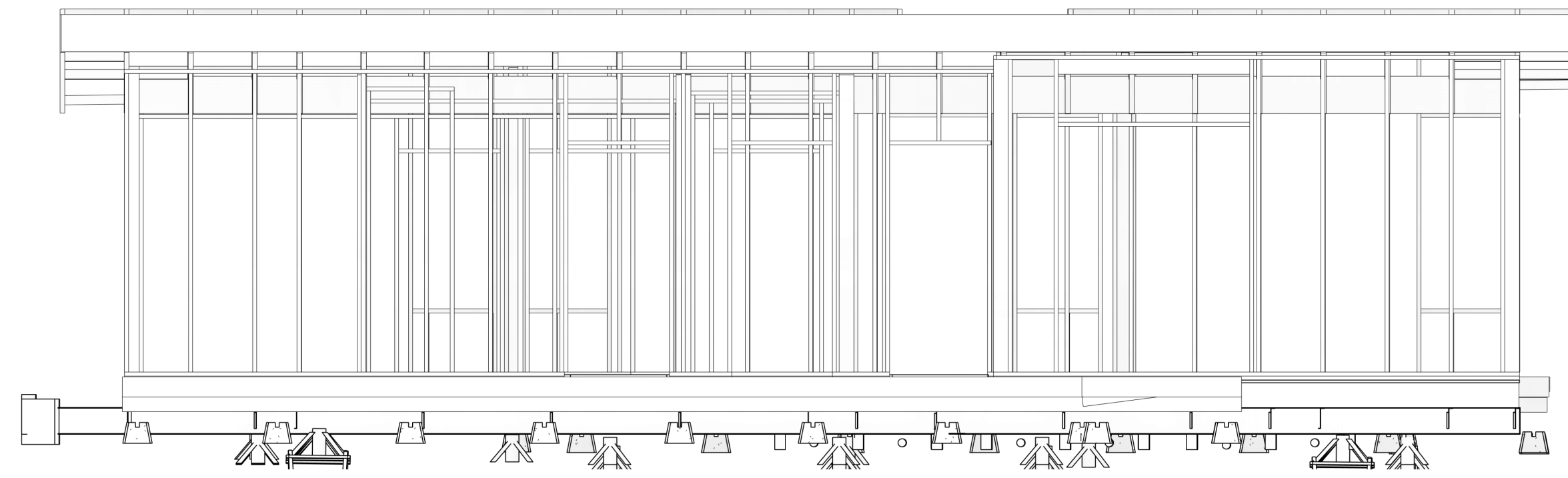
LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 EXTERIOR FRAMING VIEWS

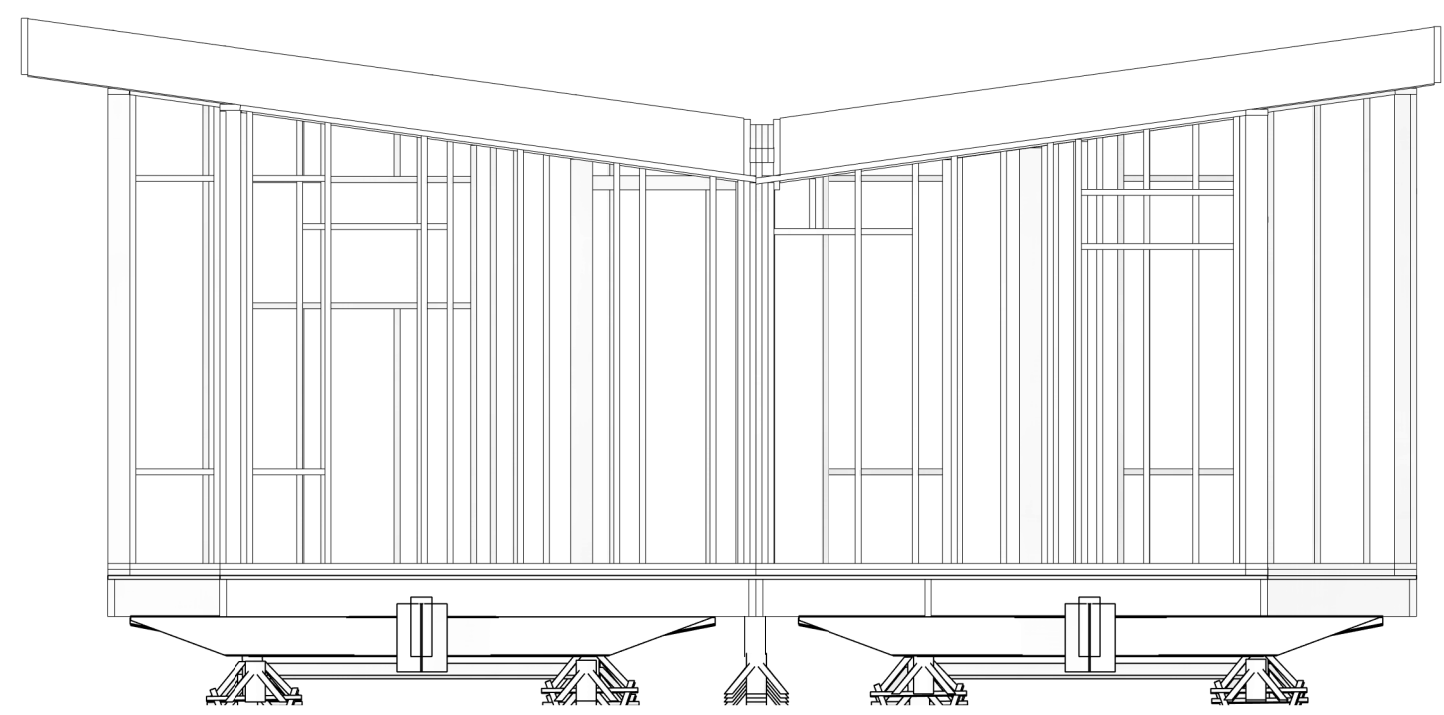
S-902



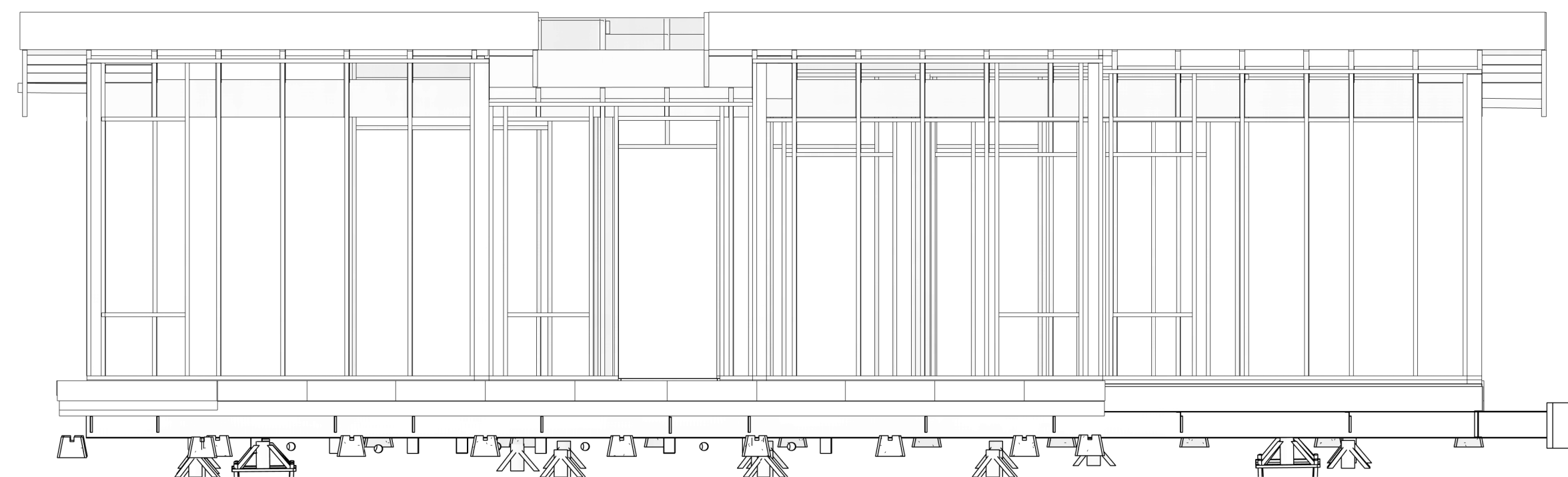
3 WEST EXTERIOR FRAMING VIEW



1 NORTH EXTERIOR FRAMING VIEW




4 EAST EXTERIOR FRAMING VIEW




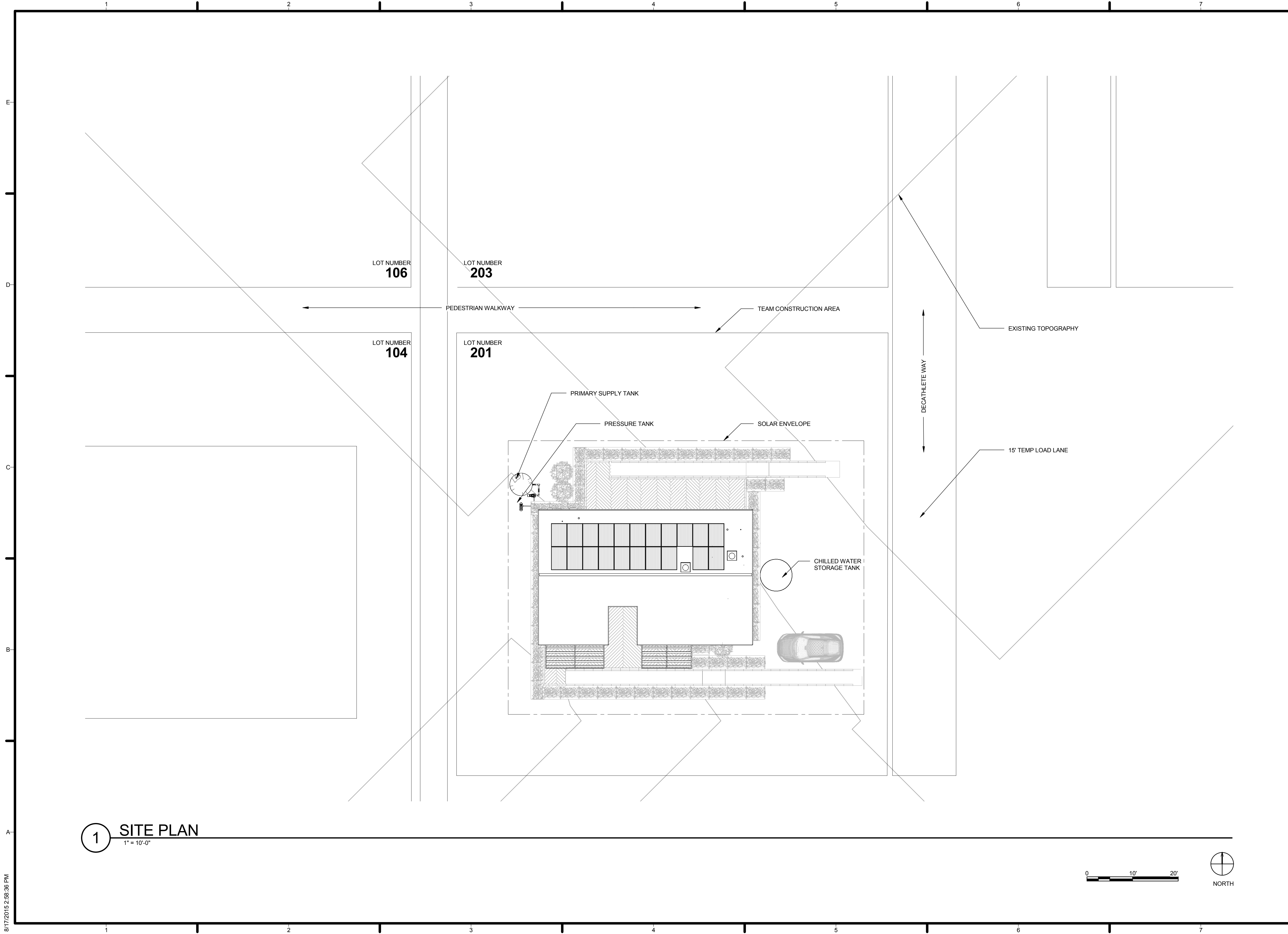
2 SOUTH EXTERIOR FRAMING VIEW

ARCHITECTURAL ABBREVIATIONS CONTINUED		ARCHITECTURAL ABBREVIATIONS		GENERAL NOTES	ARCHITECTURAL SHEET INDEX	
ABBREVIATIONS	TERM	ABBREVIATIONS	TERM		Sheet Number	Sheet Name
TYP	TYPICAL	@	AT	<p>1. ALL PIPING THAT PENETRATE FLOOR SLABS SHALL BE INSTALLED IN A MANNER THAT WILL PRESERVE THE INDICATED STRUCTURAL INTEGRITY OF THE HOUSE</p> <p>2. ALL JOINTS AND PENETRATIONS IN INSULATION BARRIER SHALL BE FULLY SEALED WITH ADHESIVE SEALANT TO PROVIDE CONTINUOUS AIR TIGHT INSULATION</p> <p>3. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE DETAILED</p> <p>4. ALL SILLS, WINDOW HEADS, AND SHELF ANGLES SHALL HAVE FLASHING EXTENDED TO THE OUTSIDE OF THE WALL WHETHER OR NOT SHOWN ON THE DRAWINGS</p> <p>5. WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS OF THE VARIOUS TRADES, CONSULT THE ARCHITECT PRIOR TO PROCEEDING WITH WORK</p> <p>6. ALL GLAZING SHALL BE SAFETY GLAZED WHEN WITHIN 18" OF THE FLOOR OR WITHIN 3'-0" HORIZONTAL DISTANCE FROM ANY DOOR</p>	A-001	ARCHITECTURAL SYMBOLS AND NOTES
UON	UNLESS OTHERWISE NOTED	ACT	ACOUSTICAL CEILING TILE		A-101	SITE PLAN
VCT	VINYL COMPOSITION TILE	ADJ	ADJUSTABLE/ADJACENT		A-102	FURNITURE PLAN
VERT	VERTICAL	AFF	ABOVE FINISHED FLOOR		A-111	FIRST FLOOR PLAN
W/O	WITHOUT	ALUM	ALUMINUM		A-112	ROOF PLAN
WC	WATER CLOSET	APPROX	APPROXIMATELY		A-121	FIRST FLOOR REFLECTED CEILING PLAN
		ARCH	ARCHITECTURAL	A-211	EXTERIOR ELEVATIONS	
		BLDG	BUILDING	A-212	EXTERIOR ELEVATIONS	
		BLKG	BLOCKING	A-213	INTERIOR ELEVATIONS	
		CAB	CABINET	A-214	BATHROOM ADA COMPLIANCE	
		CLG	CEILING CENTERLINE	A-215	KITCHEN ADA COMPLIANCE AND ENLARGED PLAN	
		CLR	CLEAR	A-301	BUILDING SECTIONS	
		COL	COLUMN	A-311	WALL SECTIONS	
		CONC	CONCRETE	A-401	SCHEDULES	
		CONST	CONSTRUCTION	A-501	SIDING DETAILS	
		CONT	CONTINUOUS	A-502	SIDING DETAILS	
		CONTR	CONTRACTOR	A-503	SIDING DETAILS	
		COORD	COORDINATE	A-504	SIDING DETAILS	
		CPT	CARPET	A-506	ROOF DETAILS	
		DIA	DIAMETER	A-531	WINDOW DETAILS	
		DIM	DIMENSION	A-532	WINDOW DETAILS	
		DN	DOWN	A-533	DOOR DETAILS	
		DTL	DETAIL			
		DWG	DRAWING			
		EA	EACH			
		EL	ELEVATION(HEIGHT)			
		ELEC	ELECTRIC			
		ELEV	ELEVATION			
		EN	ENAMEL			
		EQ	EQUAL			
		EXIST	EXISTING			
		FB	FLAT BAR			
		FE	FIRE EXTINGUISHER			
		FIN	FINISH			
		FLR	FLOOR			
		GA	GAUGE			
		GALV	GALVANIZED			
		GC	GENERAL CONTRACTOR			
		GYP.BD.	GYPSTUM WAL BOARD TEMP TEMPERED			
		HDW	HARDWARE			
		HM	HOLLOW METAL			
		HOR	HORIZONTAL			
		HT	HEIGHT			
		HVAC	HEATING, VENTILATION, VEN VENEER AIR CONDITIONING			
		IN	INCH			
		INCL	INCLUDE			
		INSTL	INSTALLATION			
		INSUL	INSULATION			
		LTG	LIGHTING			
		MANUF	MANUFACTURER			
		MATL	MATERIAL			
		MAX	MAXIMUM			
		MDF	MEDIUM DENSITYU FIBERBOARD			
		MED	MEDIUM			
		MISC	MISCELLAENOUS			
		MO	MASONRY OPENING			
		MTD	MOUNTED			
		MTL	MATERIAL			
		N/A	NOT APPLICABLE			
		NOM	NOMINAL			
		NTS	NOT TO SCAL			
		OC	ON CENTER			
		OPNG	OPENING			
		OPP	OPPOSITE			
		P-LAM	PLASTIC LAMINATE			
		PL	PLATE			
		PLWD	PLYWOOD			
		PR	PAIR			
		PT	PAINT			
		R	RADIUS			
		REF	REFRIGERATOR			
		REV	REVISION			
		RO	ROUGH OPENING			
		SCHED	SCHEDULE			
		SCW	SOLID			
		SD	SOAP DISPENSER			
		SECT	SECTION			
		SHT	SHEET			
		STOR	STORAGE			
		SUSP	SUSPENDED			
		TEL	TELEPHONE			
		TPH	TOILET PAPER HOLDER			



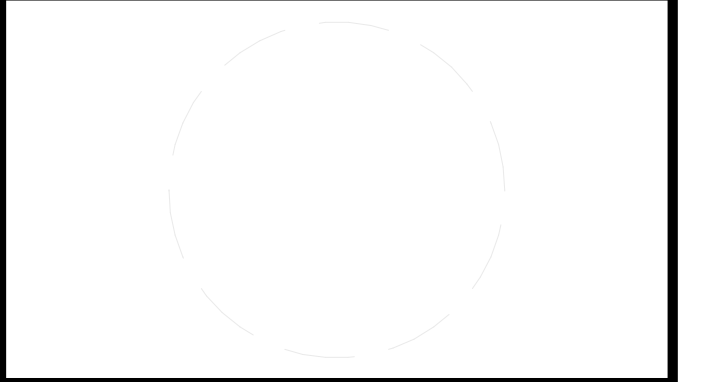
AGGIE SOL

TEAM NAME: AGGIE SOL	
ADDRESS: 215 SAGE STREET DAVIS, CA 95616	
CONTACT: (530) 752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/	
CONSULTANTS	
CLIENT	
U.S. DEPARTMENT OF ENERGY	
SOLAR DECATHLON 2015	
WWW.SOLARDECATHLON.GOV	
U.S. DEPARTMENT OF ENERGY 	
AB	08.17.15 AS BUILT
MARK	DATE DESCRIPTION
LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN
SHEET TITLE	
ARCHITECTURAL SYMBOLS AND NOTES	
A-001	



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

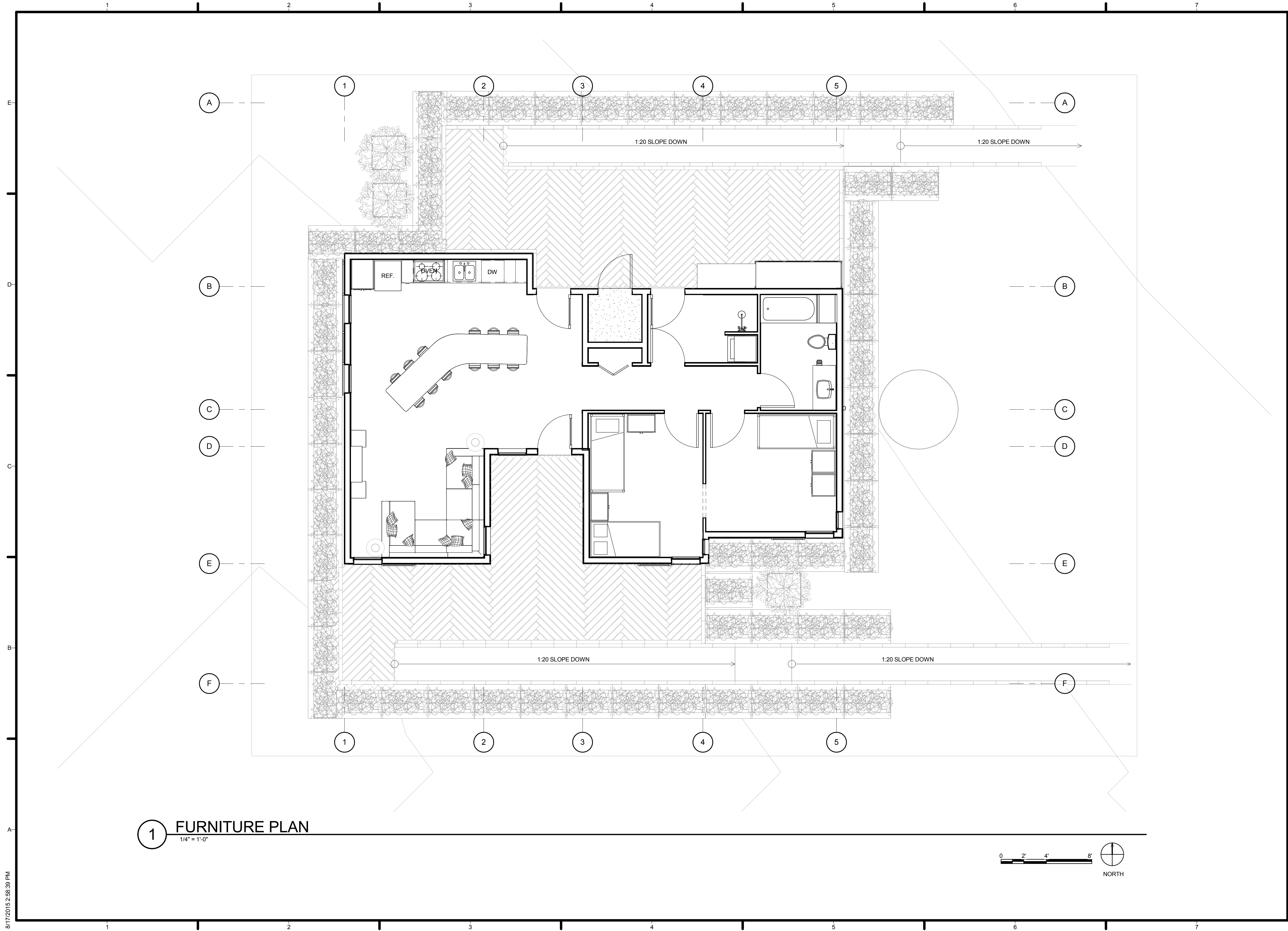
SITE PLAN

A-101

1 SITE PLAN
1" = 10'-0"



8/17/2015 2:56:36 PM



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

8/17/2015 2:56:39 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

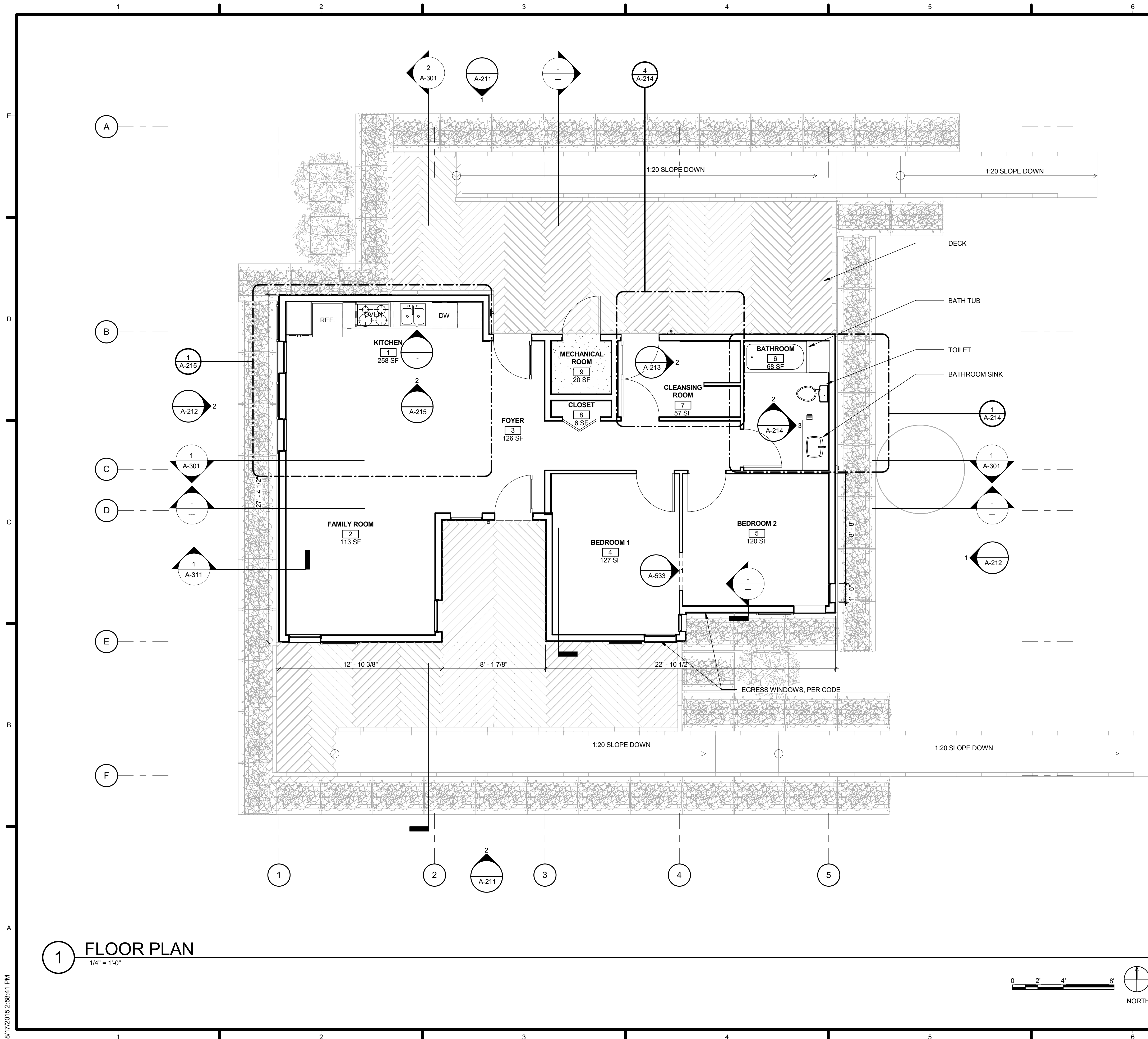


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FURNITURE PLAN

A-102



GENERAL SHEET NOTES

NOT USED AT THIS TIME

REFERENCE KEYNOTES

NOT USED AT THIS TIME

SHEET KEYNOTES

NOT USED AT THIS TIME



TEAM NAME: AGGIE SOL

ADDRESS: 215 SAGE STREET
DAVIS, CA 95616

CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

MARK	DATE	DESCRIPTION

MARK	DATE	DESCRIPTION

LOT NUMBER: 201

DRAWN BY: AGGIE SOL TEAM

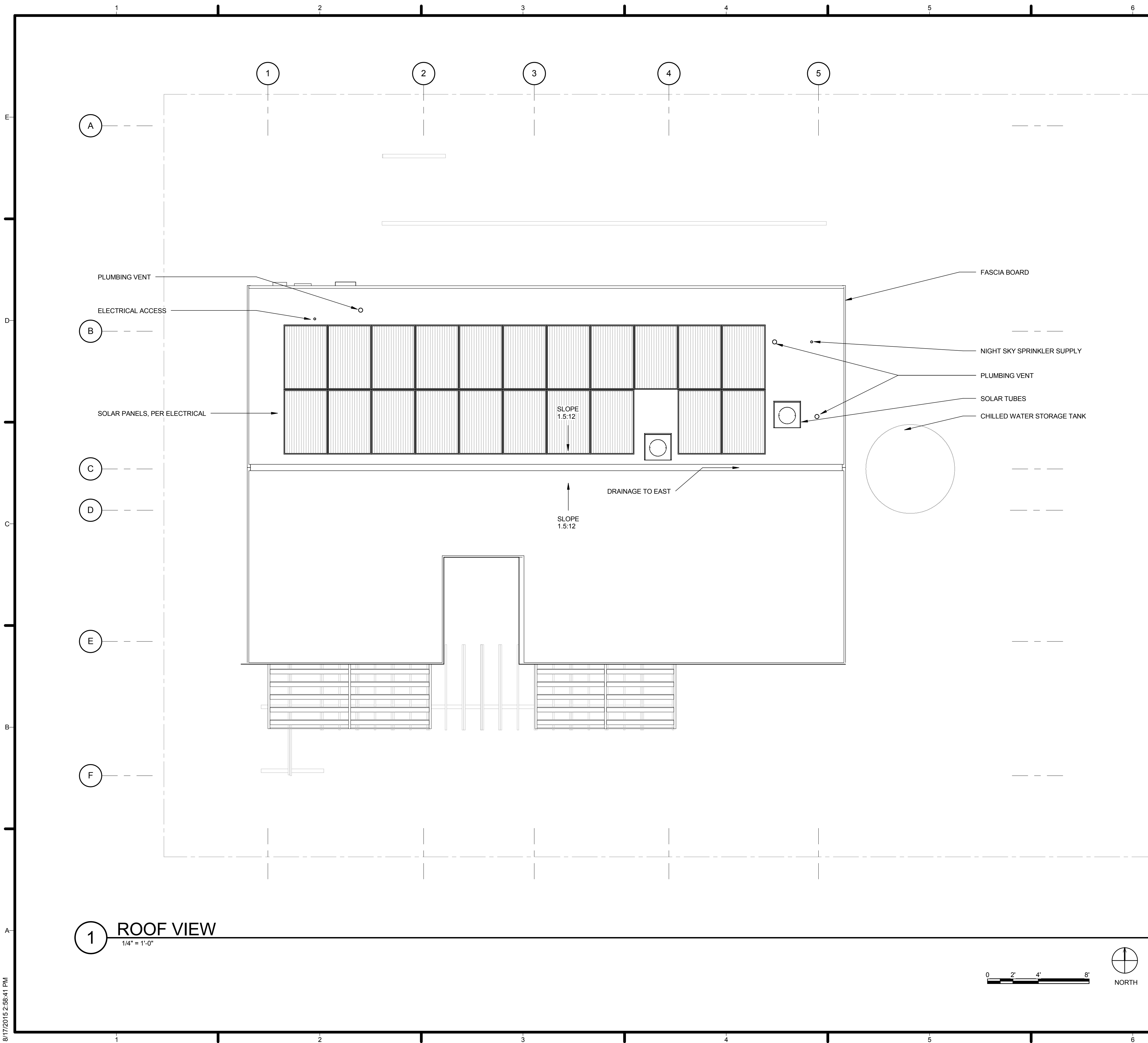
CHECKED BY: ROBERT GOOD

COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

FIRST FLOOR PLAN

A-111



GENERAL SHEET NOTES

NOT USED AT THIS TIME

REFERENCE KEYNOTES

NOT USED AT THIS TIME

SHEET KEYNOTES

NOT USED AT THIS TIME



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



CD	2.12.15	CONSTRUCTION DOCS
----	---------	-------------------

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

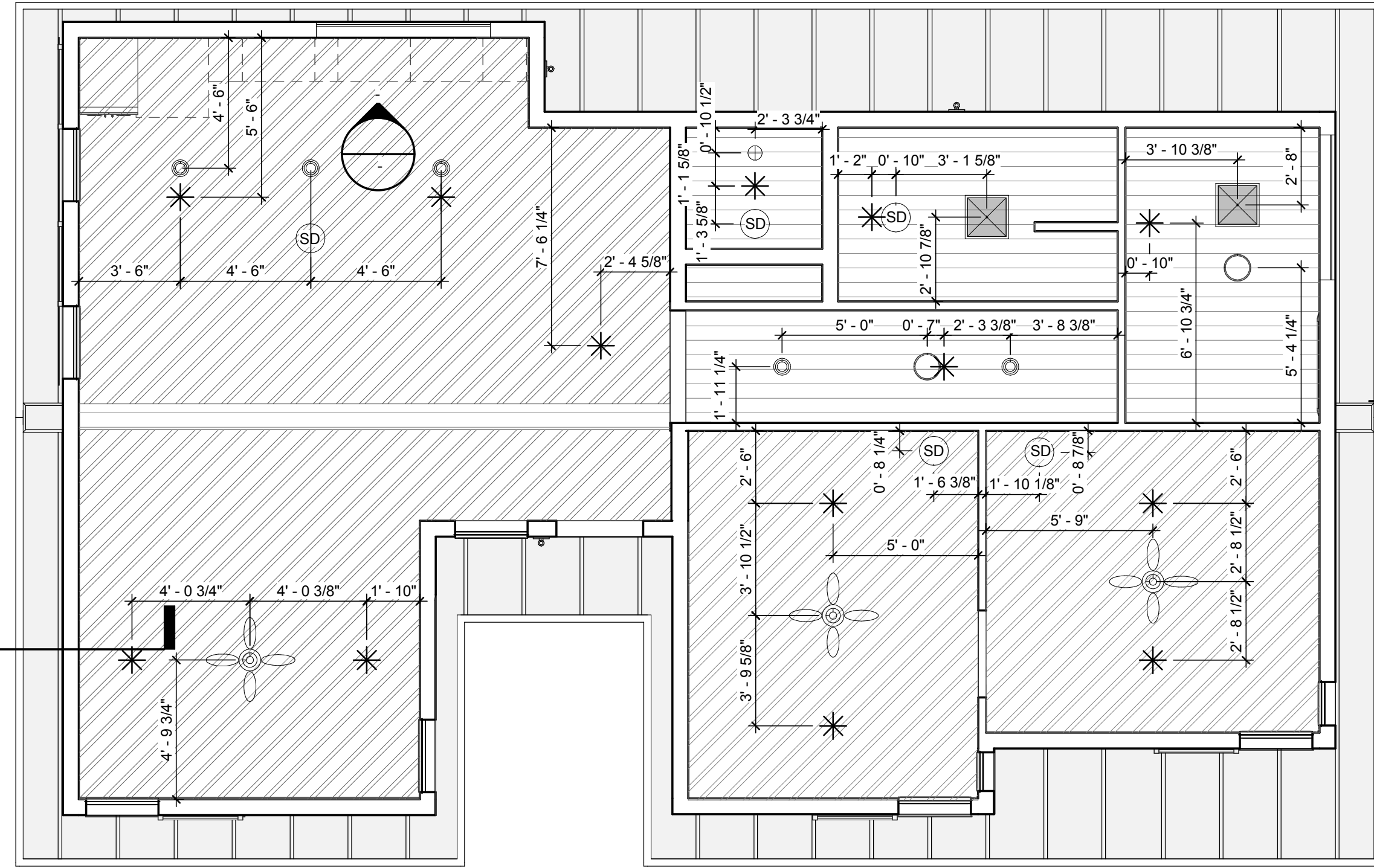
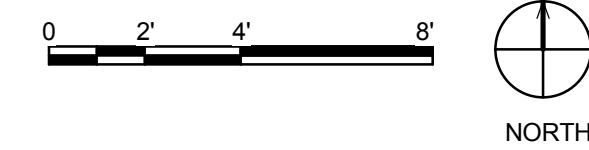
SHEET TITLE

ROOF PLAN

A-112

1 FIRST FLOOR REFLECTED CEILING PLAN

1/4" = 1'-0"



GENERAL SHEET NOTES

STILL NEEDS FIRE SPRINKLERS

LEGEND

- BATH EXHAUST FAN
- RECESSED LED CAN LIGHT
- SOLAR TUBE
- SURFACE MOUNTED CEILING FIXTURE
- EXTERIOR SOLAR LIGHT FIXTURE
- SMOKE DETECTOR
- FIRE SPRINKLER
- SMALL RESIDENTIAL CEILING MOUNT FAN
- VAULTED GYPSUM BOARD CEILING
- 8-FT GYPSUM BOARD CEILING
- ROOF SOFFIT
- 7' 6" SQUARED HALLWAY ARCH



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



DD 02.12.15 DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

FIRST FLOOR REFLECTED CEILING PLAN

A-121



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT

U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

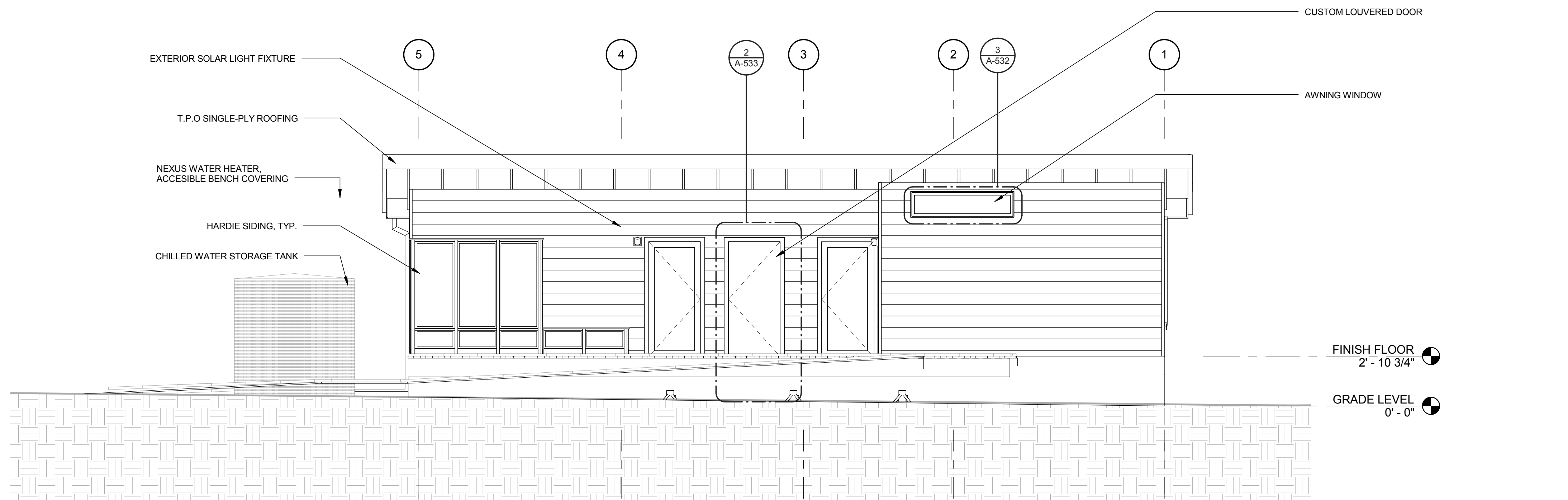


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

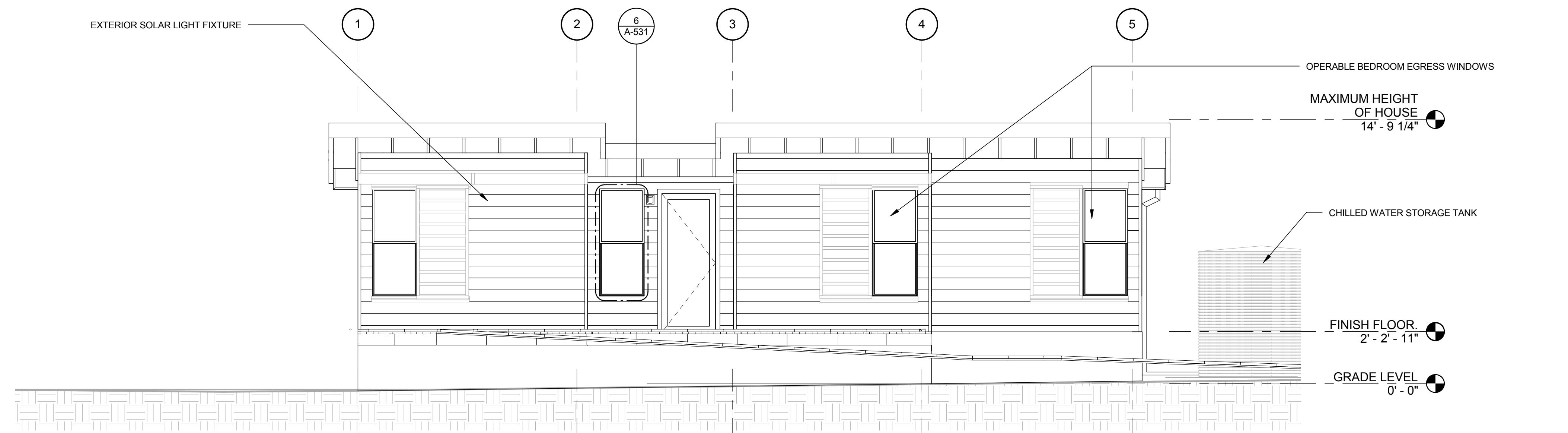
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT
 PUBLIC DOMAIN

SHEET TITLE
 EXTERIOR ELEVATIONS

A-211



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



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



8/17/2015 2:58:42 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

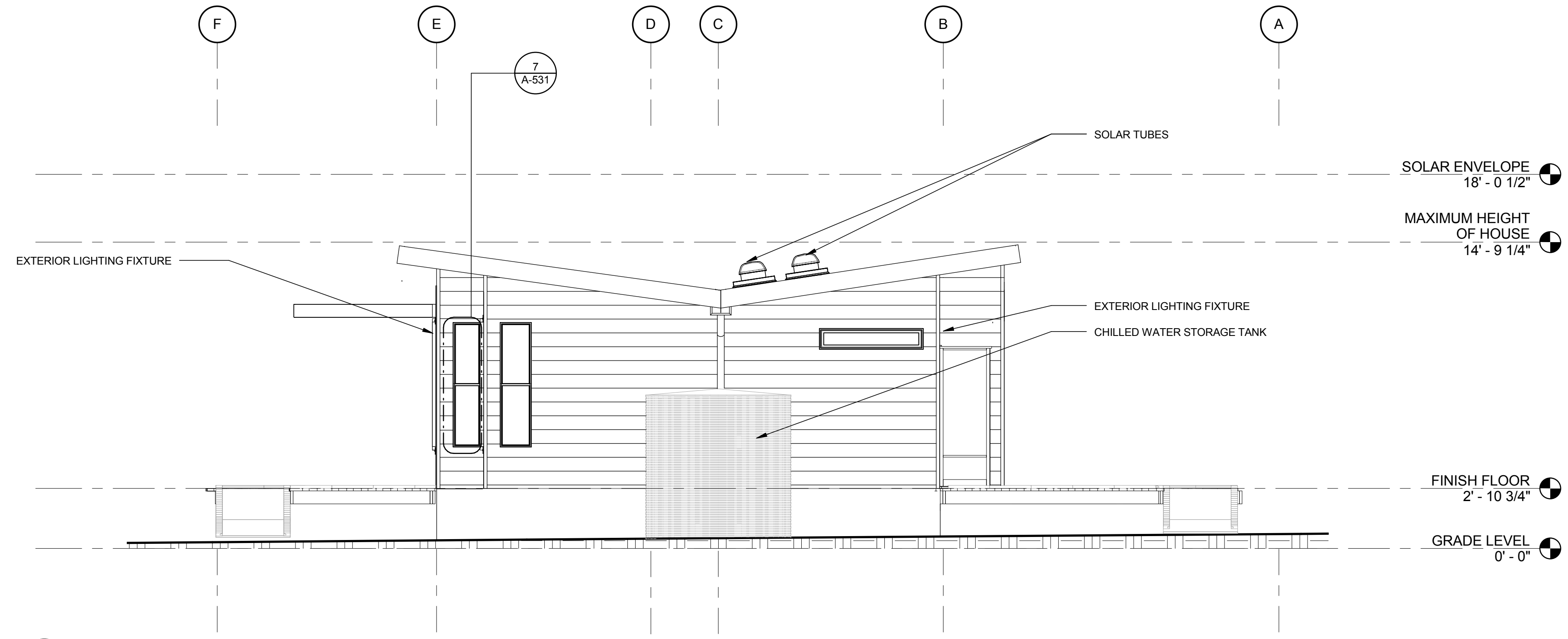


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

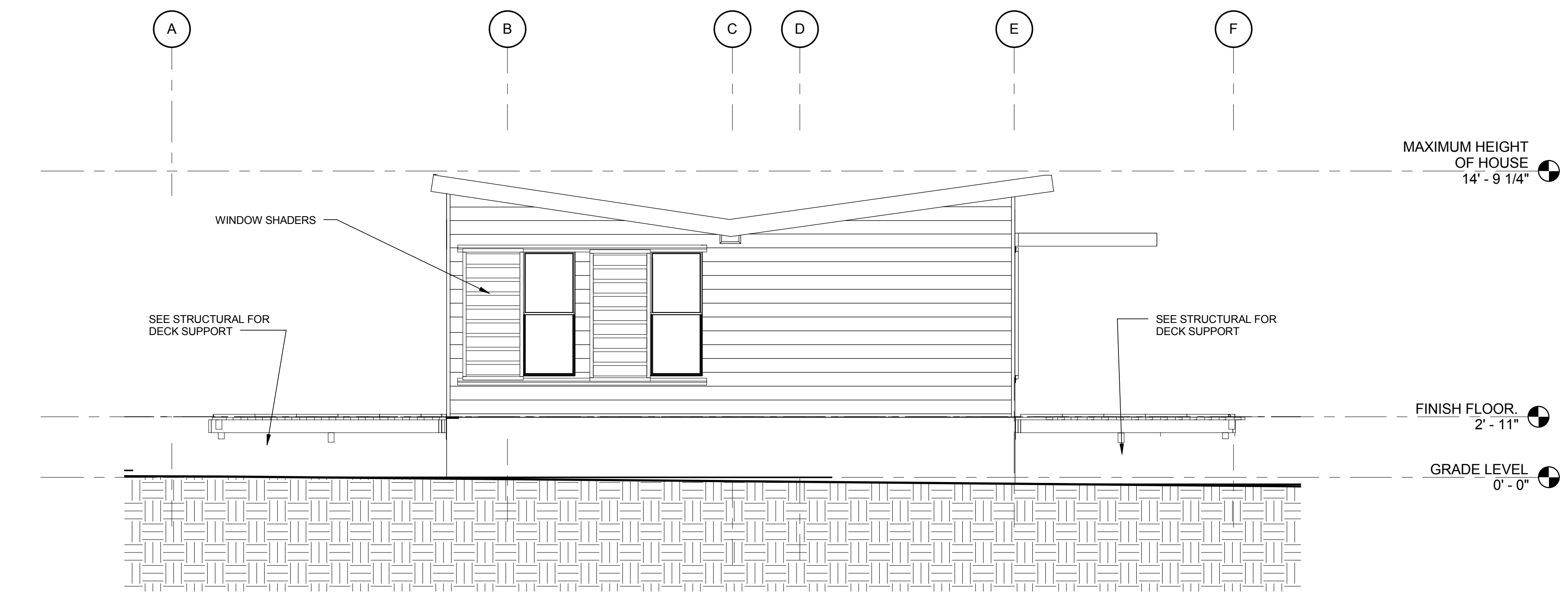
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
EXTERIOR ELEVATIONS

A-212



1 EAST EXTERIOR ELEVATION
 1/4" = 1'-0"
 Scale: 0' 2' 4' 8'



2 WEST EXTERIOR ELEVATION
 1/4" = 1'-0"
 Scale: 0' 2' 4' 8'



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

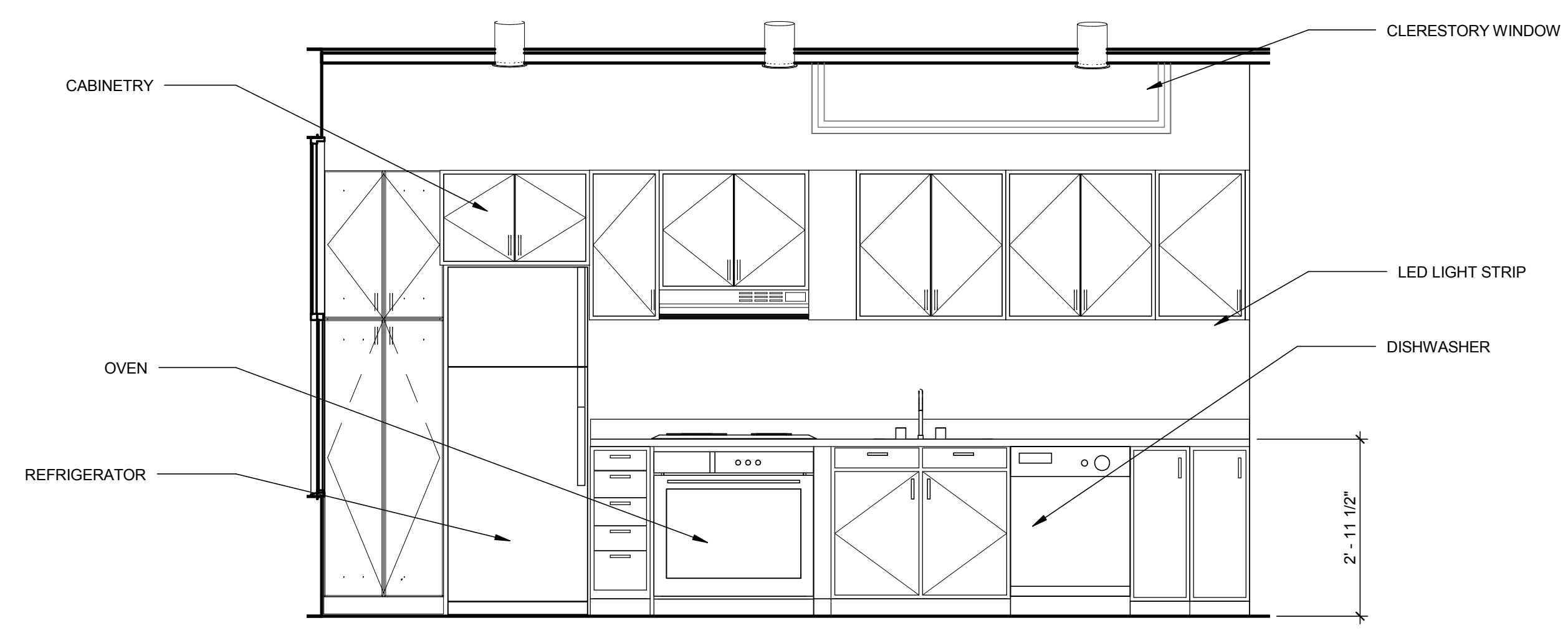


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

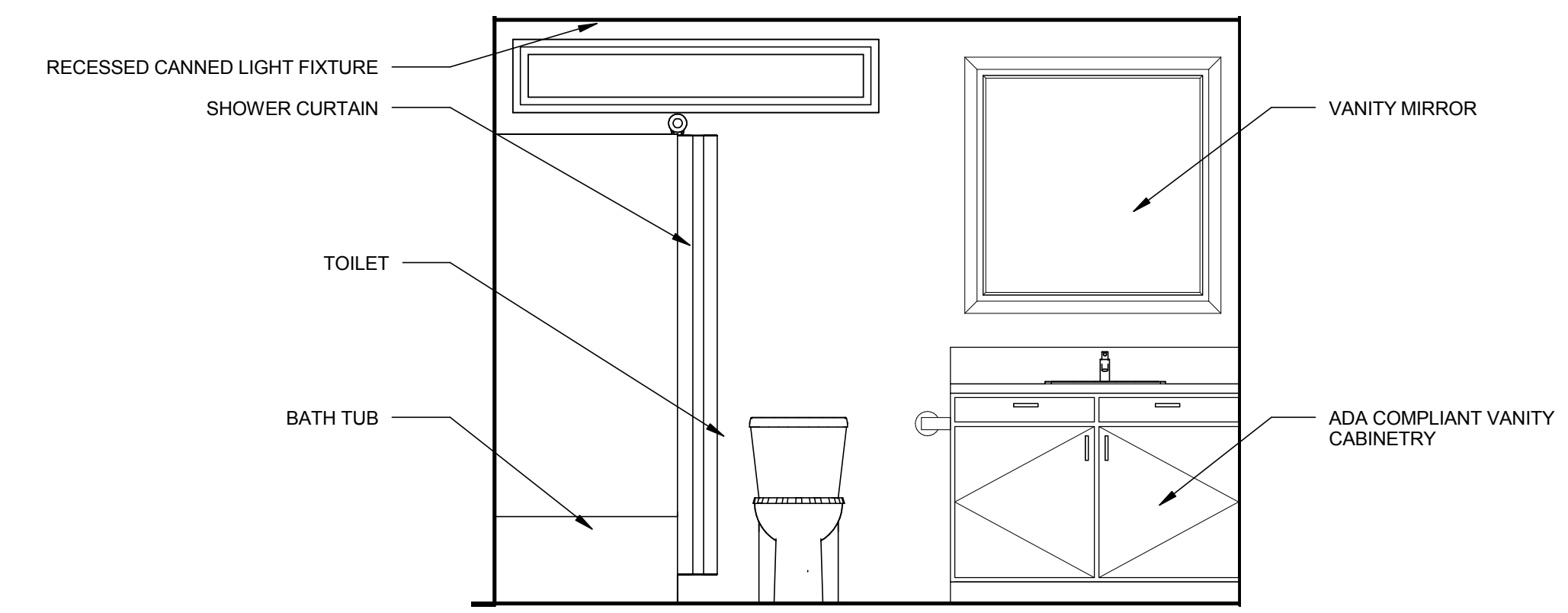
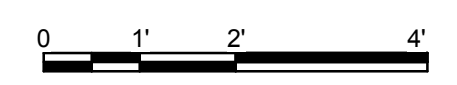
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
INTERIOR ELEVATIONS

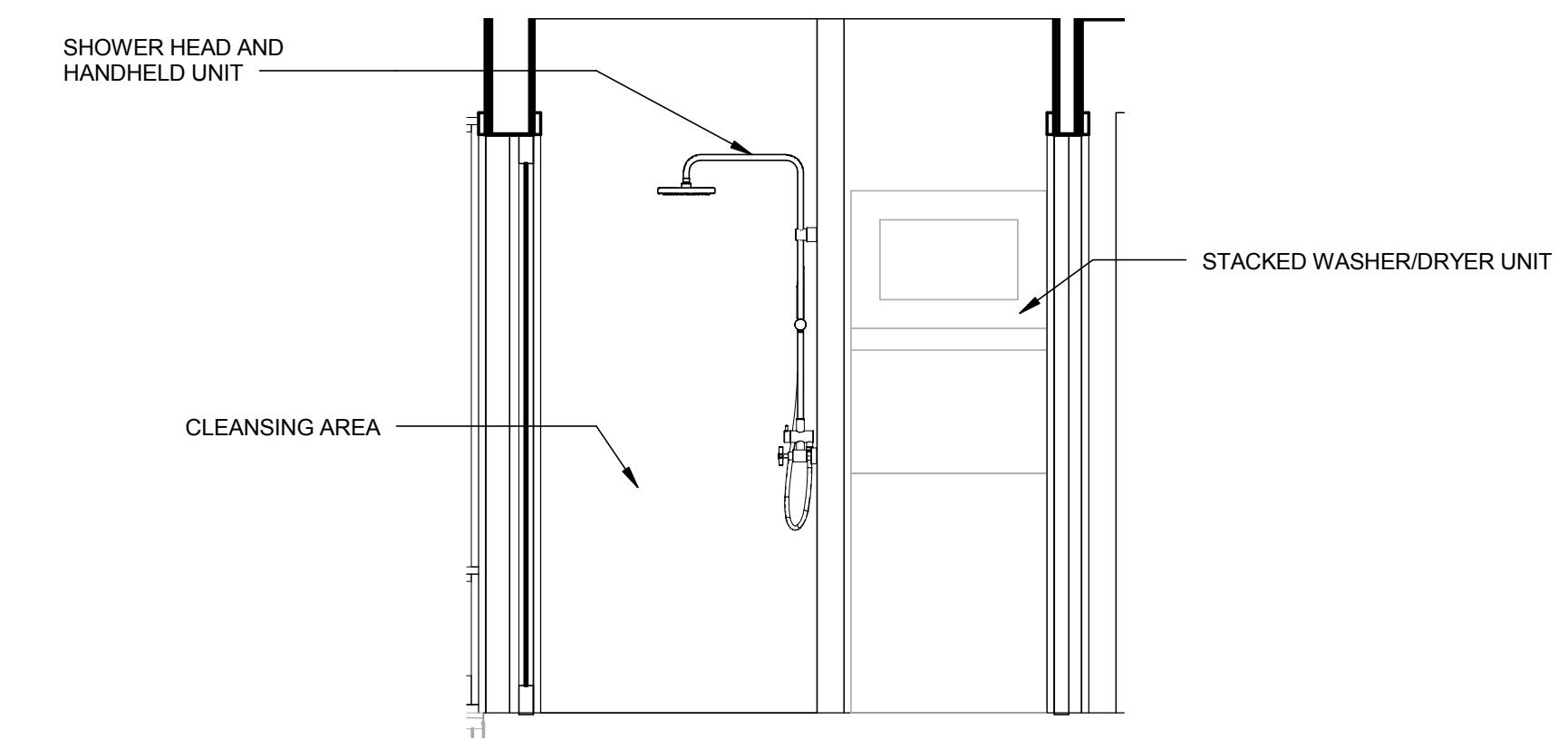
A-213



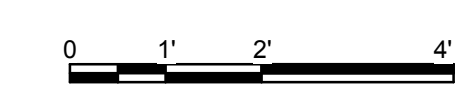
3 KITCHEN NORTH VIEW
 1/2" = 1'-0"

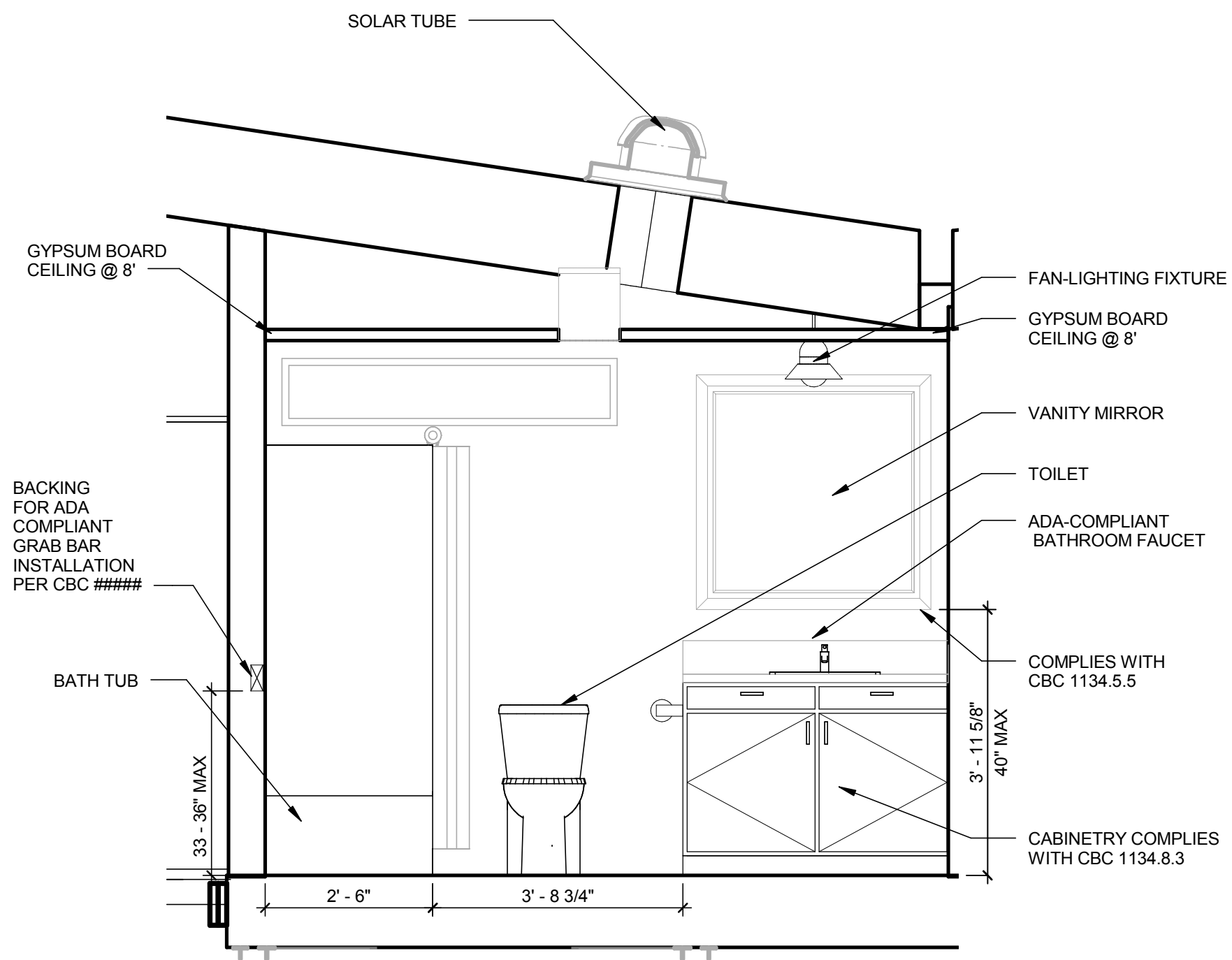


1 BATHROOM EAST VIEW
 1/2" = 1'-0"



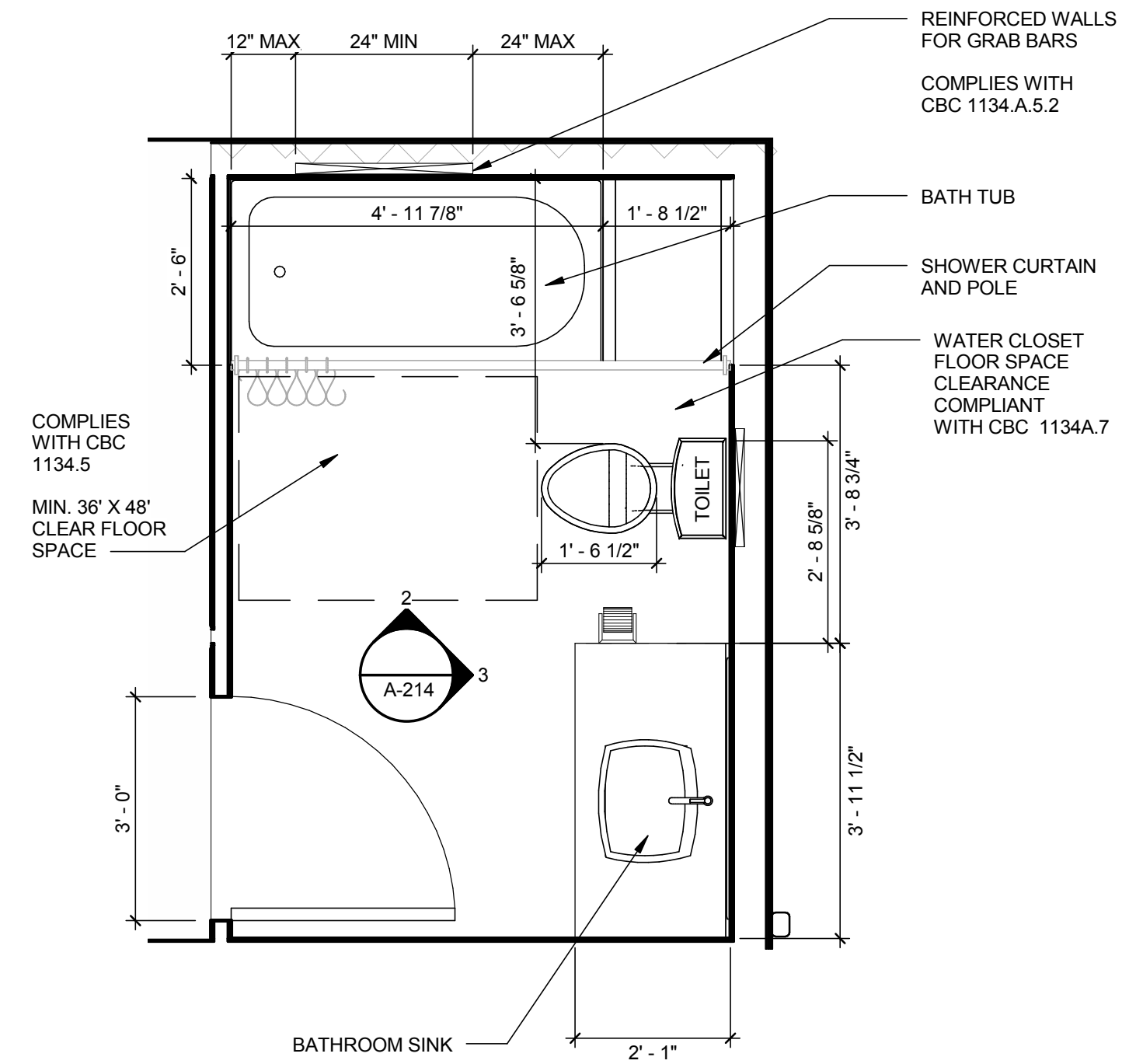
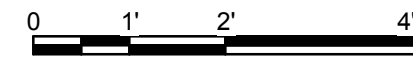
2 CLEANSING ROOM
 1/2" = 1'-0"





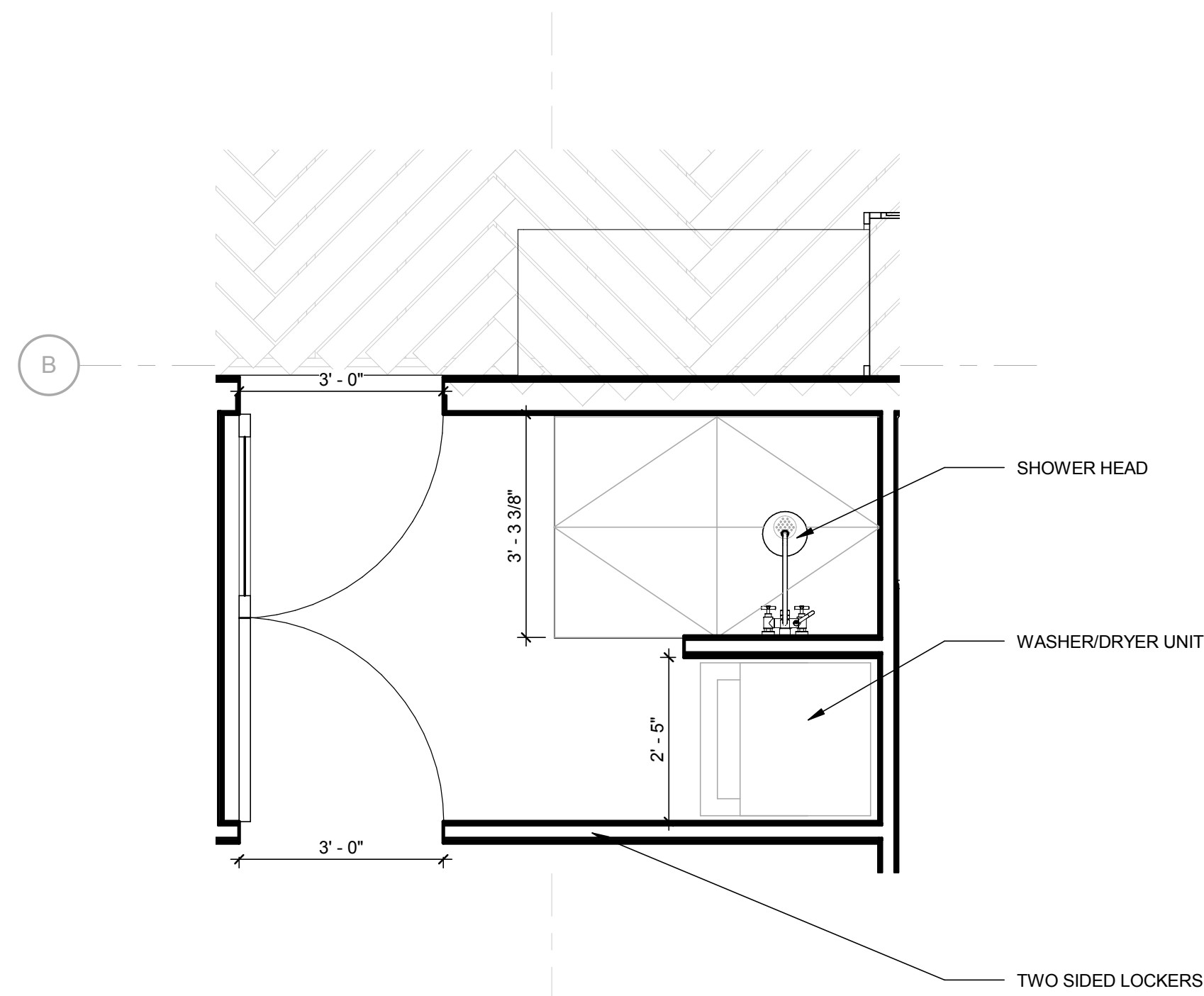
3 BATHROOM ADA COMPLIANCE 2

1/2" = 1'-0"



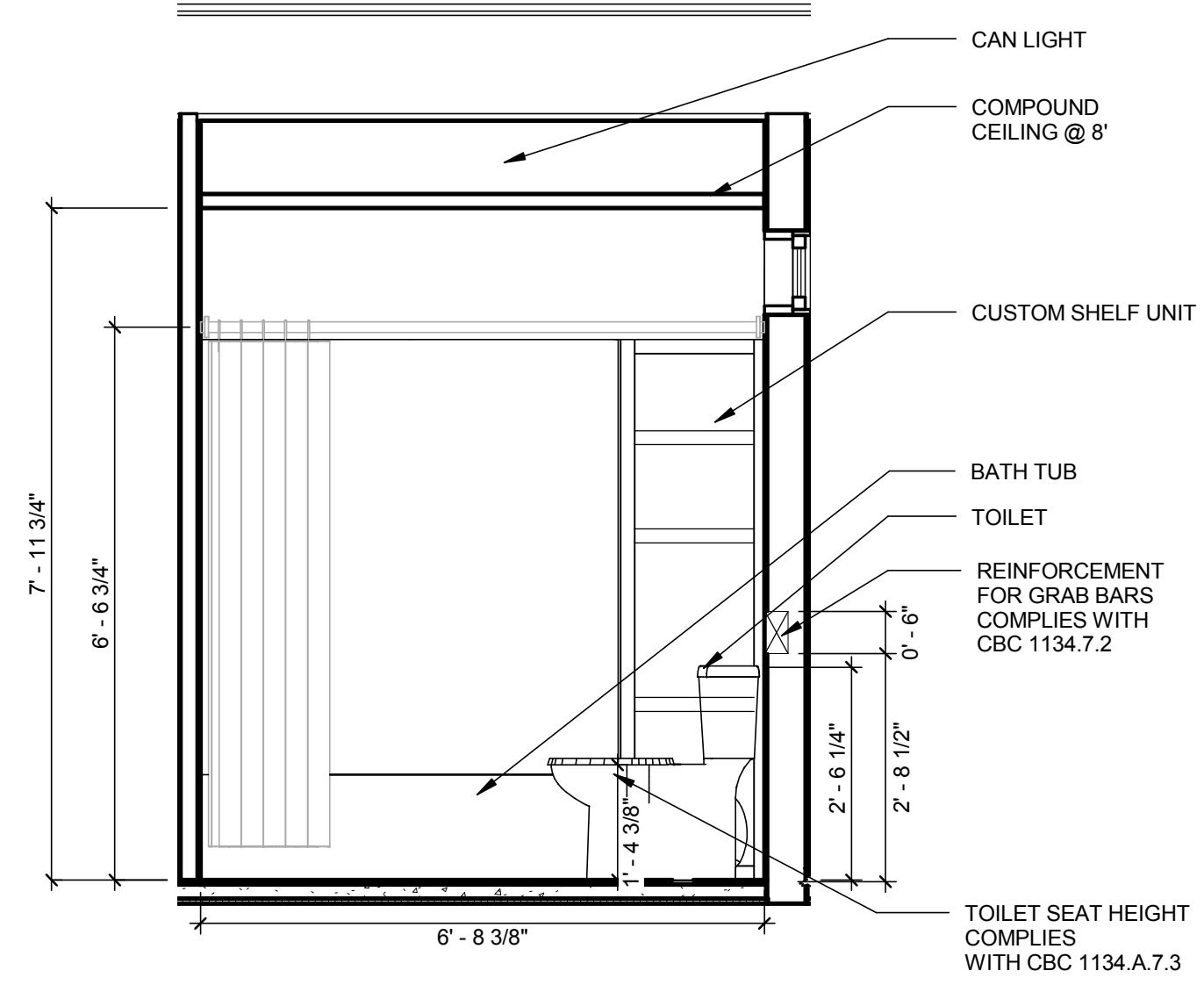
1 BATHROOM ENLARGED PLAN

1/2" = 1'-0"



4 CLEANSING ROOM ENLARGED PLAN

1/2" = 1'-0"



2 BATHROOM ADA COMPLIANCE

1/2" = 1'-0"



GENERAL SHEET NOTES

1. PER CBC 1134.5, THERE SHALL BE A MINIMUM CLEAR FLOOR SPACE 48 INCHES PARALLEL BY 30 INCHES PERPENDICULAR TO THE SIDE OF A BATH TUB.
2. PER CBC 1134.5.5 HEIGHT OF MOUNTED TOWEL HOLDER OR MIRRORS
3. PER CBC 1134.7.4, WATER CLOSET CONTROLS SHALL BE MOUNTED NO MORE THAN 44 INCHES ABOVE THE FLOOR.
4. PER CBC 1134.A.5.2, WHERE GRAB BAR REINFORCEMENT SHALL BE LOCATED AT EACH END OF THE BATHTUB, 32-28 INCHES ABOVE THE FLOOR, EXTENDING A MINIMUM OF 24 INCHES FROM THE FRONT EDGE OF THE BATHTUB TOWARD THE BACK WALL OF THE BATHTUB. THE GRAB BAR REINFORCEMENT SHALL BE A MINIMUM OF 6 INCHES NOMINAL IN HEIGHT.

REFERENCE KEYNOTES

NOT USED AT THIS TIME.

SHEET KEYNOTES

NOT USED AT THIS TIME.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



DD 02.12.15 DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

MARK DATE DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: BEN WHITE
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

BATHROOM ADA COMPLIANCE

A-214

DOOR SCHEDULE														
DR TYPE	DR SIZE	MANUFACTURER	MODEL	FRAME TYPE	FIRE RATING	DETAILS			DESCRIPTION	DOOR		FINISH		COMPONENTS
						HEAD	JAMB	SILL		DOOR	FRAME	FLUSH	FLUSH	
C	34" x 80"	SIMPSON	080400	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
B	8" GLASS FRONT DOOR	JELD WEN	080400	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE GLASS	WOOD		FLUSH	
C	34" x 80"	SIMPSON	080400	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
C	34" x 80"	SIMPSON	080400	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
93	36" x 80"			WOOD		METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
93	36" x 80"			WOOD		METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
C	34" x 80"	SIMPSON	080400	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
94	36" x 80"			WOOD		METAL	PLYWOOD	METAL		BI-FOLD PANEL	WOOD		FLUSH	
82	36" x 84"	MASONITE	083616	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	
C	34" x 80"	SIMPSON	080400	WOOD	20 MIN	METAL	PLYWOOD	METAL		SINGLE FLUSH	WOOD		FLUSH	

WINDOW SCHEDULE													
MARK	ROUGH OPENING		MANUFACTURER	MODEL	MATERIAL	FINISH	DETAIL			GLAZING		HEAD HEIGHT	COMMENTS
	WIDTH	HEIGHT					HEAD	JAMB	SILL	THICKNESS	TYPE		
78	5' - 0"	1' - 0"	JELD WEN	4SH4230	ALUMINUM	WHITE	METAL	PLYWOOD	METAL	8"	DUAL, LOW-E	2' - 7"	West, Single Hung Window
79	1' - 4"	6' - 0"			ALUMINUM	WHITE	METAL	PLYWOOD	METAL	2' 0 1/2"	DUAL, LOW-E	8' - 0"	South, Single Hung Window
a	1' - 6"	6' - 0"	JELD WEN	4SH1880	ALUMINUM	WHITE	METAL	PLYWOOD	METAL	2' 0 1/2"	DUAL, LOW-E	8' - 0"	South, Single Hung Window
b	6' - 0"	1' - 6"	JELD WEN	4SH4230	ALUMINUM	WHITE	METAL	PLYWOOD	METAL	8"	DUAL, LOW-E	5' - 2 1/4"	North, Awning Window
d	2' - 6"	6' - 0"	JELD WEN	4SH2660	ALUMINUM	WHITE	METAL	PLYWOOD	METAL	8"	DUAL, LOW-E		Single Hung Window

FINISH SCHEDULE									
NAME	NUMBER	CEILING HEIGHT	FINISHES				NOTES		
			CEILING FINISH	WALL FINISH	FLOOR FINISH	BASE			
KITCHEN	1	VARIES	P-1, GYP	P-1, GYP	BBT	P-3,	*FLOOR FINISH TO EXTEND UNDER KITCHEN SINK BASE		
FAMILY ROOM	2	VARIES	P-1, GYP	P-1, GYP	BBT	P-3,			
FOYER	3	VARIES	P-1, GYP	P-1, GYP	BBT	P-3,			
BEDROOM 1	4	8'-0"	P-1, GYP	P-1, GYP	BBT	P-3,			
BEDROOM 2	5	8'-0"	P-1, GYP	P-1, GYP	BBT	P-3,			
BATHROOM	6	8'-0"	P-4, GYP	P-4, GYP	BBT	P-3,			
CLEANSING ROOM	7	8'-0"	P-4, GYP	P-4, GYP	S. CONC	P-3,			
CLOSET	8	8'-0"	P-1, GYP	P-1, GYP	BBT	P-3,			
MECHANICAL ROOM	9	8'-0"	MECH	MECH	PLY	NONE			

LEGEND

P-1: PAINT COLOR XXX, 2 COATS PRIMER, 2 COATS PAINT SATIN
P-2: PAINT COLOR XXX, 2 COATS PRIMER, 2 COATS PAINT SATIN
P-3: PAINT COLOR XXX, 1 COAT PRIMER, 2 COATS PAINT SEMI-GLOSS/GLOSS
P-4: PAINT COLOR XXX, 2 COATS PRIMER, 2 COATS PAINT SEMI-GLOSS

GYP: ALL GYP. BOARD FINISHES TO BE LEVEL 4 LIGHT ORANGE PEEL
GYP2: MOISTURE RESISTANT GYPSUM BOARD, LEVEL 4 LIGHT ORANGE PEEL
MECH: PAINTED 1/2" PLYWOOD

S. CONC: STAINED AND SEALED CONCRETE FLOOR
PLY: PAINTED PLYWOOD FLOOR
BBT: ARMSTRONG BIO-BASED TILE, COLORS: MUSHROOM, PATTERN TBD IN FIELD



TEAM NAME: AGGIE SOL

ADDRESS: 215 SAGE STREET DAVIS, CA 95616

CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



AB 08.17.15 AS BUILT

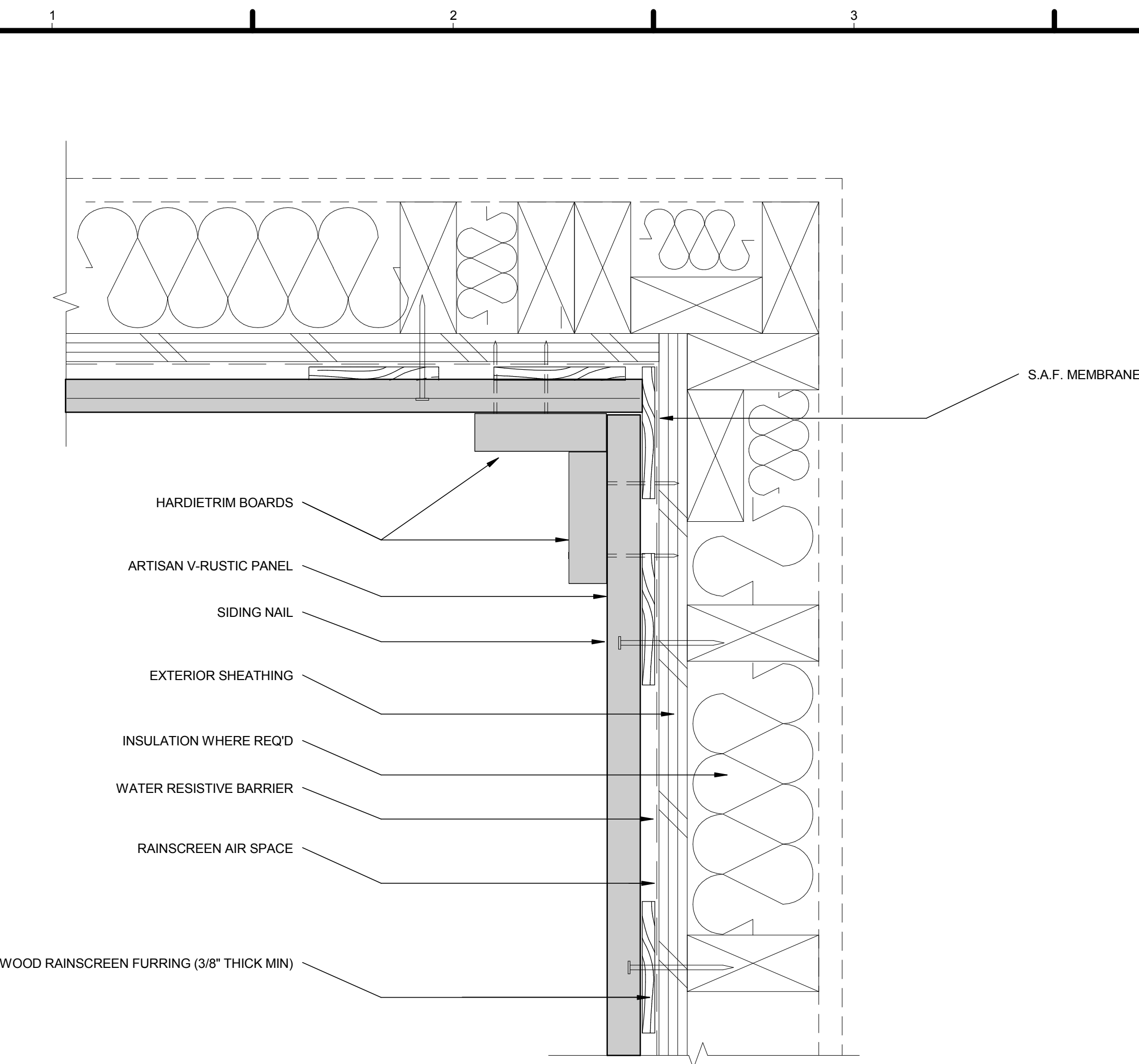
MARK	DATE	DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

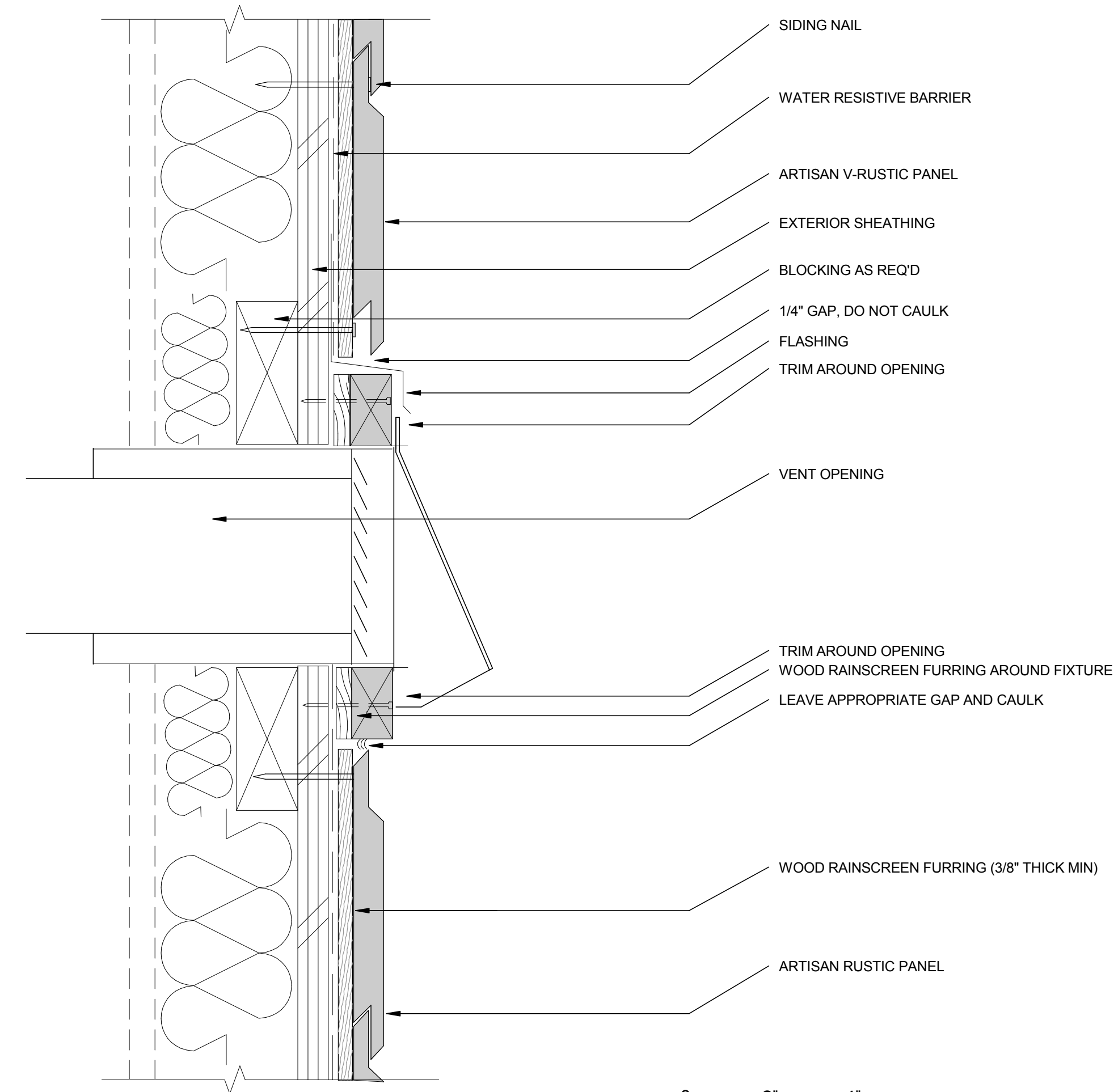
SHEET TITLE

SCHEDULES

A-401



2 HARDIE ARTISAN V-RUSTIC PANEL SIDING INSIDE CORNER DETAIL
1/4" = 1'-0"



1 HARDIE ARTISAN V-RUSTIC PANEL SIDING FIXTURE PENETRATION DETAIL
1/4" = 1'-0"

GENERAL SHEET NOTES

LEGEND



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET
DAVIS, CA 95616
CONTACT: (530)-752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



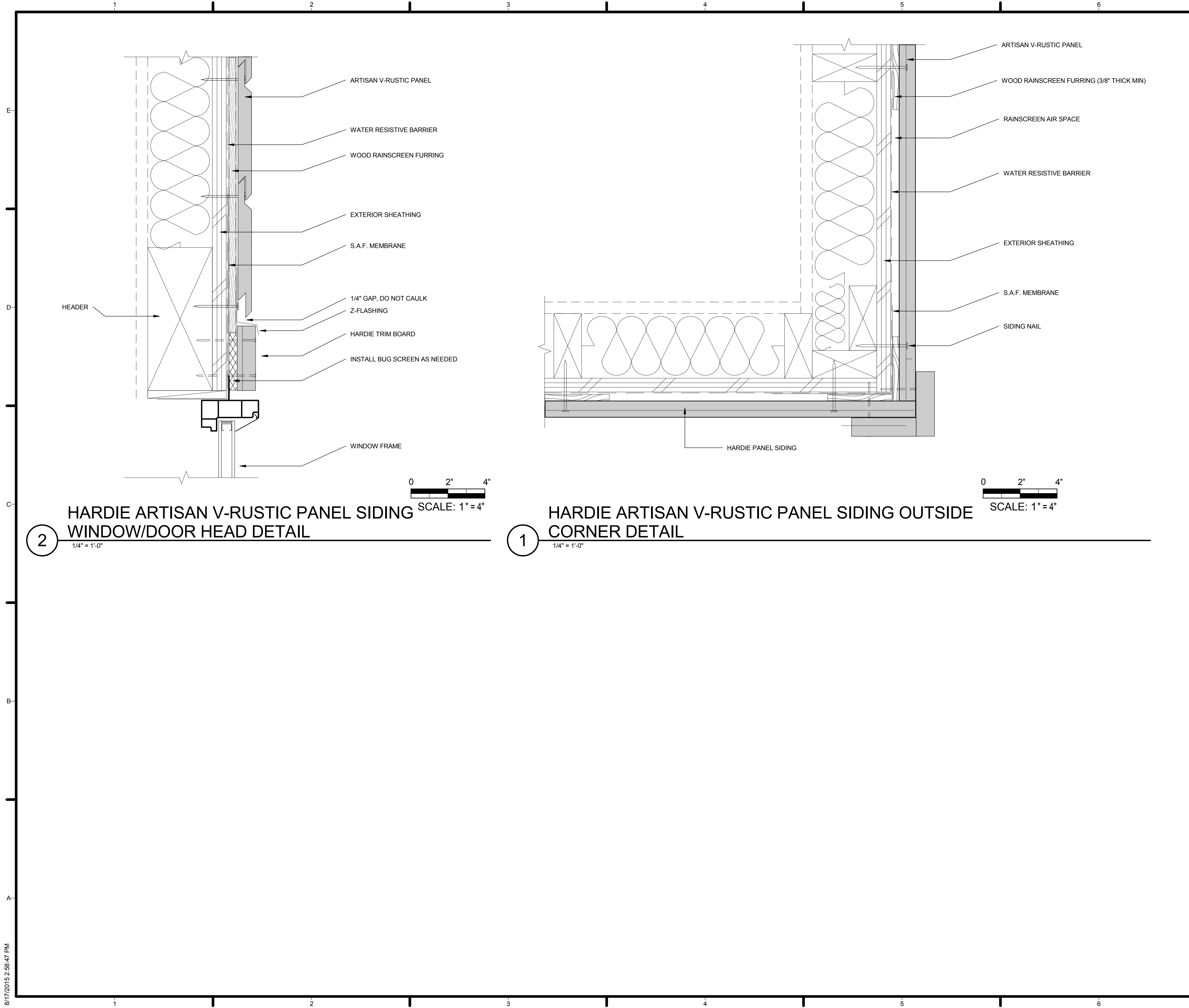
DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN


SHEET TITLE
SIDING DETAILS

A-502



GENERAL SHEET NOTES

LEGEND




AGGIE SOL

TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



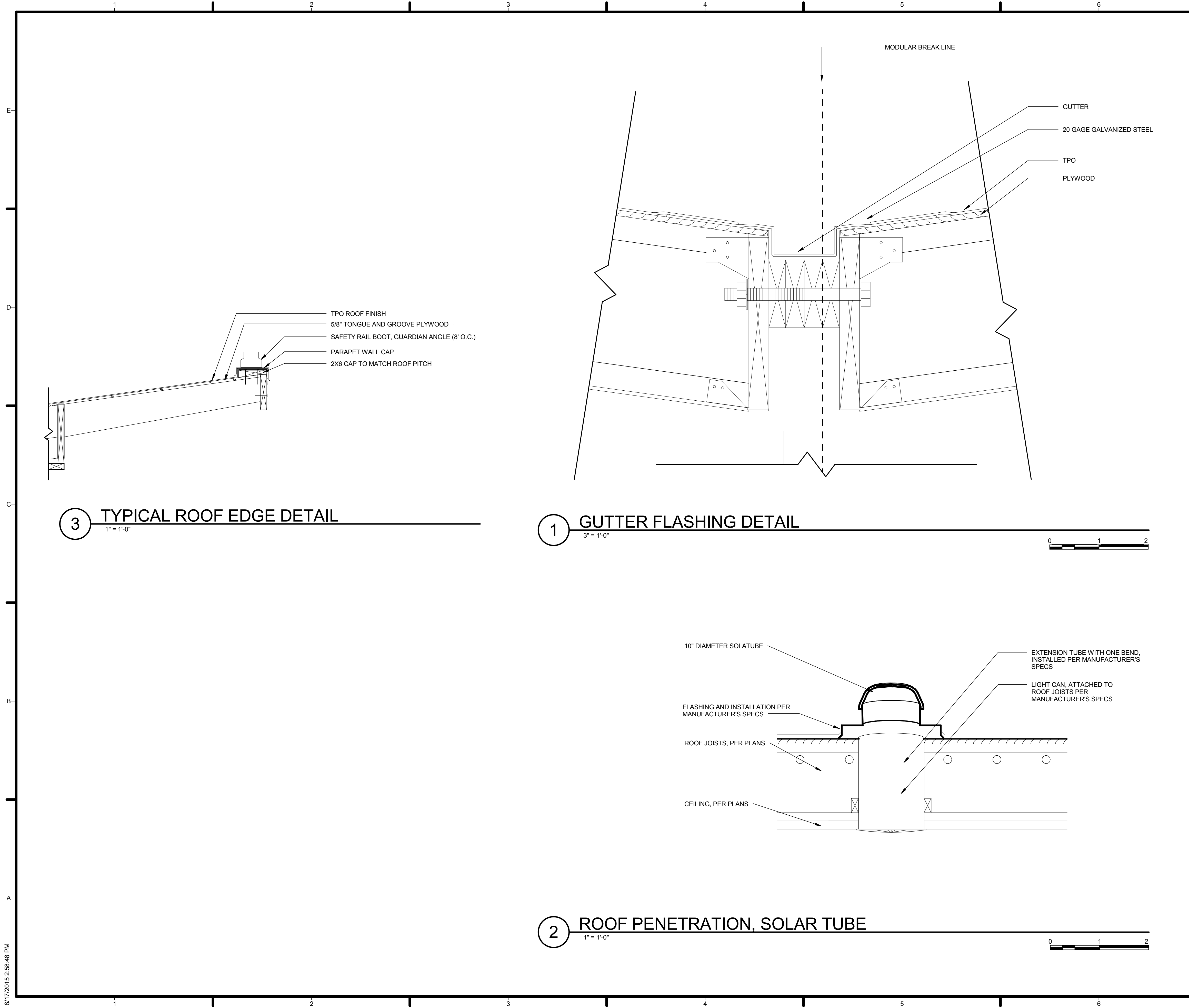
MARK	DATE	DESCRIPTION
DD	02.12.15	DESIGN DEVELOPMENT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

SIDING DETAILS

A-503



GENERAL SHEET NOTES

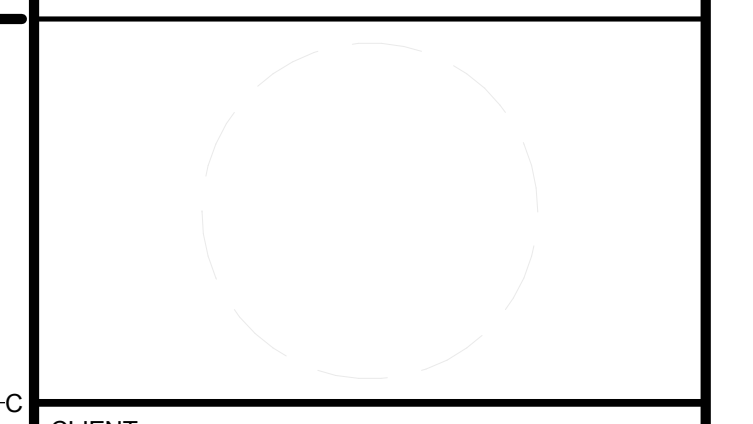
REFERENCE KEYNOTES

SHEET KEYNOTES



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



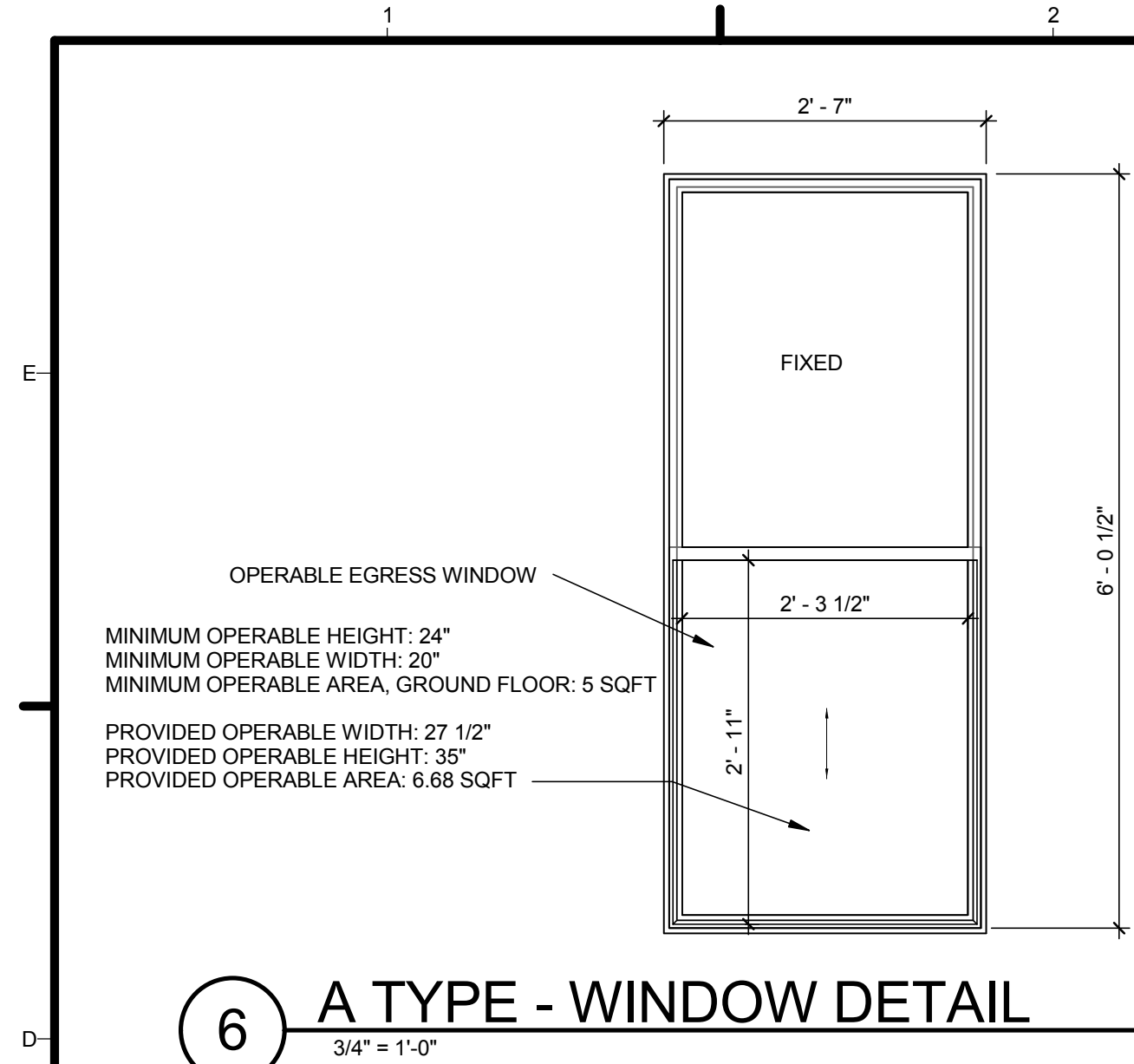
MARK	DATE	DESCRIPTION
DD	02.12.15	DESIGN DEVELOPMENT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: BEN WHITE
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

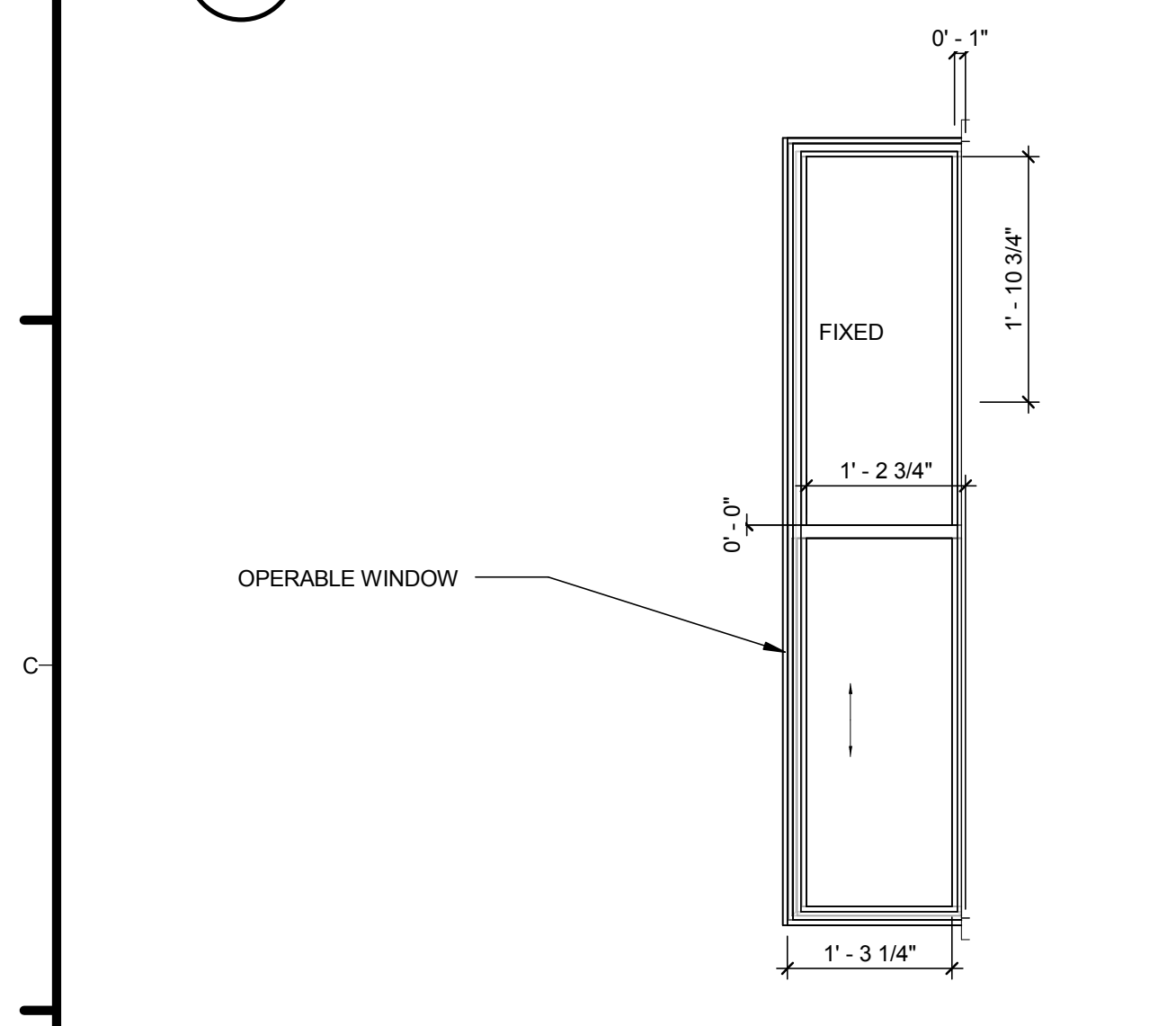
SHEET TITLE
ROOF DETAILS

A-506

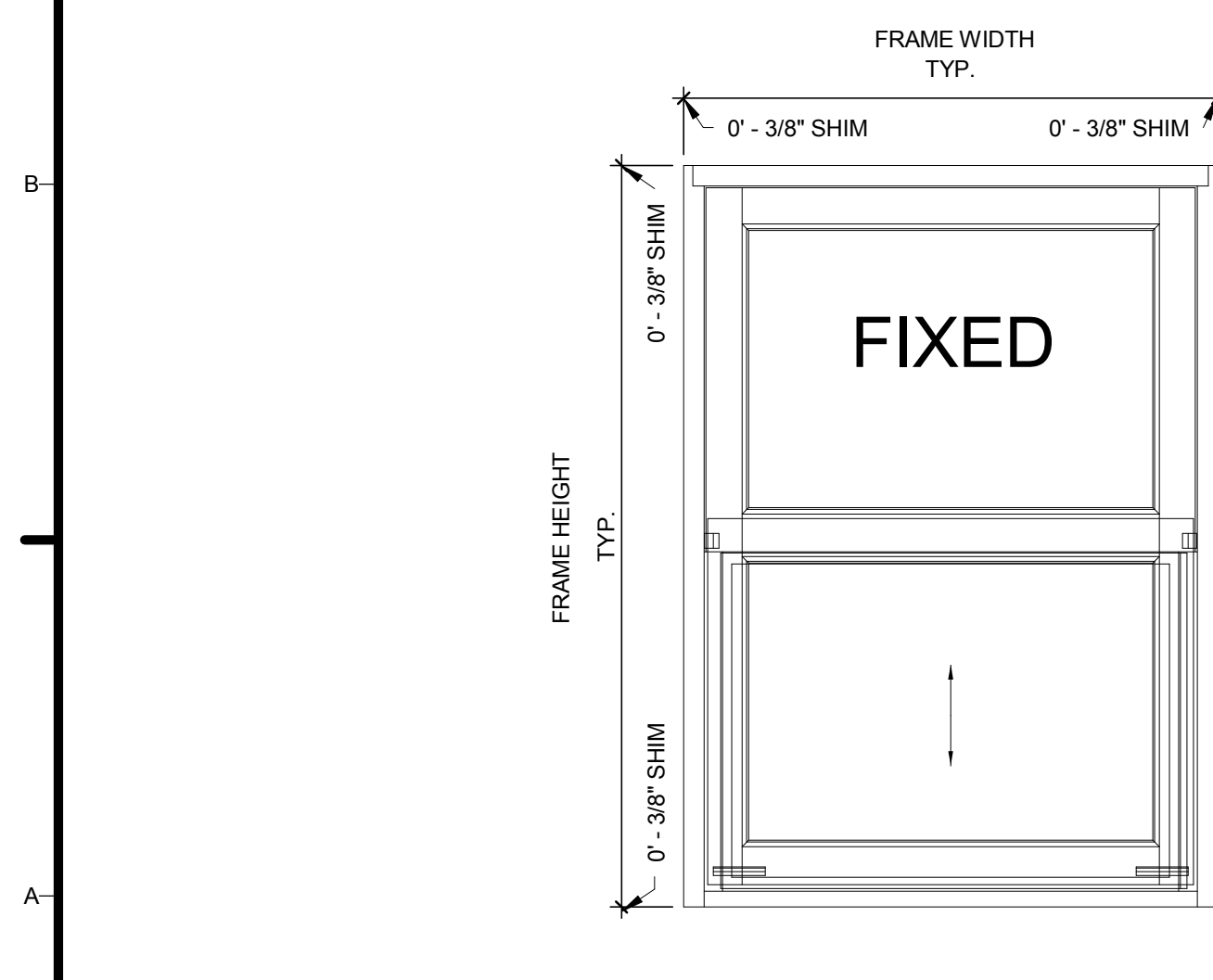
8/17/2015 2:56:48 PM



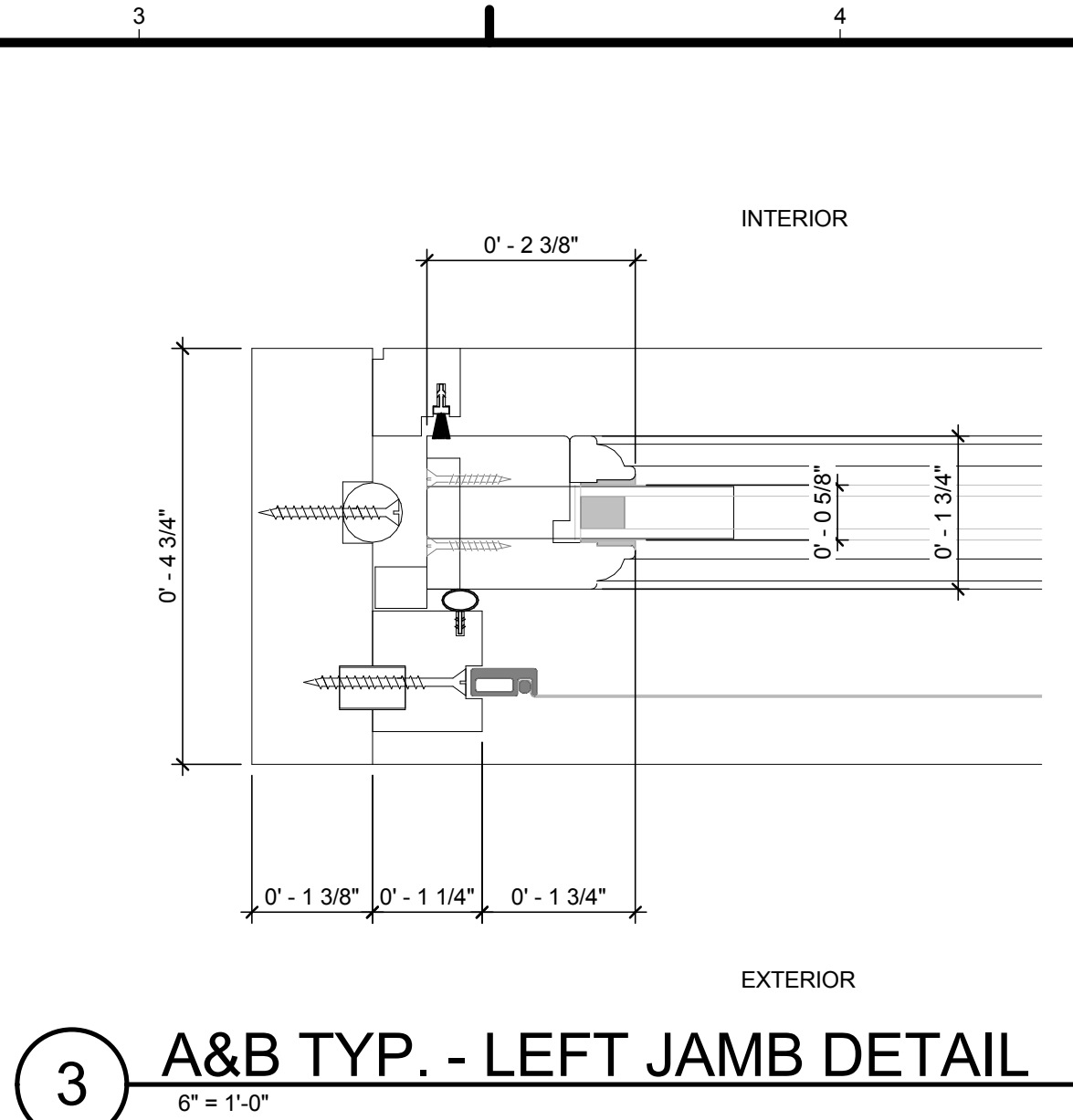
6 A TYPE - WINDOW DETAIL
3/4" = 1'-0"



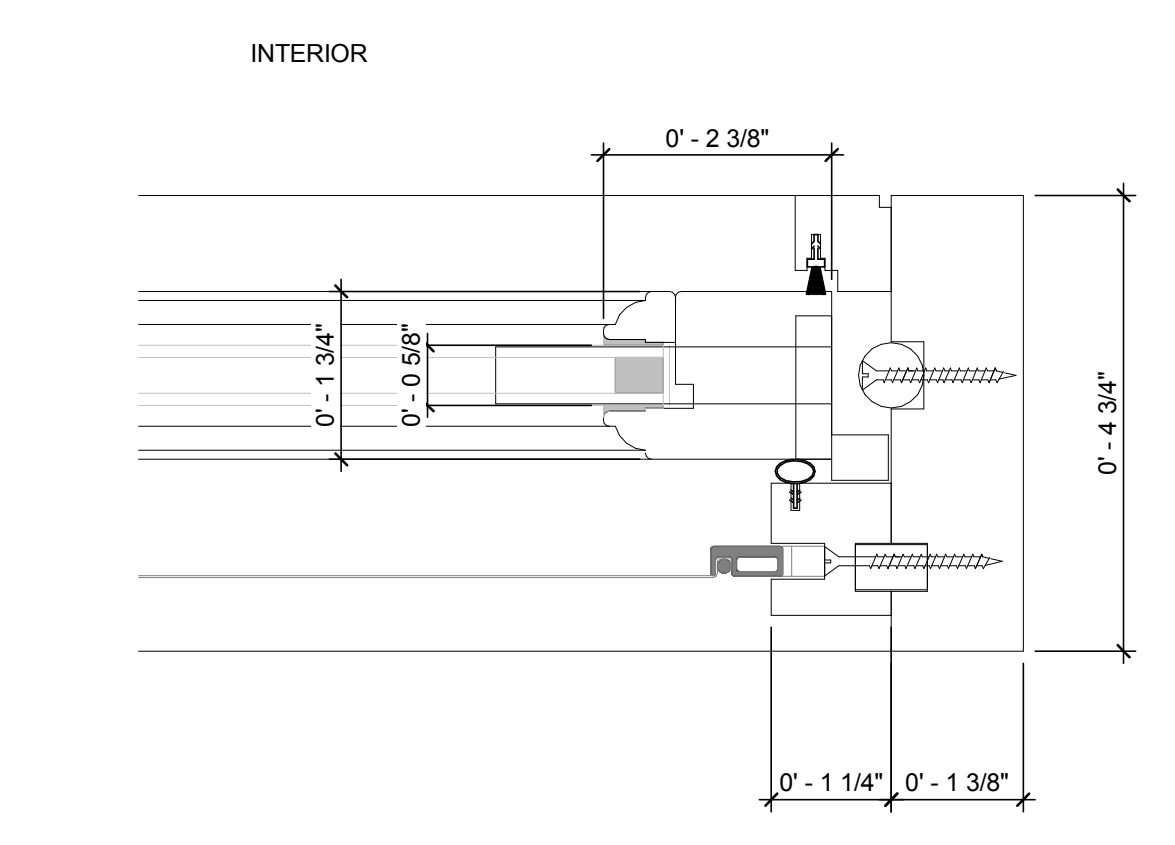
7 B TYPE - WINDOW DETAIL
3/4" = 1'-0"



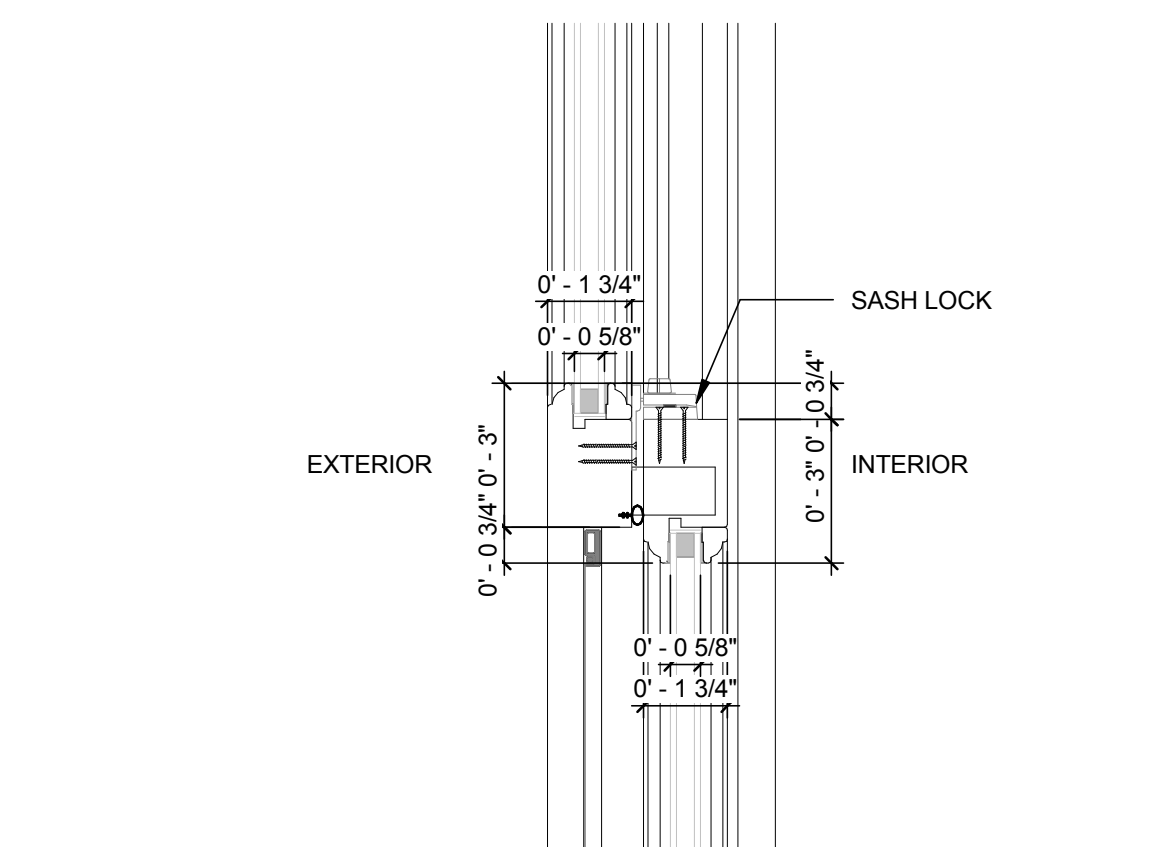
8 A&B TYP. - WINDOW EXTERIOR ELEVATION
1" = 1'-0"



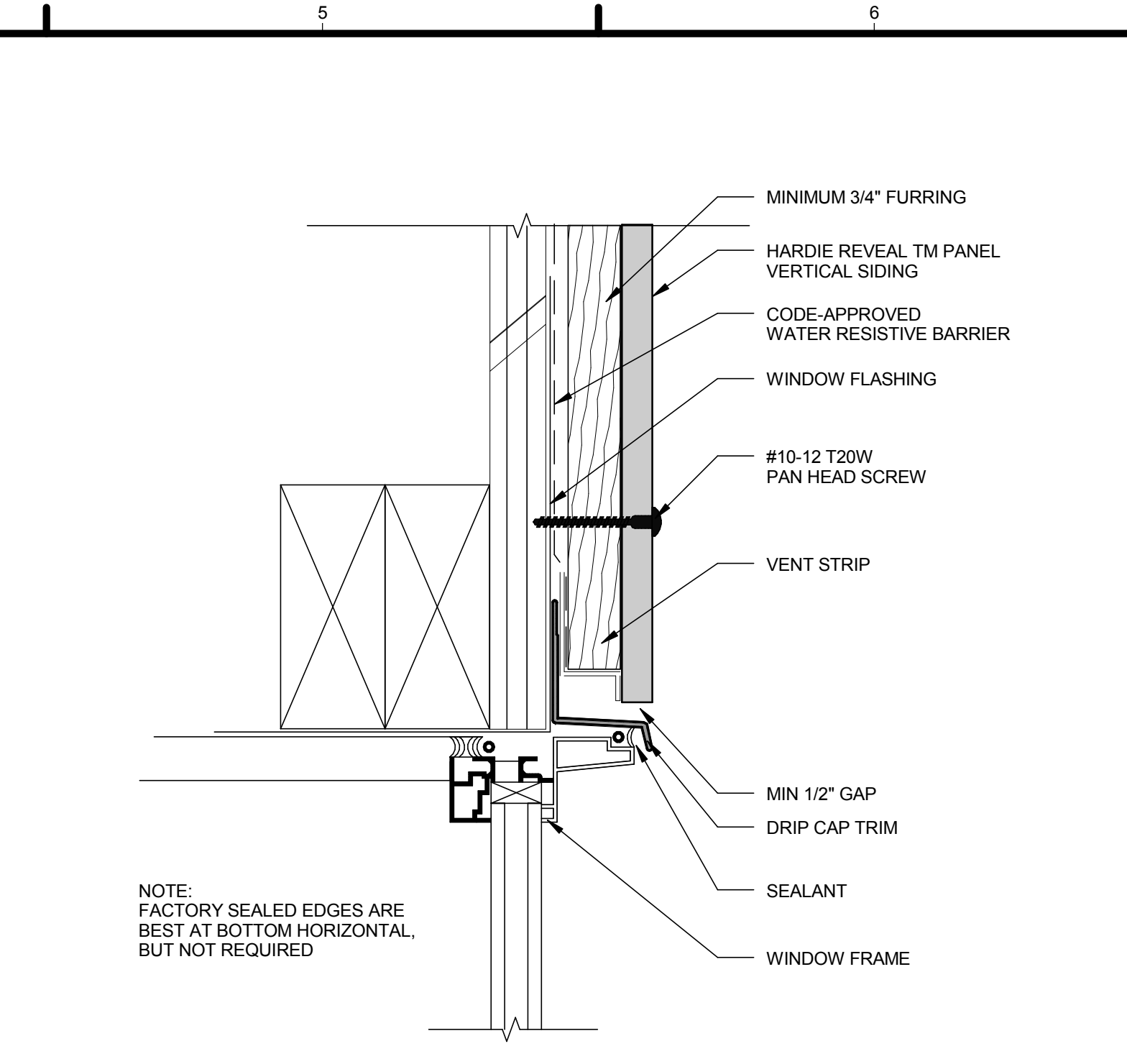
3 A&B TYP. - LEFT JAMB DETAIL
6" = 1'-0"



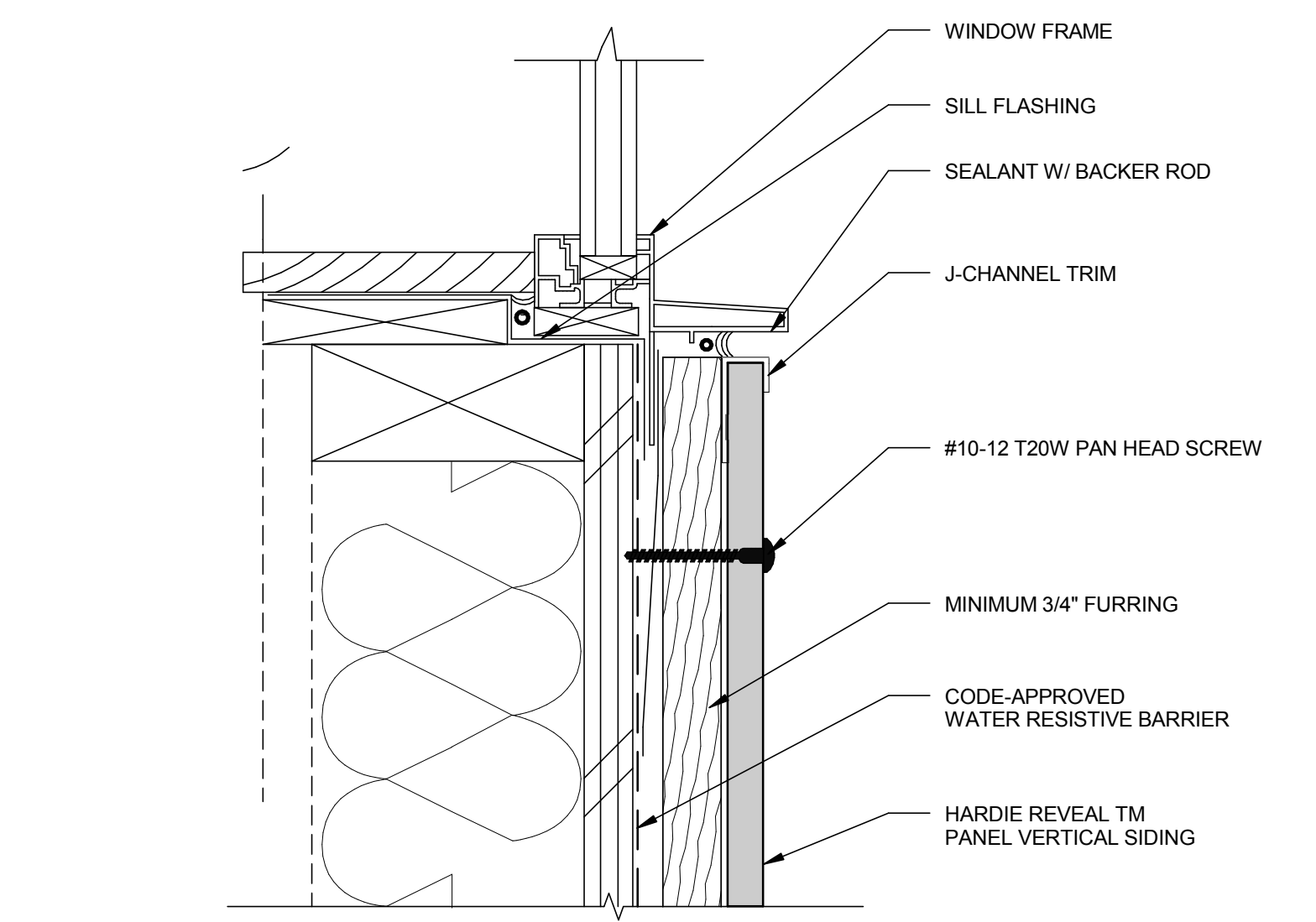
4 A&B TYP. - RIGHT JAMB DETAIL
6" = 1'-0"



5 A&B TYP. - CHECKRAIL DETAIL
3" = 1'-0"



1 ALUMINUM WINDOW HEAD DETAIL, TYP.
NOT TO SCALE



2 ALUMINUM WINDOW SILL DETAIL, TYP
NOT TO SCALE

GENERAL SHEET NOTES

1. PER MANUFACTURER SPECIFICATIONS

REFERENCE KEYNOTES

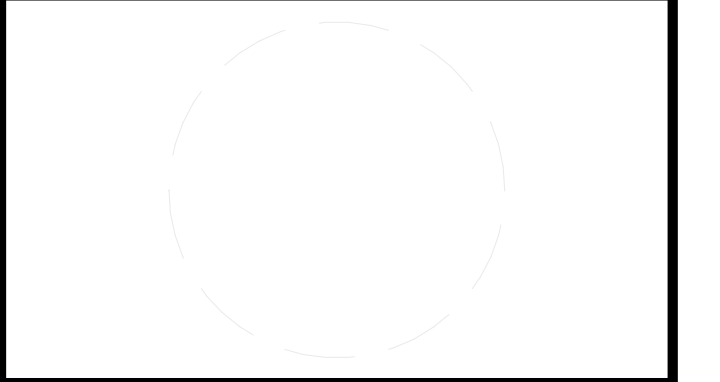
NOT USED AT THIS TIME

SHEET KEYNOTES

NOT USED AT THIS TIME



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530) 752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	



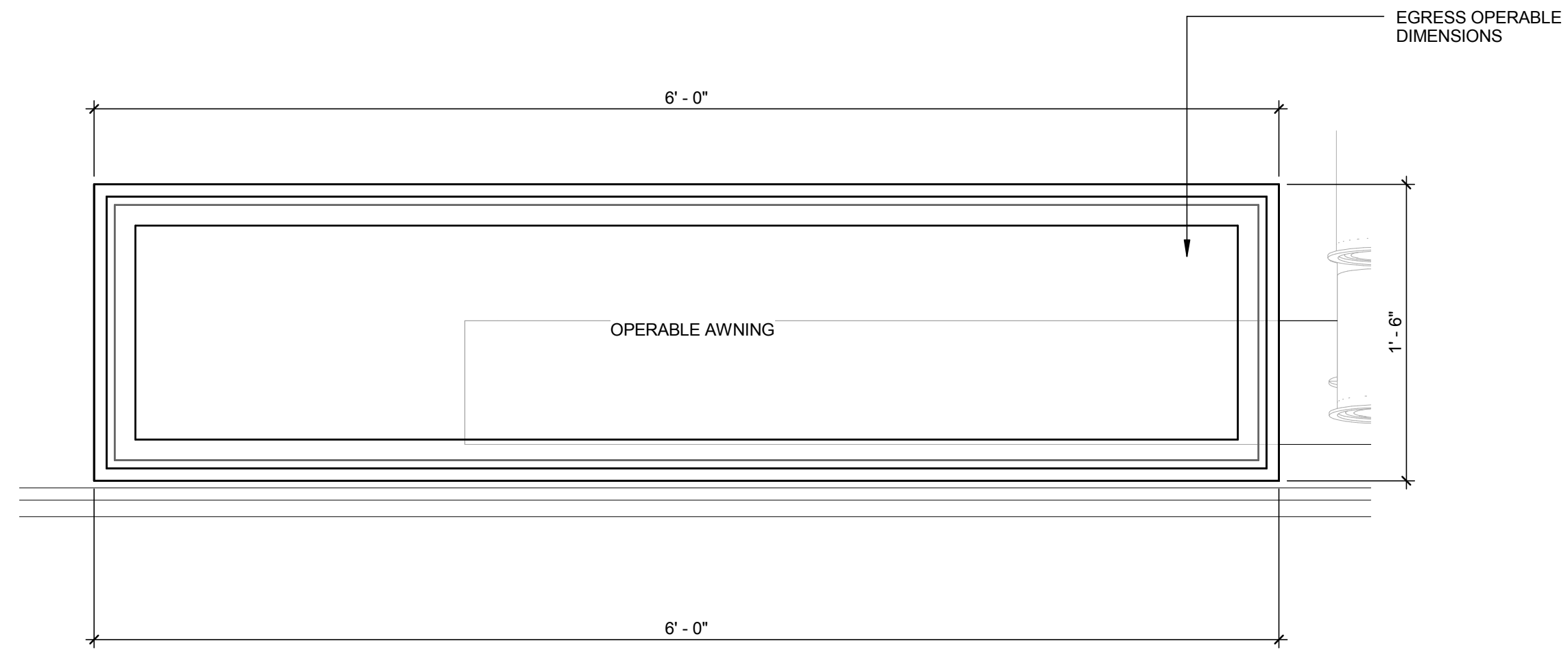
CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
U.S. DEPARTMENT OF ENERGY	SOLAR DECATHLON

MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

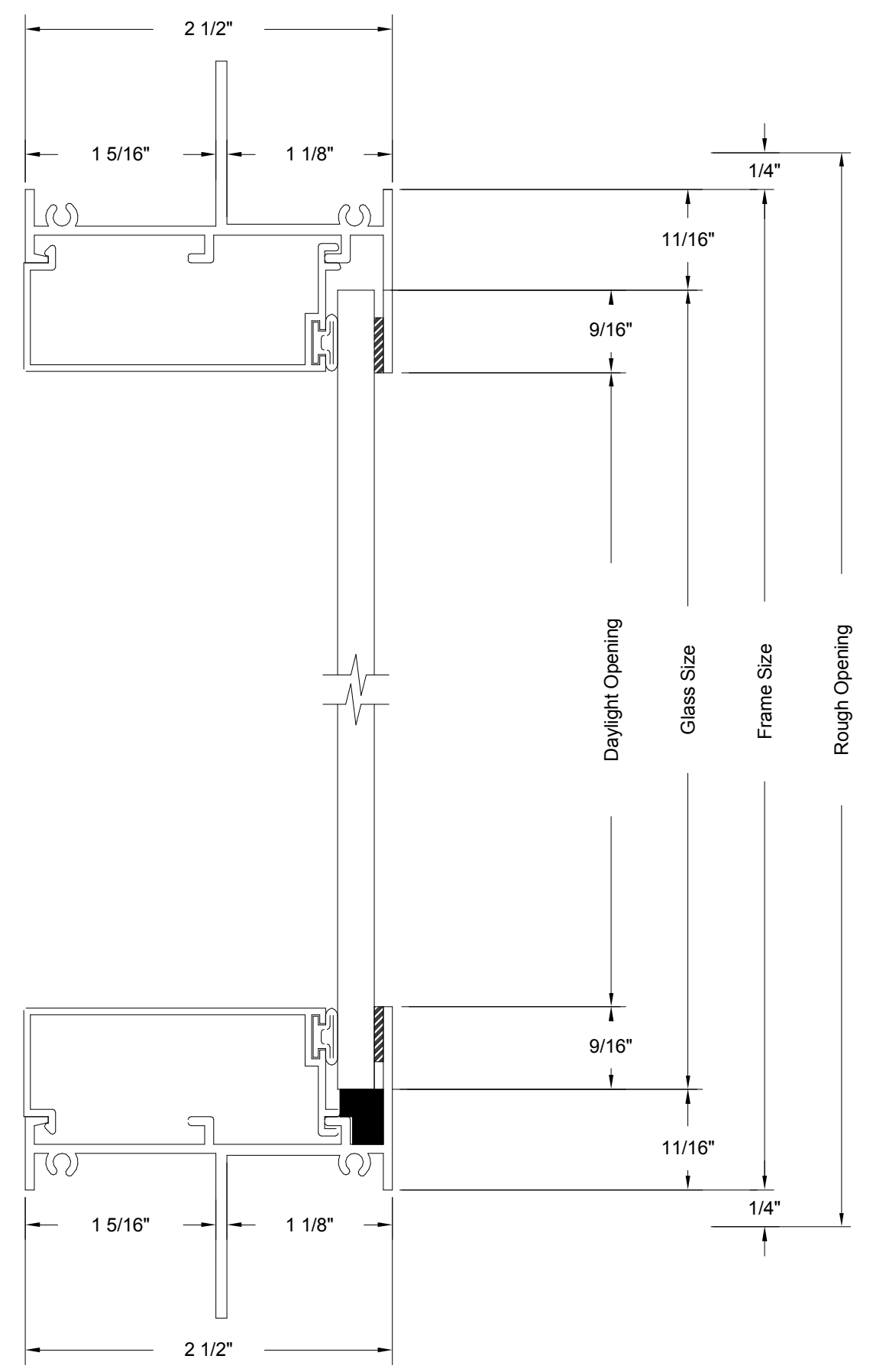
LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
WINDOW DETAILS

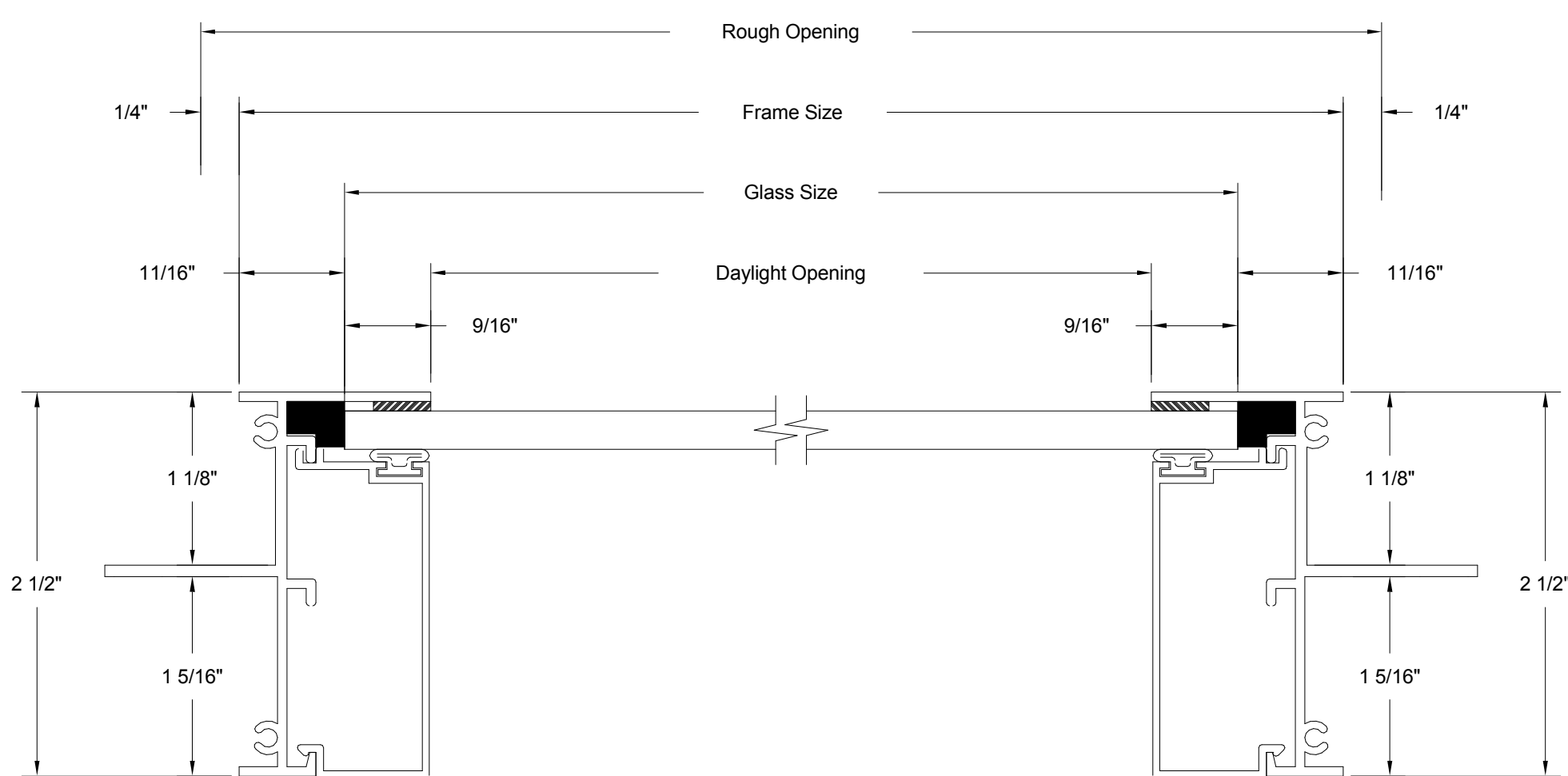
A-531



3 C TYPE - CLERESTORY AWNING WINDOW DETAIL
1 1/2" = 1'-0"



1 C TYP. - WINDOW VERTICAL SECTION
12" = 1'-0"



2 C TYP. - WINDOW HORIZONTAL SECTION
12" = 1'-0"

GENERAL SHEET NOTES

1. PER MANUFACTURER SPECIFICATIONS

REFERENCE KEYNOTES

NOT USED AT THIS TIME

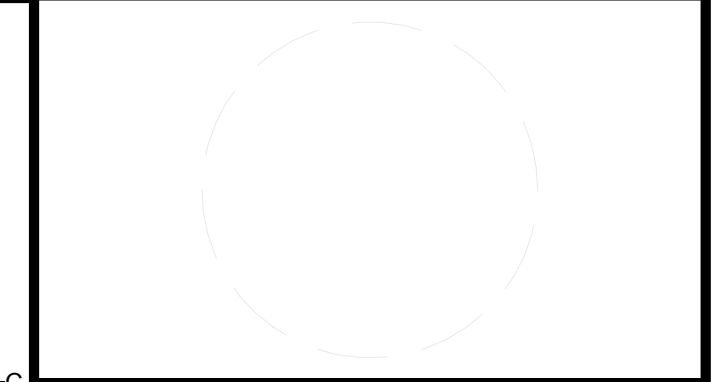
SHEET KEYNOTES

NOT USED AT THIS TIME



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET
DAVIS, CA 95616
CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

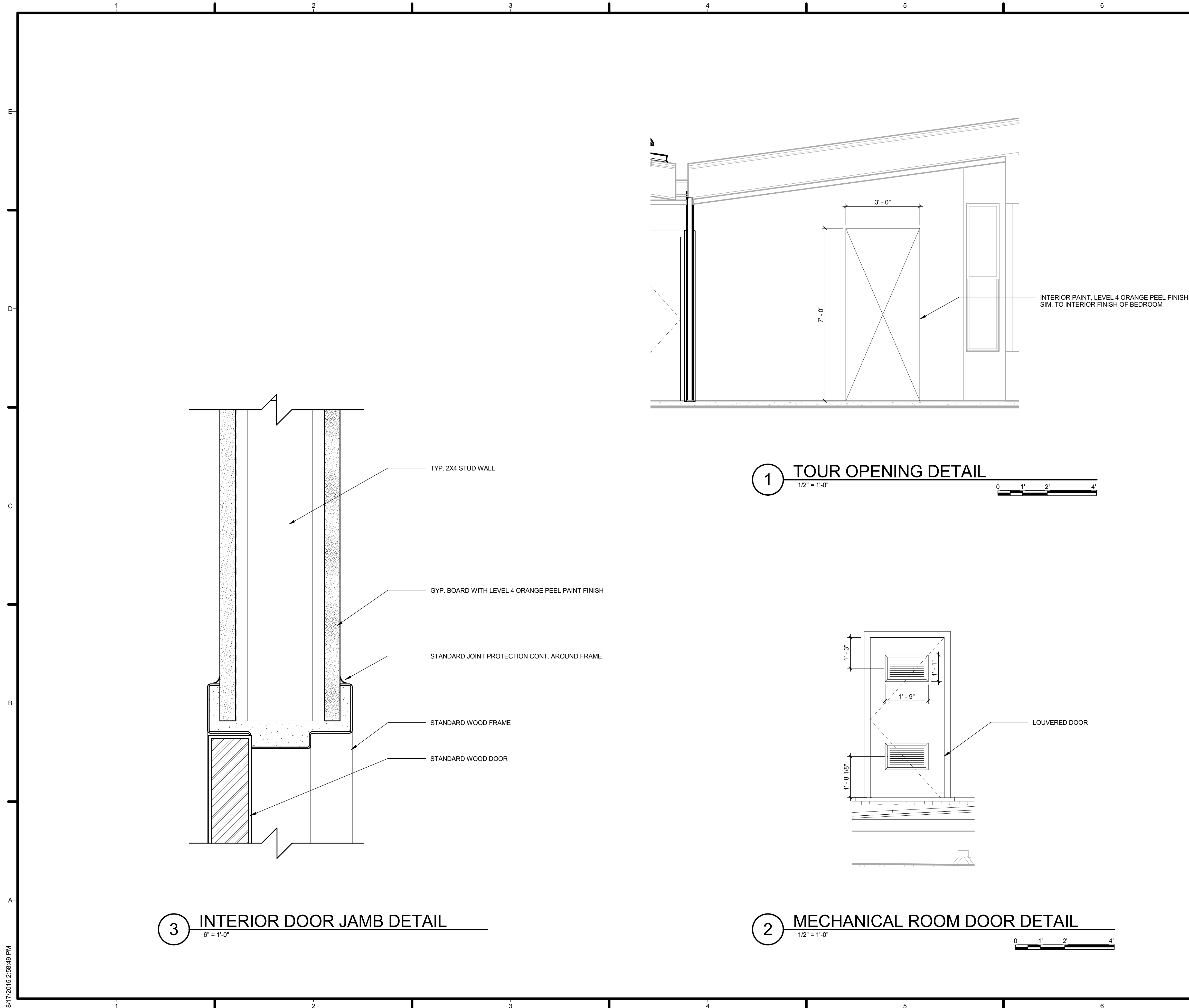


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
WINDOW DETAILS

A-532



GENERAL SHEET NOTES

1. TOUR ROUTE DOOR WAS DESIGNED TO STREAMLINE TRAFFIC THROUGH THE HOME MORE SMOOTHLY DURING COMPETITION EXHIBITION. IT IS NOT PLANNED FOR ANY POST-COMPETITION PRODUCTION.



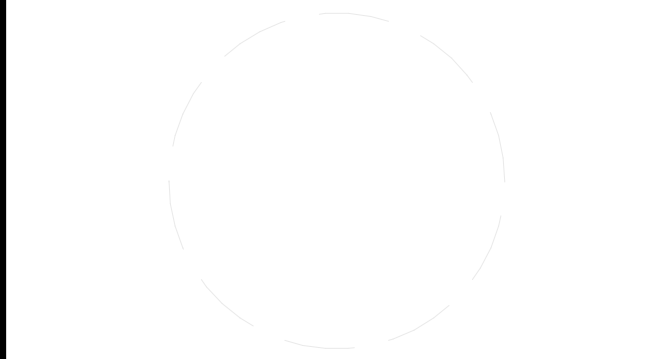
TEAM NAME: AGGIE SOL

ADDRESS: 215 SAGE STREET DAVIS, CA 95616

CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

REFERENCE KEYNOTES



CLIENT

U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



SHEET KEYNOTES

CD	2.12.15	CONSTRUCTION DOCS
----	---------	-------------------

MARK	DATE	DESCRIPTION
------	------	-------------

LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

DOOR DETAILS

A-533

REFERENCE NUMBER	SYSTEM NAME	MANUFACTURER	MODEL NUMBER	QUANTITY	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)	DIAMETER (IN)	HORSEPOWER
22 13 13	FIRE PUMP	GENERAL AIR PRODUCTS	XPS 14	1	8.9	15.9	5.53	70	-	1.5
21 24 16	FIRE EXTINGUISHER	AMEREX	B500	1	15.25	7.25	4.25	9.25	-	
21 13 13	FIRE SPRINKLER	TYCO	TY1234	7	2.2	2.9	-	-	0.5	
28 31 49	SMOKE DETECTOR	UTC CLIMATE, CONTROLS & SECURITY	SIGA2-PHCOS	2	4.4	4.4	2.43	0.44	-	
22 11 16	PEX PIPING	JM EAGLE	EVERPEX	138 FT	-	-	-	-	1	

GENERAL NOTES

SPRINKLER DESIGN PRESSURE AND FLOWRATE

NFPA 13D (2013) HAS THE FOLLOWING REQUIREMENTS

8.1.4 OPERATING PRESSURE
THE MINIMUM OPERATING PRESSURE OF ANY SPRINKLER SHALL BE THE HIGHER OF THE MINIMUM OPERATING PRESSURE SPECIFIED BY THE LISTING OR 7 PSI (0.4 BAR)

10.1.1.1 THE SYSTEM SHALL PROVIDE AT LEAST THE FLOW REQUIRED TO PRODUCE A MINIMUM DISCHARGE DENSITY OF 0.05 GPM/SF (2.04 MM/MIN) OR THE SPRINKLER LISTING, WHICHEVER IS GREATER TO THE DESIGN SPRINKLERS).

SYSTEM FLOWRATE AND STORAGE VOLUME

NFPA 13D (2013) HAS THE FOLLOWING REQUIREMENT

6.1.3 WHERE STORED WATER IS USED AS THE SOLE SOURCE OF SUPPLY, THE MINIMUM QUANTITY OF SPRINKLERS SHALL BE PERMITTED TO EQUAL THE TWO SPRINKLER WATER DEMAND RATE TIMES 7 TIMES WHERE DWELLING UNITS MEET THE FOLLOWING CRITERIA:

(1) ONE STORY IN HEIGHT
(2) LESS THAN 2000 FT² (186 M²) IN AREA

NFPA 13D (2013) ALSO REQUIRES THAT THE FIRE SUPPRESSION SYSTEM BE ABLE TO SUPPLY ENOUGH FLOW FOR THE TWO MOST HYDRAULICALLY DEMANDING SPRINKLERS OR 26 GPM, WHICHEVER IS GREATER.

SINCE THE FIRE SUPPRESSION SYSTEM FOR THIS HOME UTILIZES 7 SPRINKLERS, AT A SYSTEM FLOW RATE OF 26 GPM, 182 GALLONS OF STORAGE WILL BE REQUIRED.

REQUIRED EQUIPMENT

1) WATER METER: NFPA 13D (2013) REQUIRES A TEST CONNECTION DOWNSTREAM OF THE PUMP THAT CREATES A FLOW OF WATER EQUAL TO THE SMALLEST SPRINKLER IN THE FIRE SUPPRESSION SYSTEM. THIS TEST CONNECTION SHALL CONSIST OF A 3-WAY BALL VALVE WITH AN ATTACHED WATER METER THAT INDICATES THE FLOW RATE. THE WATER METER AND 3-WAY BALL VALVE SHALL BE INCLUDED IN THE FIRE PUMP ASSEMBLY.

2) FIRE PUMP ASSEMBLY: A 1.5 HP XPS 14 PUMP ASSEMBLY FROM GENERAL AIR PRODUCTS SHALL SERVE AS THE FIRE PUMP ASSEMBLY.

A) THIS FIRE PUMP ASSEMBLY INCLUDES: A STAINLESS STEEL PUMP, HEAVY DUTY PRESSURE SWITCH, WATER DELIVERY PRESSURE GAUGE, LOCKING BALL VALVE, WATER HAMMER ARRESTOR, DRAIN VALVE, CHECK VALVE, LIQUID FILLED GAUGE, AND NON-FERROUS PIPING SYSTEM.

B) THE FIRE PUMP SHALL SUPPLY ABOUT 102 FEET OF HEAD AT A FLOWRATE OF 26 GPM.

C) THE WATER DELIVERY PRESSURE GAUGE SHALL SERVE AS THE WATER METER.

D) THE HEAVY DUTY PRESSURE SWITCH WILL ACTIVATE THE PUMP WHEN THE PRESSURE IN THE PRESSURE GAUGE FALLS BELOW THE SET POINT.

3) PIPING: 1 INCH PEX PIPING SHALL BE USED FOR THE ENTIRE FIRE SUPPRESSION SYSTEM AS ALLOWED BY NFPA 13D (2013) 5.2.2.

PUMP SET-UP AND OPERATION INSTRUCTIONS

1) AFTER INSTALLING ALL PIPING AND ACCESSORIES, LEAK TEST THE FIRE PUMP ASSEMBLY. CHARGE THE SYSTEM WITH AIR (15 PSIG MAXIMUM) AND CHECK AROUND EACH CONNECTION AND JOINT WITH A WATER/SOAP SOLUTION OR PERFORM A VISUAL CHECK. IF NO LEAKS ARE FOUND, VENT THE PRESSURE AIR AND FILL THE SYSTEM WITH WATER.

2) DO NOT USE THE FIRE PUMP ASSEMBLY TO FILL THE FIRE SYSTEM WITH THE INITIAL FILL OF WATER. USE THE DOMESTIC WATER SOURCE TO PRIME THE FIRE SUPPRESSION SYSTEM AND THE FIRE PUMP ASSEMBLY.

3) THE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.

4) DO NOT OPERATE THE PUMP IF THE AMBIENT TEMPERATURE EXCEEDS 100 DEGREES FAHRENHEIT.

5) ON START-UP, THE PUMP SHOULD BE CHECKED FOR PROPER ROTATION IN ACCORDANCE WITH THE DIRECTION ARROW DECAL LOCATED ON THE MOTOR. CONSULT THE FACTORY IF ROTATION IS NOT CORRECT.

6) WHEN FIRST FILLING UP THE PUMP ASSEMBLY, ENSURE THAT ALL OF THE AIR HAS BEEN RELEASED FROM THE PUMP ASSEMBLY AND PIPING. THE PUMP IS SUPPLIED WITH A HEX BOLT ON THE HOUSING THAT ALLOWS THE PUMP CASING TO BE VENTED. LOOSEN THE HEX BOLT TO ALLOW AIR TO ESCAPE. AFTER THE PUMP CASING HAS FILLED WITH WATER, TIGHTEN THE HEX BOLT.

7) PERIODIC TESTING OF THE SYSTEM IS REQUIRED. NEVER CONNECT THE DISCHARGE TEST CONNECTION TO THE PUMP INLET DURING TESTING. PRIOR TO TESTING, THE PUMP MUST BE ISOLATED USING THE BALL VALVES.

FIRE EQUIPMENT SCHEDULE

FIRE PROTECTION SHEET INDEX

Sheet Number	Sheet Name
F-001	FIRE PROTECTION NOTES, SYMBOLS, AND SCHEDULE
F-201	FIRE CONNECTION DETAILS
F-101	FIRE DETECTION AND SUPPRESSION PLAN

MINIMUM SPRINKLER FLOWRATE (GPM)

COVERAGE AREA (FT X FT)	NFPA MINIMUM SPRINKLER FLOWRATE (GPM)	MINIMUM LISTED SPRINKLER FLOWRATE (GPM)	MINIMUM SPRINKLER FLOWRATE (GPM)
10 X 10	5	8	5
12 X 12	7.2	8	8
14 X 14	9.8	11	11
16 X 16	12.8	13	13

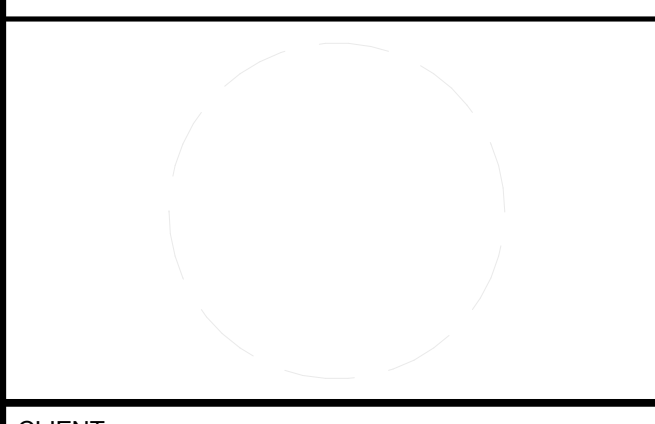
MINIMUM SPRINKLER PRESSURE (PSI)

COVERAGE AREA (FT X FT)	NFPA MINIMUM SPRINKLER PRESSURE (PSI)	MINIMUM LISTED SPRINKLER PRESSURE (PSI)	MINIMUM SPRINKLER PRESSURE (PSI)
10 X 10	7	NONE	7
12 X 12	7	7.1	7.1
14 X 14	7	13.4	13.4
16 X 16	7	18.8	18.8



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)

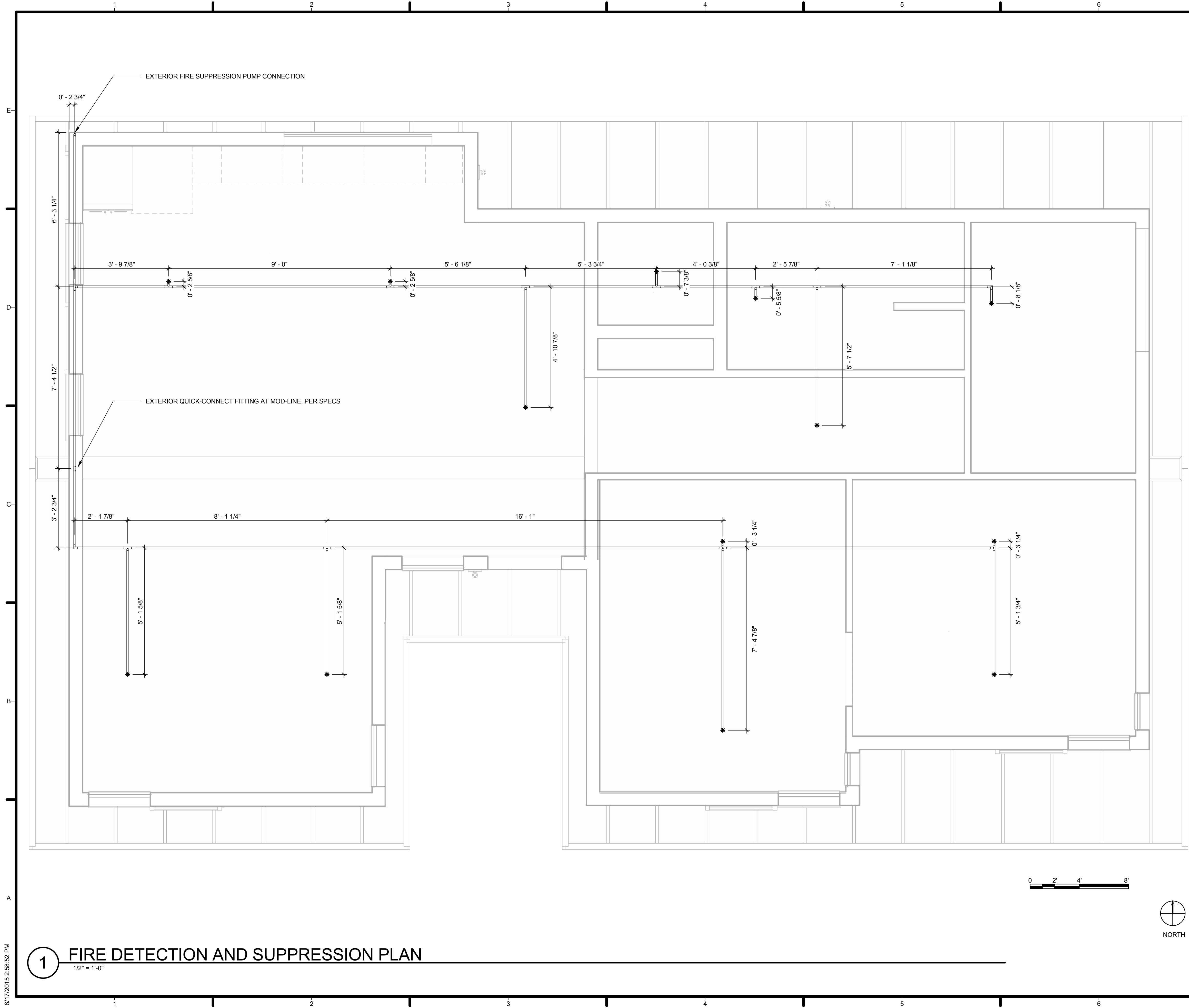


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FIRE PROTECTION NOTES, SYMBOLS, AND SCHEDULE

F-001



GENERAL SHEET NOTES

ACCORDING TO THE NFPA 13D GUIDELINES:

8.1.4 THE MINIMUM OPERATING PRESSURE OF ANY SPRINKLER SHALL BE THE HIGHER OF THE MINIMUM OPERATING PRESSURE SPECIFIED BY THE LISTING OR 7 PSI.

8.2.5.7 SHADOW AREAS SHALL BE PERMITTED IN THE PROTECTION AREA OF A SPRINKLER AS LONG AS THE CUMULATIVE DRY AREAS DO NOT EXCEED 15 SQUARE FEET PER SPRINKLER.

8.3.2 SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS OF 55 SQUARE FEET AND LESS.

8.3.3 SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT MEET THE FOLLOWING CONDITIONS:

- (1) THE AREA OF THE SPACE DOES NOT EXCEED 24 SQUARE FEET.
- (2) THE SHORTEST DIMENSION DOES NOT EXCEED 3 FEET.
- (3) THE WALLS AND CEILINGS ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED IN NFPA 220.

8.3.9 SPRINKLERS SHALL BE INSTALLED IN ANY CLOSET USED FOR HEATING AND/OR AIR CONDITIONING EQUIPMENT, WASHERS AND/OR DRYERS, OR WATER HEATERS.

PIPING WILL USE PEX MATERIAL.
PIPES AND FITTINGS ARE 1 INCH IN DIAMETER.

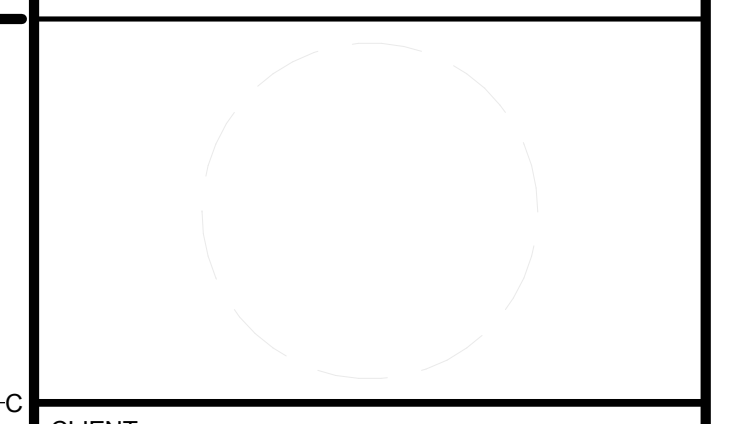
LEGEND

- SPRINKLERS
- PIPELINE
- SD SMOKE DETECTOR
- FIRE SPRINKLER COVERAGE



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

SHEET TITLE

FIRE DETECTION AND SUPPRESSION PLAN

F-101

1 FIRE DETECTION AND SUPPRESSION PLAN
 1/2" = 1'-0"

8/17/2015 2:56:52 PM



TEAM NAME: AGGIE SOL

ADDRESS: 215 SAGE STREET
DAVIS, CA 95616

CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

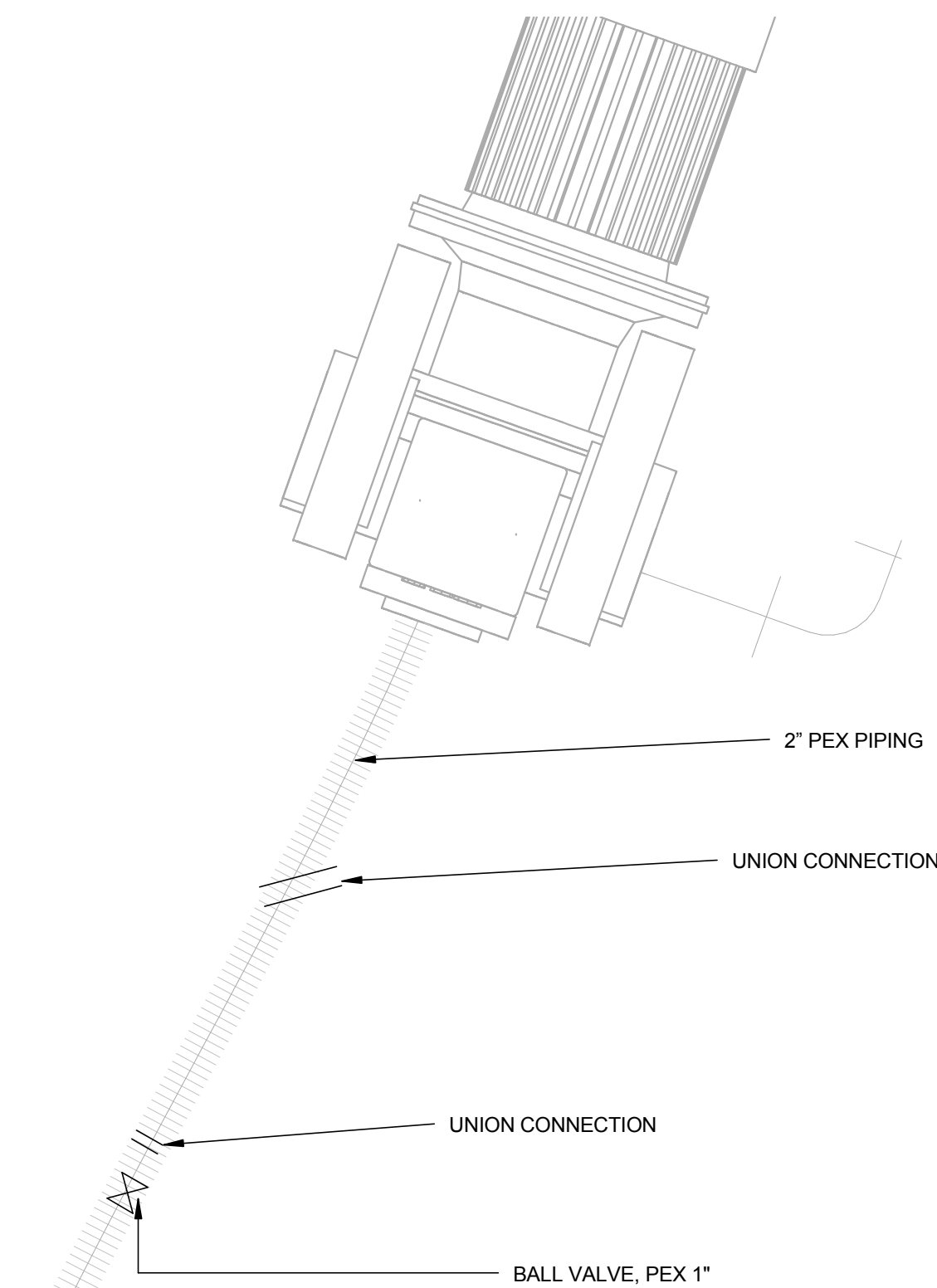


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

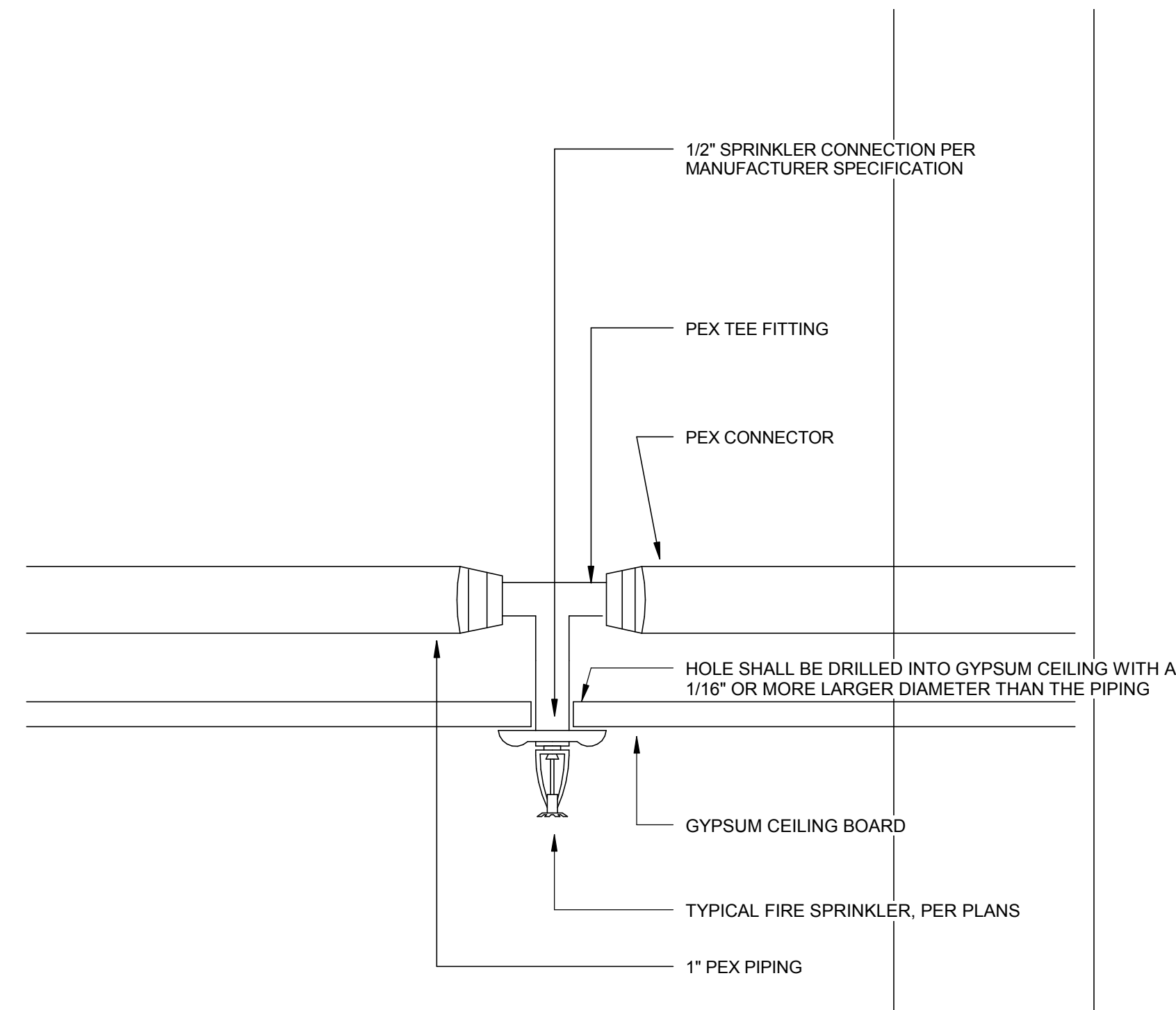
LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
FIRE CONNECTION DETAILS

F-201



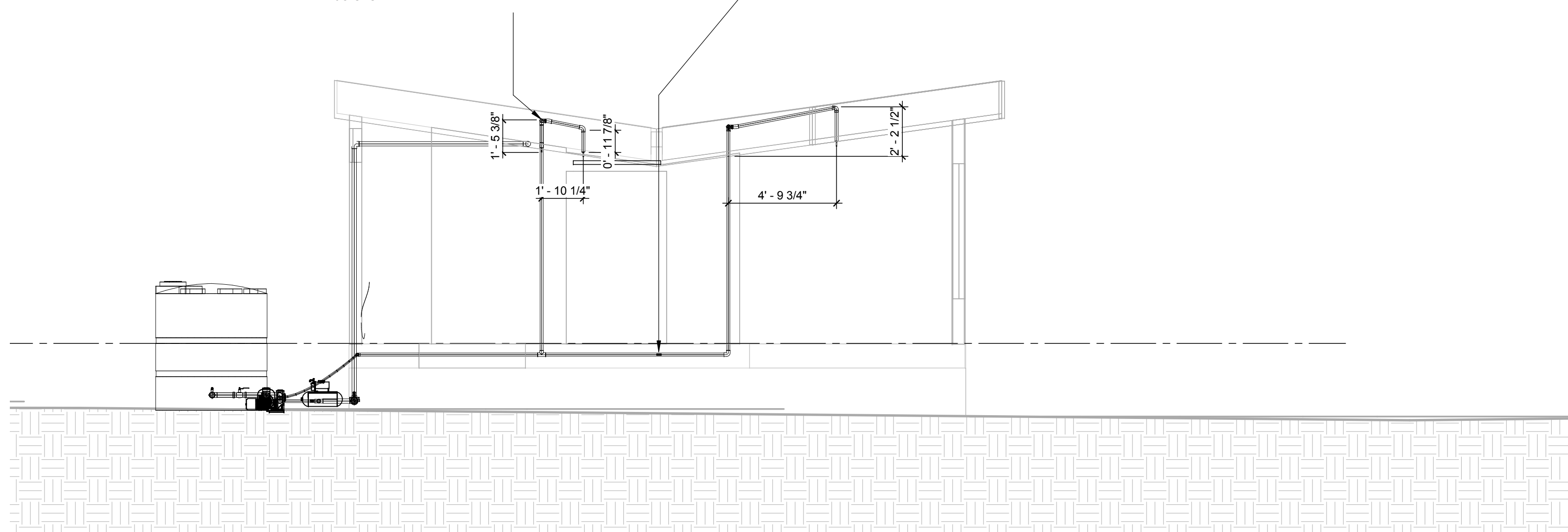
2 **PST TO FIRE PUMP CONNECTION**
3" = 1'-0"



1 **PIPE TO FIRE SPRINKLER CONNECTION**
6" = 1'-0"

TYPICAL PIPES SHALL PENETRATE ROOF AS SPECIFIED ACCORDING TO RELATED CODES. WHERE POSSIBLE PIPING WILL TRAVEL ALONG THE UPPER THIRD OF THE ROOF JOISTS.

CONNECTION AT MARRIAGE LINE SHALL BE A FITTING EASILY ACCESSED FROM UNDERNEITH THE HOME AFTER IT IS ANCHORED AND IS SAFE TO PERFORM WORK.



3 **FIRE WEST ELEVATION**
1/4" = 1'-0"

PLUMBING EQUIPMENT SCHEDULE									
APPLIANCES									
REFERENCE NUMBER	SYSTEM NAME	MANUFACTURER	MODEL NUMBER	QUANTITY	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LB)	DIAMETER (IN)
22 11 23	SUPPLY PUMP	WAYNE	SWS100	1	23	11	12	N/A	N/A
22 12 19	GREYWATER TANK	PLASTIC-MART	LP0300-RT	1	21	48	80	135	N/A
22 33 13.16	NEXUS WATER...	NEXUS WATER	V4-1	1	54	N/A	N/A	N/A	39
22 12 19	PRESSURE TANK	WATER WORKER	HT44	1	36	N/A	N/A	N/A	22
22 12 19	PRIMARY SUPPLY...	CUSTOM ROTO MOLD	CRMI-1000VTFWG	1	72.75	N/A	N/A	N/A	60
22 30 00	SUPPLY MANIFOLD	VIEGA	TD-PFMB 0509	1	14	8	3	N/A	N/A

PLUMBING SHEET INDEX	
Sheet Number	Sheet Name
P-001	PLUMBING NOTES, SYMBOLS, AND SCHEDULE
P-101	DOMESTIC SUPPLY PLAN
P-102	DOMESTIC RETURN PLAN
P-301	NORTH SECTIONS
P-302	WEST SECTIONS
P-303	EAST SECTIONS
P-601	PLUMBING SYSTEM DIAGRAM
P-901	ISOMETRIC PIPING SUPPLY PLAN
P-902	ISOMETRIC PIPING RETURN PLAN

PLUMBING FIXTURE SCHEDULE				
MARK	DESCRIPTION	COUNT	MANUFACTURER	MODEL
1	KITCHEN SINK	1	KOHLER	K-3894
2	DISHWASHER	1	BOSCH	SHX68E05UC
3	TOILET	1	KOHLER	K-3755
4	CLEANSING ROOM SHOWER	1	PFISTER	016-HH2C
5	BATHROOM SHOWER	1	DELTA	75153
6	BATHROOM SINK	1	KOHLER	K-2355

PLUMBING ABBREVIATIONS	
ABBREVIATION	TERM
CW	Clothes Washer
CWST	Chilled Water Storage Tank
DR	Dryer
DW	Dishwasher
FSP	Fire Sprinklers
GWT	Greywater Tank
HPWH	Heat Pump Water Heater
KS	Kitchen Sink
NCT	Nexus Collection Tank
NWH	Nexus Water Heater
PST	Primary Supply Tank
RF	Radiant Flooring
RSP	Rooftop Sprinklers
SH1	Bathroom Shower
SH2	Cleansing Room Shower
T	Toilet
VS1	Vanity Sink in Bathroom
VS2	Vanity Sink in Cleansing Room

GENERAL NOTES

INSTALLATION OF EQUIPMENT

- ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES & AUTHORITIES AND THE RECOMMENDATIONS OF THE MANUFACTURER. THIS INCLUDES THE PERFORMANCE OF SUCH TESTS AS THE MANUFACTURER RECOMMENDS.
- ATTACHMENTS: SUPPORT ALL WORK ADEQUATELY AND PER CODE. ALL EQUIPMENT SHALL BE SECURELY ATTACHED TO THE BUILDING STRUCTURE IN AN APPROVED MANNER.
- INTERFERENCE: THE CONTRACTOR SHALL COORDINATE WORK SO THAT INTERFERENCES BETWEEN CONDUITS, PIPING, EQUIPMENT, ARCHITECTURAL AND STRUCTURAL WORK WILL BE AVOIDED. ALL NECESSARY OFFSETS IN DUCTS AND FITTINGS REQUIRED TO PROPERLY INSTALL THE WORK SHALL BE FURNISHED SO AS TO TAKE UP A MINIMUM SPACE, AND ALL SUCH OFFSETS AND FITTINGS REQUIRED TO ACCOMPLISH THIS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- SEAL ALL OPENINGS THROUGH WALLS AND CEILINGS, INSTALL ESCUTCHEON PLATES AT BUILDING INTERIOR, PROPERLY FLASH ALL EXTERIOR OPENINGS.
- COORDINATE EQUIPMENT LOCATIONS, CONTROL AND POWER WIRING REQUIREMENTS AND CONNECTION POINTS WITH THE ELECTRICAL AND CONTROLS CONTRACTORS. COORDINATE WITH THE ELECTRICAL CONTRACTOR TO PROVIDE ANY NEEDED MOTOR STARTERS AND DISCONNECTS.
- CLEAN ALL INTERIOR AND EXTERIOR SURFACES OF EQUIPMENT AND FITTINGS. VACUUM ALL MATERIAL AND METAL SHAVINGS FROM WORK AREAS. APPLY TOUCH-UP PAINT WHERE NEEDED.
- INSULATE & SEAL HOLES IN WALL BEHIND ANY WALL-MOUNTED EQUIPMENT WITH LOW VOLTAGE WIRING, INCLUDING THERMOSTAT SUB-BASE.
- PROVIDE AS-BUILT DRAWINGS CLEARLY NOTING ALL DEVIATIONS FROM ORIGINAL DESIGN.

VALVES

- EVERY WATER APPLIANCE SHALL HAVE A CONTROL VALVE
- THE NEXUS WATER HEATER SHALL HAVE A TEMPERATURE AND PRESSURE VALVE
- A STEAM CHECK VALVE SHALL CONTROL FLOW FROM PRESSURE TANK TO PUMP
- THE COLD AND HOT SUPPLY OF THE WASHING MACHINE SHALL HAVE A GLOBE VALVE
- THE GREYWATER TANK SHALL HAVE A CHECK VALVE
- THE COLD WATER SUPPLY FOR THE KITCHEN SINK AS WELL AS THE HOT AND COLD SUPPLY OF THE BATHROOM SINK SHALL HAVE 2-WAY BALL VALVES
- THE SHOWER, HOT WATER SUPPLY FOR THE KITCHEN SINK, AND THE DISHWASHER SHALL HAVE 3-WAY BALL VALVES
- THE TOILET SHALL HAVE A QUARTER TURN ANGLE VALVE
- THE PRIMARY TANK MAIN SHUT OFF VALVE SHALL BE A QUARTER TURN BALL VALVE

PIPING

- THE PIPING FROM THE PRIMARY SUPPLY TANK TO THE MANIFOLD SHALL BE 2 INCH PEX PIPING
- THE SUPPLY PIPING FROM THE MANIFOLD TO EACH APPLIANCE SHALL BE 3/8 INCH PEX PIPING
- THE RETURN PIPING SHALL BE 2 INCH ABS PIPING
- THE PIPING FROM THE NEXUS COLLECTION TANK TO THE WATER HEATER SHALL BE 3/8 INCH COPPER PIPING

FIXTURES

- ALL FIXTURES SHALL BE OPERATIONAL
- THE CONTROL VALVES FOR THE CLEANSING ROOM SHOWER, TOILET, AND BATHROOM SINK SHALL BE CLOSED.

INSULATION

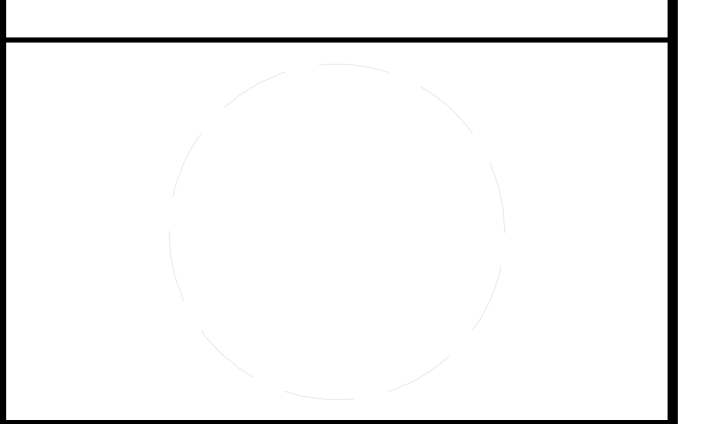
- OUTDOOR PIPES SHALL BE INSULATED WITH UVR ALUMINUM FOIL TAPE
- INDOOR PIPES SHALL BE INSULATED WITH VINYL FILM TAPE



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616

CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



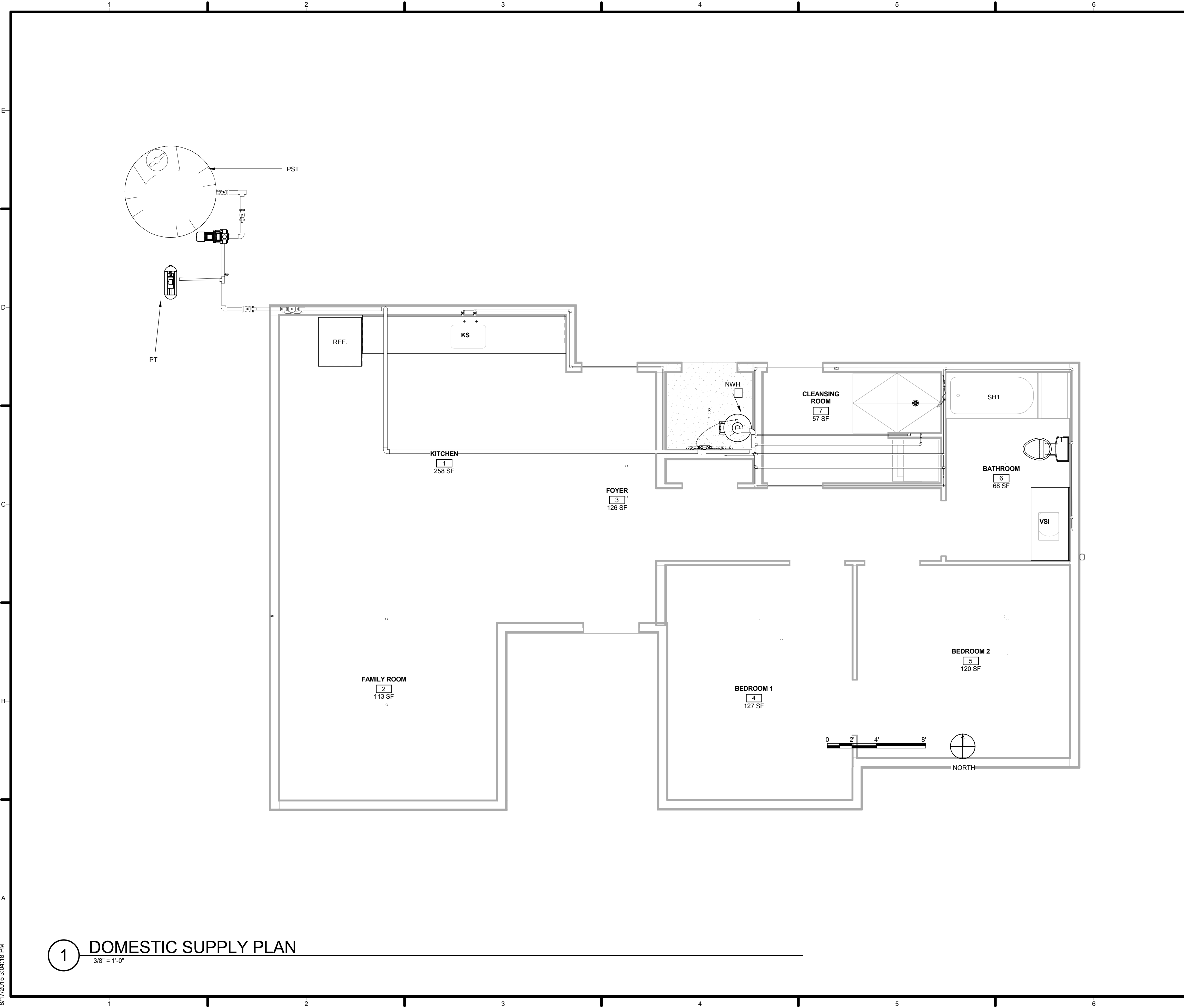
MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
**PLUMBING NOTES,
SYMBOLS, AND
SCHEDULE**

P-001

8/17/2015 3:04:16 PM



GENERAL SHEET NOTES

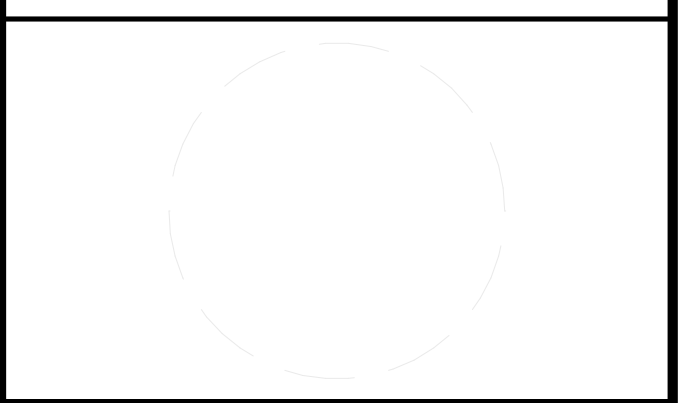
LEGEND

CW	CLOTHES WASHER
CWST	CHILLED WATER STORAGE TANK
DR	DRYER
DW	DISHWASHER
FSP	FIRESPRINKLERS
GWT	GREYWATER TANK
KS	KITCHEN SINK
MF	MANIFOLD
NCT	NEXUS COLLECTION TANK
NWH	NEXUS WATER HEATER
P	WATER PUMP
PST	PRIMARY SUPPLY TANK
PT	PRESSURE TANK
SH1	BATHROOM SHOWER
SH2	CLEANSING ROOM SHOWER
T	TOILET
VS1	VANITY SINK IN BATHROOM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON

MARK	DATE	DESCRIPTION
DD	02.12.15	DESIGN DEVELOPMENT

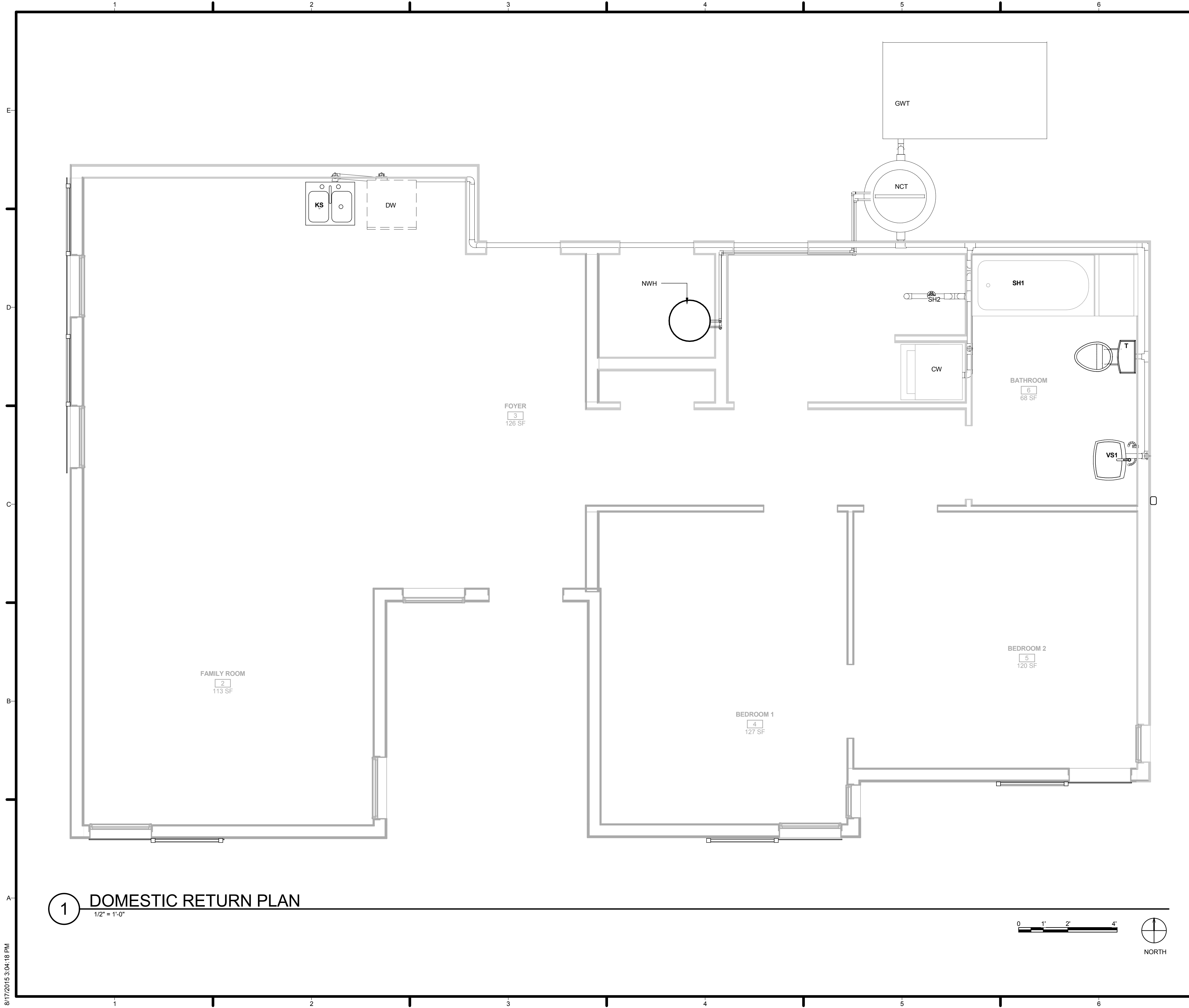
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 DOMESTIC SUPPLY PLAN

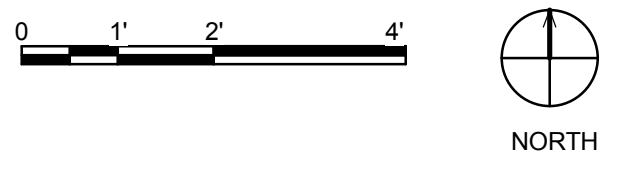
P-101

1 DOMESTIC SUPPLY PLAN
 3/8" = 1'-0"

8/17/2015 3:04:18 PM



1 DOMESTIC RETURN PLAN
1/2" = 1'-0"



GENERAL SHEET NOTES

LEGEND

- CW CLOTHES WASHER
- CWST CHILLED WATER STORAGE TANK
- DR DRYER
- DW DISHWASHER
- FSP FIRESPRINKLERS
- GWT GREYWATER TANK
- KS KITCHEN SINK
- MF MANIFOLD
- NCT NEXUS COLLECTION TANK
- NWH NEXUS WATER HEATER
- P WATER PUMP
- PST PRIMARY SUPPLY TANK
- PT PRESSURE TANK
- SH1 BATHROOM SHOWER
- SH2 CLEANSING ROOM SHOWER
- T TOILET
- VS1 VANITY SINK IN BATHROOM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



DD	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
DOMESTIC RETURN PLAN

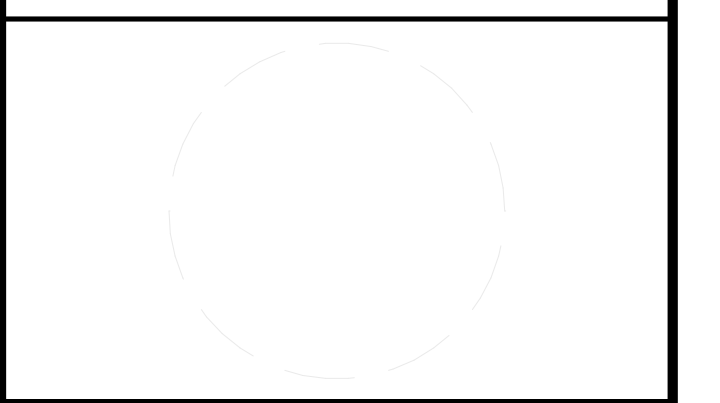
P-102

8/17/2015 3:04:18 PM



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)

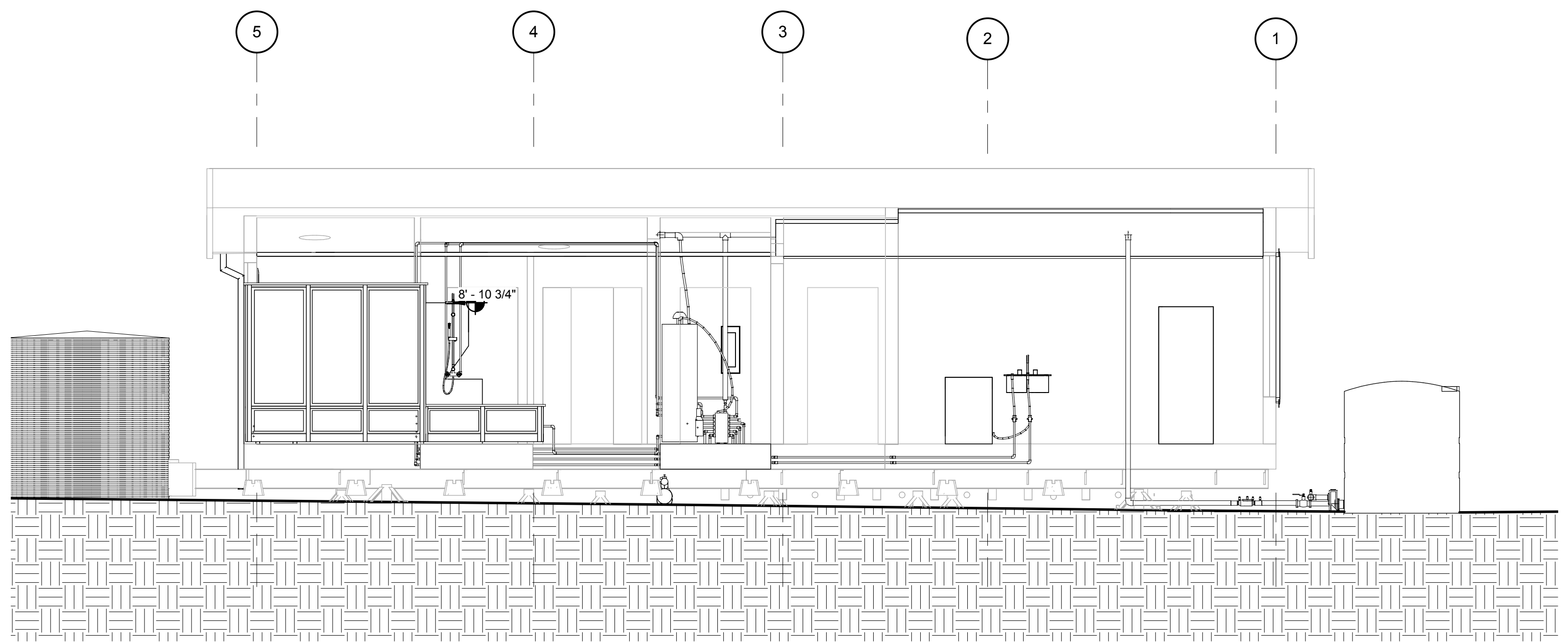


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

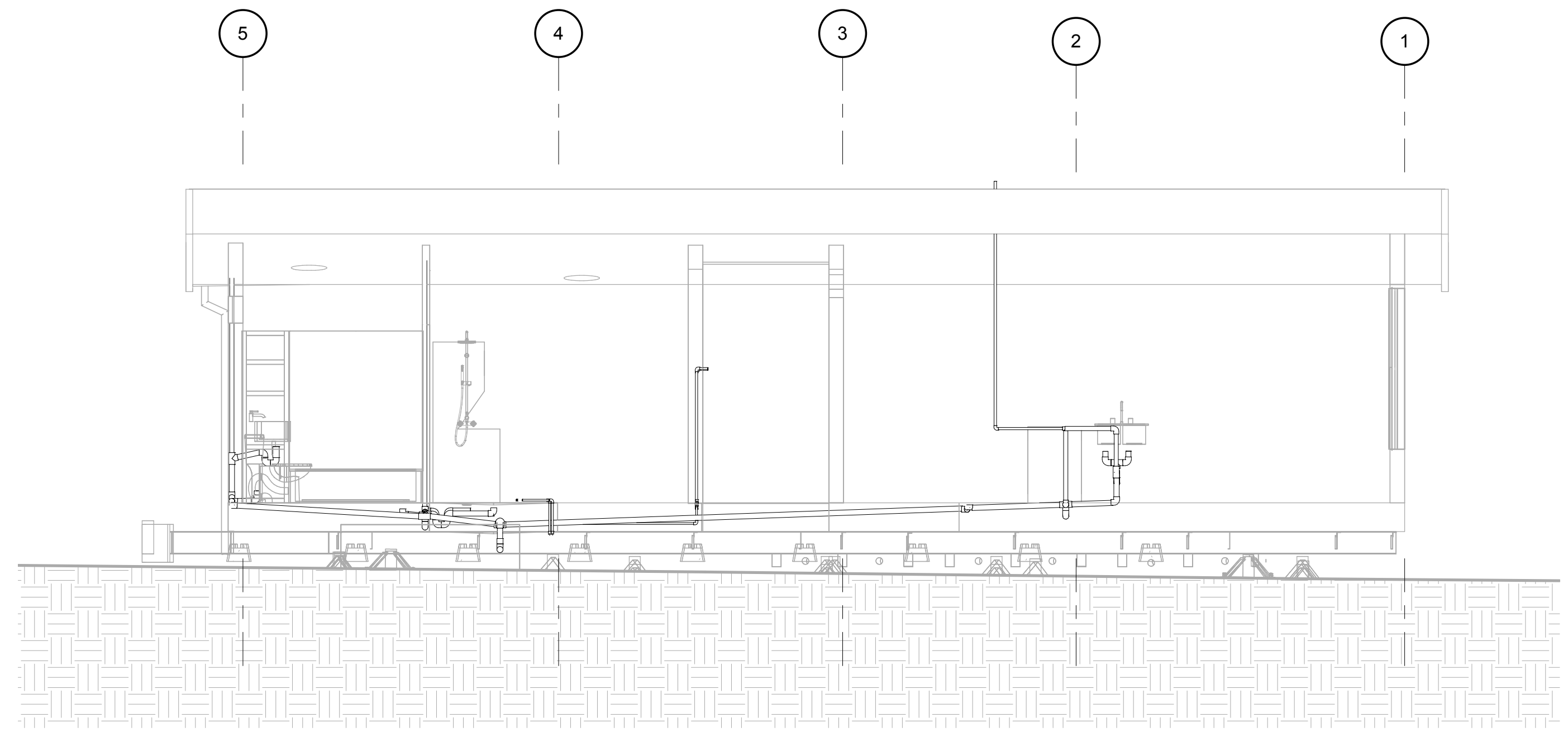
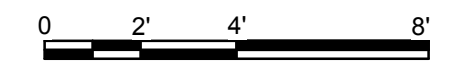
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT
 PUBLIC DOMAIN

SHEET TITLE
NORTH SECTIONS

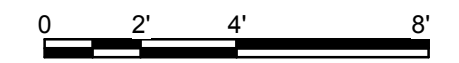
P-301

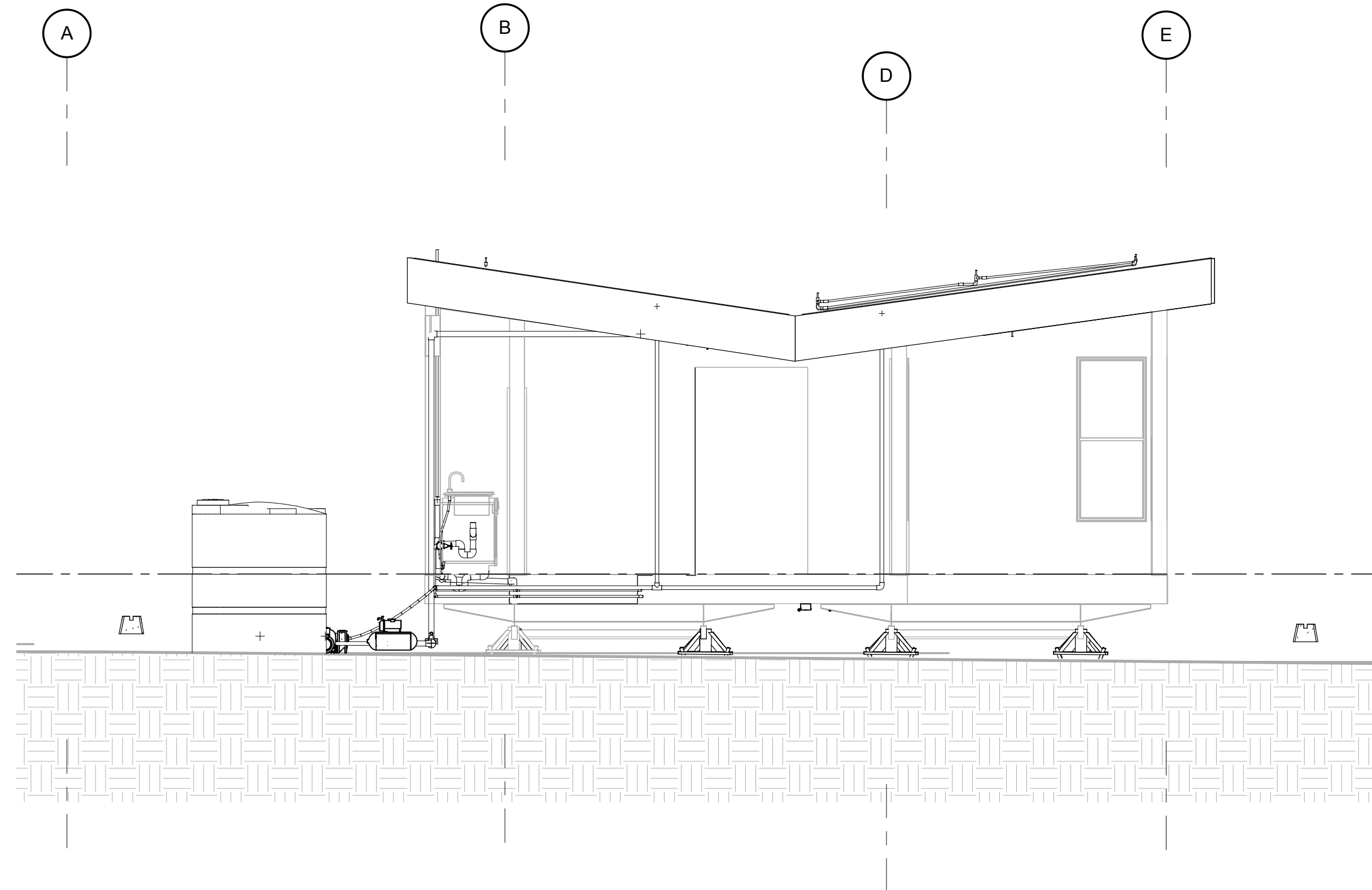


1 SUPPLY NORTH SECTION
 1/4" = 1'-0"



2 RETURN NORTH SECTION
 1/4" = 1'-0"





1 SUPPLY WEST SECTION
1/4" = 1'-0"



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 WEST SECTIONS

P-302



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

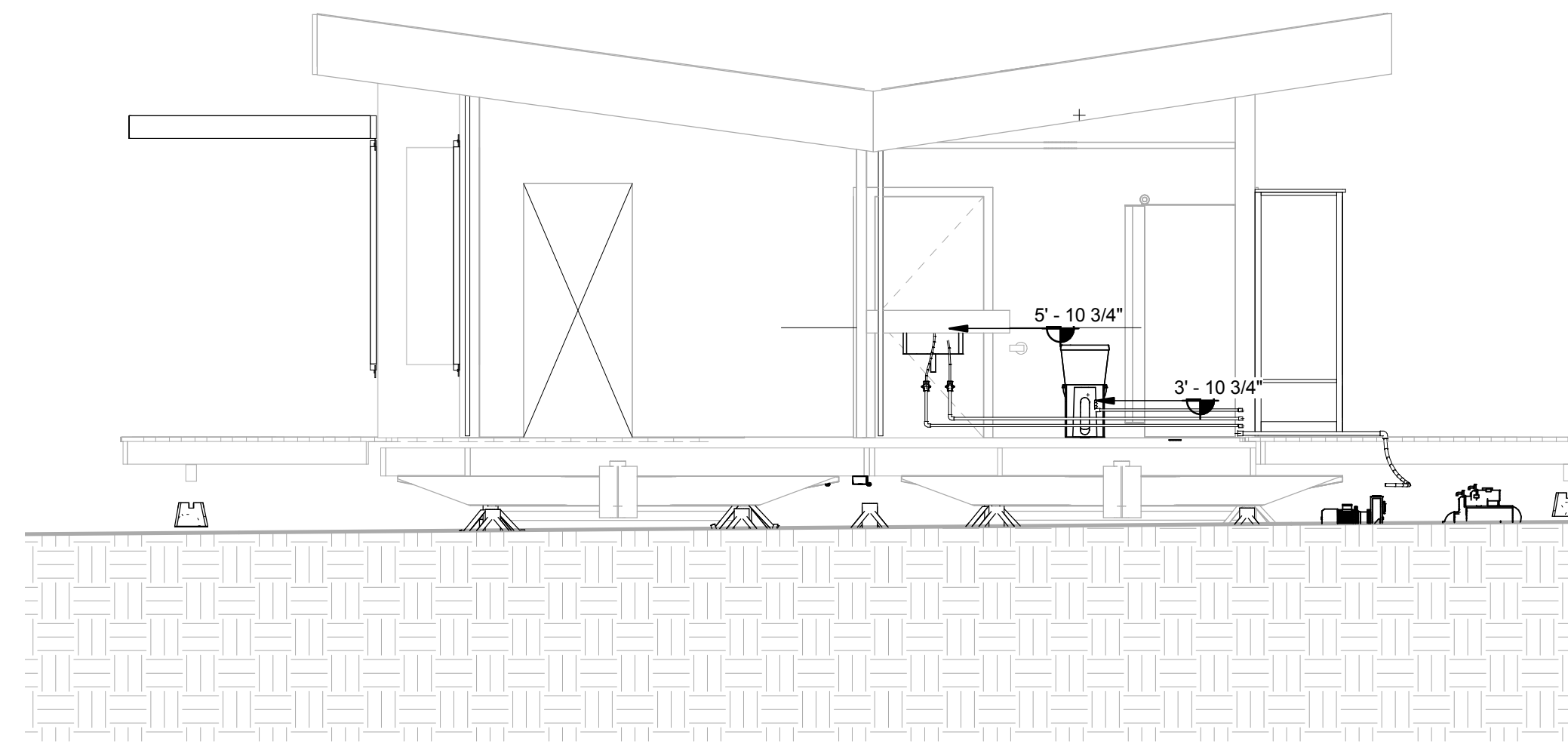


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

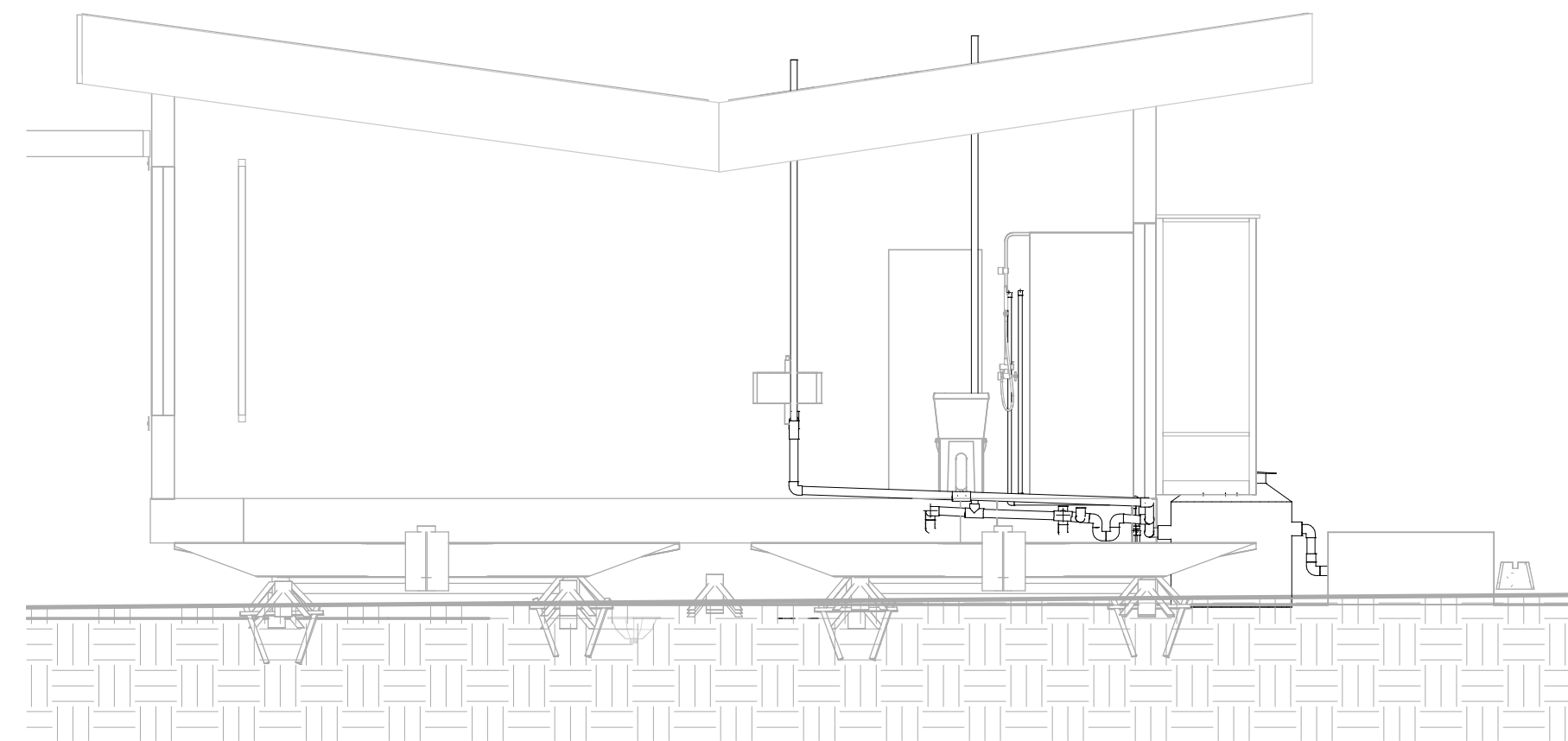
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
 EAST SECTIONS

P-303



1 SUPPLY EAST SECTION
 1/4" = 1'-0"



2 RETURN EAST SECTION
 1/4" = 1'-0"



GENERAL SHEET NOTES

THE WATER SYSTEM WORKS ON A 2 PUMP SYSTEM:

ONE PUMP PROVIDES FLOW TO 7 FIRE SPRINKLER HEADS.

ONE DUAL PUMP AND PRESSURE TANK THAT DISTRIBUTES WATER SUPPLY.

WATER FROM THE PUMP-PRESSURE DUAL TANK ENTERS THE PRESSURE TANK THAT IS CONNECTED WITH A CONTROL THAT ALLOWS THE PRESSURE TANK TO BE REPRESSURIZED BY THE PUMP WHEN THE PRESSURE TANK HITS A SPECIFIC MINIMUM PRESSURE.

FROM THE PRESSURE TANK THERE IS A TWO PARALLEL BRANCHING SYSTEM:

ONE PIPING BRANCH FEEDS ALL THE COLD WATER TO THE WATER FIXTURES.

ONE PIPING BRANCH GOES TO THE NEXUS WATER HEATER WHICH SUPPLIES HOT WATER TO THE WATER FIXTURES.

THE WASTE WATER ENTERS THE NEXUS COLLECTION TANK THERE IS A CONNECTION PIPE FILLED WITH REFRIGERANT R410A FOR HEAT RECOVERY THAT ENTERS THE NEXUS WATER HEATER.

THE RESULTING COLD WATER ENTERS THE WASTEWATER TANK.

THE SUPPLY USES PEX PIPING.

THE RETURN USES ABS PIPING.

THE REFRIDRERGANT USES COPPER PIPING.

REFERENCE KEYNOTES

NOT USED AT THIS TIME

SHEET KEYNOTES

NOT USED AT THIS TIME

LEGEND

CW	CLOTHES WASHER
CWST	CHILLED WATER STORAGE TANK
DR	DRYER
DW	DISHWASHER
FSP	FIRESPRINKLERS
GWT	GREYWATER TANK
KS	KITCHEN SINK
MF	MANIFOLD
NCT	NEXUS COLLECTION TANK
NWH	NEXUS WATER HEATER
P	WATER PUMP
PST	PRIMARY SUPPLY TANK
PT	PRESSURE TANK
SH1	BATHROOM SHOWER
SH2	CLEANSING ROOM SHOWER
T	TOILET
VS1	VANITY SINK IN BATHROOM
—	COLD SUPPLY
- - -	HOT SUPPLY
- - -	WASTEWATER
—	REFRIDRERGANT R410A



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530)-752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
--------	---



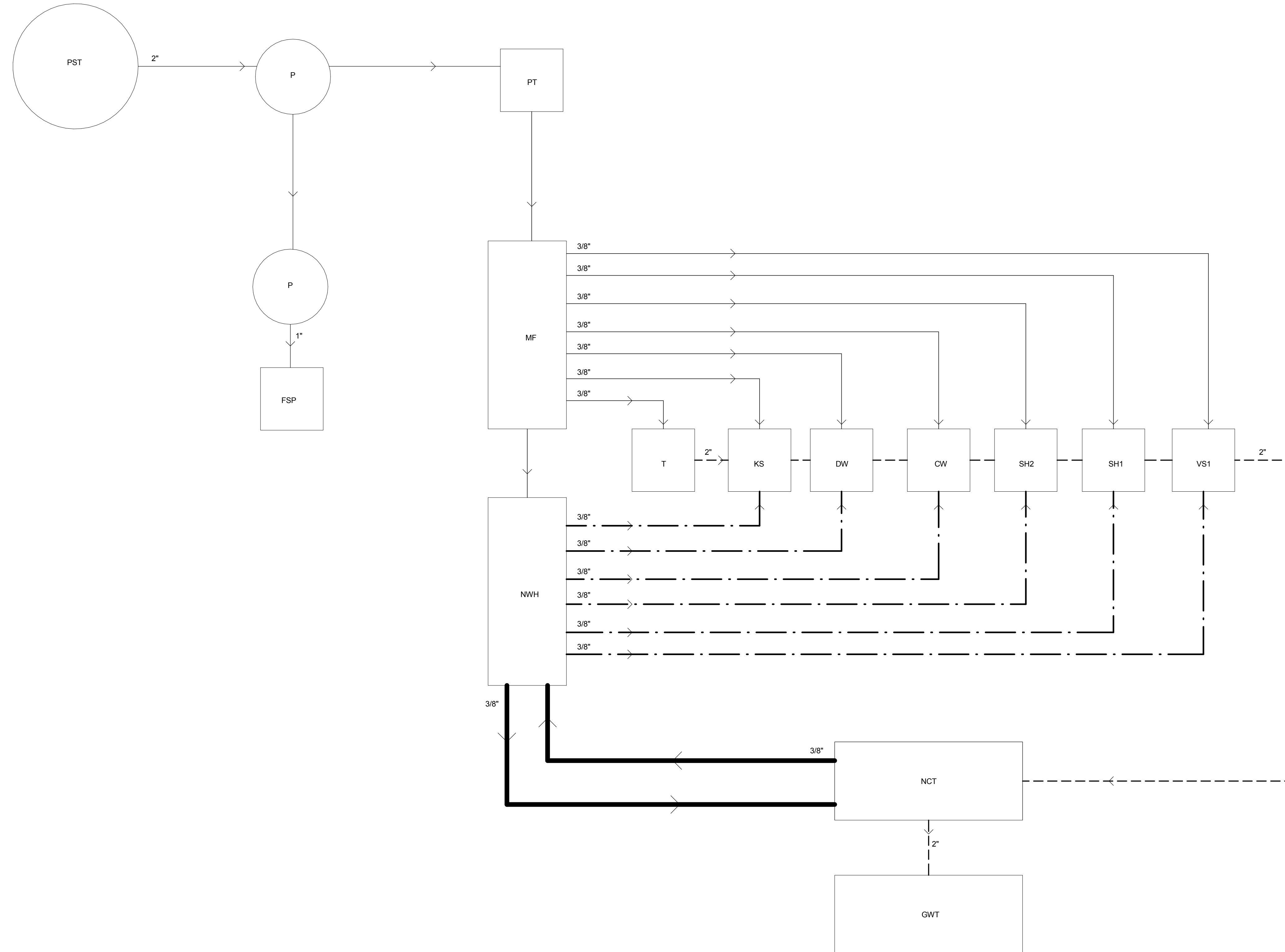
DD	DATE	DESCRIPTION
	02.12.15	DESIGN DEVELOPMENT

MARK	DATE	DESCRIPTION
LOT NUMBER:	201	
DRAWN BY:	AGGIE SOL TEAM	
CHECKED BY:	BEN WHITE	
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN	

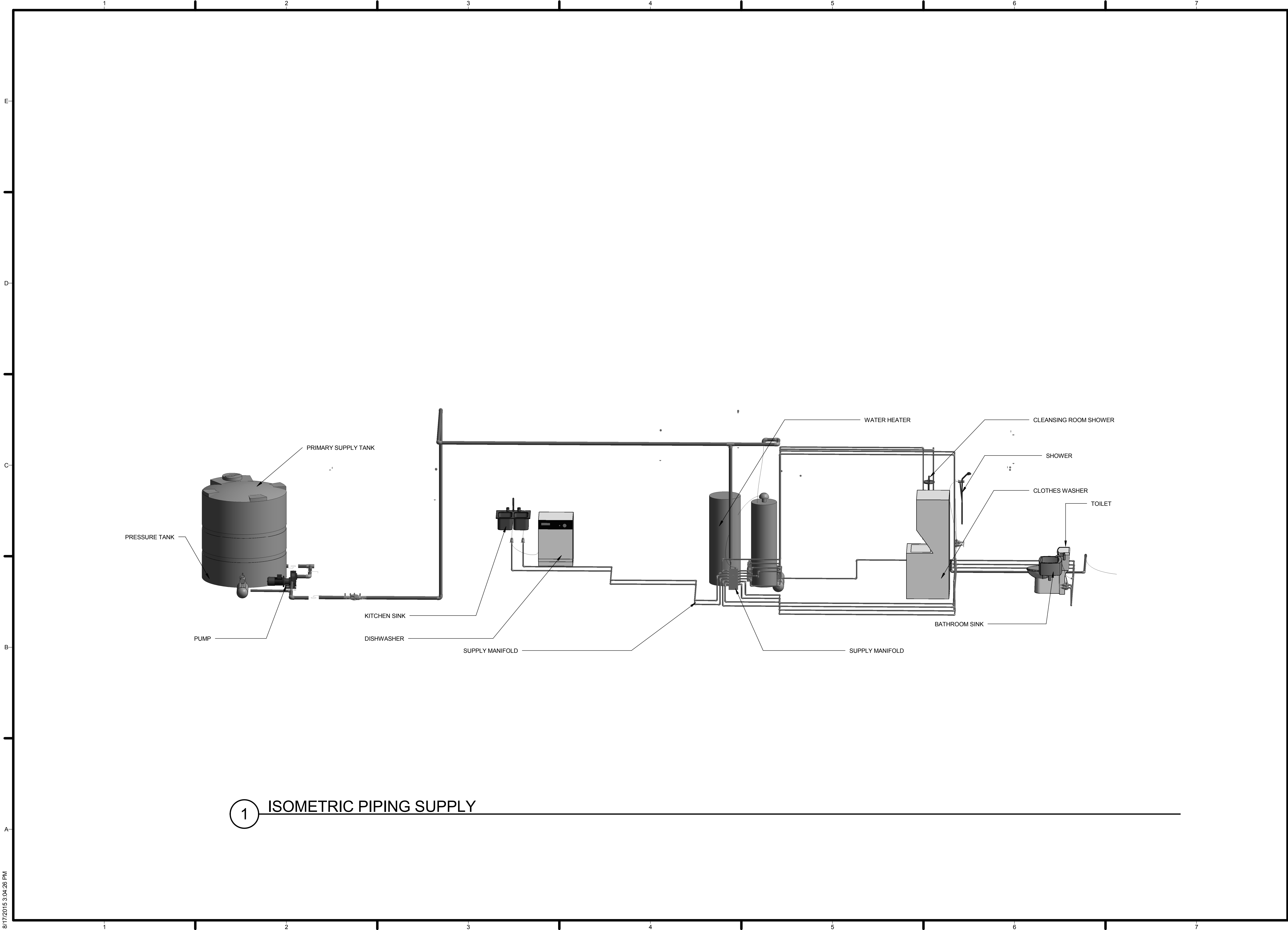
SHEET TITLE

**PLUMBING SYSTEM
DIAGRAM**

P-601



1 PLUMBING SYSTEM DIAGRAM
N.T.S.

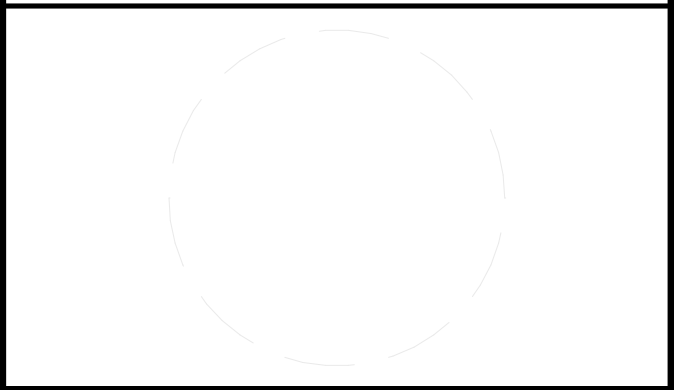


1 ISOMETRIC PIPING SUPPLY



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT
 PUBLIC DOMAIN

SHEET TITLE
 ISOMETRIC PIPING
 SUPPLY PLAN

P-901



TEAM NAME: AGGIE SOL

ADDRESS: 215 SAGE STREET
DAVIS, CA 95616

CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



AB 08.17.15 AS BUILT

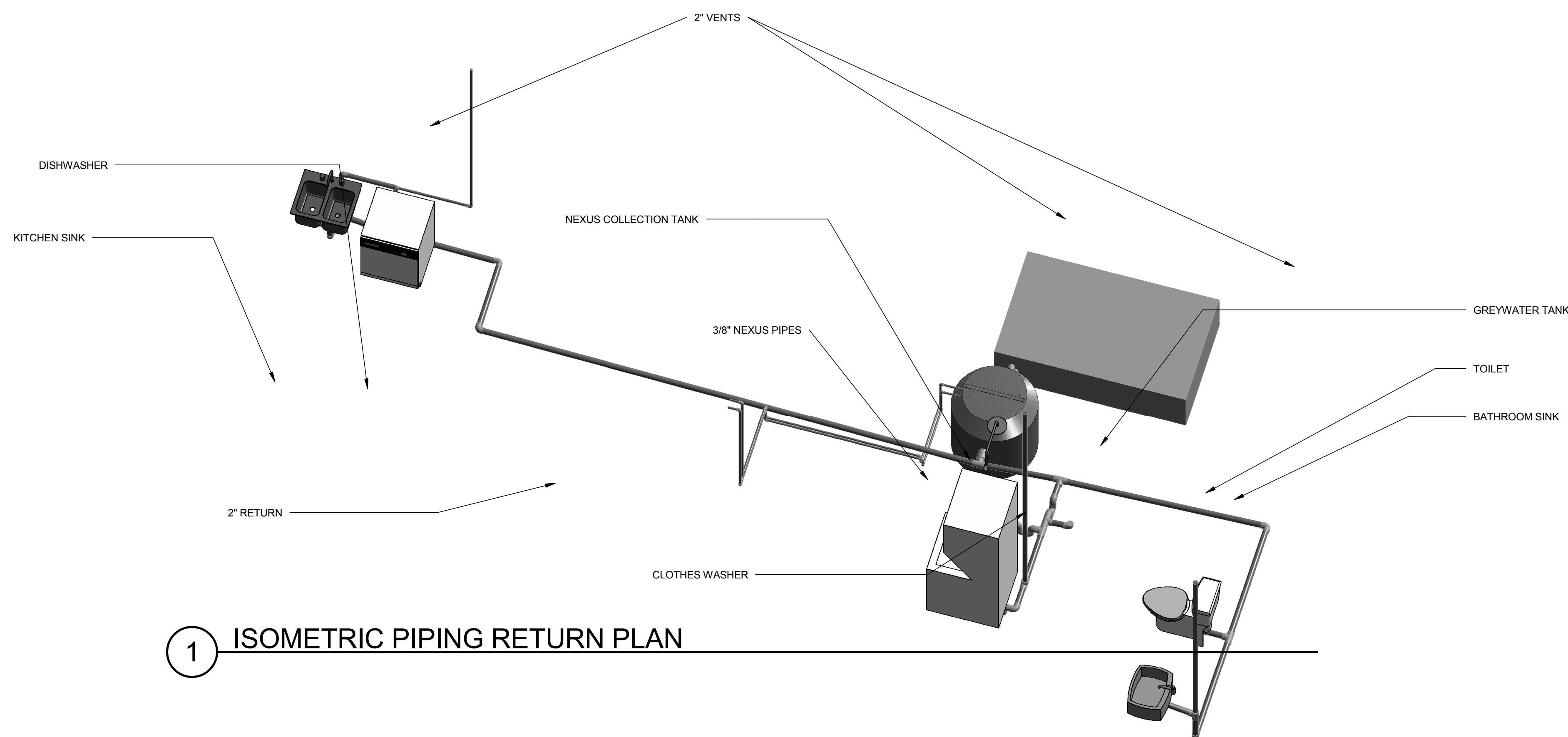
MARK	DATE	DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT
PUBLIC DOMAIN

SHEET TITLE

ISOMETRIC PIPING RETURN PLAN

P-902



1 ISOMETRIC PIPING RETURN PLAN

GENERAL NOTES

INSTALLATION OF EQUIPMENT

1. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES & AUTHORITIES AND THE RECOMMENDATIONS OF THE MANUFACTURER. THIS INCLUDES THE PERFORMANCE OF SUCH TESTS AS THE MANUFACTURER RECOMMENDS.
2. ATTACHMENTS: SUPPORT ALL WORK ADEQUATELY AND PER CODE. ALL EQUIPMENT SHALL BE SECURELY ATTACHED TO THE BUILDING STRUCTURE IN AN APPROVED MANNER.
3. INTERFERENCE: THE CONTRACTOR SHALL COORDINATE WORK SO THAT INTERFERENCES BETWEEN CONDUITS, PIPING, EQUIPMENT, ARCHITECTURAL AND STRUCTURAL WORK WILL BE AVOIDED. ALL NECESSARY OFFSETS IN DUCTS AND FITTINGS REQUIRED TO PROPERLY INSTALL THE WORK SHALL BE FURNISHED SO AS TO TAKE UP A MINIMUM SPACE, AND ALL SUCH OFFSETS AND FITTINGS REQUIRED TO ACCOMPLISH THIS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
4. SEAL ALL OPENINGS THROUGH WALLS AND CEILINGS. INSTALL ESCUTCHEON PLATES AT BUILDING INTERIOR. PROPERLY FLASH ALL EXTERIOR OPENINGS.
5. COORDINATE EQUIPMENT LOCATIONS, CONTROL AND POWER WIRING REQUIREMENTS AND CONNECTION POINTS WITH THE ELECTRICAL AND CONTROLS CONTRACTORS. COORDINATE WITH THE ELECTRICAL CONTRACTOR TO PROVIDE ANY NEEDED MOTOR STARTERS AND DISCONNECTS.
6. CLEAN ALL INTERIOR AND EXTERIOR SURFACES OF EQUIPMENT AND FITTINGS. VACUUM ALL MATERIAL AND METAL SHAVINGS FROM WORK AREAS. APPLY TOUCH-UP PAINT WHERE NEEDED.
7. INSULATE & SEAL HOLES IN WALL BEHIND ANY WALL-MOUNTED EQUIPMENT WITH LOW VOLTAGE WIRING, INCLUDING THERMOSTAT SUB-BASE.
8. INSTALL EXHAUST FANS WHERE SHOWN. PROVIDE DUCT CONNECTIONS WITH BACKDRAFT DAMPERS FOR ALL EXHAUST FANS INCLUDING KITCHEN EXHAUST. COORDINATE WITH ARCHITECT TO PROVIDE DUCTWORK ACCESSORIES NEEDED.
9. PROVIDE AS-BUILT DRAWINGS CLEARLY NOTING ALL DEVIATIONS FROM ORIGINAL DESIGN.

NIGHT SKY ROOFTOP SYSTEM

DESIGN NARRATIVE

THE NIGHT SKY ROOFTOP IS A SYSTEM OF SPRINKLERS ON THE HOUSE ROOF DESIGNED TO COOL THE WATER FROM THE CHILLED WATER STORAGE TANK. THE CHILLED WATER STORAGE TANK WILL BE USED AS THE SOURCE OF WATER FOR THE FLOOR BASED RADIANT SOLUTION OF OUR HOME. THE SPRINKLERS WILL SPRAY AT 600 GPH FOR 1000 SQUARE FEET OF ROOFTOP. THE CHILLED WATER STORAGE TANK SHALL BE A 1300 GALLON OR LARGER PLASTIC TANK INSULATED WITH R-30 FIBERGLASS INSULATION AND THEN PROTECTED WITH MOISTURE BARRIER, PER PLANS.

DESCRIPTION

1. ALL SPRINKLERS SHALL HAVE 3 FEET OF CLEARANCE FROM THE EDGE OF THE ROOF.
2. ALL SPRINKLERS SHALL HAVE A 10 DEGREE VERTICAL TRAJECTORY
3. THE TEMPERATURE OF THE WATER SHALL NEVER BE BELOW 55F.
4. FOR EVERY 100 SQUARE FOOT OF ROOF AREA THERE SHALL BE 1 GPM OF FLOW

RADIANT HEATING AND COOLING SYSTEM

DESCRIPTION

1. DURING HEATING MODE, THE RHEEM ECOSENSE HPWH SHALL DELIVER 100 DEGREE F HOT WATER TO THE NORTH AND SOUTH SUPPLY MANIFOLDS FOR DELIVERY TO THE RESPECTIVE ZONES--THE ZONES ARE HEATED INDEPENDENTLY. EACH ZONE CONSISTS OF 4 CIRCUITS.
2. DURING COOLING MODE, THE CWST SHALL DELIVER 55 DEGREE F COOL WATER TO THE NORTH AND SOUTH SUPPLY MANIFOLDS FOR DELIVERY TO THE RESPECTIVE ZONES--THE ZONES ARE COOLED INDEPENDENTLY.
- 23 THE CONTRACTOR SHALL INSTALL A COMPLETE HYDRONIC RADIANT SYSTEM COMPLYING WITH THESE DRAWINGS, SPECIFICATIONS, CODES, AND LOCAL AUTHORITIES. THE HYDRONIC SYSTEM CONSISTS OF RADIANT FLOOR TUBING LAID AT THE BOTTOM OF A 2 INCH THICK LAYER OF GYPSUM CONCRETE FINISHED WITH LINOLEUM.
4. THE WORK INCLUDES FURNISHING AND/OR PAYING FOR ALL MATERIALS, FEES AND PERMITS NOT COVERED IN THE GENERAL BUILDING PERMIT, ALL LABOR, TOOLS, EQUIPMENT TRANSPORTATION AND SERVICES REQUIRED FOR COMPLETE INSTALLATIONS.
5. PROVIDE ACCESS TO EQUIPMENT FOR MAINTENANCE AND SERVICE AS REQUIRED BY THE MANUFACTURER'S INSTRUCTIONS AND/OR CODE.
6. COMPLY WITH IRC 2012 BY PROVIDING SEISMIC STRAPS FOR CWST AND HPWH.

JUNCTION BOXES

1. THE NORTH JUNCTION BOX SHALL CONTAIN THE NORTH AND SOUTH ZONE VALVES. IT WILL ALSO CONTAIN THE NORTH SUPPLY AND RETURN MANIFOLDS.
2. THE SOUTH JUNCTION BOX SHALL CONTAIN THE SOUTH SUPPLY AND RETURN MANIFOLDS.

RADIANT PUMP AND PUMP RELAY

1. THE PUMP RELAY RECEIVES A 24 V SIGNAL FROM THE THERMOSTAT WHEN HEATING OR COOLING IS REQUIRED. THE PUMP RELAY THEN SENDS A 24 V SIGNAL IN ORDER TO ACTIVATE THE RADIANT PUMP.

MANIFOLDS

1. THE 2 SUPPLY MANIFOLDS SHALL HAVE 4 VALVED OUTLETS SPACED 2 INCHES O.C. EACH OUTLET CONTROLS FLOW TO AN INDIVIDUAL CIRCUIT. THESE VALVES ARE CONTROLLED MANUALLY.
2. THE 2 RETURN MANIFOLDS SHALL HAVE 4 OUTLETS THAT EACH COLLECT FLOW FROM AN INDIVIDUAL CIRCUIT.

PIPING AND TUBING

1. THE RADIANT TUBING SHALL BE 1/2 INCH HDPE PIPING.
2. THE RADIANT SUPPLY AND RETURN PIPING TO BOTH MANIFOLDS SHALL BE 1/2 INCH HDPE PIPING.

FITTINGS

1. FITTINGS FOR THE RADIANT TUBING SHALL BE TEES PRECEDING THE RADIANT PUMP AND NORTH JUNCTION BOX ZONE VALVES.

VALVES & UNIONS

1. A 2-WAY AUTOMATIC COOLING ZONE VALVE SHALL CONTROL FLOW FROM THE CWST TO THE RADIANT PUMP.
2. A 2-WAY AUTOMATIC HEATING ZONE VALVE SHALL CONTROL FLOW FROM THE HPWH TO THE RADIANT PUMP.
3. A 2-WAY AUTOMATIC ZONE VALVES SHALL CONTROL FLOW FROM THE NORTH AND SOUTH SUPPLY MANIFOLDS, RESPECTIVELY, TO THE NORTH AND SOUTH ZONES.
4. THE ZONE VALVES ARE CONTROLLED BY THE THERMOSTAT BY A 24 V SIGNAL. THE THERMOSTAT DETERMINES WHETHER TO HEAT OR COOL BASED ON DATA COLLECTED FROM 2 SENSORS (KITCHEN AND SOUTHEAST BEDROOM).

MECHANICAL MANIFOLD SCHEDULE

SYSTEM	MAKE / MODEL	MATERIAL	CONFIGURATION	VALVE TYPE	OUTLET DIAMETER (INCHES)	TRUNK LENGTH (INCHES)	INLET DIAMETER (INCHES)	OUTLET LENGTH (INCHES)	MAXIMUM PRESSURE (PSI)	OPERATING TEMPERATURE (F)
SUPPLY MANIFOLD	SIQUX CHIEF 672XGV0490	COPPER	SPUN CLOSED	BALL	0.5	13	0.75	4.5	60	35-140
RETURN MANIFOLD	SIQUX CHIEF 672X0490	COPPER	SPUN COSED	NONE	0.5	10.5	0.75	2.5	60	35-140

MECHANICAL PUMP SCHEDULE

SYSTEM	MAKE / MODEL	MATERIAL	POWER (hp)	MAX PRESSURE (psi)	MAX FLOW (GPM)	MAX HEAD (FT)	ELECTRICAL	TEMP RANGE (F)
RADIANT PUMP	TACO 008-VDTSF6-1	STAINLESS STEEL	1/25	125	15	15	115V, 0.84 A	40-230
NIGHT SKY	WATERWAY TINY MIGHT	THERMOPLASTIC	1/16	62	20	10	115V, 7A	

MECHANICAL VENTILATION FAN SCHEDULE

LOCATION	MAKE / MODEL	CFM	SONES	DUCTING	ELECTRICAL	ADDITIONAL NOTES
BATHROOM	NUTONE 744SFLNT	70	1.5	4" ROUND	120V, 0.7A	34.3W @ 0.1 SP, HUMIDITY SENSOR, 16W LIGHT
CLEANSING ROOM	NUTONE 744SFLNT	70	1.5	4" ROUND	120V, 0.7A	34.3W @ 0.1 SP, HUMIDITY SENSOR, 16W LIGHT
KITCHEN	BROAN 413004			NA	120V, 2.0A	30" WIDTH, 2 SPEED, NON-DUCTED, 2850 RPM MAX, 75W LIGHT, FAN AND LIGHT...

MECHANICAL PIPING AND FILTER SCHEDULE

SYSTEM	PURPOSE	MAKE / MODEL	MATERIAL	NOMINAL SIZE (INCHES)	O.D. (INCHES)	I.D. (INCHES)	MAX PSI
NIGHTSKY	SUPPLY	Charlotte	SCHEDULE 40 PVC	1/2"	0.840	0.109	300
NIGHTSKY	RETURN	Charlotte	SCHEDULE 40 PVC	2"	2.375	.154	220
RADIANT FLOOR	SUPPLY/ RETURN	CENTENNIAL HDPE 3408/3606	HDPE	1/2	0.742	0.622	100/125

NIGHT SKY SPRINKLER SCHEDULE

MODEL	QUANTITY	SPRAY DISTANCE (FT)	RADIUS (DEGREES)	MAXIMUM PSI	FLOW RATE (GPM)
TORO 8Q	7	8	90	10	0.59
TORO 8H	5	8	180	10	0.59
TORO 8TQ	2	8	270	10	0.59

MECHANICAL WATER TANK SCHEDULE

NAME	ABBREV.	MAKE/MODEL	VOLUME (GAL)	HEIGHT (INCHES)	DIAMETER (INCHES)	EMPTY WEIGHT (LBS.)
CHILLED WATER STORAGE TANK	CWST	PLASTIC-MART SII-WG48R	1300	82	72	200
HEAT PUMP WATER HEATER	HPWH	RHEEM ECOSENSE HB50ES	50	63	22	196

MECHANICAL INDEX OF DRAWINGS

Sheet Number	Sheet Name
M-001	MECHANICAL SYMBOLS AND SCHEDULE
M-101	RADIANT FLOOR PLAN
M-102	NIGHT SKY ROOFTOP
M-501	NIGHTSKY DETAILS
M-502	MECHANICAL SYSTEM DETAIL
M-601	HVAC DIAGRAM
M-602	MECHANICAL WIRING DIAGRAMS

MECHANICAL ABBREVIATIONS

ABBREVIATIONS	TERM
CWST	CHILLED WATER STORAGE TANK
HPWH	HEAT PUMP WATER HEATER
RF	RADIANT FLOORING
RSP	ROOFTOP SPRINKLERS



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

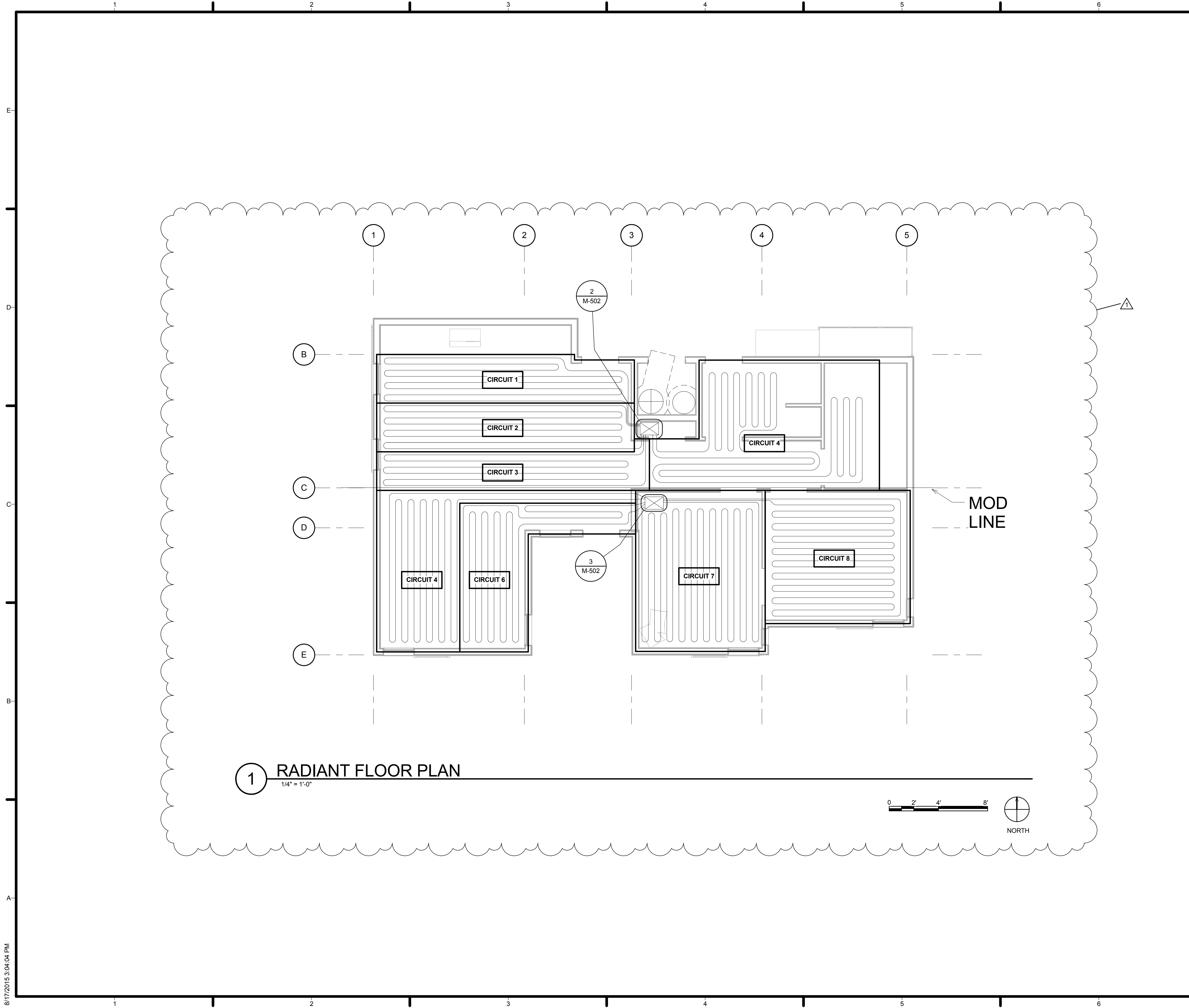


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
MECHANICAL SYMBOLS AND SCHEDULE

M-001



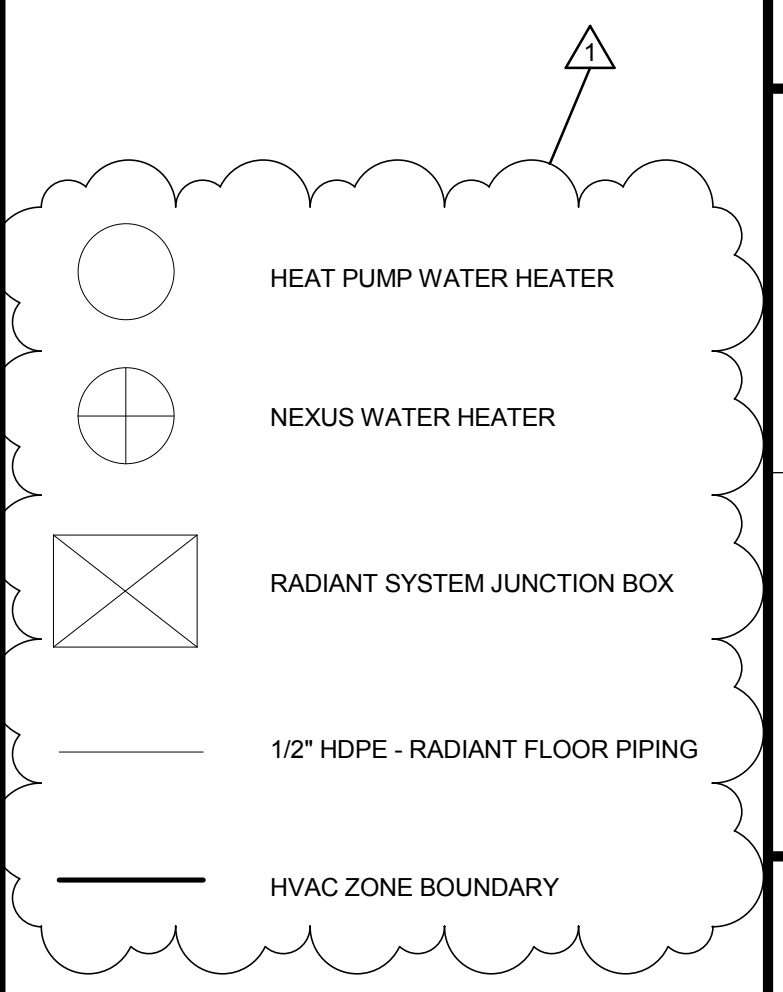
1 RADIANT FLOOR PLAN
1/4" = 1'-0"

GENERAL SHEET NOTES

- THE RADIANT FLOOR SYSTEM IS DESIGNED TO ACCOMMODATE THE SEAM THAT SEPARATES THE TWO BUILDING MODS WITH A JUNCTION BOX FOR EACH SIDE.
- WATER FROM THE MAIN DISTRIBUTION MANIFOLD SUPPLIES THE HVAC PIPING CIRCUITS VIA EACH JUNCTION BOX.
- THE CURRENT PIPING LAYOUT WAS CHOSEN FOR EFFICIENT INSTALLATION AND DISTRIBUTION PURPOSES.
- NO PIPING IS ROUTED BENEATH CABINETS, SINKS AND OTHER APPLIANCES/FIXTURES, AS WELL AS NO PIPING IN CLEANSING AND MECHANICAL ROOMS
- RADIANT SYSTEM HEATING SUPPLIED THROUGH HEAT PUMP WATER HEATER
- WATER HEATERS TO STRAPPED TO WALLS PER EARTHQUAKE CODES
- NO PIPING IN CLOSETS OR THE KITCHEN PANTRY (*EXCEPT WHERE JUNCTION BOXES ARE LOCATED)
- PIPES NEED TO BE 4" FROM WALLS AND 6" FROM OTHER PIPES (EXCEPT HOME RUNS)
- ALL RADIANT PIPING TO BE 1/2 INCH HDPE

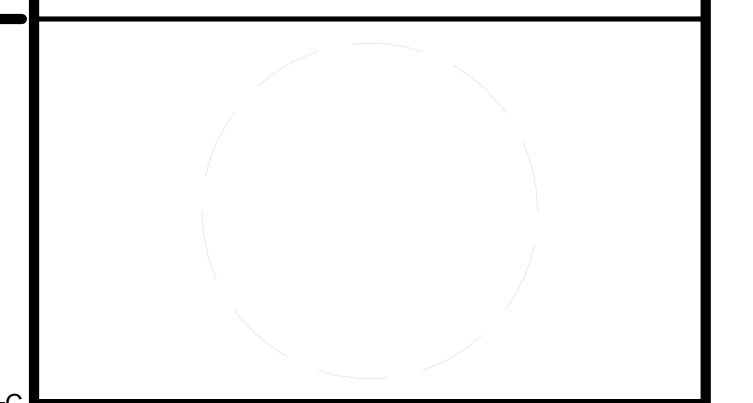
RADIANT CIRCUITS	
CIRCUIT	PIPE LENGTH
1	154' - 0"
2	162' - 0"
3	128' - 0"
4	195' - 0"
5	178' - 0"
6	150' - 0"
7	198' - 0"
8	192' - 0"

LEGEND



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530)-752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

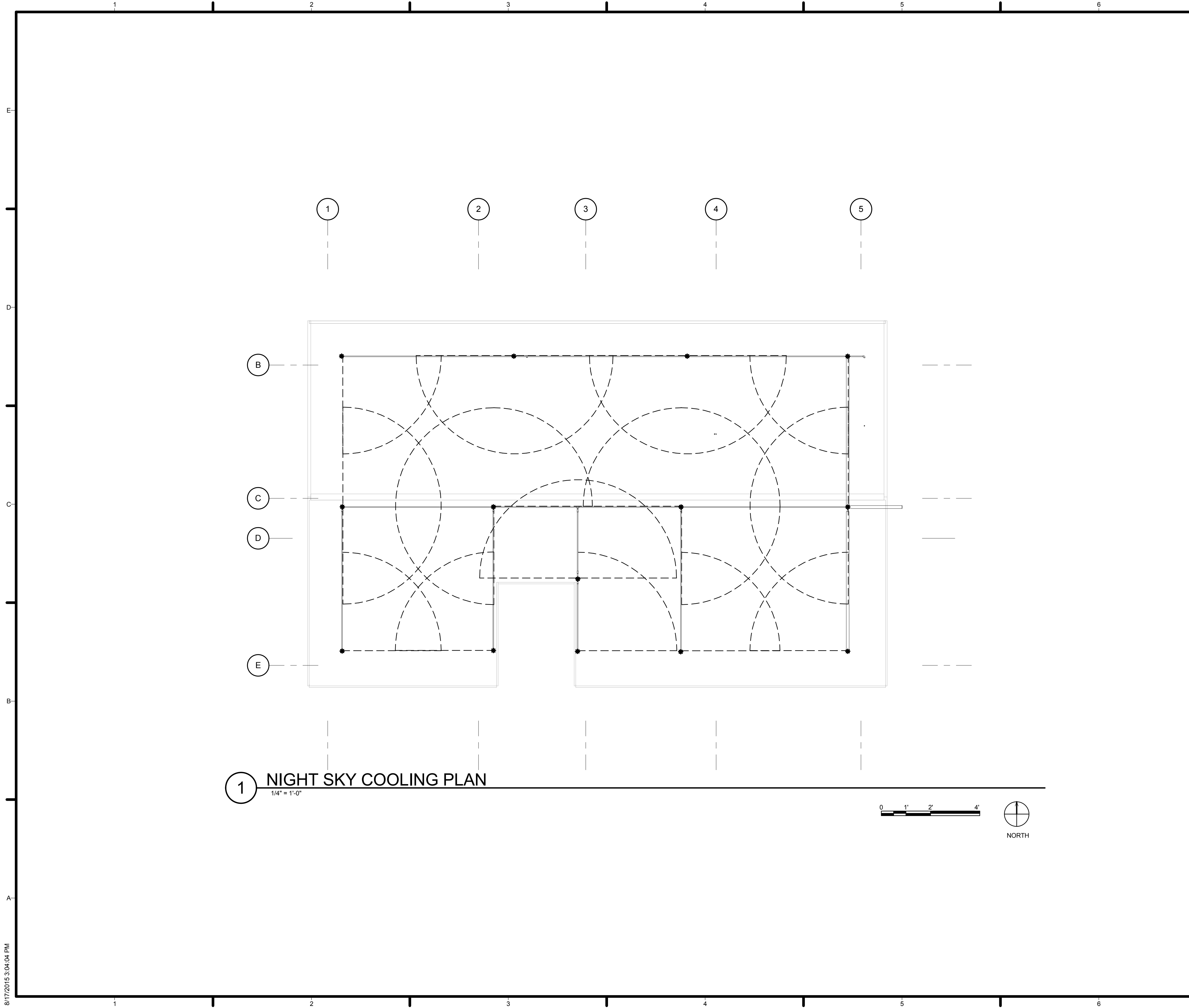


DD	02.12.15	DESIGN DEVELOPMENT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1
MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
RADIANT FLOOR PLAN

M-101



1 NIGHT SKY COOLING PLAN
1/4" = 1'-0"

GENERAL SHEET NOTES
ALL 14 SPRINKLERS HAVE A RADIUS COVERAGE OF 8 FEET:
5 - 180 DEGREE COVERAGE
2 - 120 DEGREE COVERAGE
7 - 90 DEGREE COVERAGE

REFERENCE KEYNOTES
NOT USED AT THIS TIME

SHEET KEYNOTES
NOT USED AT THIS TIME

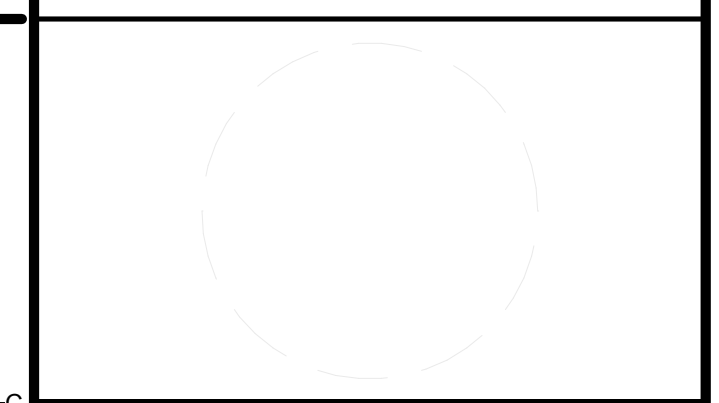
LEGEND

- SPRINKLERS
- PIPELINE
- - - 90 DEGREE SPRINKLER
- - - 180 DEGREE SPRINKLER
- - - 270 DEGREE SPRINKLER



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616
CONTACT: (530)-752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

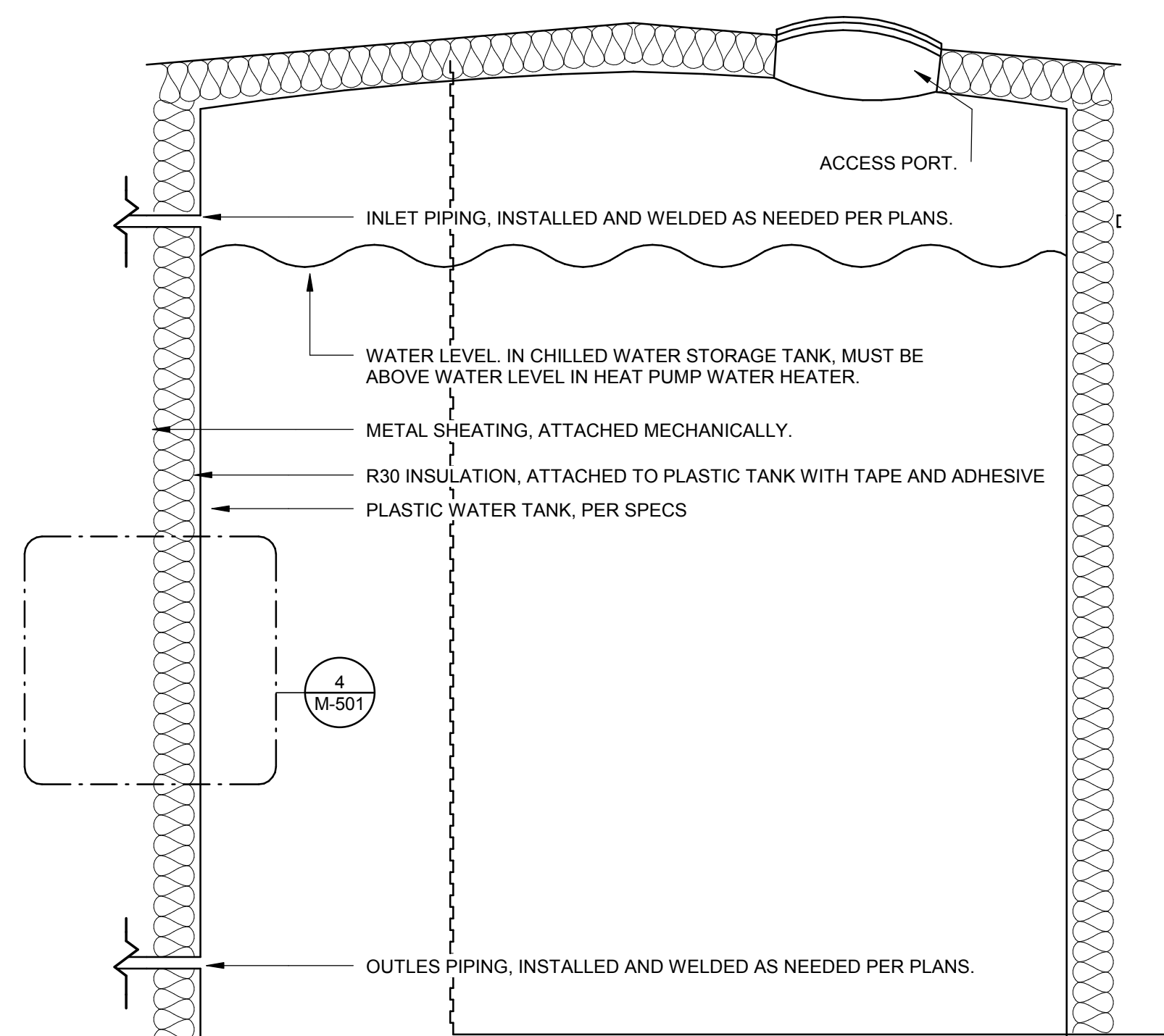


DD	02.12.15	DESIGN DEVELOPMENT

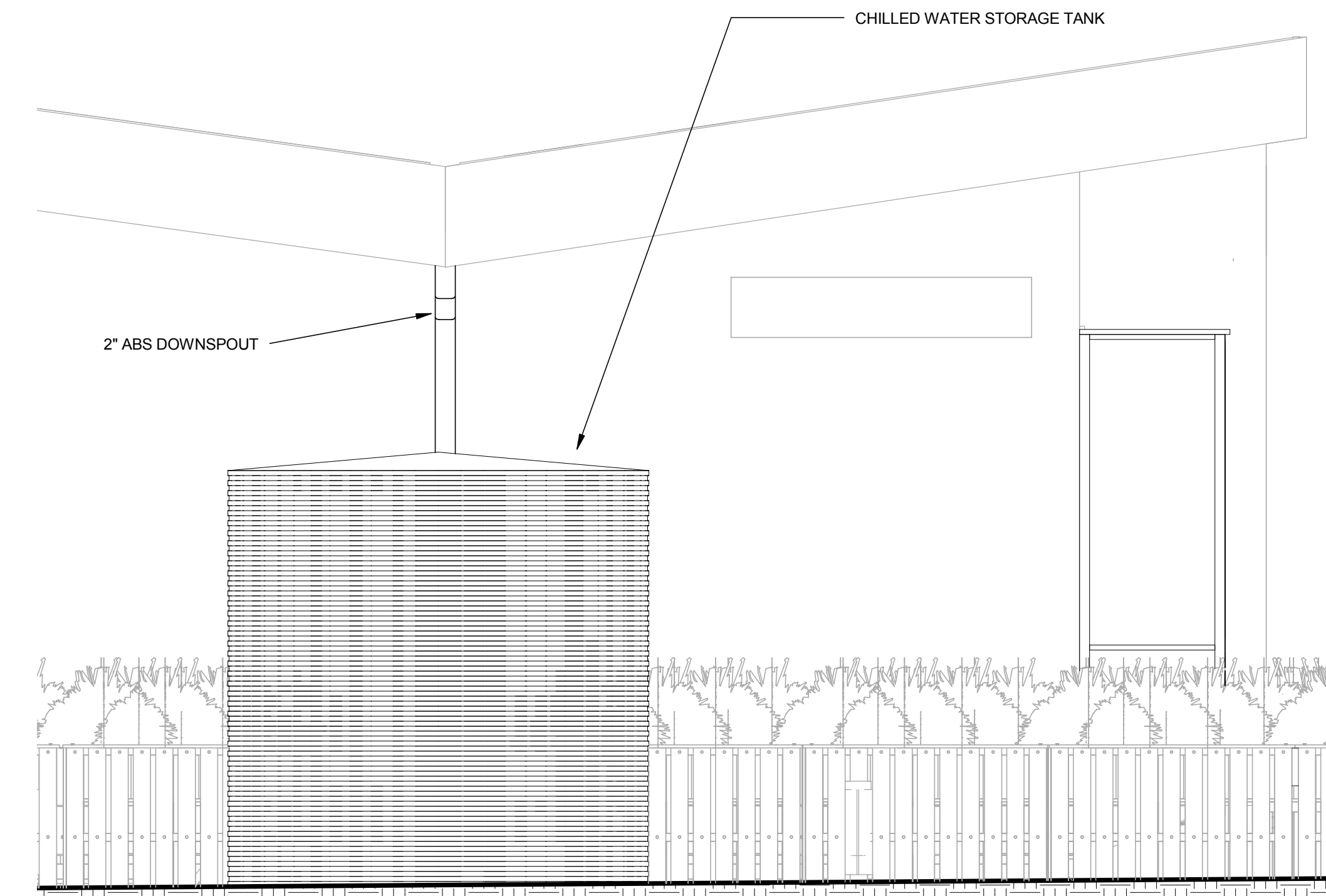
MARK	DATE	DESCRIPTION

SHEET TITLE
NIGHT SKY ROOFTOP

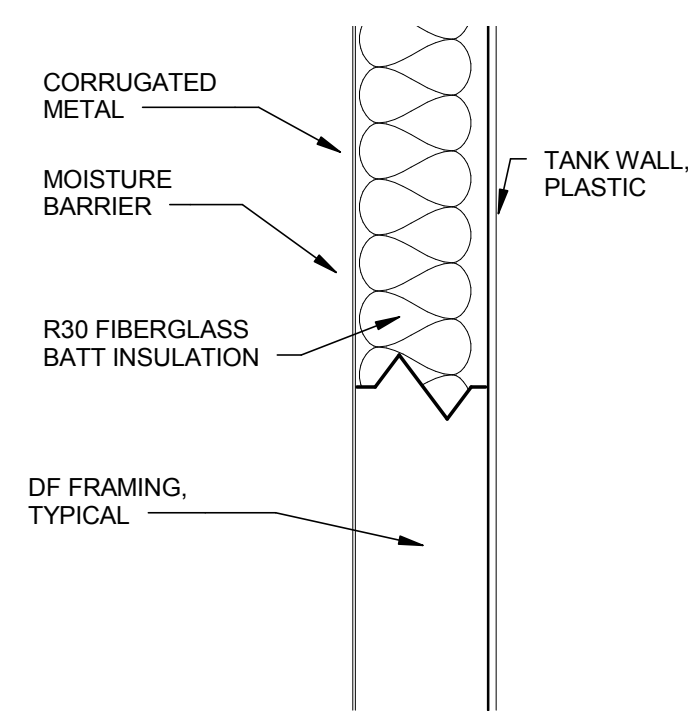
M-102



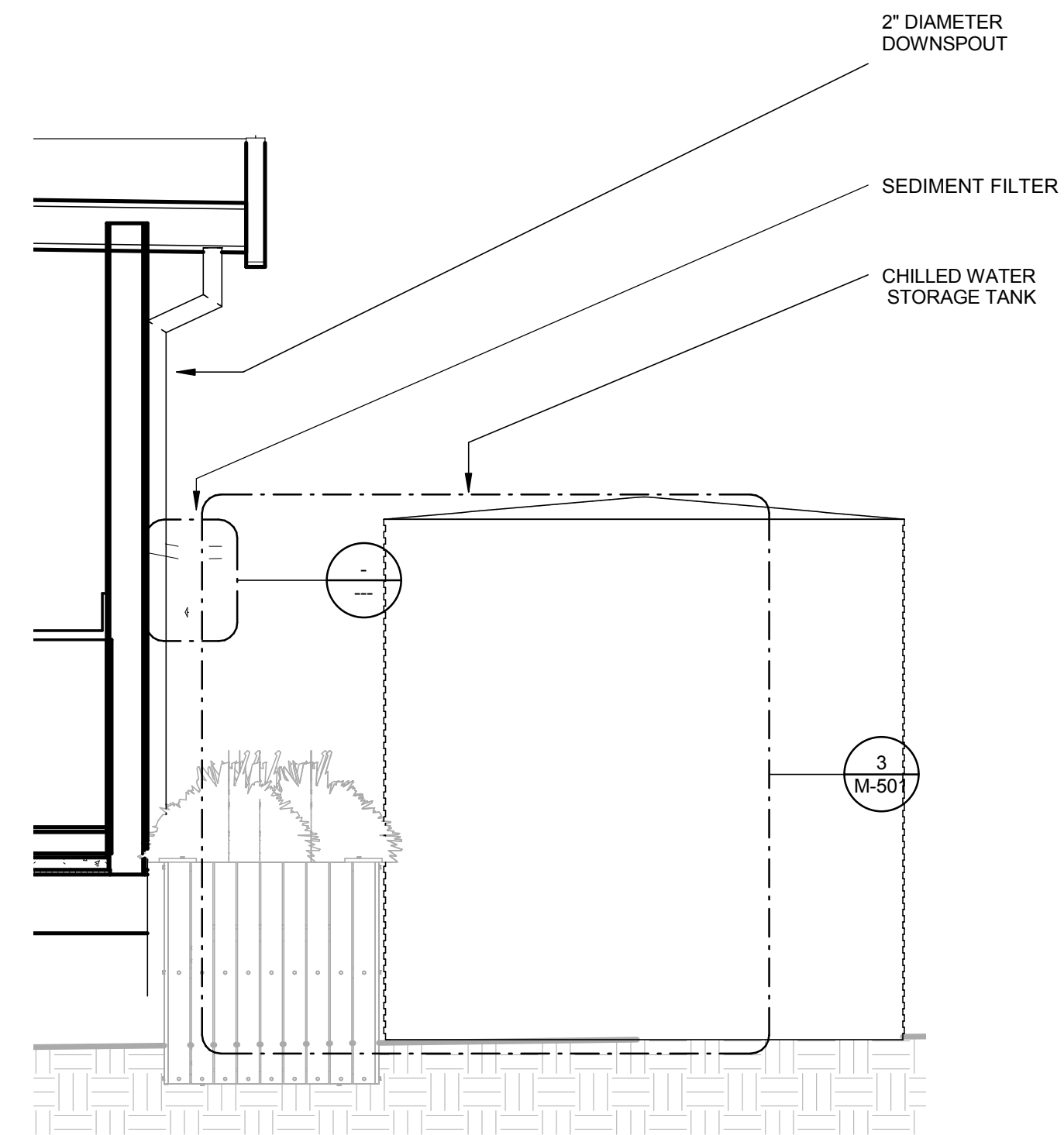
3 TYPICAL THERMAL PROTECTION DETAIL
1" = 1'-0"



1 GUTTER OPTION 1, EAST ELEVATION
1/2" = 1'-0"



4 TANK WALL CONSTRUCTION
NTS



2 GUTTER OPTION 1, SOUTH ELEVATION
1/2" = 1'-0"



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET
DAVIS, CA 95616
CONTACT: (530) 752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS

CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

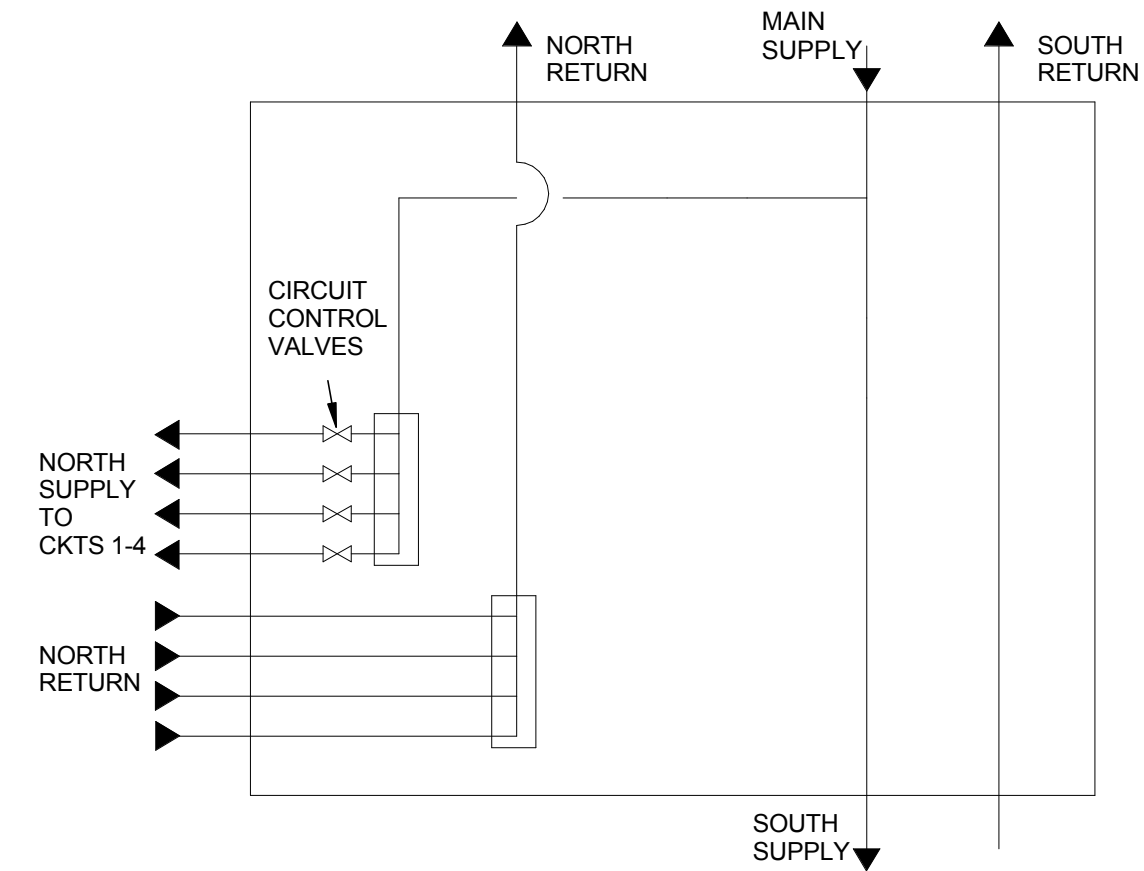


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

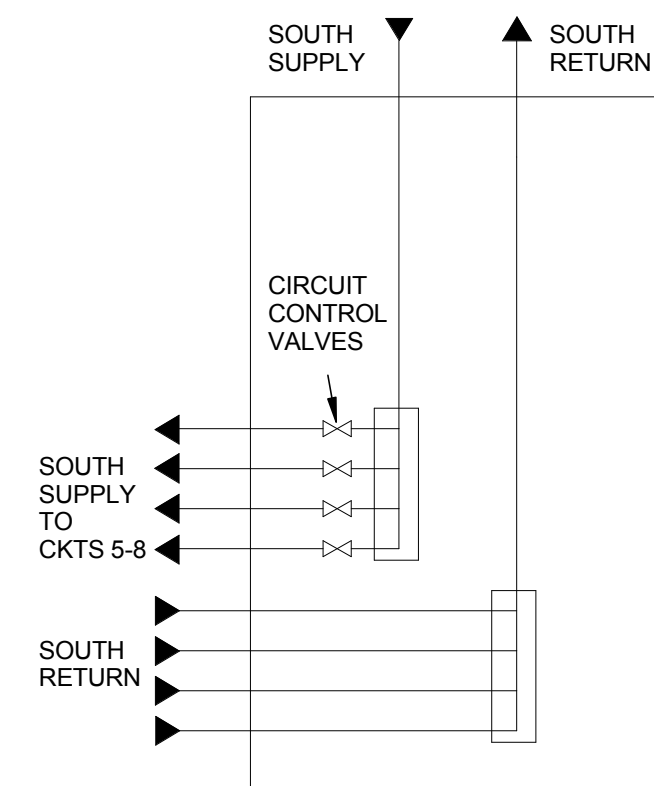
LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
NIGHTSKY DETAILS

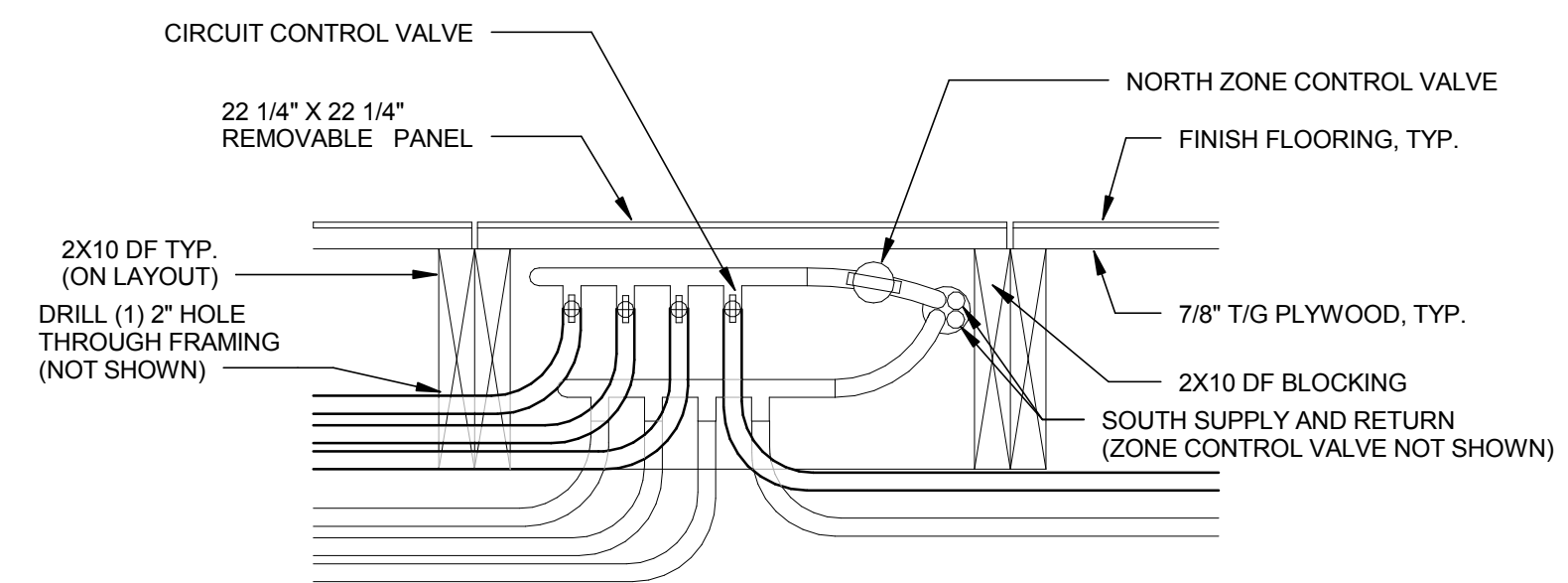
M-501



2 MECH RADIANT NORTH JUNCTION
NTS

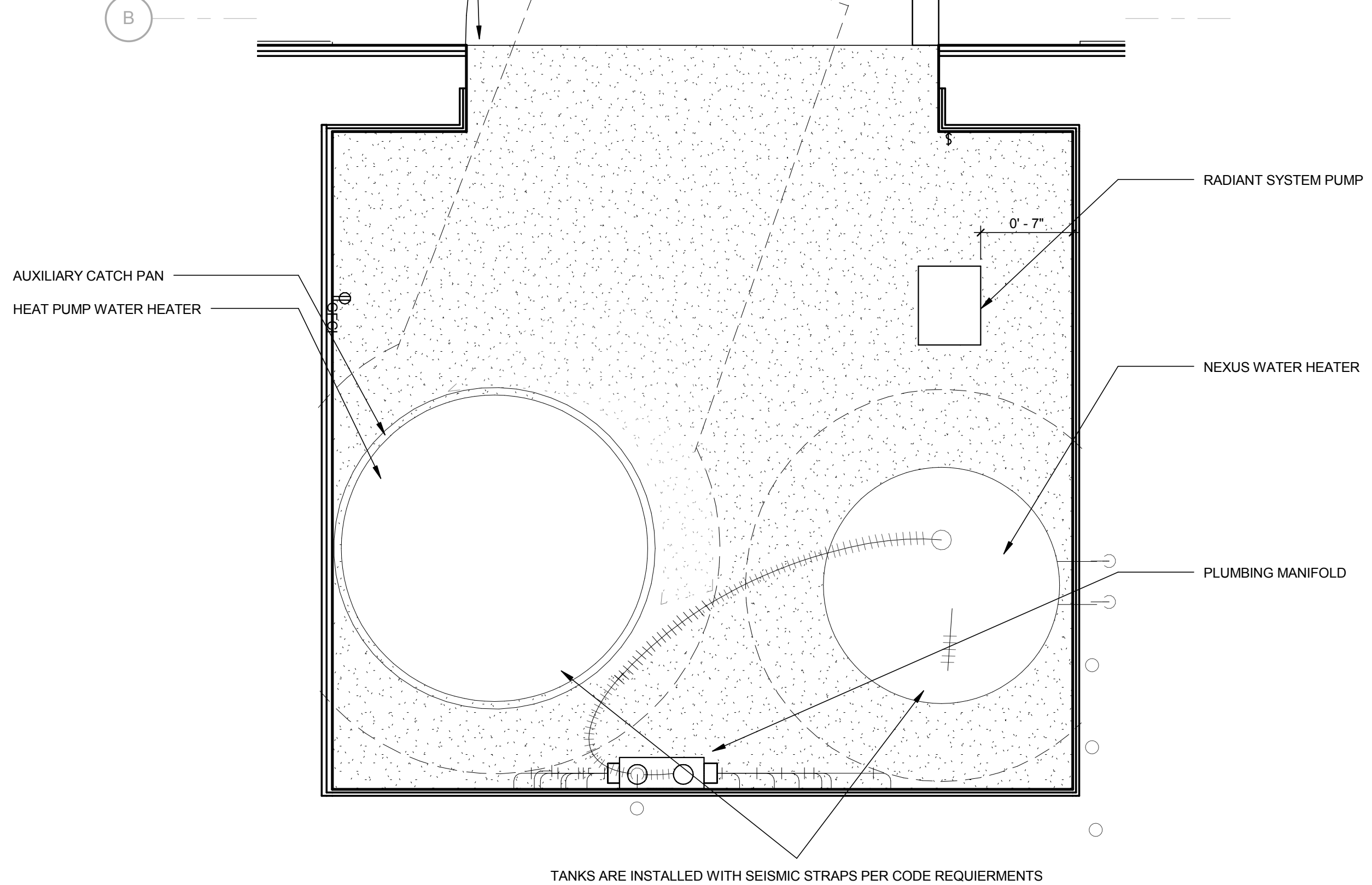


3 MECH SOUTH JUNCTION
NTS

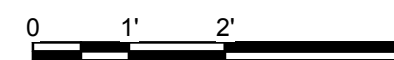


4 MECH JUNCTION BOX SECTION VIEW
1 1/2" = 1'-0"

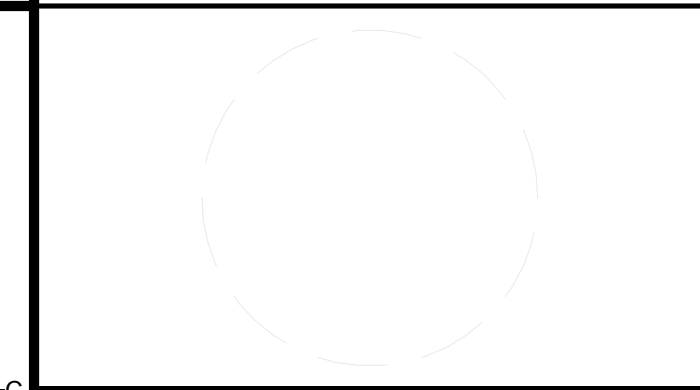
NOTE: EXTERIOR DOOR TO BE LOUVERED WITH UPPER AND LOWER 8"x14" VENTS TO ENSURE PROPER VENTILATION IN MECHANICAL ROOM



1 MECHANICAL ROOM PLAN
1 1/2" = 1'-0"



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530) 752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	



CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
--------	---

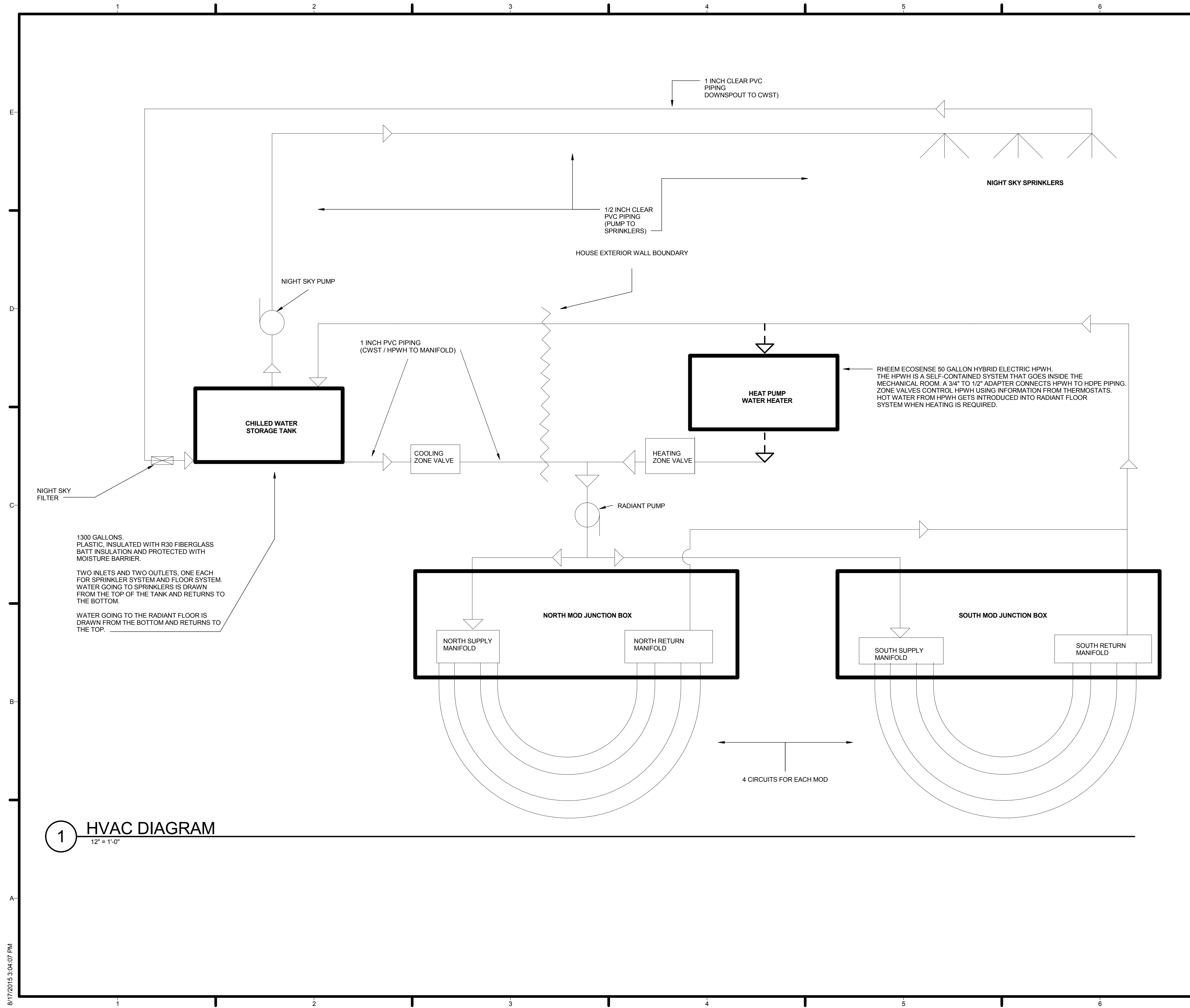


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
**MECHANICAL SYSTEM
DETAIL**

M-502



GENERAL SHEET NOTES

THE HVAC SYSTEM CONSISTS OF TWO INDIVIDUAL SYSTEMS: A NIGHT SKY COOLING SYSTEM AND A RADIANT FLOOR SYSTEM.

THE RADIANT FLOOR SYSTEM CAN HEAT THE HOUSE BY CIRCULATING HOT WATER FROM THE HPWH THROUGH ITS PIPES. IT CAN ALSO COOL THE HOUSE BY CIRCULATING COLD WATER FROM THE CWST. THIS EVENTUALLY WARMS THE WATER, WHICH IS RECOOLED USING THE NIGHT SKY COOLING SYSTEM.

THIS SYSTEM INVOLVES PUMPING WARM WATER TO THE ROOF AND SHOOTING IT INTO THE NIGHT SKY USING 16 SPRINKLERS. THE WATER RADIATES ITS HEAT TO THE UPPER ATMOSPHERE AND IS COLLECTED INTO THE GUTTER, WHICH RETURNS IT VIA A DOWNSPOUT TO THE CWST.



REFERENCE KEYNOTES

NOT USED AT THIS TIME

SHEET KEYNOTES

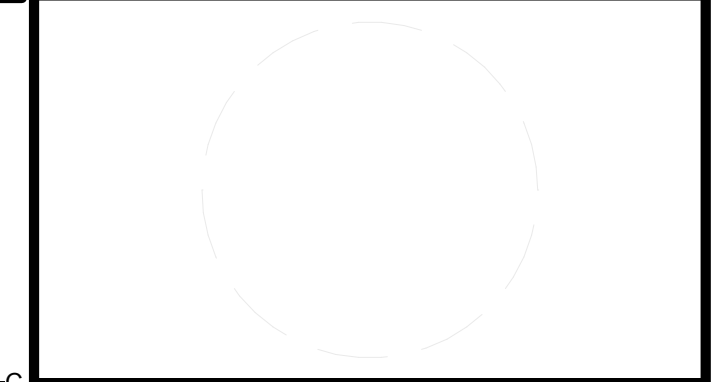
NOT USED AT THIS TIME

LEGEND

- WATER PUMP
- WATER FILTER

TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616
CONTACT: (530)-752-5465
HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

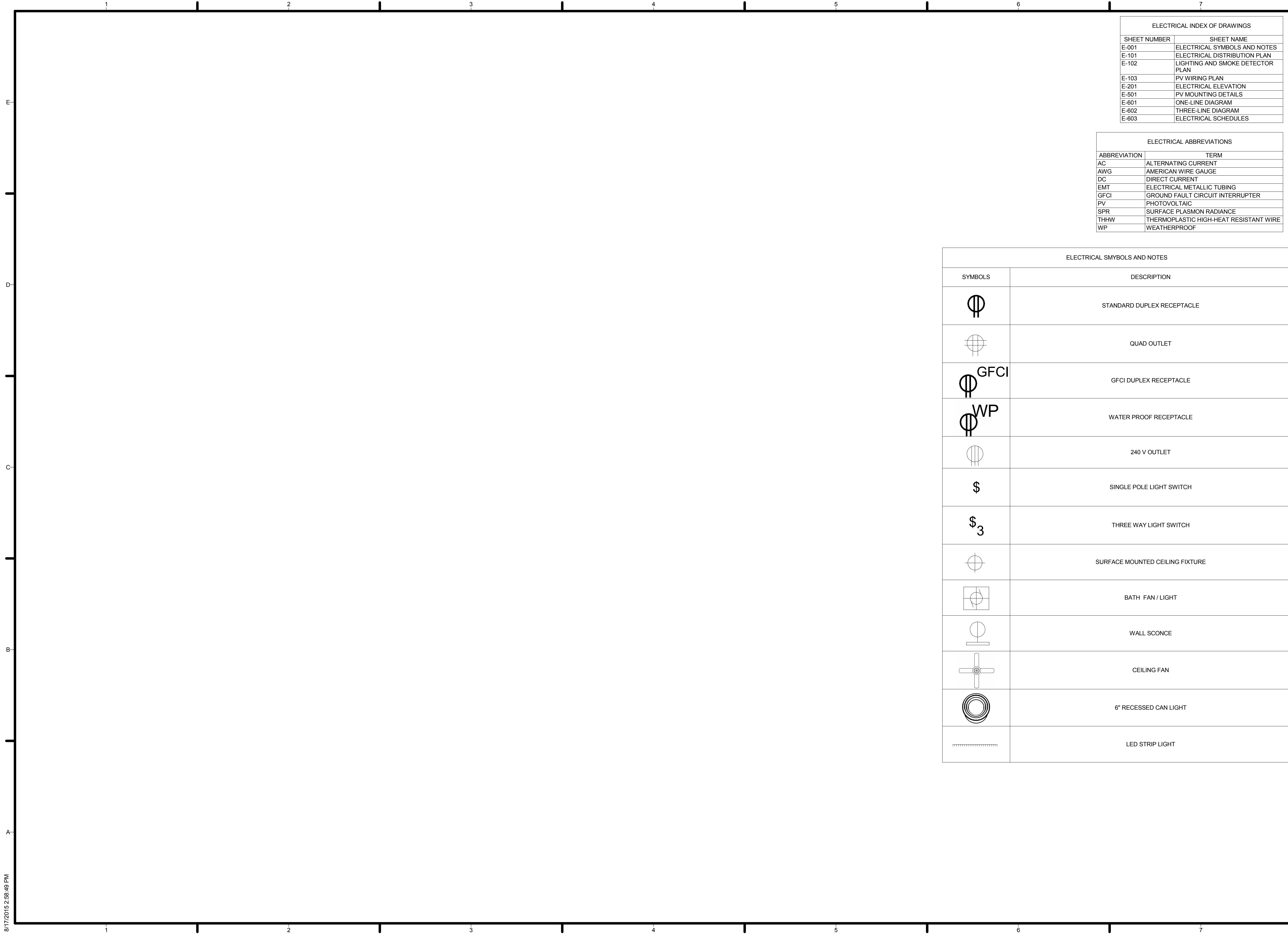


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
HVAC DIAGRAM

M-601



ELECTRICAL INDEX OF DRAWINGS	
SHEET NUMBER	SHEET NAME
E-001	ELECTRICAL SYMBOLS AND NOTES
E-101	ELECTRICAL DISTRIBUTION PLAN
E-102	LIGHTING AND SMOKE DETECTOR PLAN
E-103	PV WIRING PLAN
E-201	ELECTRICAL ELEVATION
E-501	PV MOUNTING DETAILS
E-601	ONE-LINE DIAGRAM
E-602	THREE-LINE DIAGRAM
E-603	ELECTRICAL SCHEDULES

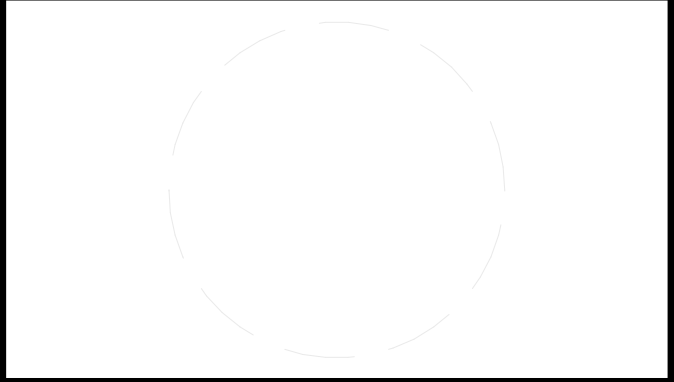
ELECTRICAL ABBREVIATIONS	
ABBREVIATION	TERM
AC	ALTERNATING CURRENT
AWG	AMERICAN WIRE GAUGE
DC	DIRECT CURRENT
EMT	ELECTRICAL METALLIC TUBING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
PV	PHOTOVOLTAIC
SPR	SURFACE PLASMON RADIANCE
THHW	THERMOPLASTIC HIGH-HEAT RESISTANT WIRE
WP	WEATHERPROOF

ELECTRICAL SYMBSOLS AND NOTES	
SYMBOLS	DESCRIPTION
	STANDARD DUPLEX RECEPTACLE
	QUAD OUTLET
	GFCI DUPLEX RECEPTACLE
	WATER PROOF RECEPTACLE
	240 V OUTLET
	SINGLE POLE LIGHT SWITCH
	THREE WAY LIGHT SWITCH
	SURFACE MOUNTED CEILING FIXTURE
	BATH FAN / LIGHT
	WALL SCONCE
	CEILING FAN
	6" RECESSED CAN LIGHT
	LED STRIP LIGHT



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



AB	08.17.15	AS BUILT

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
ELECTRICAL SYMBOLS AND NOTES

E-001



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)
 CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV

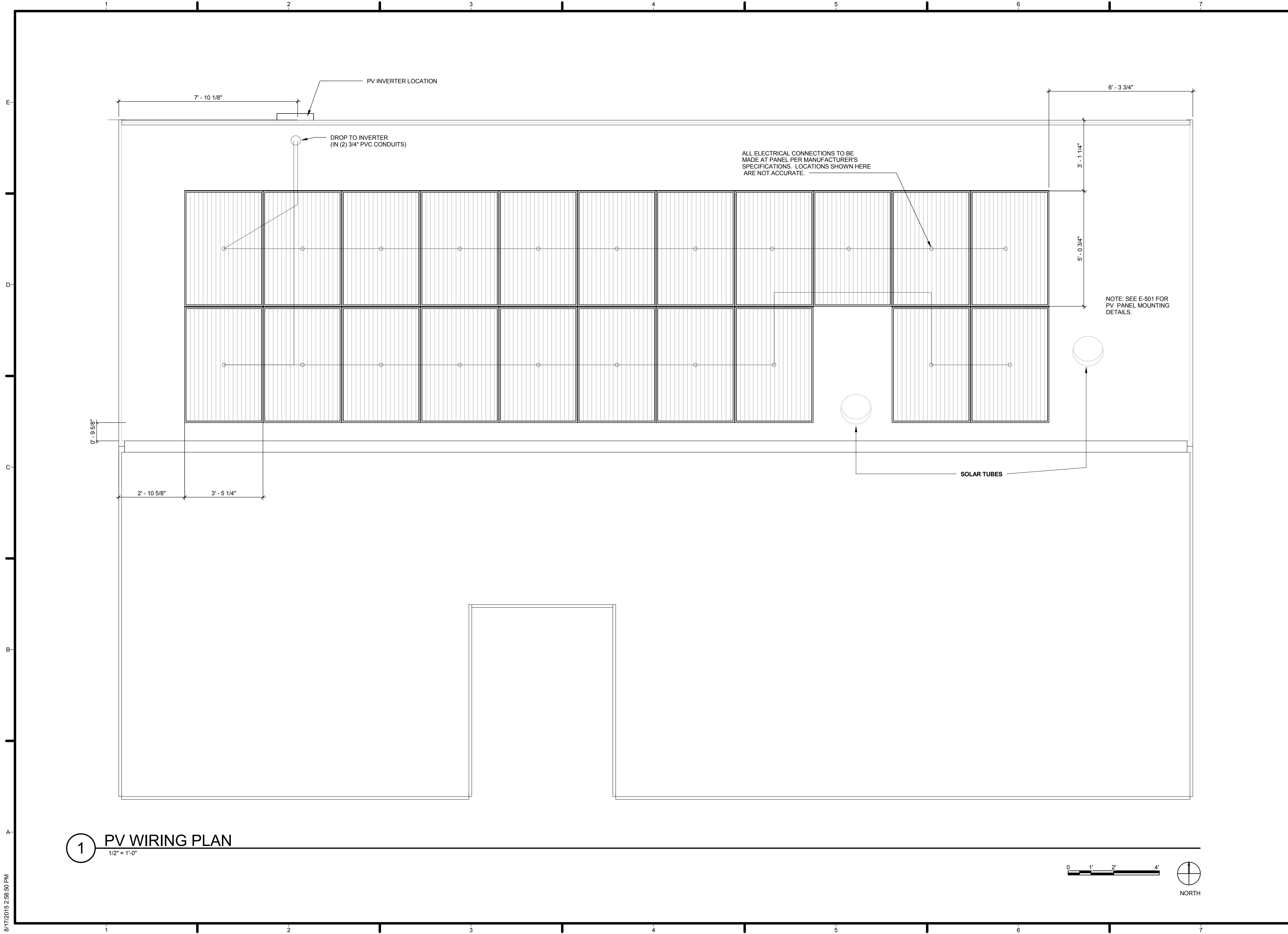


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

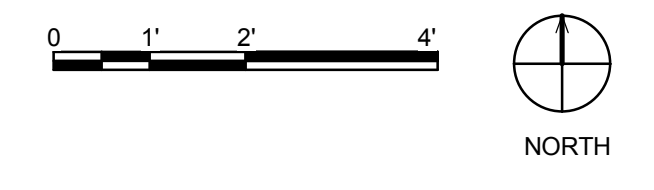
LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT
 PUBLIC DOMAIN

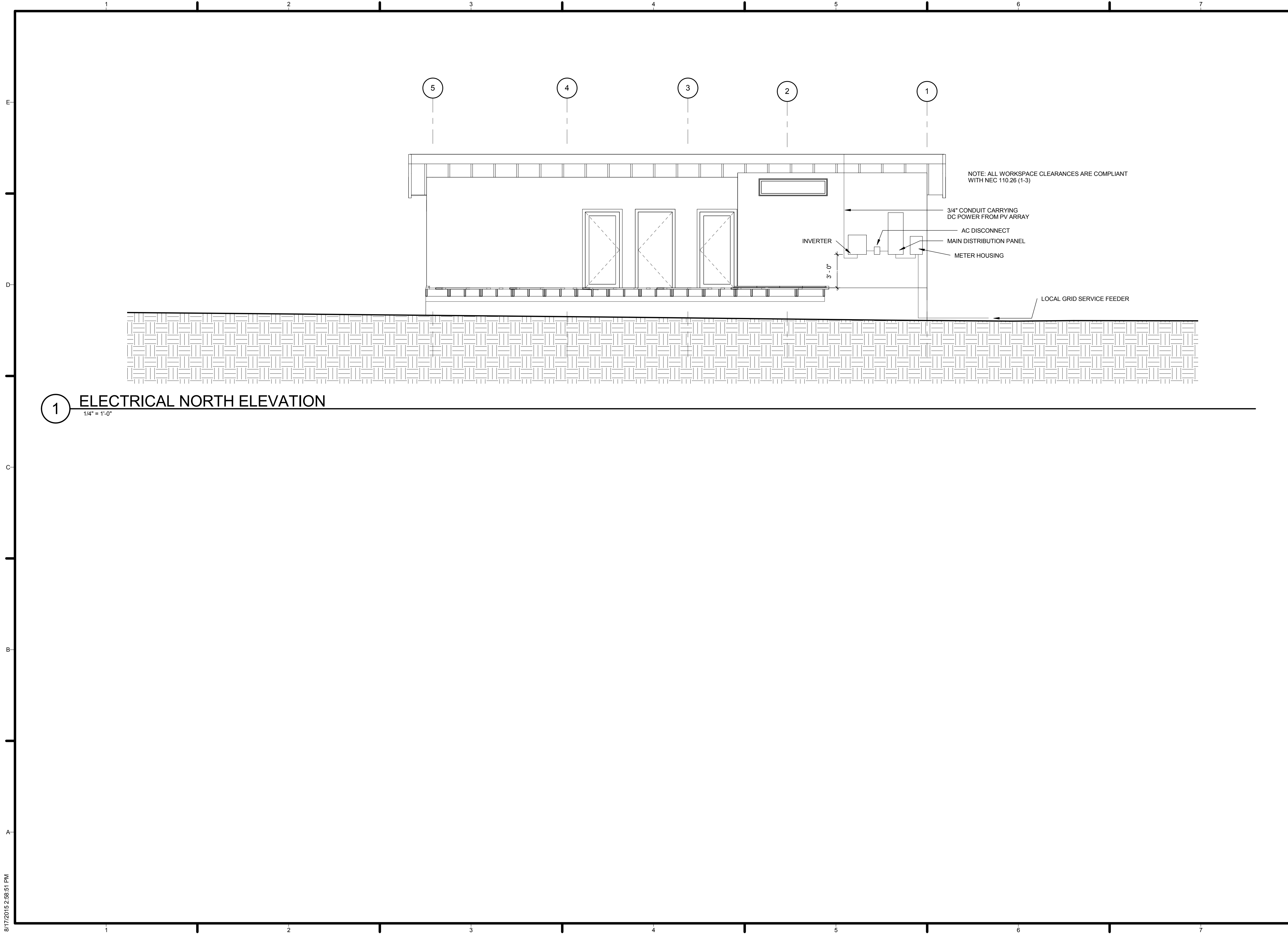
SHEET TITLE
PV WIRING PLAN

E-103



1 PV WIRING PLAN
 1/2" = 1'-0"





NOTE: ALL WORKSPACE CLEARANCES ARE COMPLIANT WITH NEC 110.26 (1-3)

3/4" CONDUIT CARRYING DC POWER FROM PV ARRAY
AC DISCONNECT
MAIN DISTRIBUTION PANEL
METER HOUSING

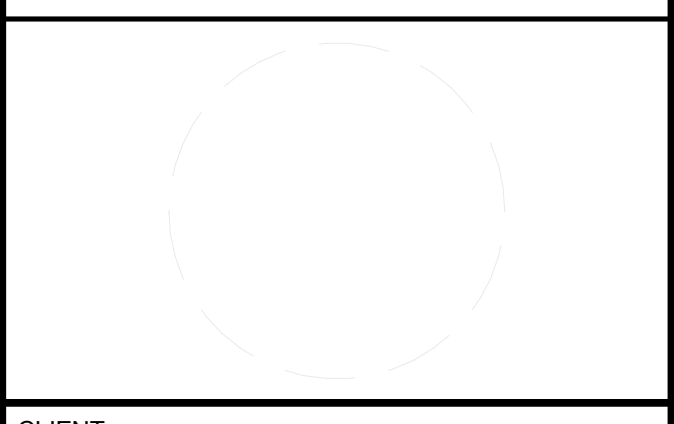
LOCAL GRID SERVICE FEEDER

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



TEAM NAME: AGGIE SOL
ADDRESS: 215 SAGE STREET DAVIS, CA 95616
CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS



CLIENT
U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



AB	08.17.15	AS BUILT

MARK DATE DESCRIPTION

LOT NUMBER: 201
DRAWN BY: AGGIE SOL TEAM
CHECKED BY: ROBERT GOOD
COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
ELECTRICAL ELEVATION

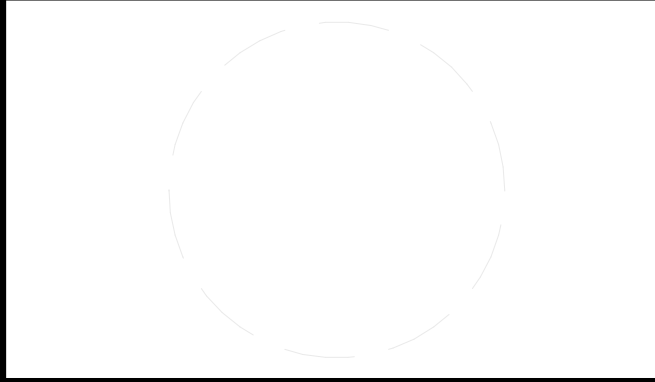
E-201

8/17/2015 2:56:51 PM

GENERAL SHEET NOTES



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
 CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



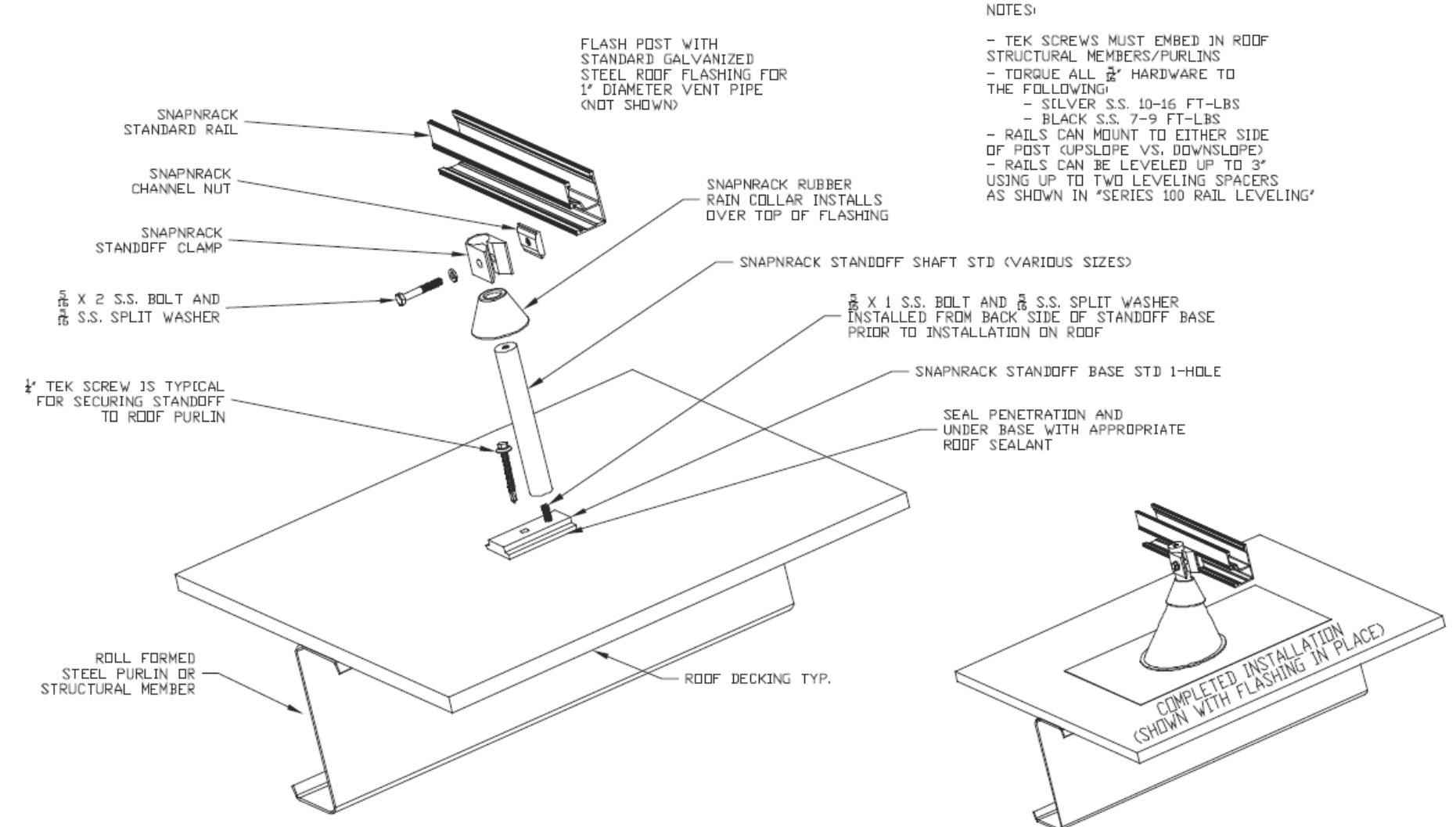
MARK	DATE	DESCRIPTION
CD	2.12.15	CONSTRUCTION DOCS

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: BEN WHITE
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

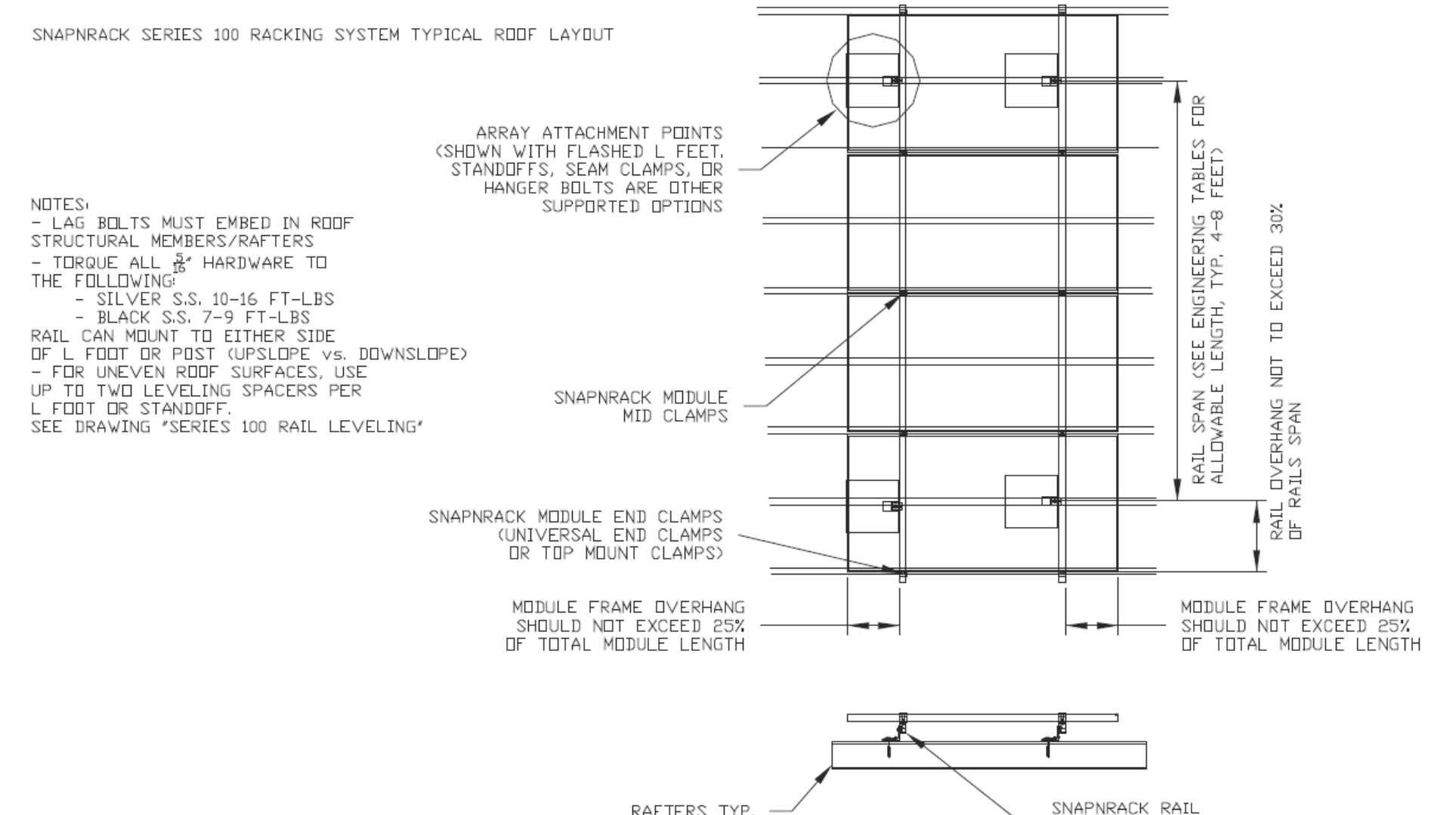
SHEET TITLE
 PV MOUNTING DETAILS

E-501

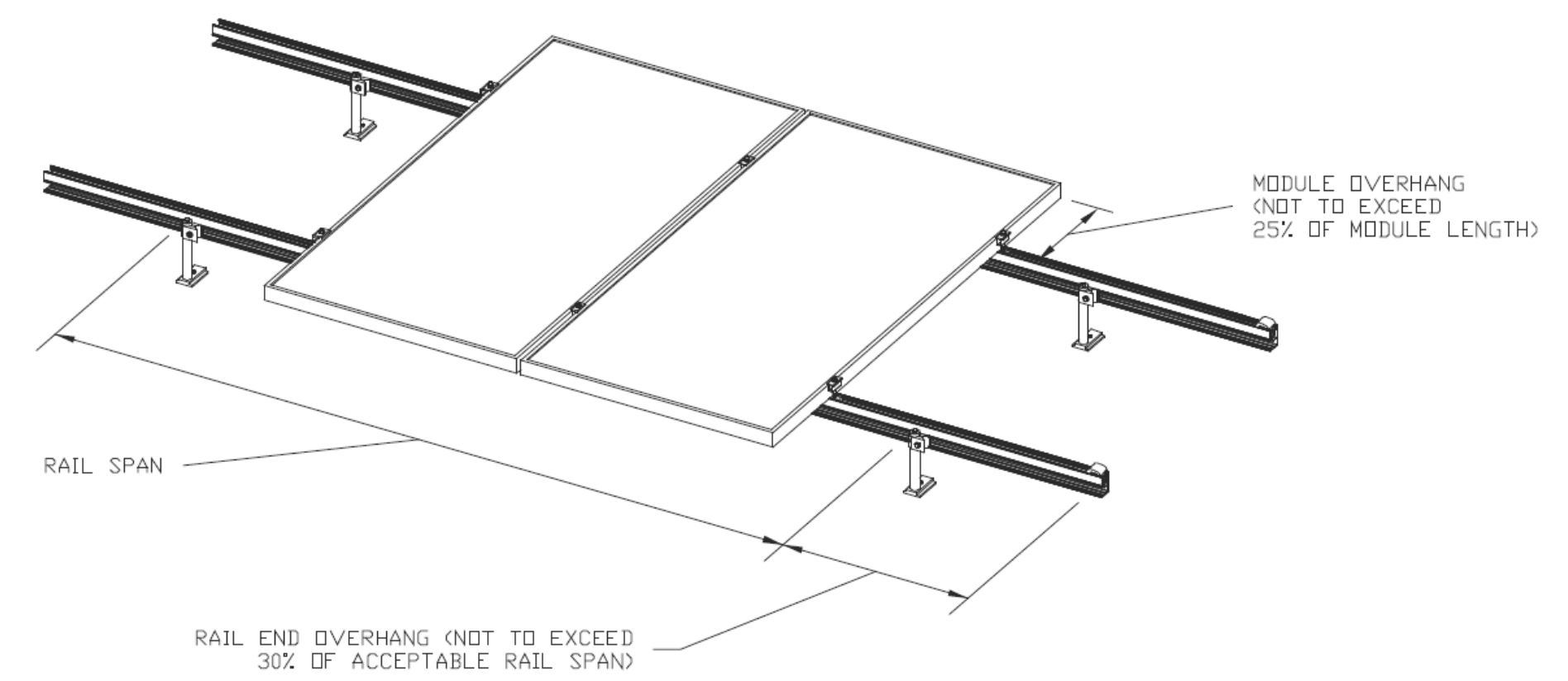
3 PV RACK MOUNTS

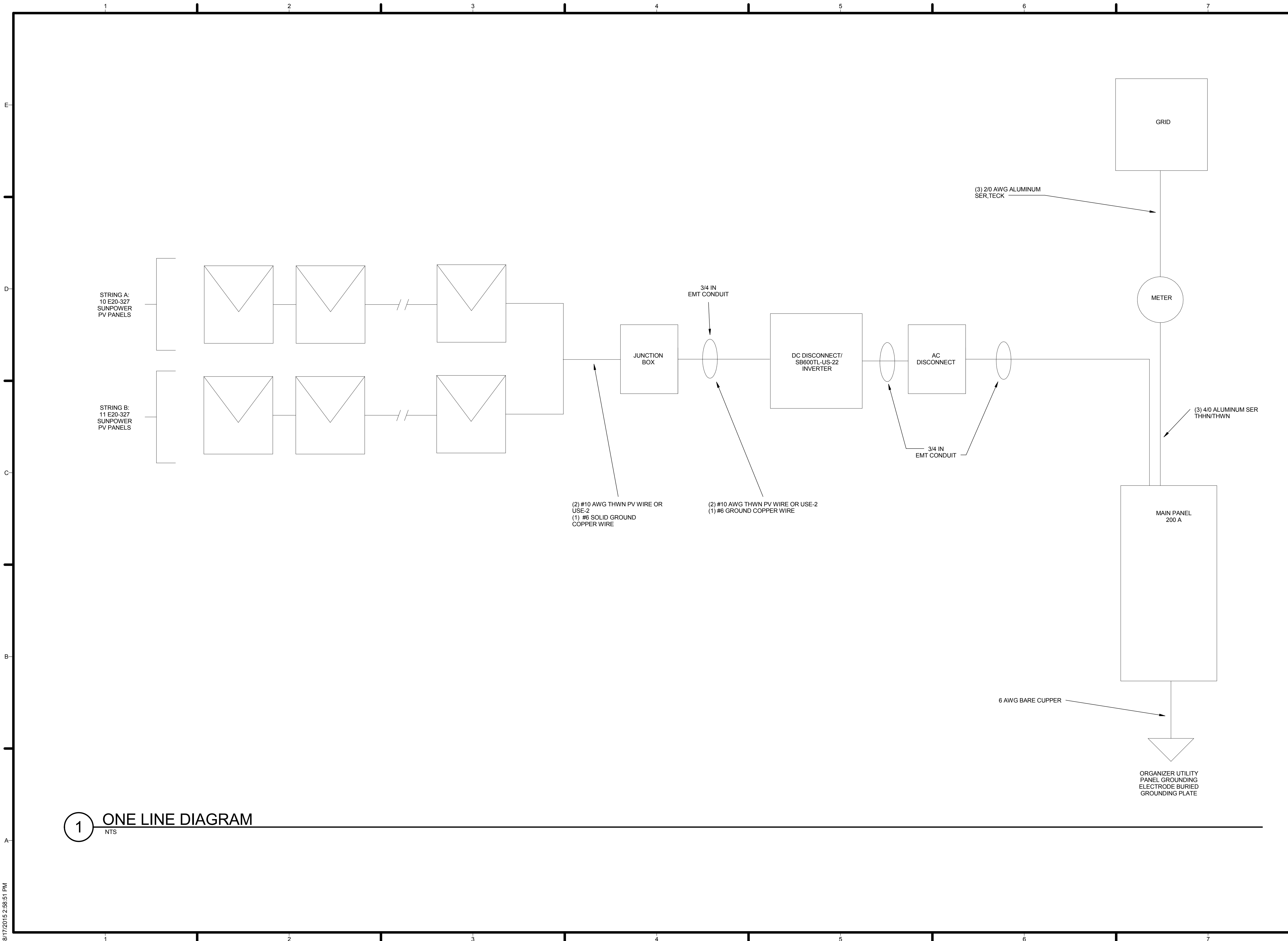


1 PV RACK LAYOUT



2 PV RACK SPACING





1 ONE LINE DIAGRAM
NTS



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT

U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



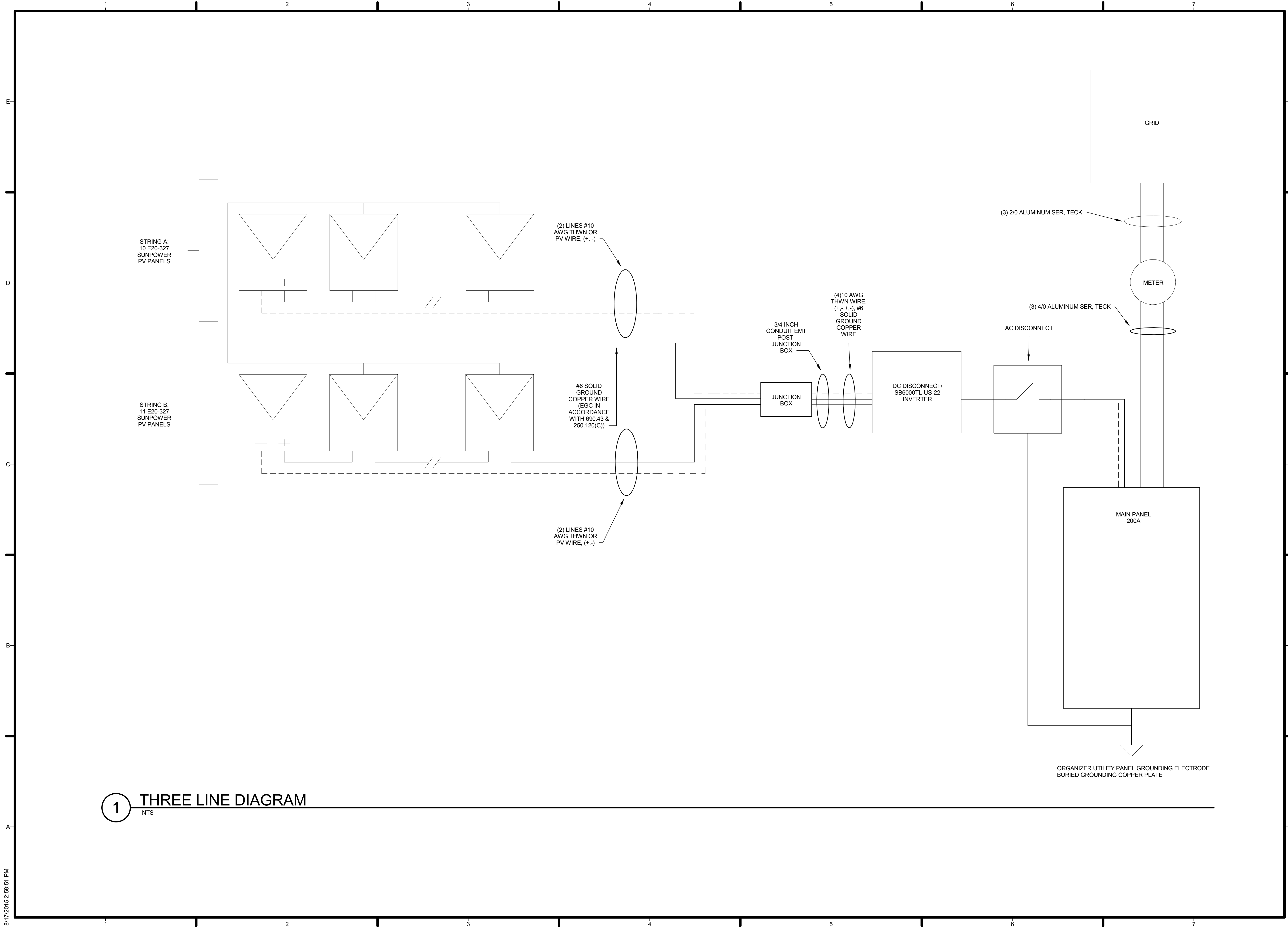
MARK	DATE	DESCRIPTION
	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

ONE-LINE DIAGRAM

E-601

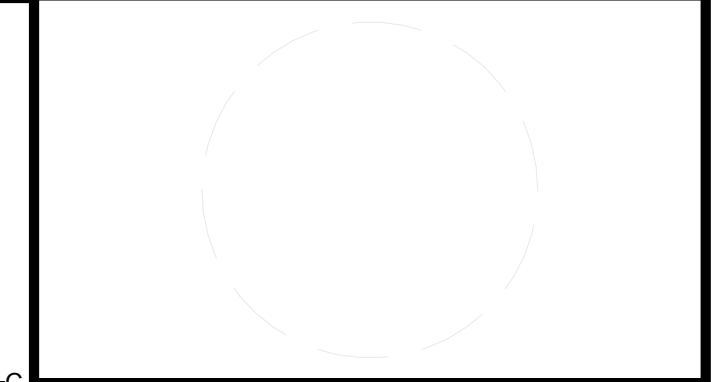


1 THREE LINE DIAGRAM
NTS



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV



MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
THREE-LINE DIAGRAM

E-602

8/17/2015 2:58:51 PM

MAIN PANEL SCHEDULE					
VOLTAGE AND PHASE: 120/240 - SINGLE			PANEL RATING: 225A		
MOUNTING: SURFACE			PANEL A.I.C. RATING: 22,000A		
PANEL TYPE: MCB / BOTTOM FED			MAIN CIRCUIT BREAKER: 150A		
CIRCUIT	BREAKER	DESCRIPTION	DESCRIPTION	BREAKER	CIRCUIT
1	2P40	COOK TOP/OVEN	PV ARRAY	2P30	2
3					4
5	2P20	NEXUS HEAT PUMP WATER HEATER	EV CHARGER	2P40	6
7					8
9	2P30	FIRE PUMP	CLOTHES DRYER	2P30	10
11					12
13	2P30	HEAT PUMP	CLOTHES WASHER	1P20	14
15			REFRIGERATOR	1P15	16
17	1P20	DISHWASHER	MECHANICAL / FOYER RECEPTACLE	1P15	18
19	1P20	BATHROOM OUTLET	BATHROOM RECEPTACLE	1P20 GFCI	20
21	1P20	KITCHEN RECEPTACLE EAST	OUTSIDE RECEPTACLE (NORTH)	1P20	22
23	1P20	KITCHEN RECEPTACLE WEST	BEDROOM 1 OUTLET	1P15 - AFCI	24
25	1P15	LIVINGROOM RECEPTACLE	BEDROOM 2 OUTLET	1P15 - AFCI	26
27	1P20	OUTSIDE RECEPTACLE (SOUTH)	NORTH MOD LIGHTING	1P15	28
29	1P15	SMOKE DETECTORS	SOUTH MOD LIGHTING	1P15	30
31	1P20	RADIANT SYSTEM PUMP	SPARE		32
33	1P20	NIGHT SKY PUMP	SPARE		34
35	1P20	DOMESTIC PUMP	SPARE		36
37		SPARE	SPARE		38
39		SPARE	SPARE		40

ELECTRICAL FIXTURE SCHEDULE		
COUNT	FAMILY AND TYPE	TYPE COMMENTS
1	ELECTRIC CAR	2014 FIAT 500E
1	REFRIGERATOR	FRIGIDAIRE FFHT1513PS
1	ELECTRIC STOVE AND OVEN	FRIDIDAIR LFES3025PF
1	TELEVISION	JVC EM48FTR
1	LAPTOP	TOSHIBA C55-B5201
1	RANGE HOOD	BROAN QSE130S
5	SMOKE DETECTORS	BRK SC9120B
21	SOLAR PANEL	SUNPOWER E20-327
5	INVERTER	SUNNY BOY SB6000TL-US
18	DUPLEX RECEPTACLE: STANDARD	LEVITON - T5820-W
5	DUPLEX RECEPTACLE: GFCI	LEVITON - X7899-W
2	DUPLEX RECEPTACLE: WATERPROOF	LEVITON - WR899-W
1	ELECTRICAL VEHICLE CHARGING STATION	CLIPPERCREEK - LCS - 25
1	MAIN DISTRIBUTION PANEL	SIEMENS PL SERIES - PW4260B1225CU
1	JUNCTION BOX	COOPER B-LINE - NEMA 3R SCREW COVER - GASKETED
14	DUAL FUNCTION AFCI/GFCI BREAKER	SIEMENS - Q115DFH& Q120DFH
14	GFCI BREAKER	SIEMENS - QF115, QF120, QF130, QF230, QF240
1	AC DISCONNECT	GE - TG3221R

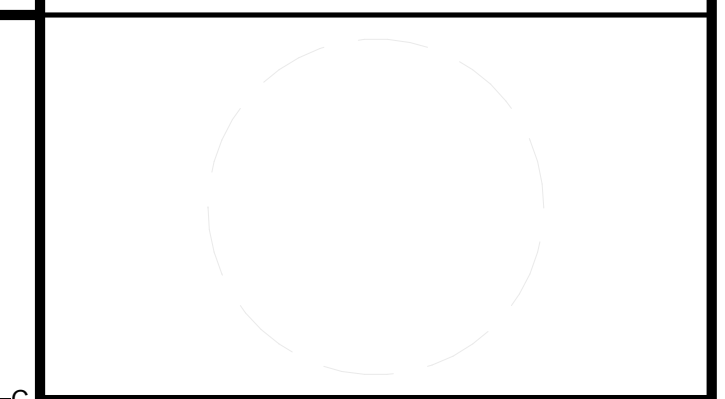
ELECTRICAL LOAD SCHEDULE			
GENERAL LOADS		DEMAND FACTOR	
LIGHTING: 1000 SQ. FT AT 3VA/SQ.FT		100%	3000 VA
TWO 20A SMALL APPLIANCE BRANCH CIRCUITS AT 1500VA EACH		100%	3000 VA
LAUNDRY BRANCH CIRCUIT		100%	1500 VA
	TOTAL		7500 VA
NECTABLE 220.42			
3000VA AT 100% DEMAND FACTOR		100%	3000 VA
4050 VA AT 35% DEMAND FACTOR		35%	1575 VA
	TOTAL		4575 VA
FASTENED, IN PLACE APPLIANCES			
DISHWASHER			1800 VA
ELECTRICAL...			6000 VA
REFRIGERATOR			1800 VA
*IF NUMBER OF APPLIANCES MORE THAN 3 USED DEMAND FACTOR 75%		75%	10800 VA
COOKING APPLIANCES			
	TOTAL		6886 VA
TOTAL DEMAND LOAD OF...			
NAMEPLATE IF GREATER THAN 5000 IF NOT USE 5000 VA			7200 VA
LARGEST MOTOR			4500 VA
	TOTAL	25%	1125 VA
	CALCULATED LOAD FOR THE SERVICE:		146 A
NEUTRAL LOAD CALCULATIONS			
GENERAL LIGHTING AND...	7500 VA	100%	7500 VA
COOKING	9600 VA	70%	6886 VA
FIXED...	14400 VA	75%	10800 VA
DRYER	7200 VA	70%	5040 VA
	TOTAL		30226 VA
	CALCULATED LOAD FOR NEUTRAL		125 A

LIGHTING FIXTURE SCHEDULE			
REFERENCE NUMBER	COUNT	FAMILY AND TYPE	TYPE COMMENTS
1	10	DOWNLIGHT-RECESSED CAN	6" 60W EQ LED-120V
2	1	PENDANT LIGHT - DINING ROOM	100W EQ LED - 120V
3	2	SURFACE-MOUNTED CEILING FIXTURE - BEDROOMS	60W EQ LED - 120V
4	5	EXTERIOR LIGHTING - WALL-MOUNTED	20W LED - 120V
5	10'	LED UNDER CABINET LIGHT - KITCHEN	18W - 12V
6	2	70 CFM NUTONE BATH FAN/LIGHT	75W EQ LED - 120V

PHOTOVOLTAIC SYSTEM SCHEDULE	
SUNPOWER E20-327	
NUMBER OF PANELS INSTALLED	21
NUMBER OF INVERTERS	1
NUMBER OF STRINGS	2
COST PER WATT	\$5.05
TOTAL COST	\$33,316.67
FEDERAL TAX INCENTIVE	\$9,995.00
ADJUSTED COST WITH TAX CREDIT	\$23,321.67
TOTAL AREA (M2)	32.34
ARRAY SIZE (KW)	6.60
ARRAY CURRENT (A)	11.96
ARRAY VOLTAGE (V)	547-600
INVERTER VOLTAGE RANGE	250-600
AC NOMINAL POWER (W)	8177.65
MAX PV POWER INPUT (W)	7500
INVERTER MODEL NUMBER	SPR-6000M



TEAM NAME:	AGGIE SOL
ADDRESS:	215 SAGE STREET DAVIS, CA 95616
CONTACT:	(530) 752-5465 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/
CONSULTANTS	



CLIENT	U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV
--------	---

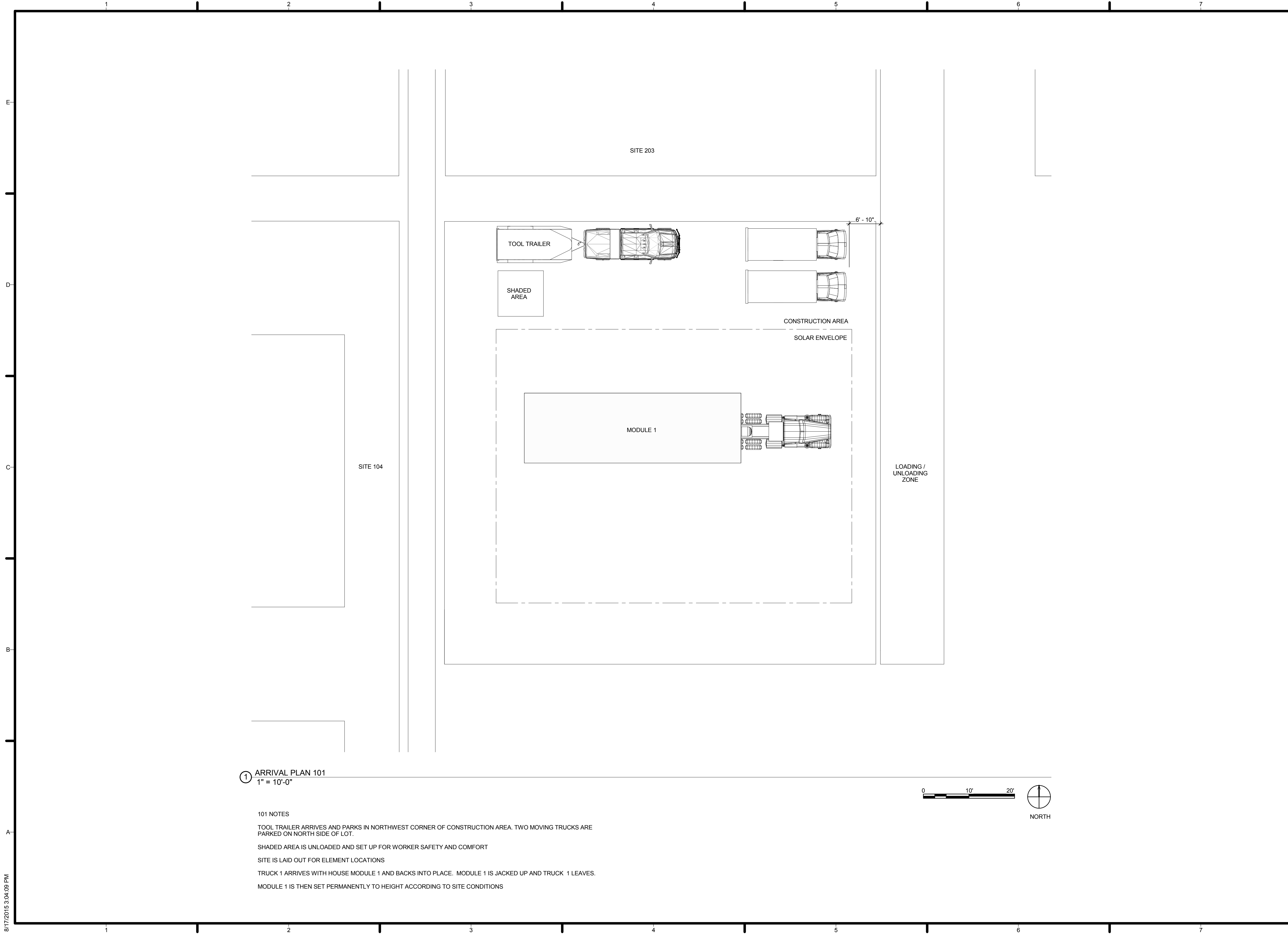


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER:	201
DRAWN BY:	AGGIE SOL TEAM
CHECKED BY:	ROBERT GOOD
COPYRIGHT:	NONE-PROJECT PUBLIC DOMAIN

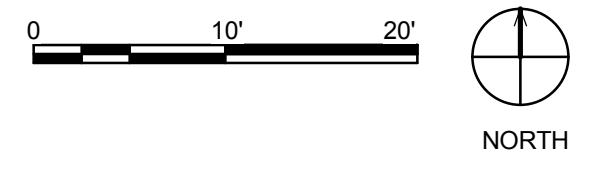
SHEET TITLE
ELECTRICAL SCHEDULES

E-603



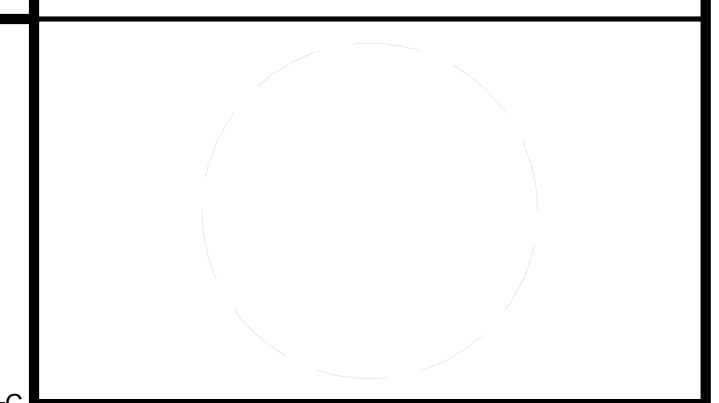
① ARRIVAL PLAN 101
1" = 10'-0"

- 101 NOTES
- TOOL TRAILER ARRIVES AND PARKS IN NORTHWEST CORNER OF CONSTRUCTION AREA. TWO MOVING TRUCKS ARE PARKED ON NORTH SIDE OF LOT.
 - SHADED AREA IS UNLOADED AND SET UP FOR WORKER SAFETY AND COMFORT
 - SITE IS LAID OUT FOR ELEMENT LOCATIONS
 - TRUCK 1 ARRIVES WITH HOUSE MODULE 1 AND BACKS INTO PLACE. MODULE 1 IS JACKED UP AND TRUCK 1 LEAVES.
 - MODULE 1 IS THEN SET PERMANENTLY TO HEIGHT ACCORDING TO SITE CONDITIONS



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://SOLARDECATHLON2015.UCDAVIS.EDU/)

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



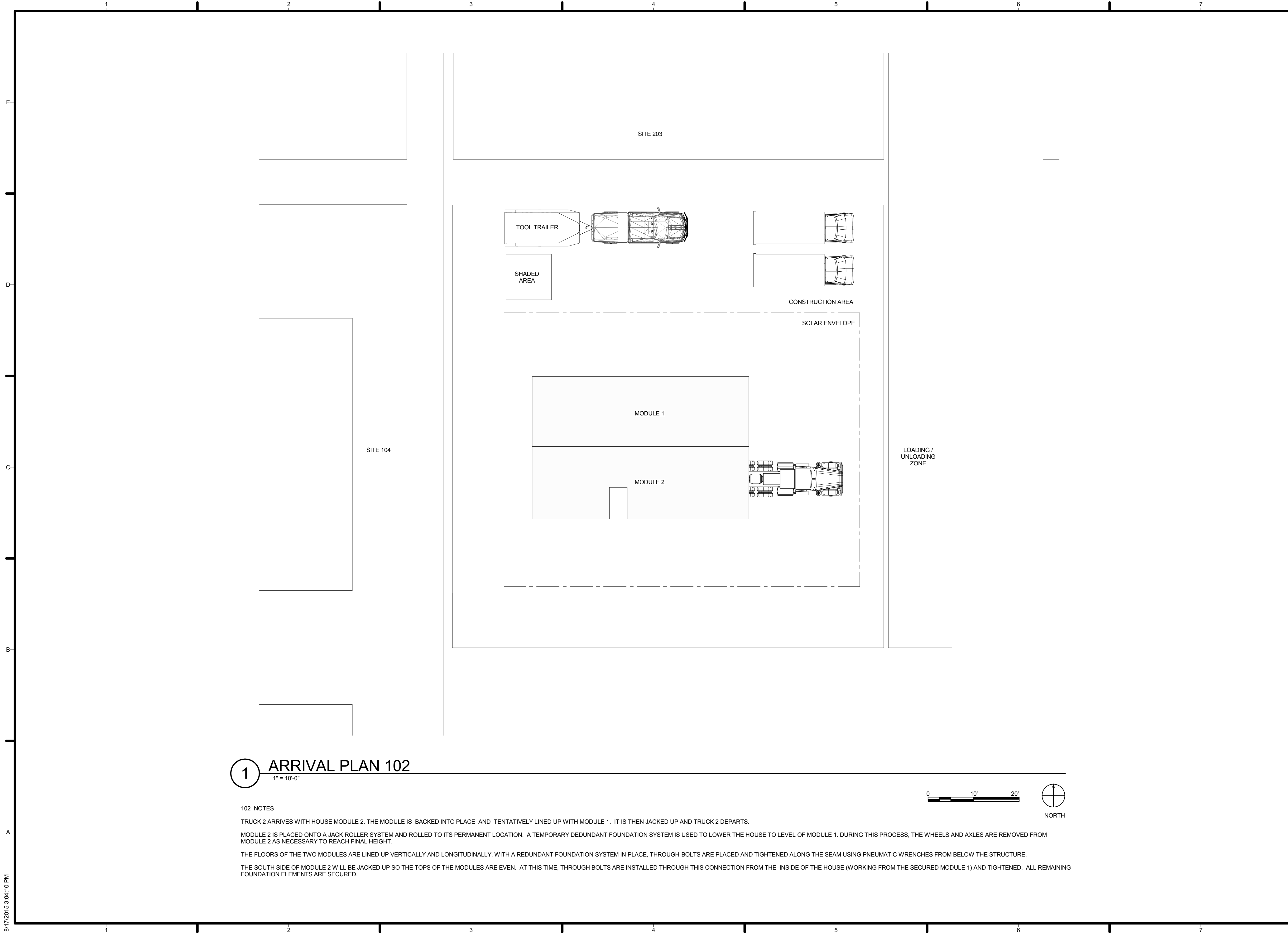
MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT
1	3-26-2015	CONSTRUCTION DOCS REVISION 1

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
ARRIVAL SEQUENCE PLAN 1

O-101

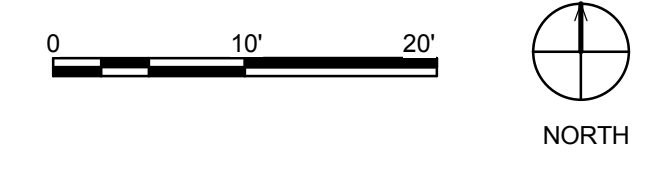
8/17/2015 3:04:09 PM



1 ARRIVAL PLAN 102
 1" = 10'-0"

102 NOTES

- TRUCK 2 ARRIVES WITH HOUSE MODULE 2. THE MODULE IS BACKED INTO PLACE AND TENTATIVELY LINED UP WITH MODULE 1. IT IS THEN JACKED UP AND TRUCK 2 DEPARTS.
- MODULE 2 IS PLACED ONTO A JACK ROLLER SYSTEM AND ROLLED TO ITS PERMANENT LOCATION. A TEMPORARY REDUNDANT FOUNDATION SYSTEM IS USED TO LOWER THE HOUSE TO LEVEL OF MODULE 1. DURING THIS PROCESS, THE WHEELS AND AXLES ARE REMOVED FROM MODULE 2 AS NECESSARY TO REACH FINAL HEIGHT.
- THE FLOORS OF THE TWO MODULES ARE LINED UP VERTICALLY AND LONGITUDINALLY. WITH A REDUNDANT FOUNDATION SYSTEM IN PLACE, THROUGH-BOLTS ARE PLACED AND TIGHTENED ALONG THE SEAM USING PNEUMATIC WRENCHES FROM BELOW THE STRUCTURE.
- THE SOUTH SIDE OF MODULE 2 WILL BE JACKED UP SO THE TOPS OF THE MODULES ARE EVEN. AT THIS TIME, THROUGH BOLTS ARE INSTALLED THROUGH THIS CONNECTION FROM THE INSIDE OF THE HOUSE (WORKING FROM THE SECURED MODULE 1) AND TIGHTENED. ALL REMAINING FOUNDATION ELEMENTS ARE SECURED.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



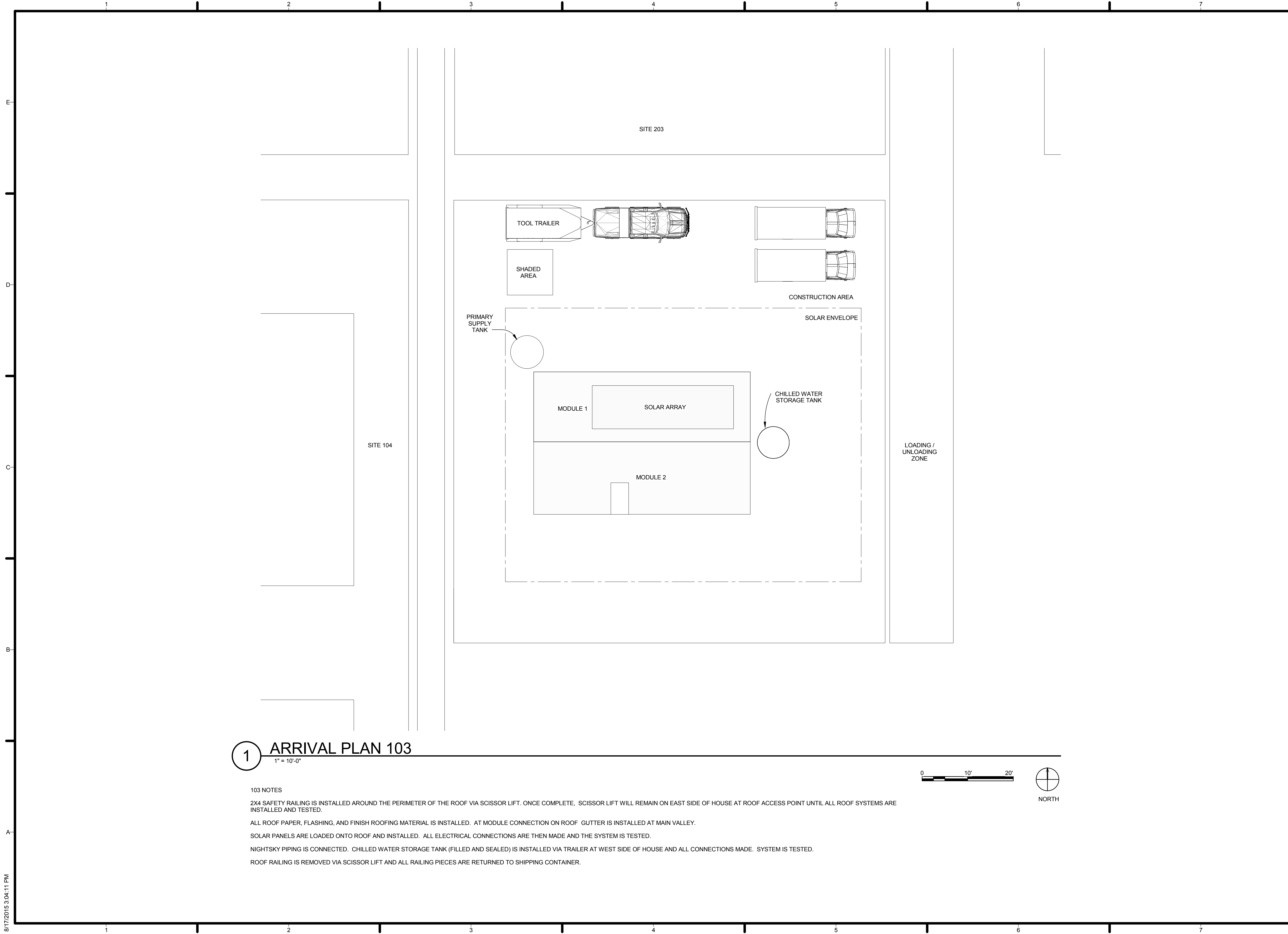
AB	08.17.15	AS BUILT

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

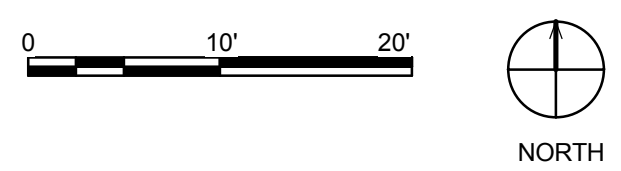
SHEET TITLE
ARRIVAL SEQUENCE PLAN 2

O-102

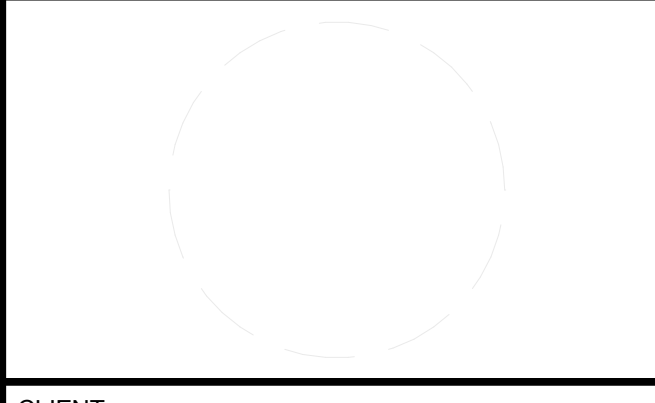


1 ARRIVAL PLAN 103
 1" = 10'-0"

- 103 NOTES
- 2X4 SAFETY RAILING IS INSTALLED AROUND THE PERIMETER OF THE ROOF VIA SCISSOR LIFT. ONCE COMPLETE, SCISSOR LIFT WILL REMAIN ON EAST SIDE OF HOUSE AT ROOF ACCESS POINT UNTIL ALL ROOF SYSTEMS ARE INSTALLED AND TESTED.
 - ALL ROOF PAPER, FLASHING, AND FINISH ROOFING MATERIAL IS INSTALLED. AT MODULE CONNECTION ON ROOF GUTTER IS INSTALLED AT MAIN VALLEY.
 - SOLAR PANELS ARE LOADED ONTO ROOF AND INSTALLED. ALL ELECTRICAL CONNECTIONS ARE THEN MADE AND THE SYSTEM IS TESTED.
 - NIGHTSKY PIPING IS CONNECTED. CHILLED WATER STORAGE TANK (FILLED AND SEALED) IS INSTALLED VIA TRAILER AT WEST SIDE OF HOUSE AND ALL CONNECTIONS MADE. SYSTEM IS TESTED.
 - ROOF RAILING IS REMOVED VIA SCISSOR LIFT AND ALL RAILING PIECES ARE RETURNED TO SHIPPING CONTAINER.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)
 CONSULTANTS



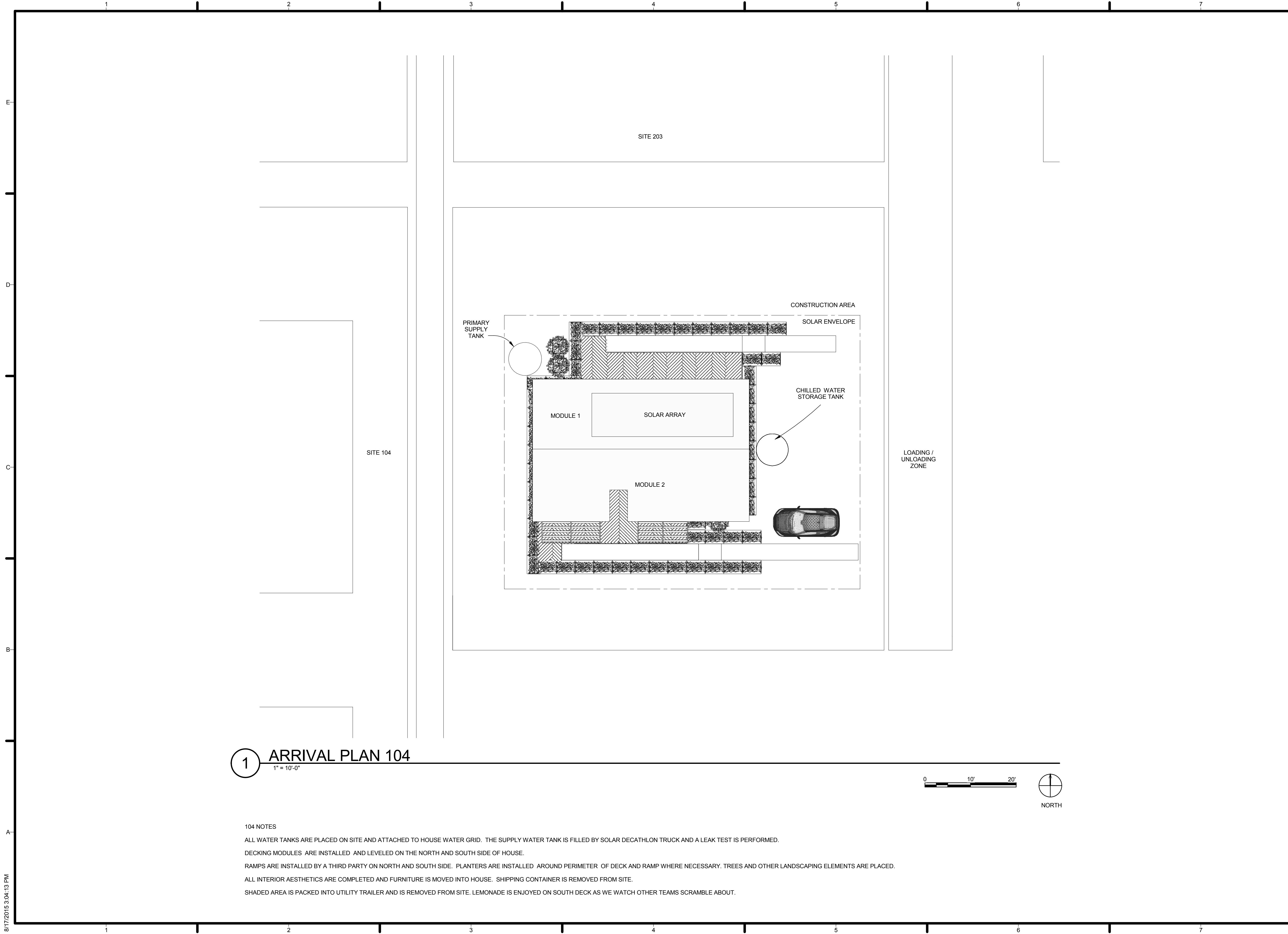
CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON

MARK	DATE	DESCRIPTION
	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

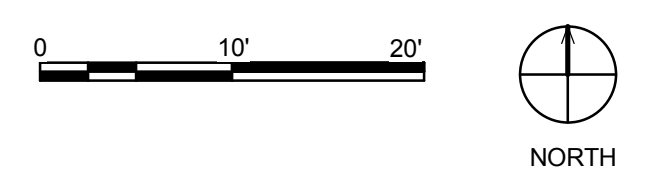
SHEET TITLE
**ARRIVAL SEQUENCE
 PLAN 3**

O-103



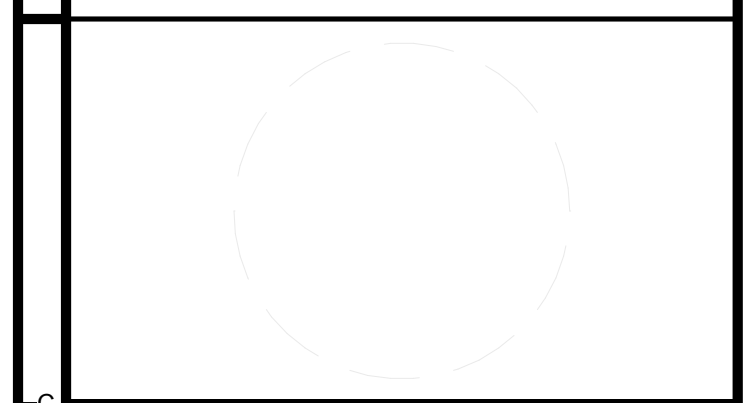
1 ARRIVAL PLAN 104
1" = 10'-0"

104 NOTES
 ALL WATER TANKS ARE PLACED ON SITE AND ATTACHED TO HOUSE WATER GRID. THE SUPPLY WATER TANK IS FILLED BY SOLAR DECATHLON TRUCK AND A LEAK TEST IS PERFORMED.
 DECKING MODULES ARE INSTALLED AND LEVELED ON THE NORTH AND SOUTH SIDE OF HOUSE.
 RAMPS ARE INSTALLED BY A THIRD PARTY ON NORTH AND SOUTH SIDE. PLANTERS ARE INSTALLED AROUND PERIMETER OF DECK AND RAMP WHERE NECESSARY. TREES AND OTHER LANDSCAPING ELEMENTS ARE PLACED.
 ALL INTERIOR AESTHETICS ARE COMPLETED AND FURNITURE IS MOVED INTO HOUSE. SHIPPING CONTAINER IS REMOVED FROM SITE.
 SHADED AREA IS PACKED INTO UTILITY TRAILER AND IS REMOVED FROM SITE. LEMONADE IS ENJOYED ON SOUTH DECK AS WE WATCH OTHER TEAMS SCRAMBLE ABOUT.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
 HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/

CONSULTANTS



CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
 WWW.SOLARDECATHLON.GOV

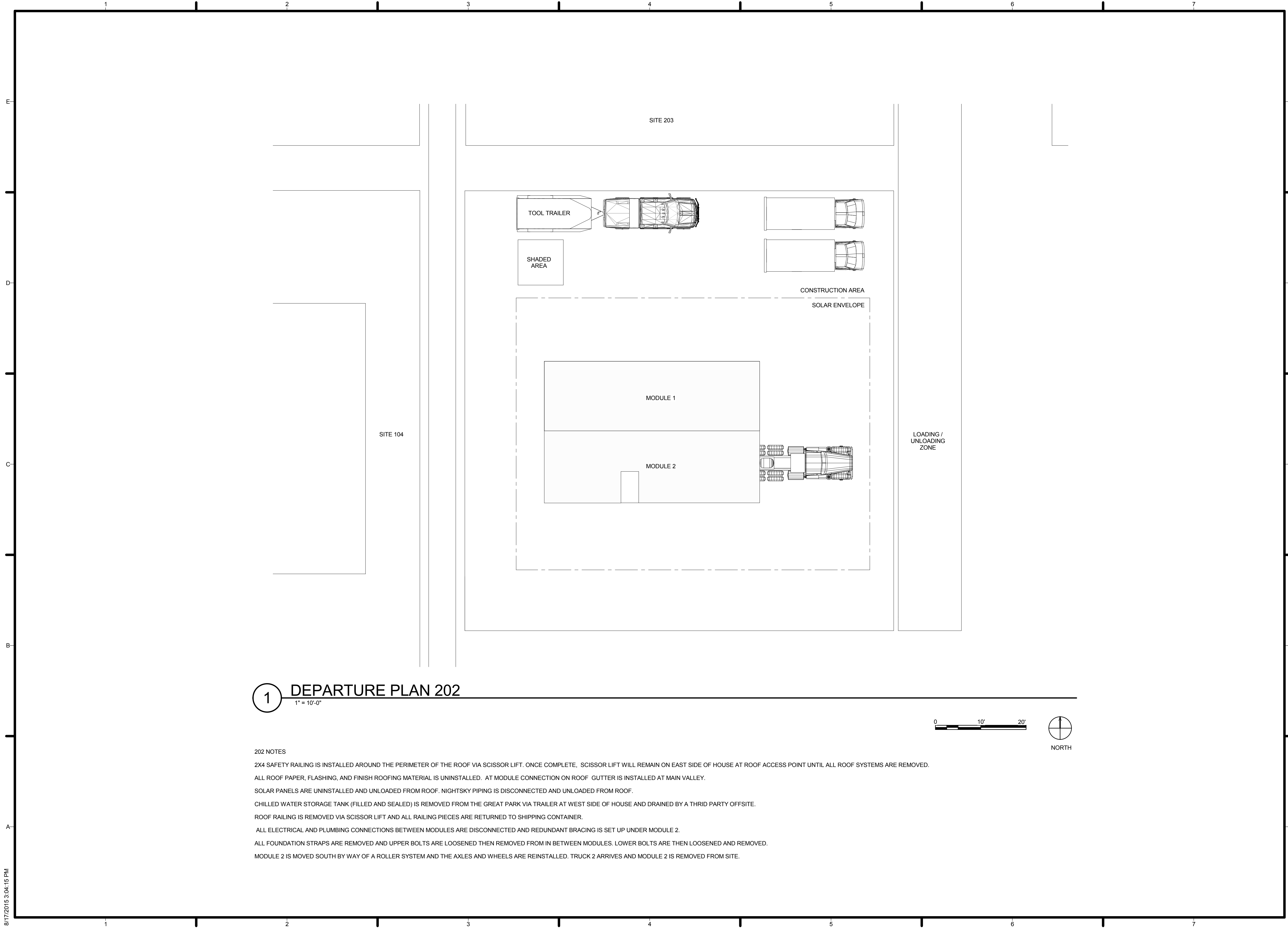


MARK	DATE	DESCRIPTION
AB	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
ARRIVAL SEQUENCE PLAN 4

O-104

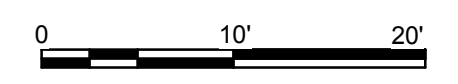


1 DEPARTURE PLAN 202

1" = 10'-0"

202 NOTES

- 2X4 SAFETY RAILING IS INSTALLED AROUND THE PERIMETER OF THE ROOF VIA SCISSOR LIFT. ONCE COMPLETE, SCISSOR LIFT WILL REMAIN ON EAST SIDE OF HOUSE AT ROOF ACCESS POINT UNTIL ALL ROOF SYSTEMS ARE REMOVED.
- ALL ROOF PAPER, FLASHING, AND FINISH ROOFING MATERIAL IS UNINSTALLED. AT MODULE CONNECTION ON ROOF GUTTER IS INSTALLED AT MAIN VALLEY.
- SOLAR PANELS ARE UNINSTALLED AND UNLOADED FROM ROOF. NIGHTSKY PIPING IS DISCONNECTED AND UNLOADED FROM ROOF.
- CHILLED WATER STORAGE TANK (FILLED AND SEALED) IS REMOVED FROM THE GREAT PARK VIA TRAILER AT WEST SIDE OF HOUSE AND DRAINED BY A THRID PARTY OFFSITE.
- ROOF RAILING IS REMOVED VIA SCISSOR LIFT AND ALL RAILING PIECES ARE RETURNED TO SHIPPING CONTAINER.
- ALL ELECTRICAL AND PLUMBING CONNECTIONS BETWEEN MODULES ARE DISCONNECTED AND REDUNDANT BRACING IS SET UP UNDER MODULE 2.
- ALL FOUNDATION STRAPS ARE REMOVED AND UPPER BOLTS ARE LOOSENED THEN REMOVED FROM IN BETWEEN MODULES. LOWER BOLTS ARE THEN LOOSENED AND REMOVED.
- MODULE 2 IS MOVED SOUTH BY WAY OF A ROLLER SYSTEM AND THE AXLES AND WHEELS ARE REINSTALLED. TRUCK 2 ARRIVES AND MODULE 2 IS REMOVED FROM SITE.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://SOLARDECATHLON2015.UCDAVIS.EDU/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
WWW.SOLARDECATHLON.GOV



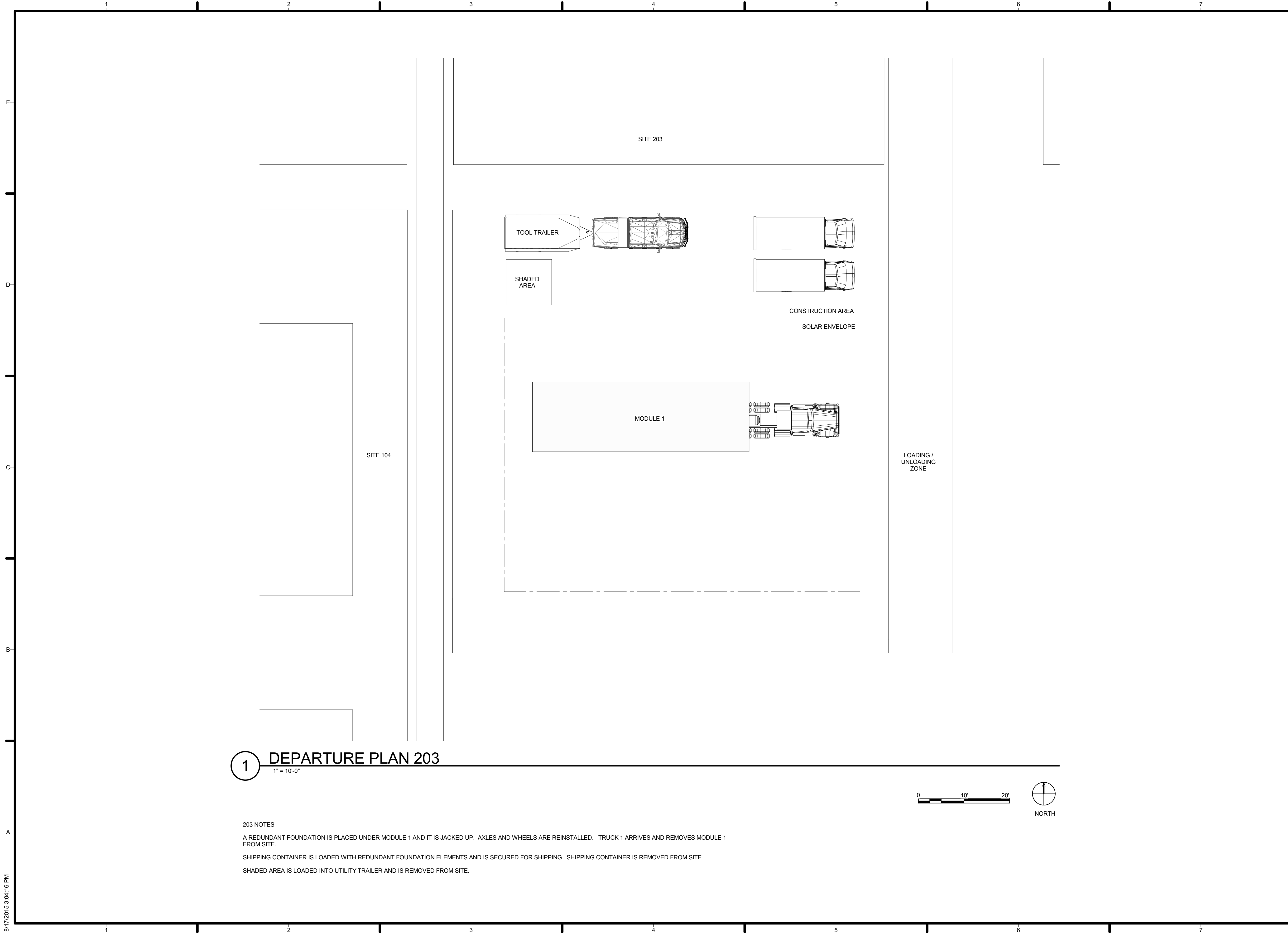
MARK	DATE	DESCRIPTION
	08.17.15	AS BUILT

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE

DEPARTURE SEQUENCE PLAN 2

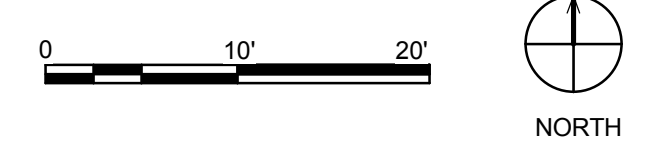
O-202



1 DEPARTURE PLAN 203
 1" = 10'-0"

203 NOTES

A REDUNDANT FOUNDATION IS PLACED UNDER MODULE 1 AND IT IS JACKED UP. AXLES AND WHEELS ARE REINSTALLED. TRUCK 1 ARRIVES AND REMOVES MODULE 1 FROM SITE.
 SHIPPING CONTAINER IS LOADED WITH REDUNDANT FOUNDATION ELEMENTS AND IS SECURED FOR SHIPPING. SHIPPING CONTAINER IS REMOVED FROM SITE.
 SHADED AREA IS LOADED INTO UTILITY TRAILER AND IS REMOVED FROM SITE.



TEAM NAME: AGGIE SOL
 ADDRESS: 215 SAGE STREET
 DAVIS, CA 95616
 CONTACT: (530) 752-5465
[HTTP://SOLARDECATHLON2015.UCDAVIS.EDU/](http://solardecathlon2015.ucdavis.edu/)

CONSULTANTS

CLIENT
 U.S. DEPARTMENT OF ENERGY
 SOLAR DECATHLON 2015
[WWW.SOLARDECATHLON.GOV](http://www.solardecathlon.gov)



AB	08.17.15	AS BUILT

MARK	DATE	DESCRIPTION

LOT NUMBER: 201
 DRAWN BY: AGGIE SOL TEAM
 CHECKED BY: ROBERT GOOD
 COPYRIGHT: NONE-PROJECT PUBLIC DOMAIN

SHEET TITLE
DEPARTURE SEQUENCE PLAN 3

O-203