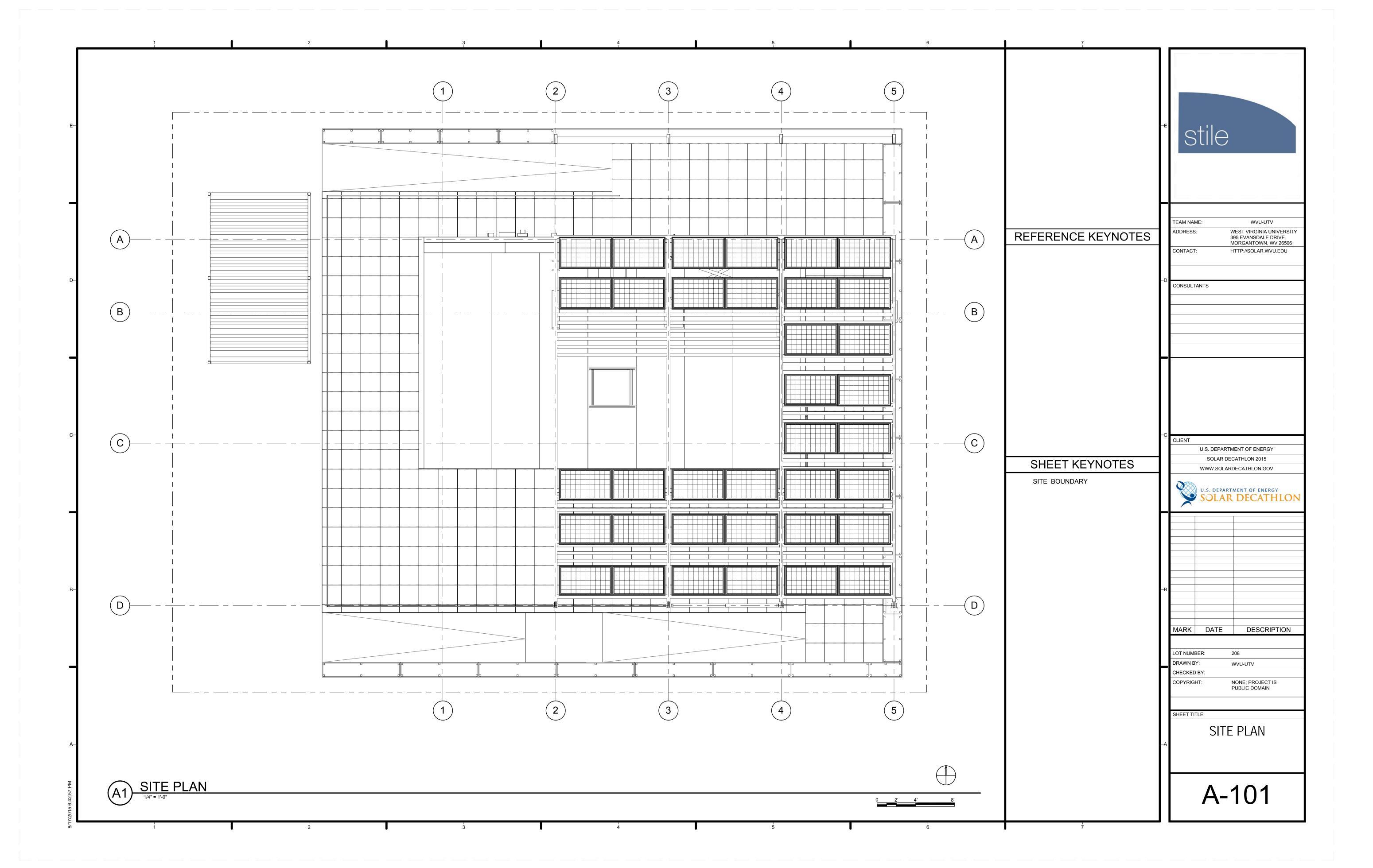
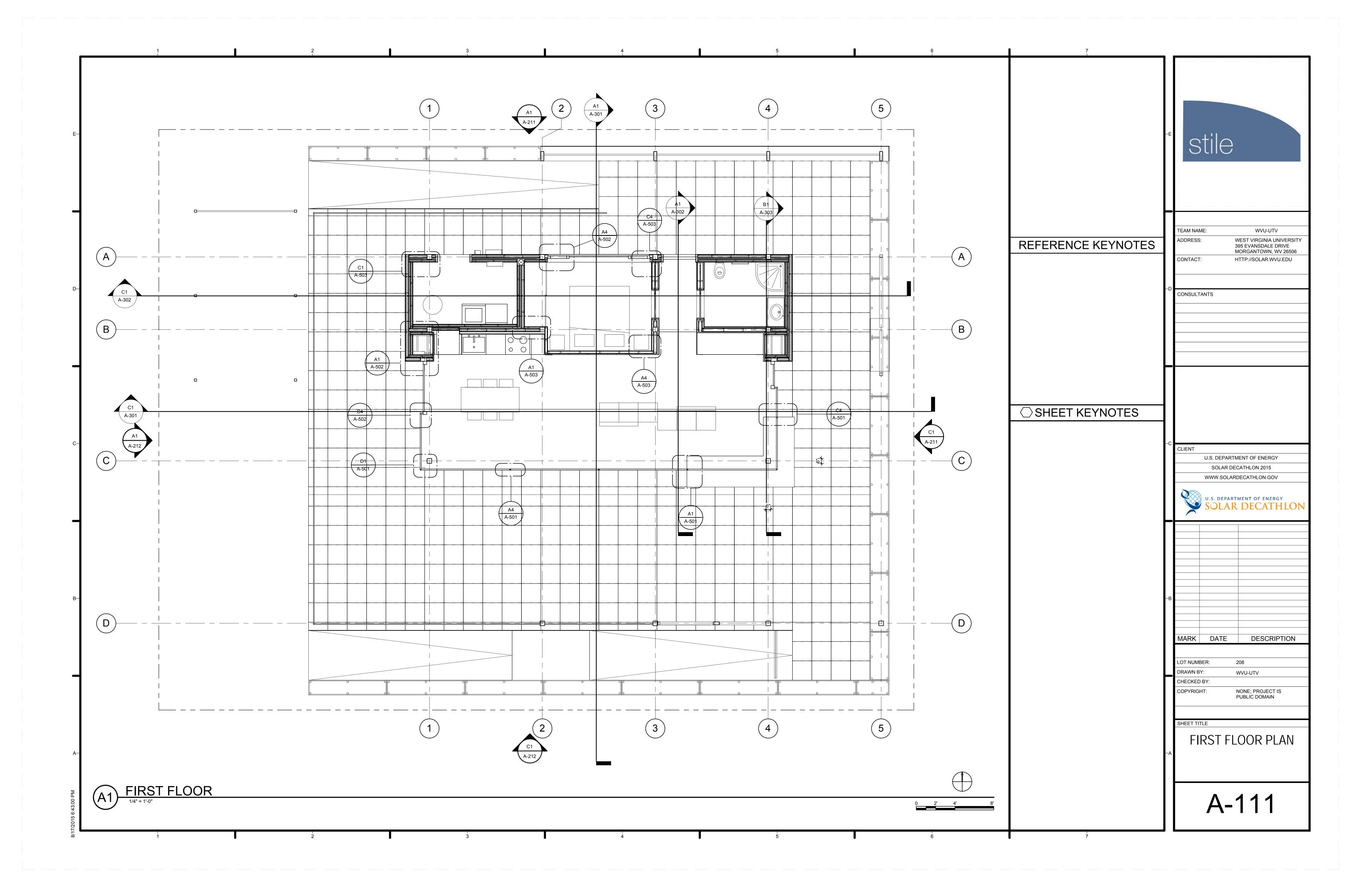
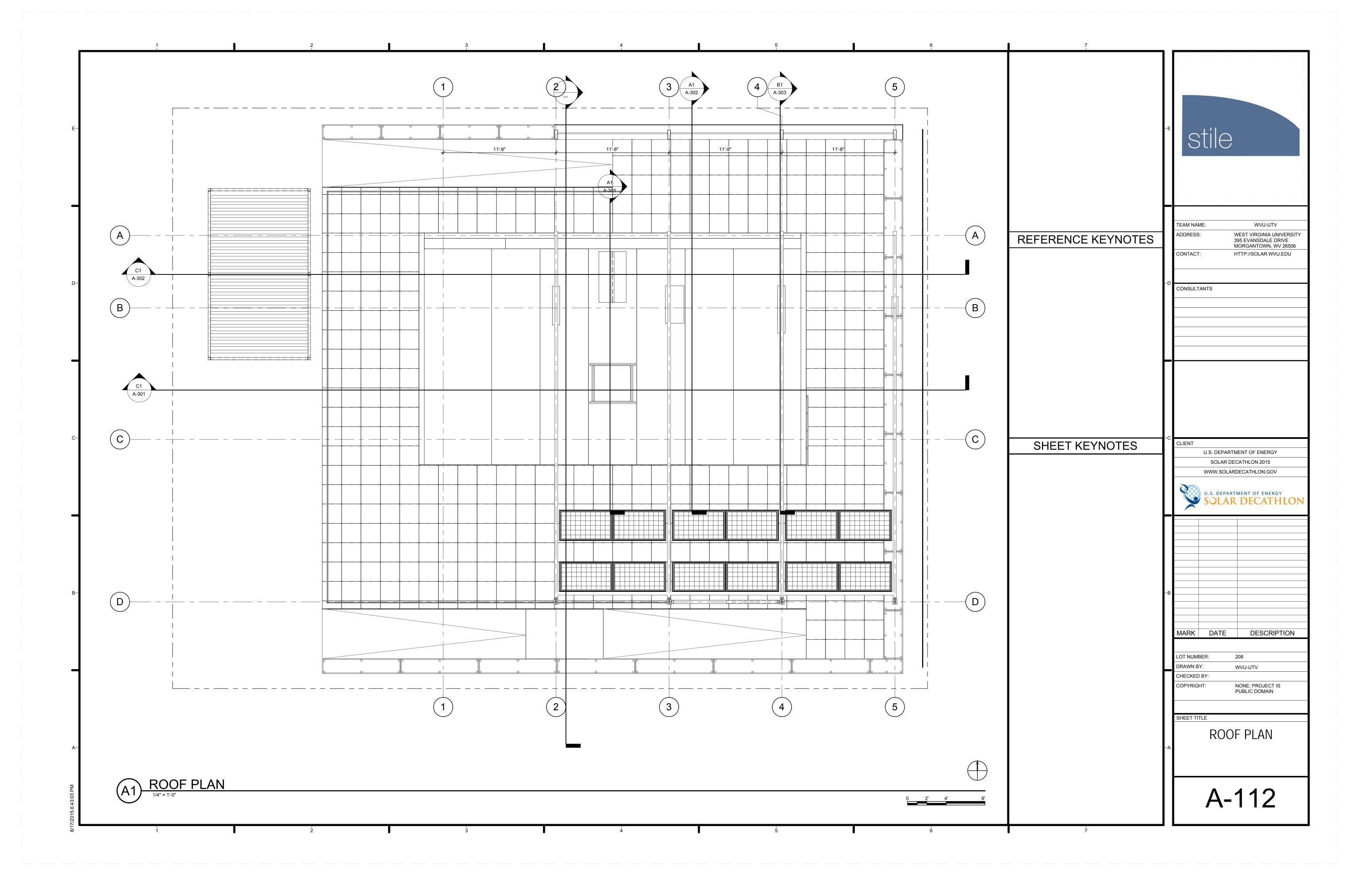
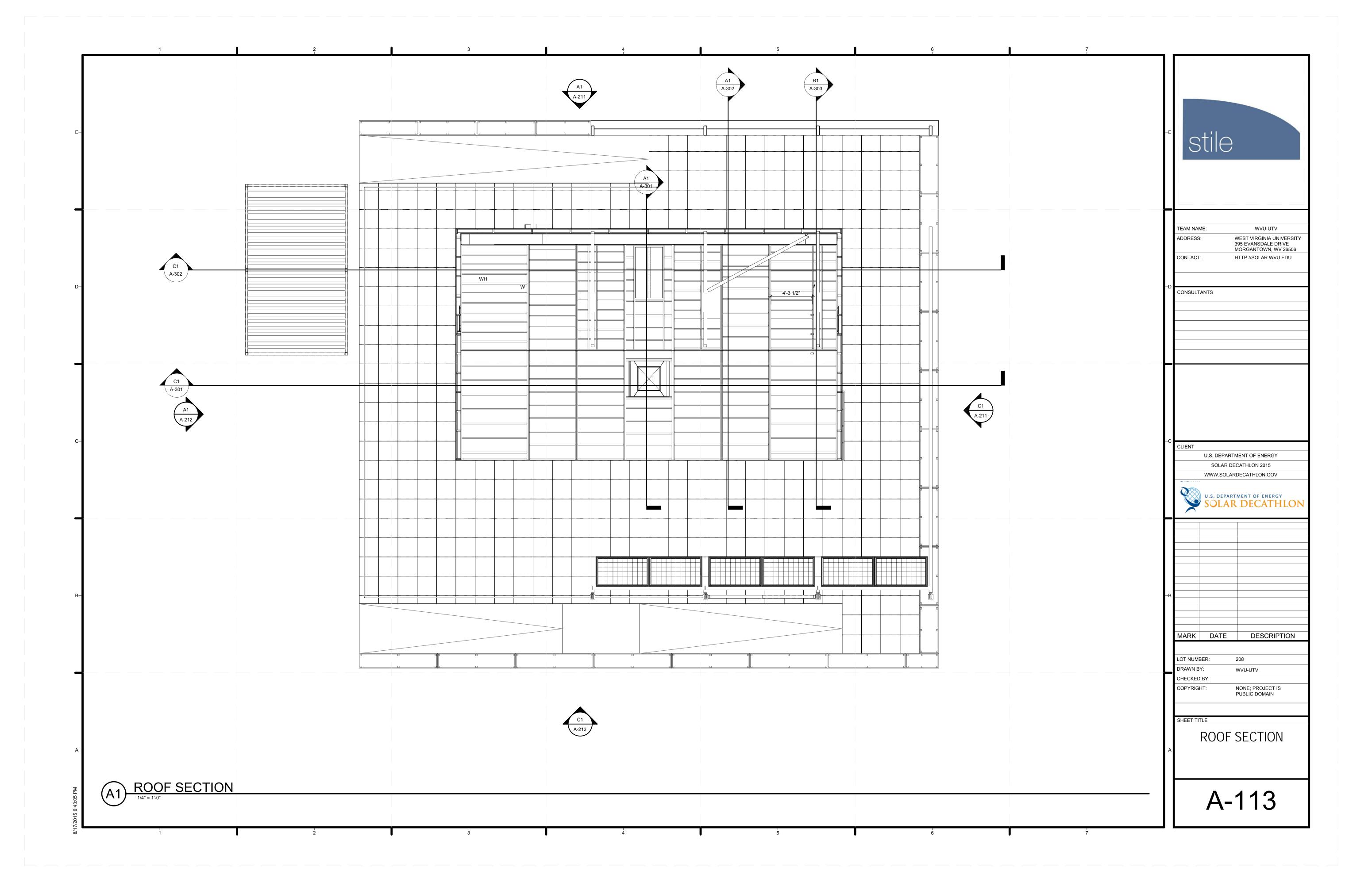


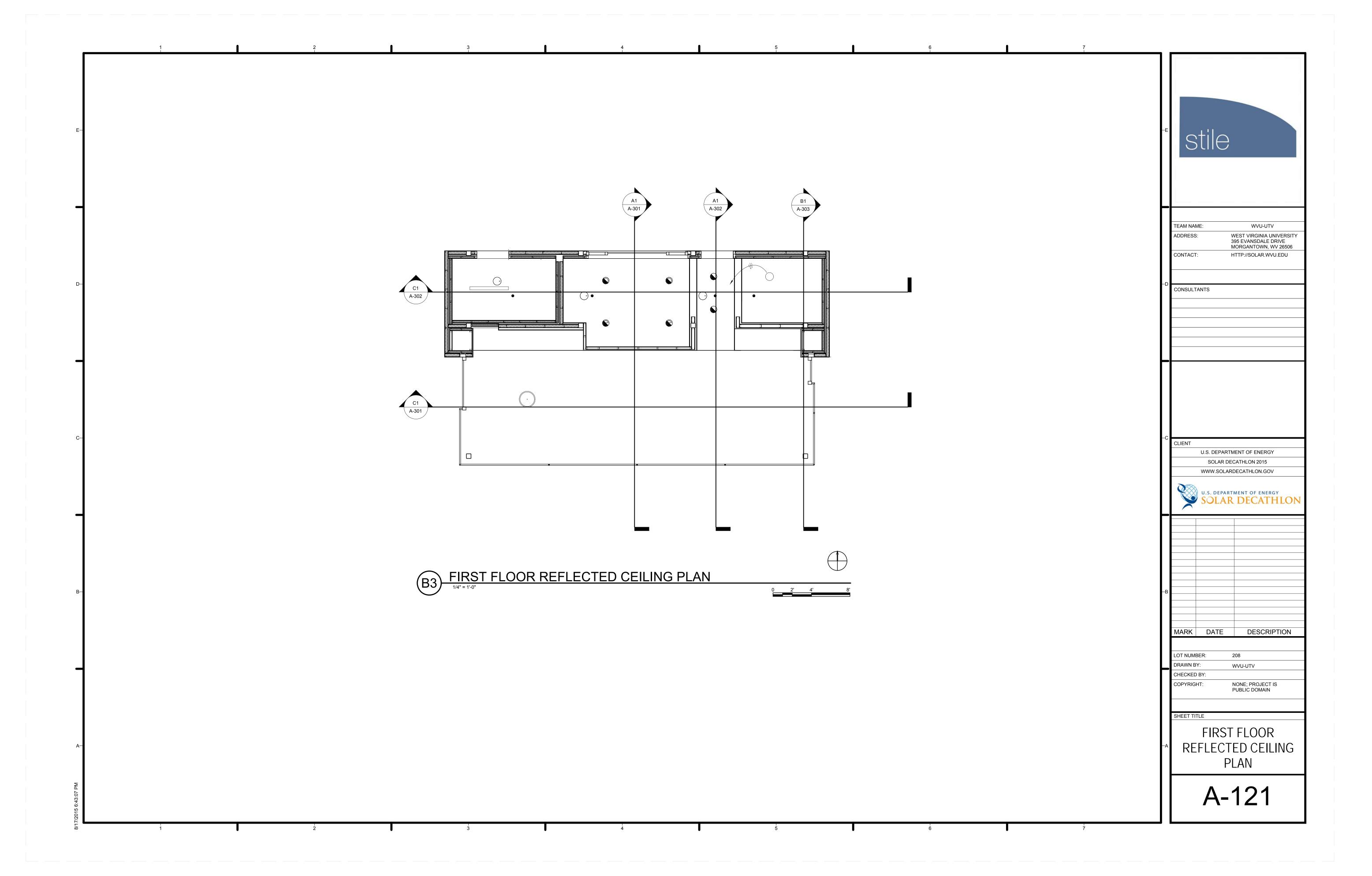
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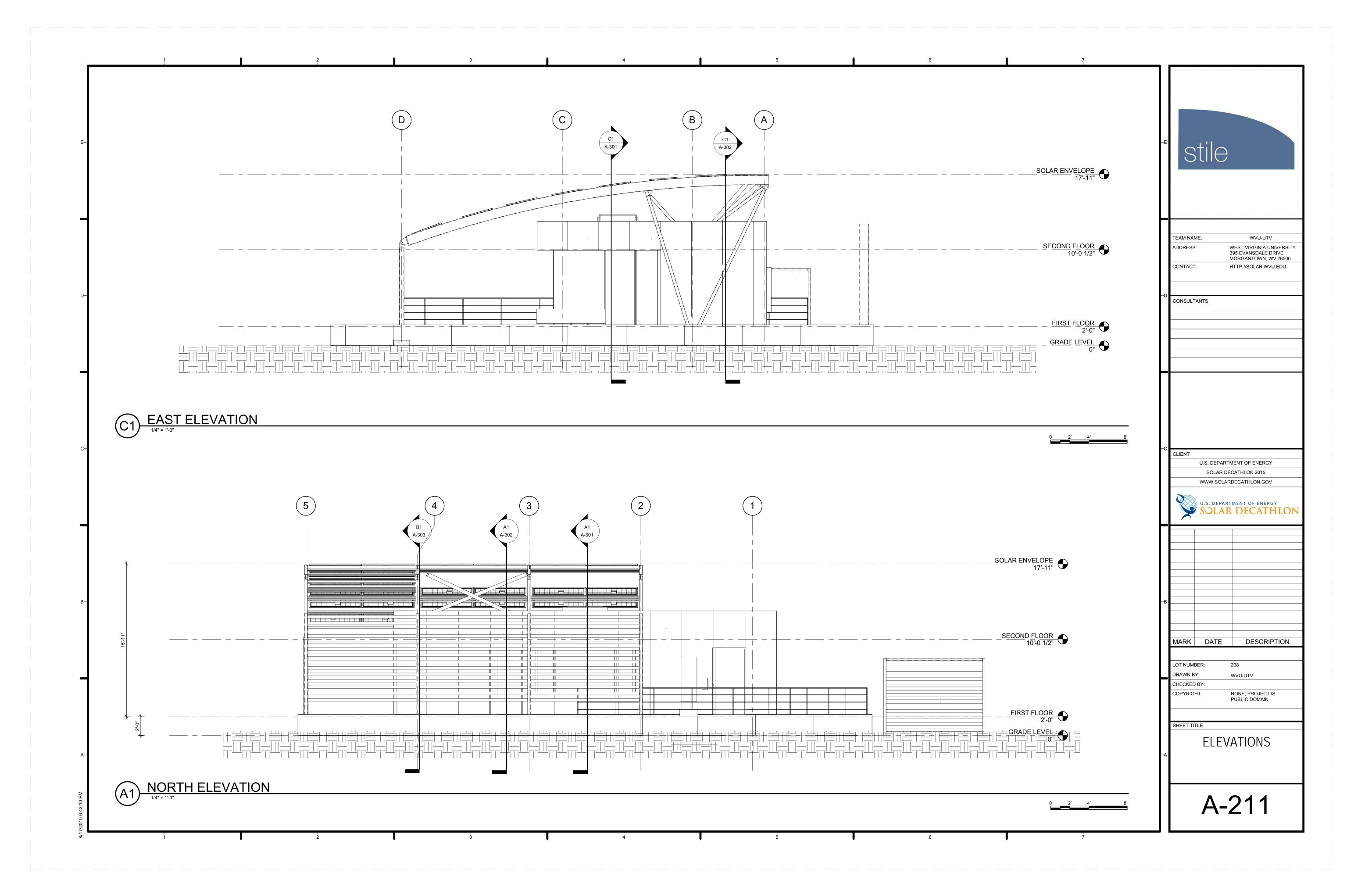


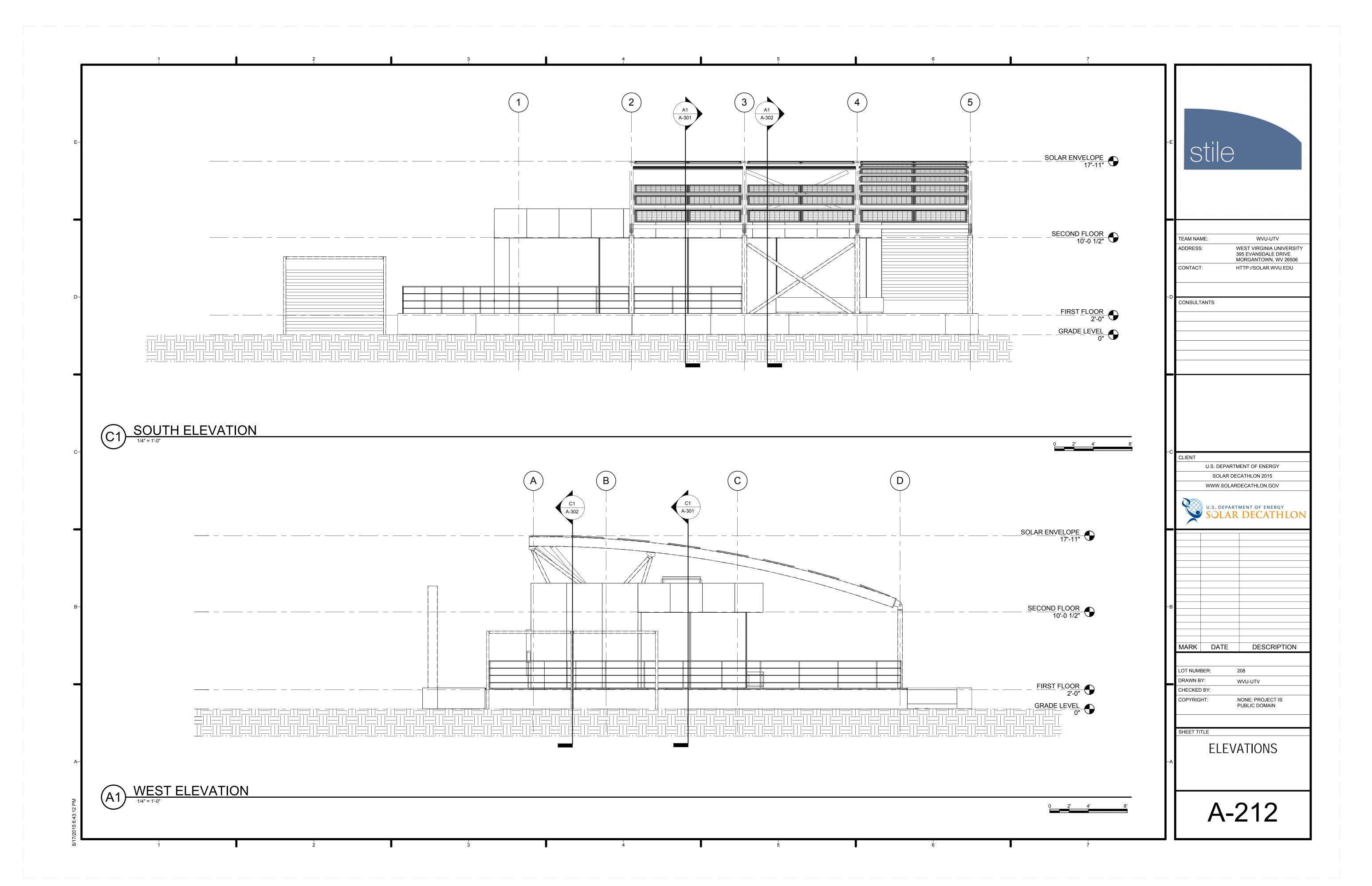


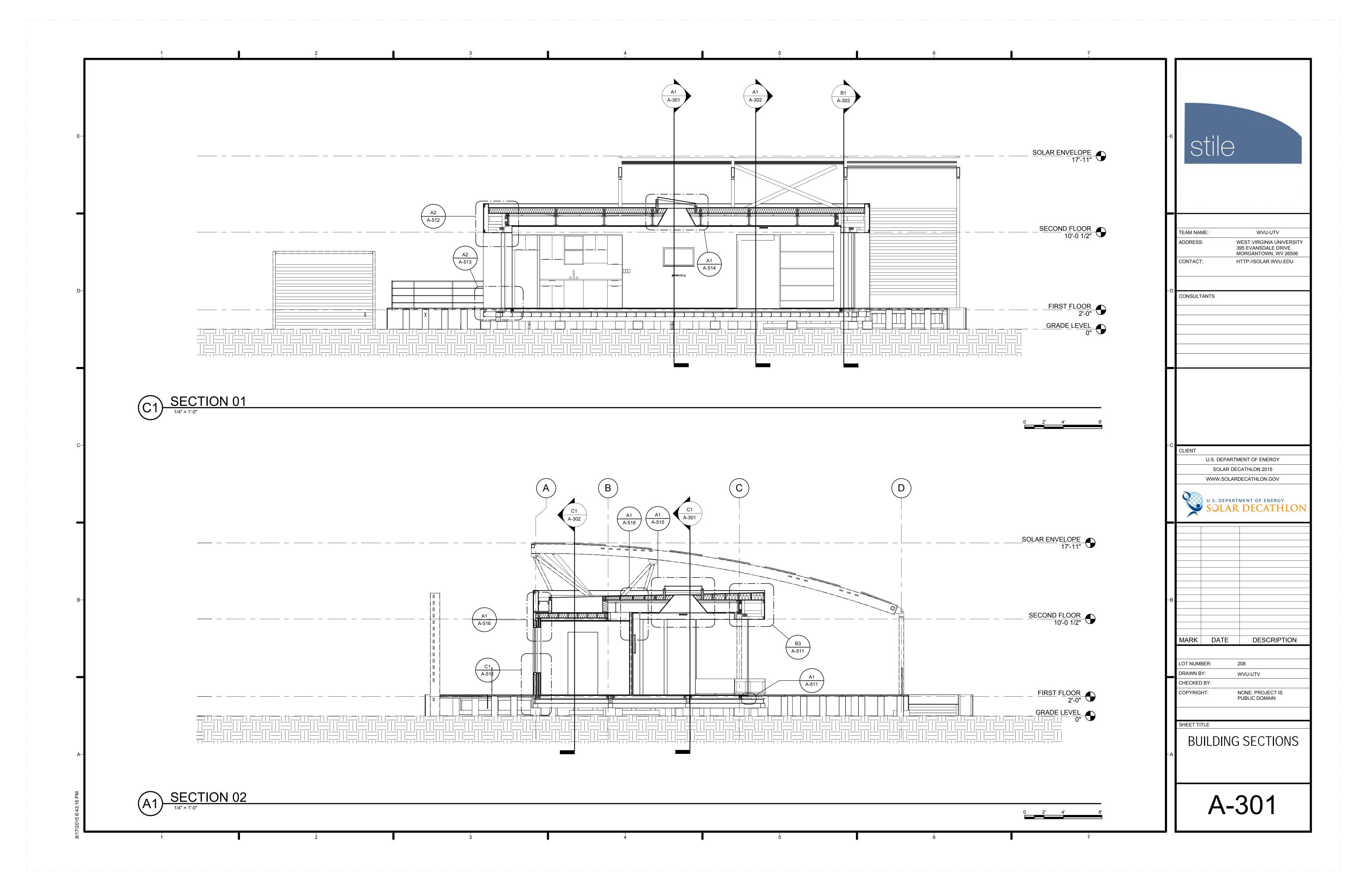


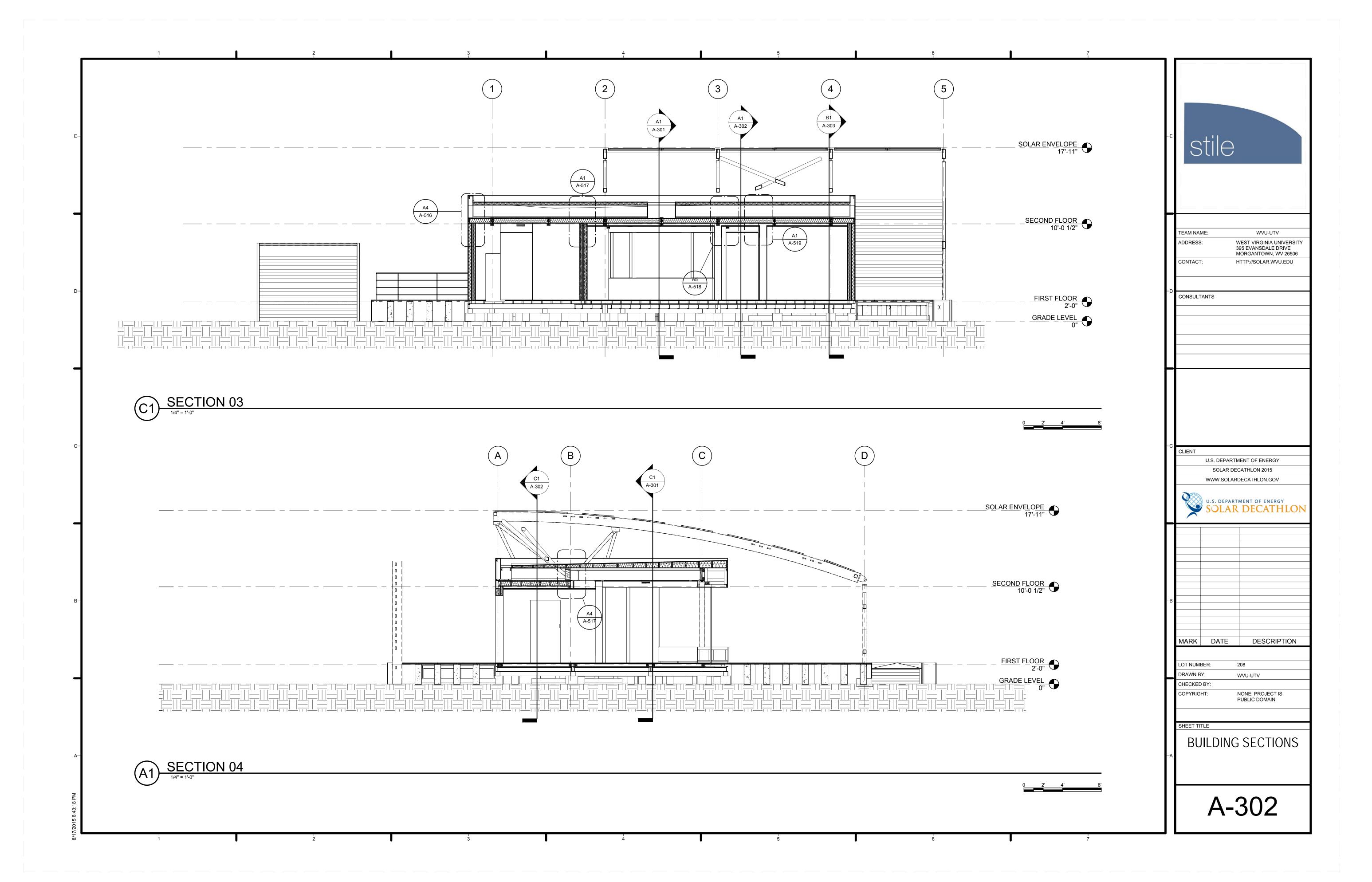


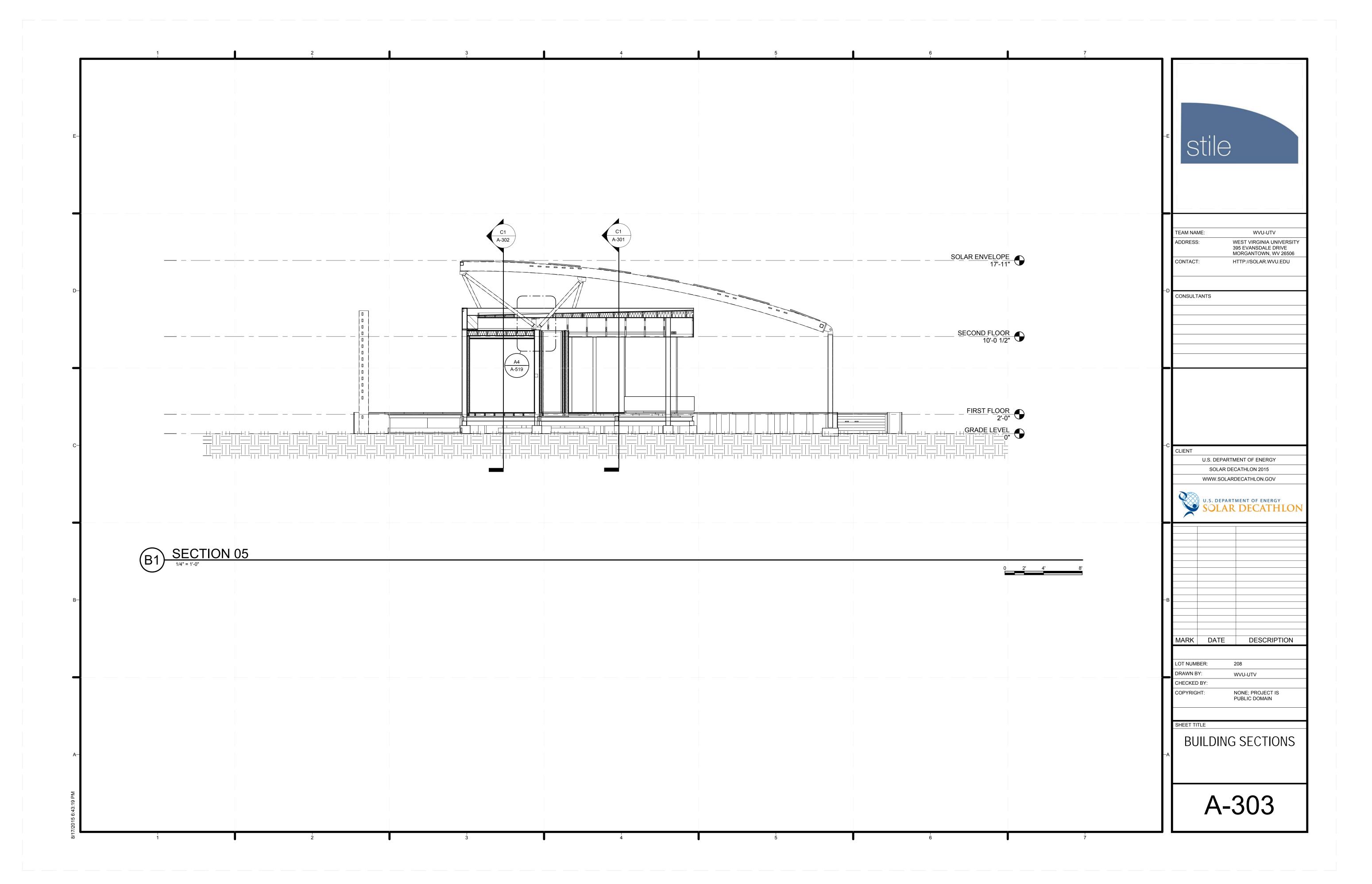


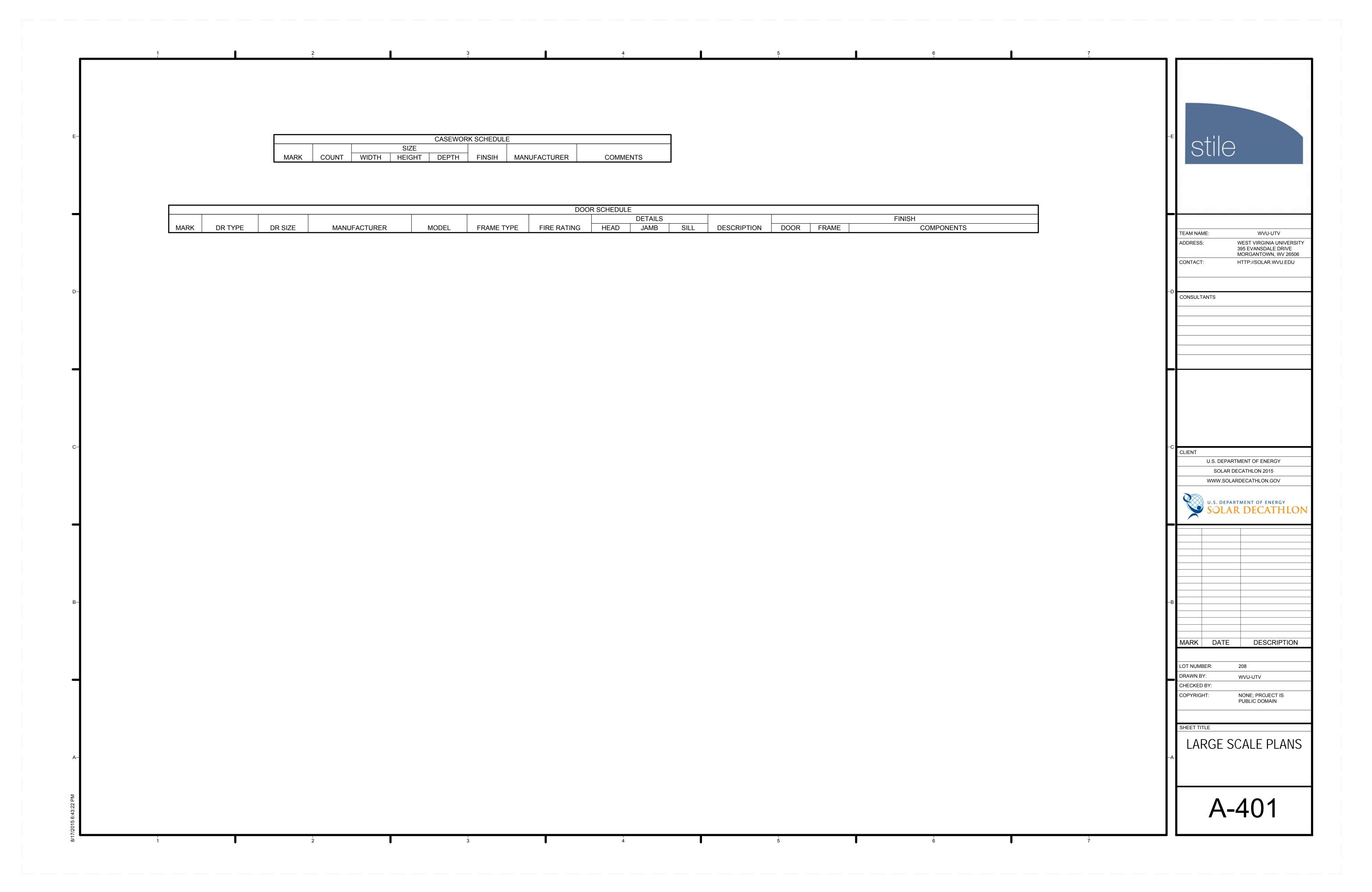


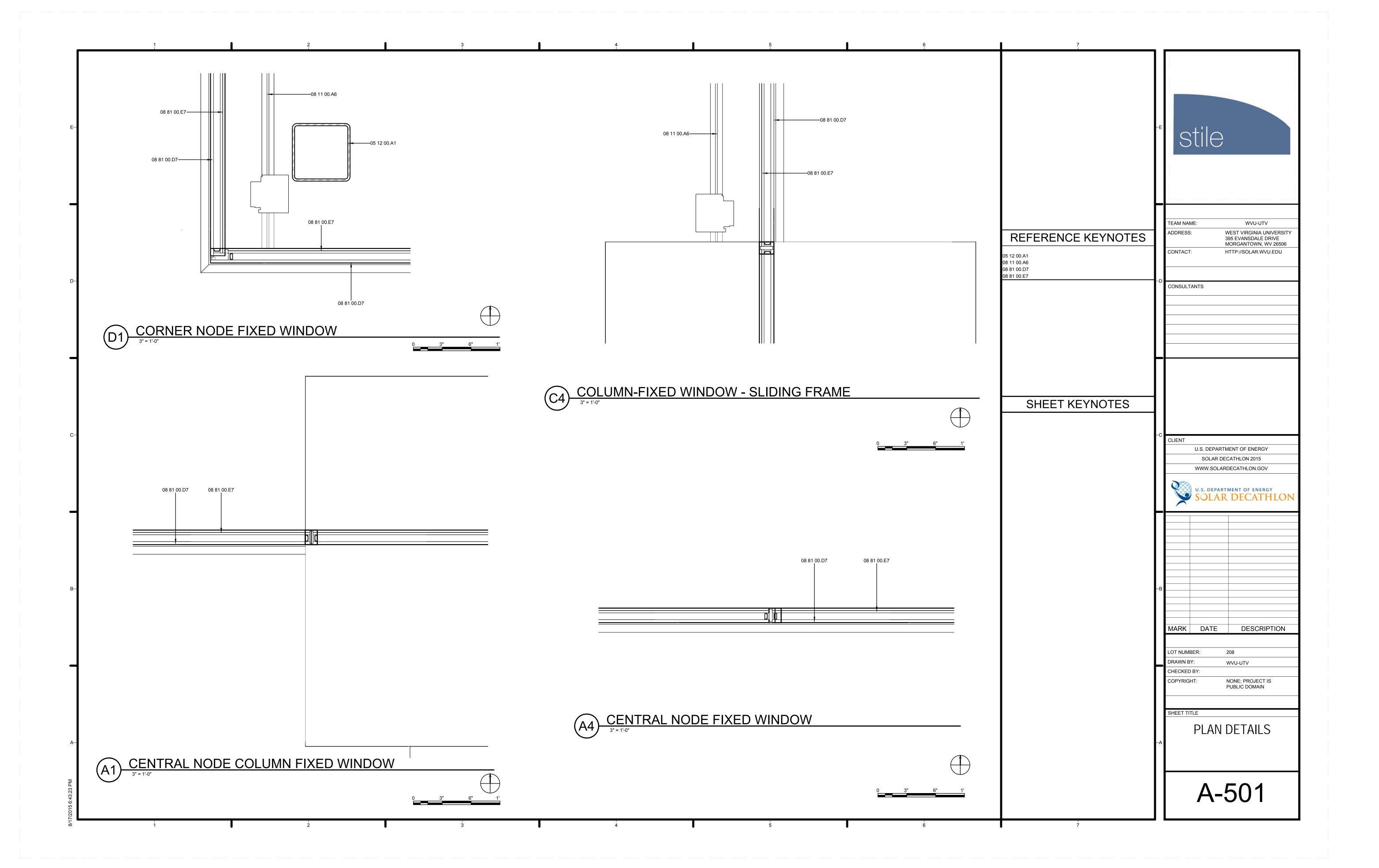


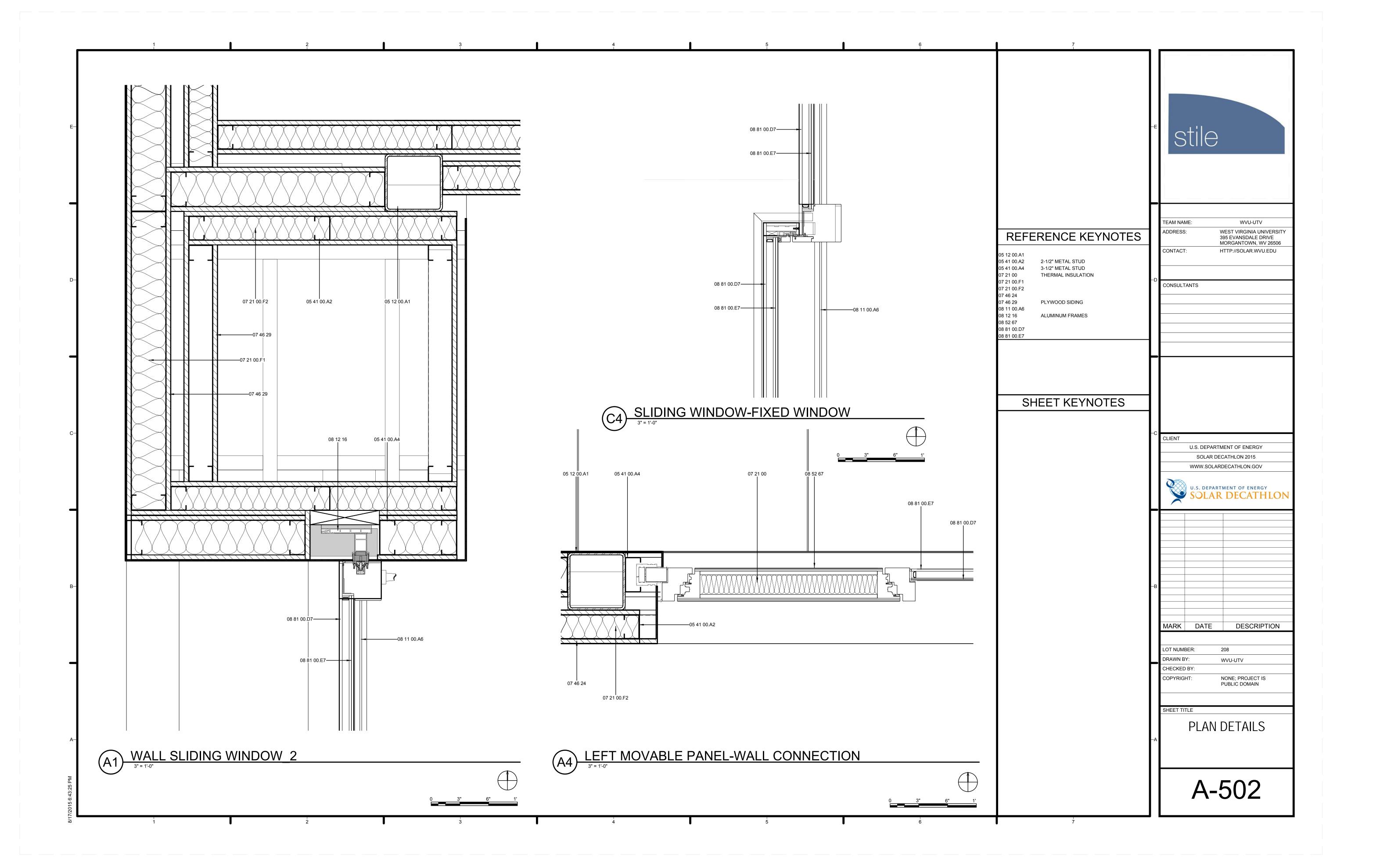


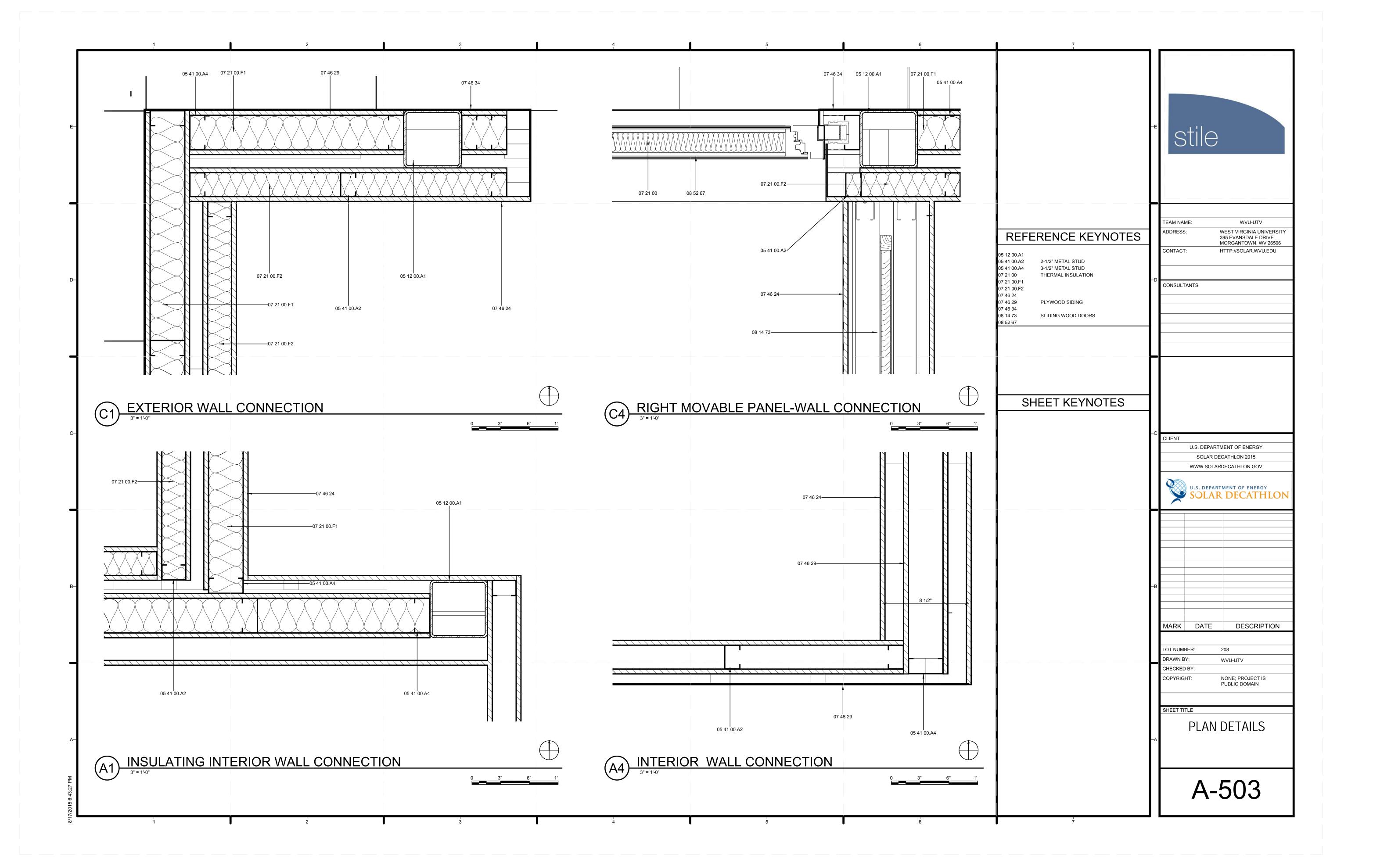


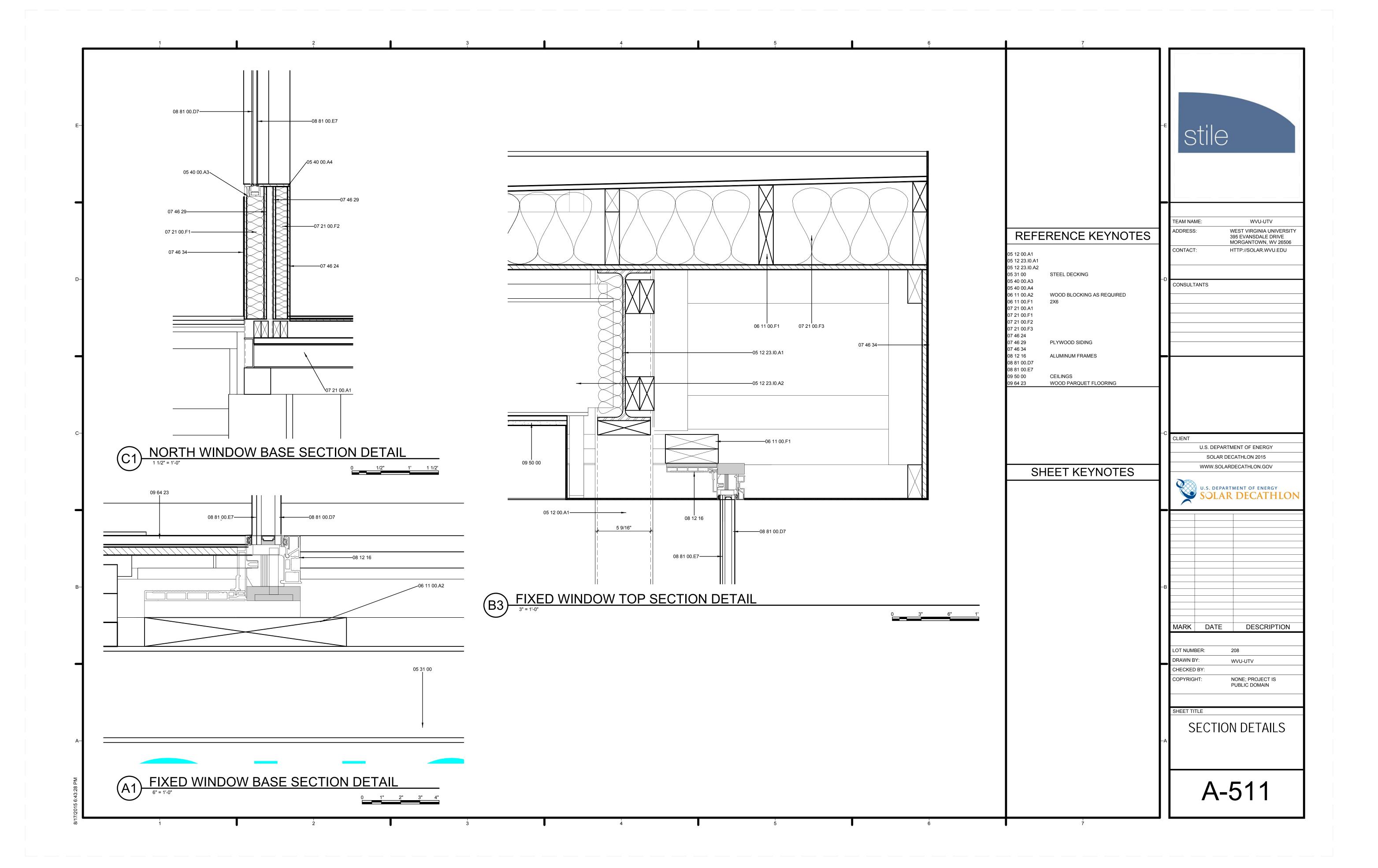


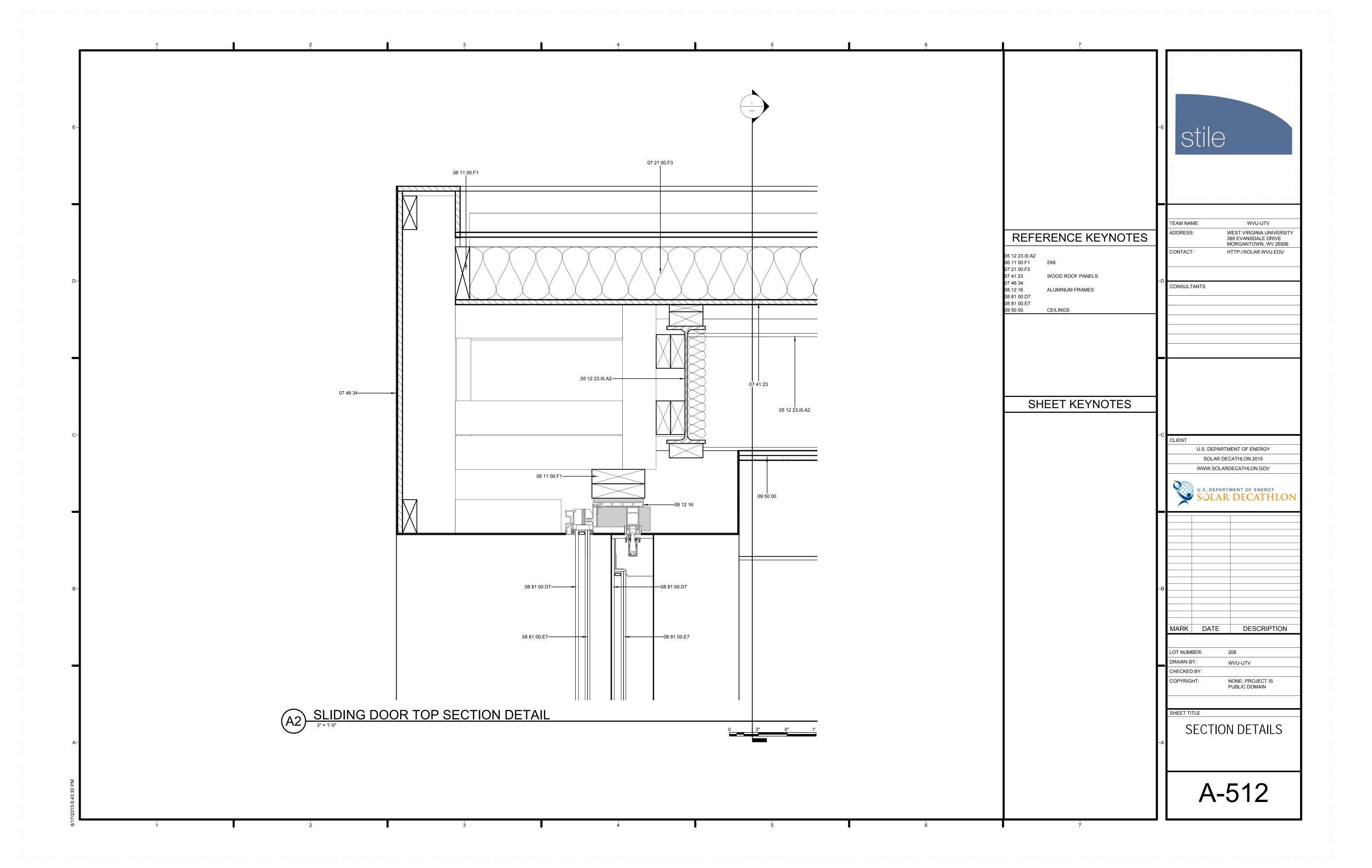


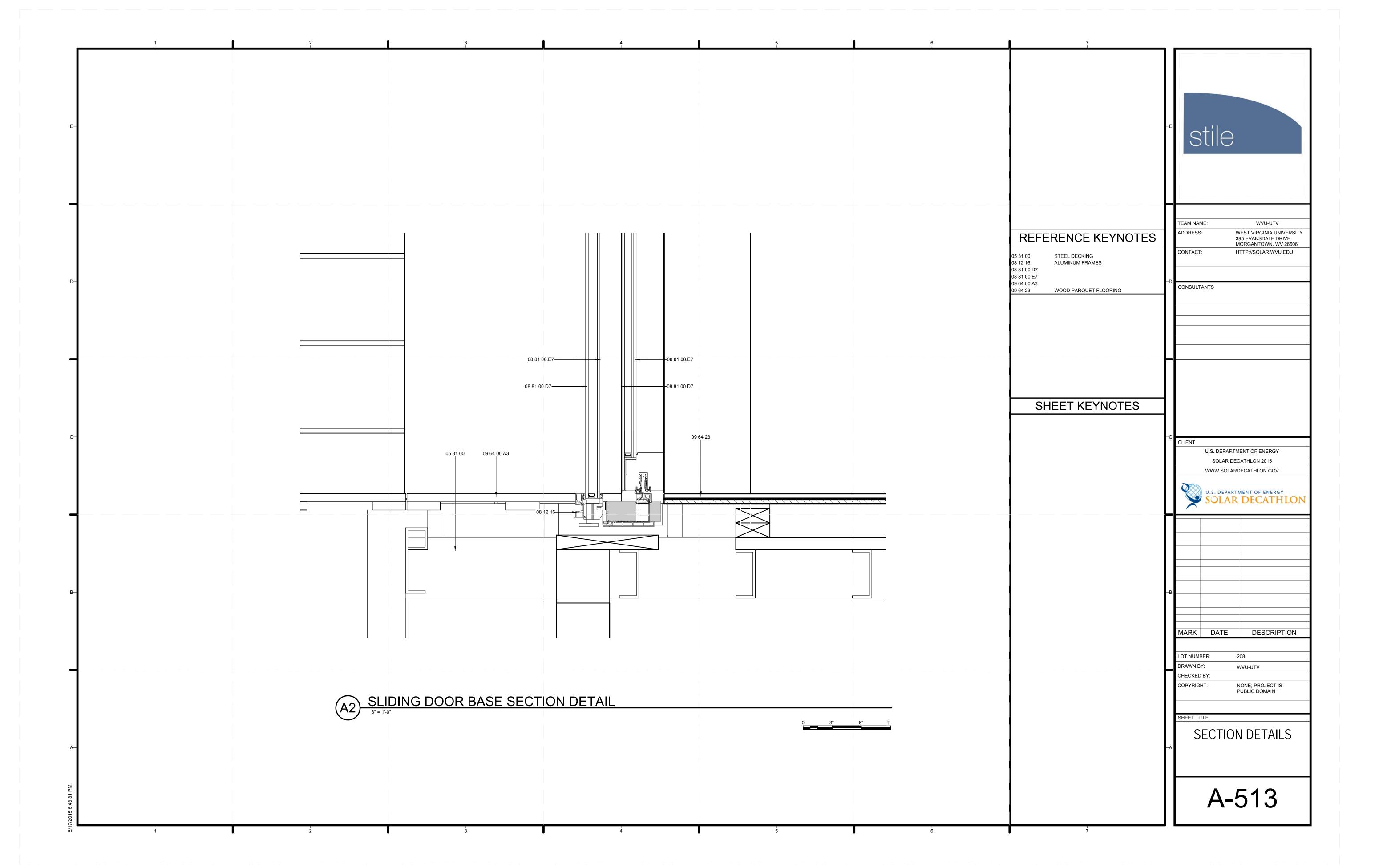


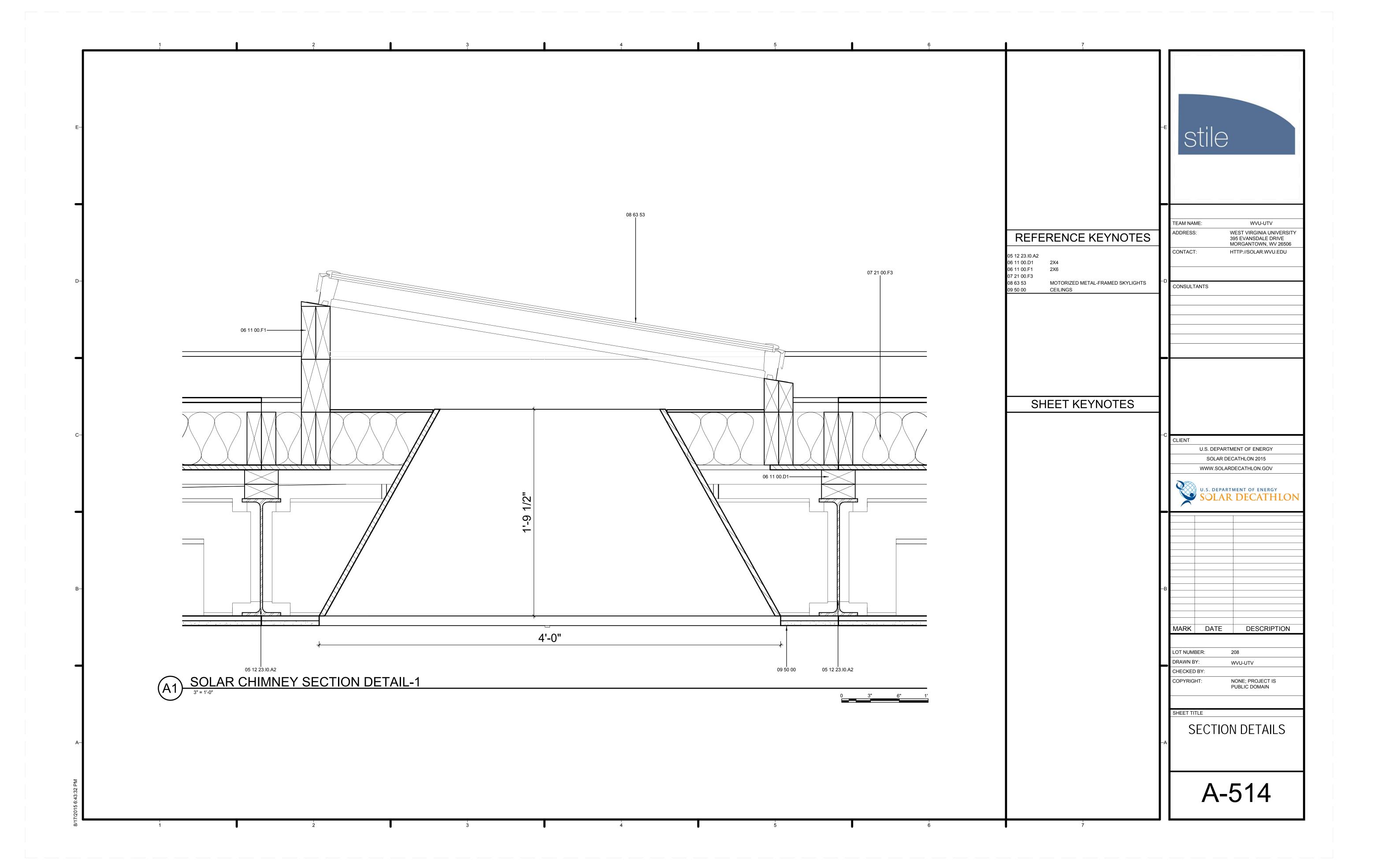


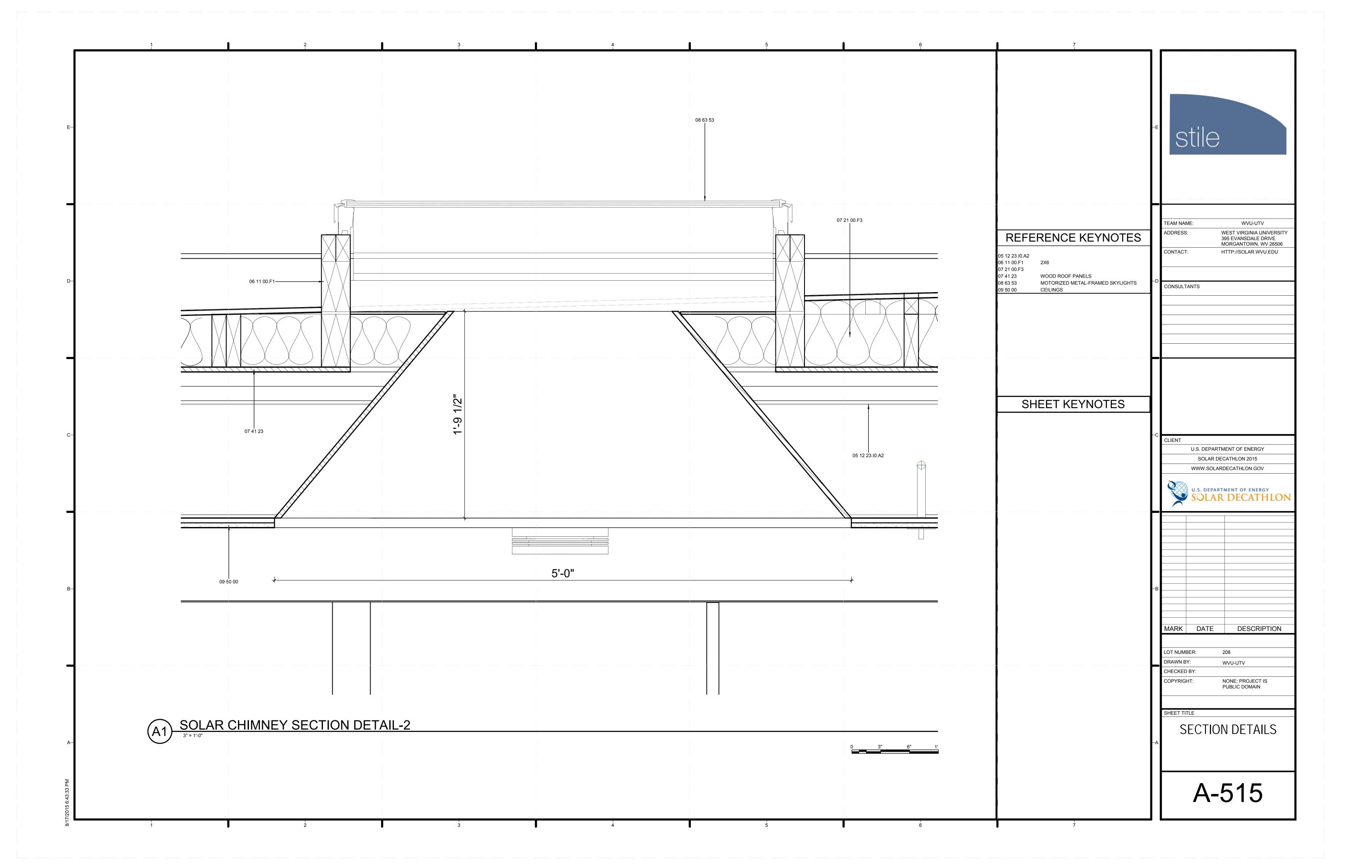


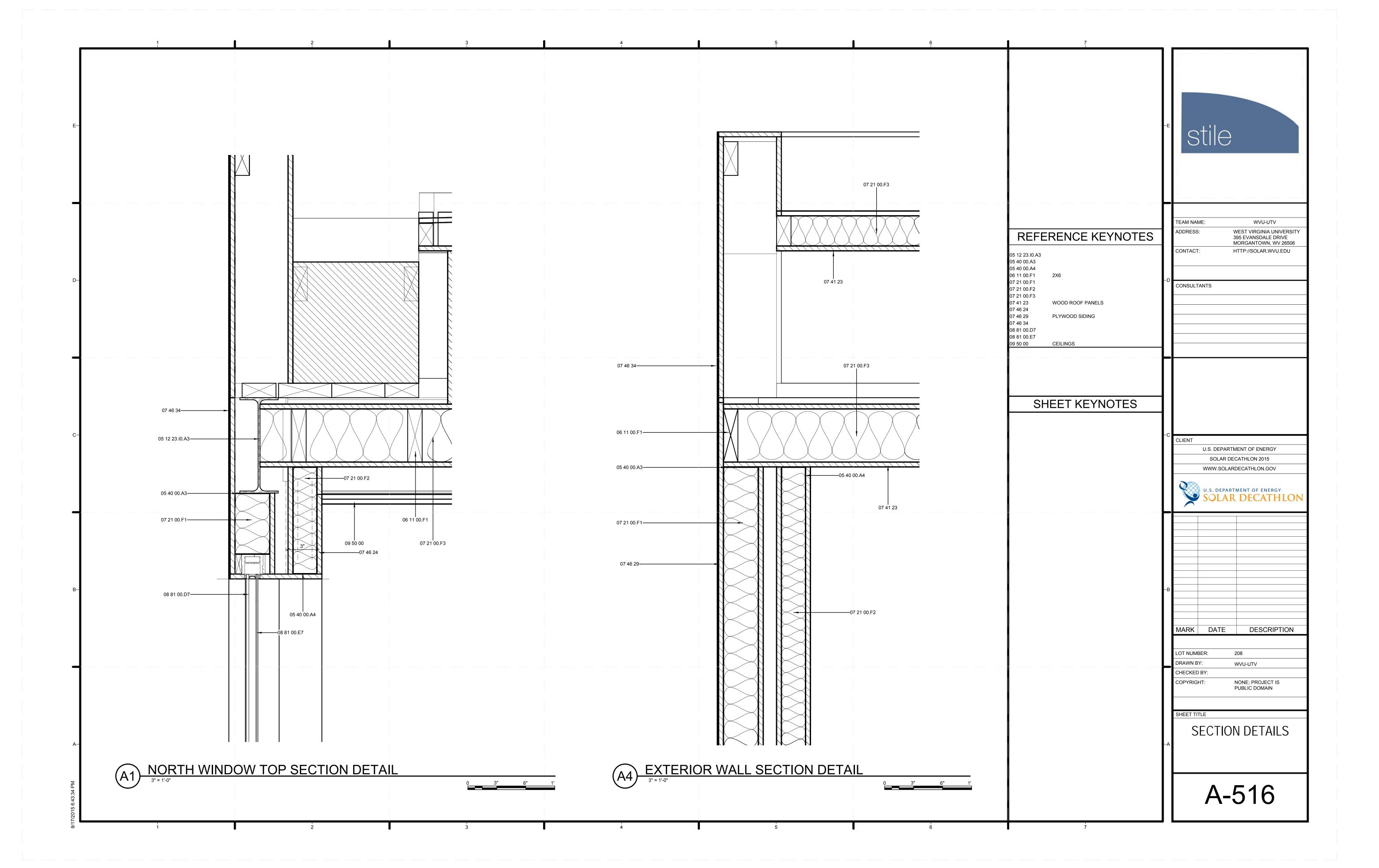


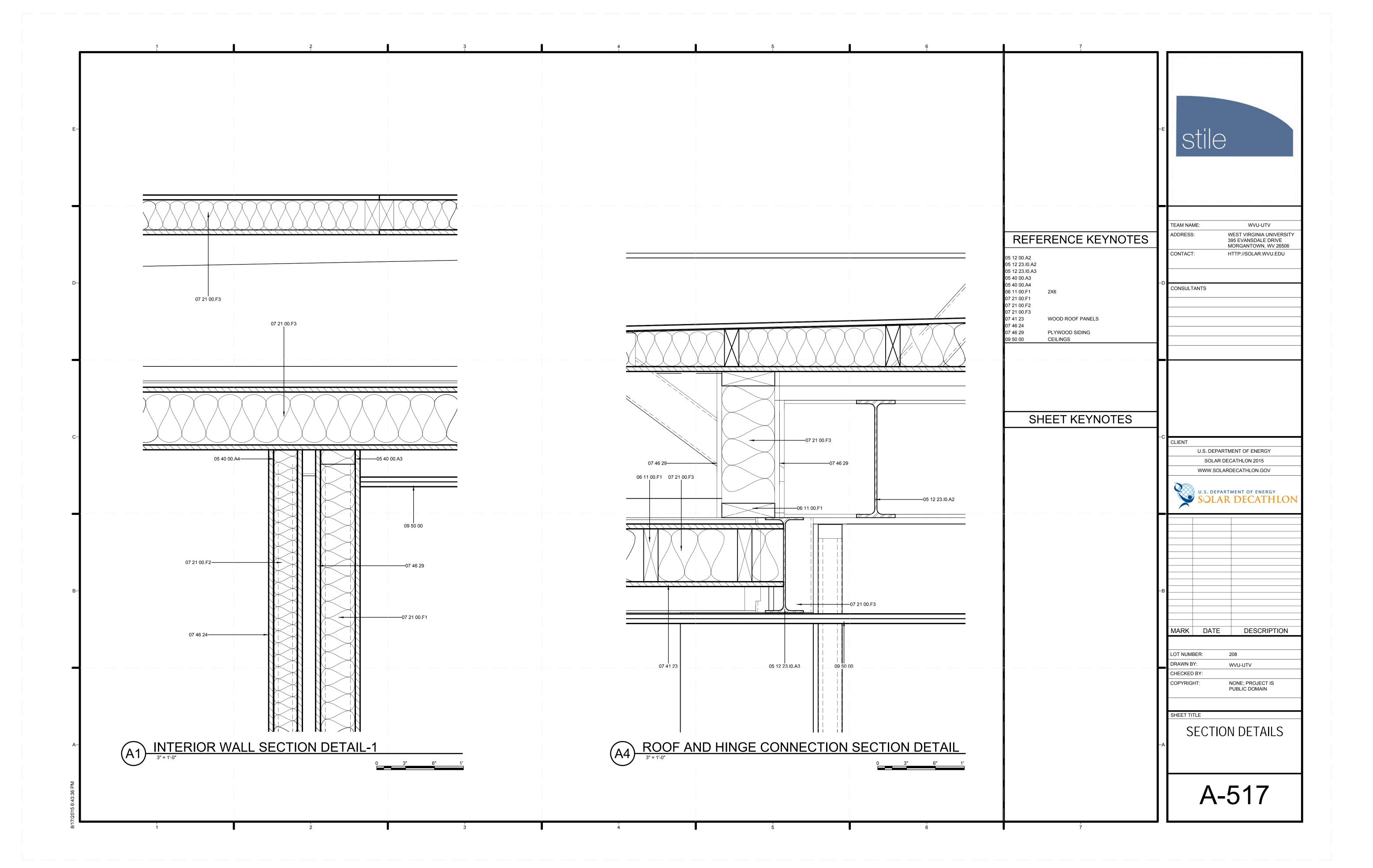


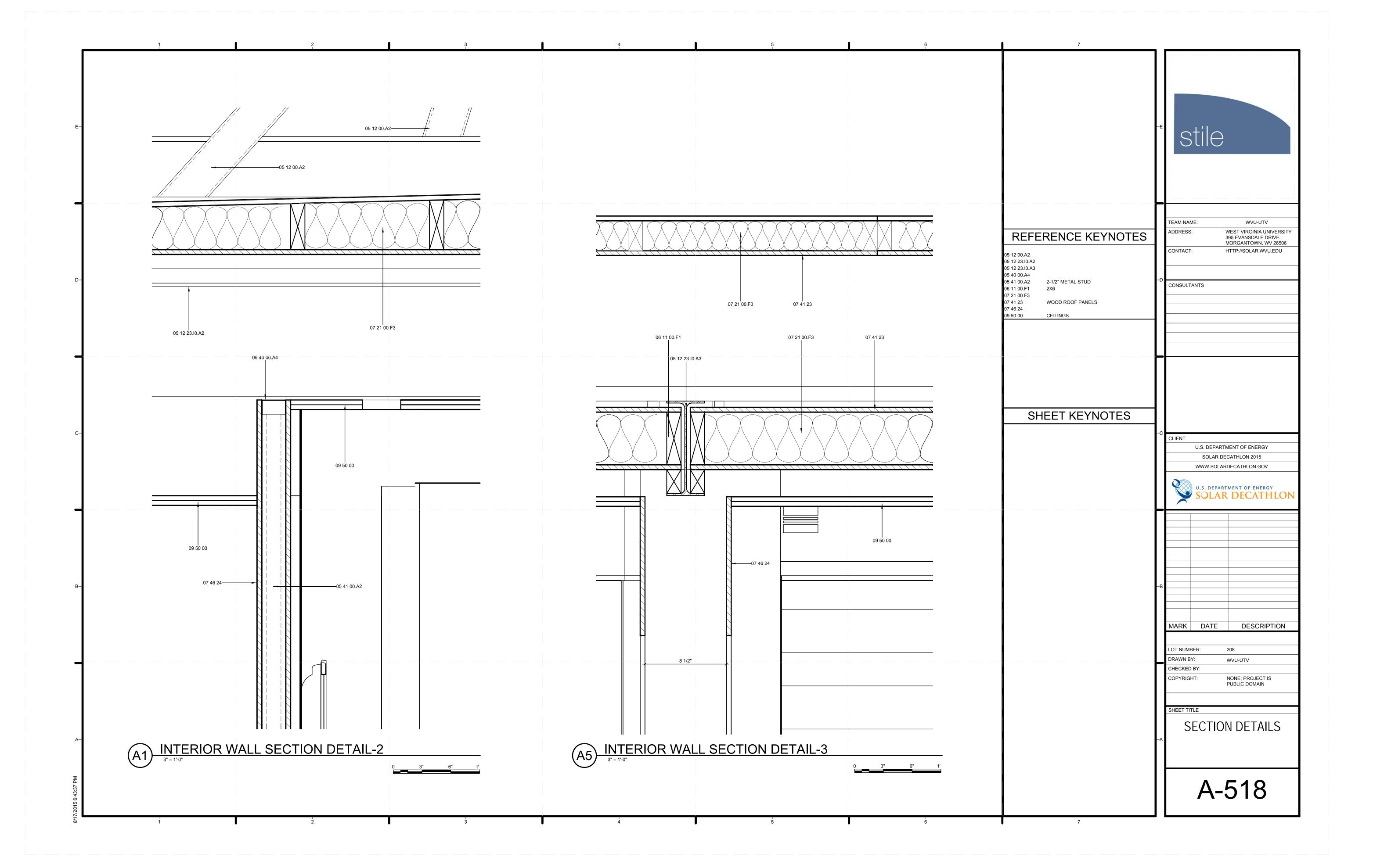


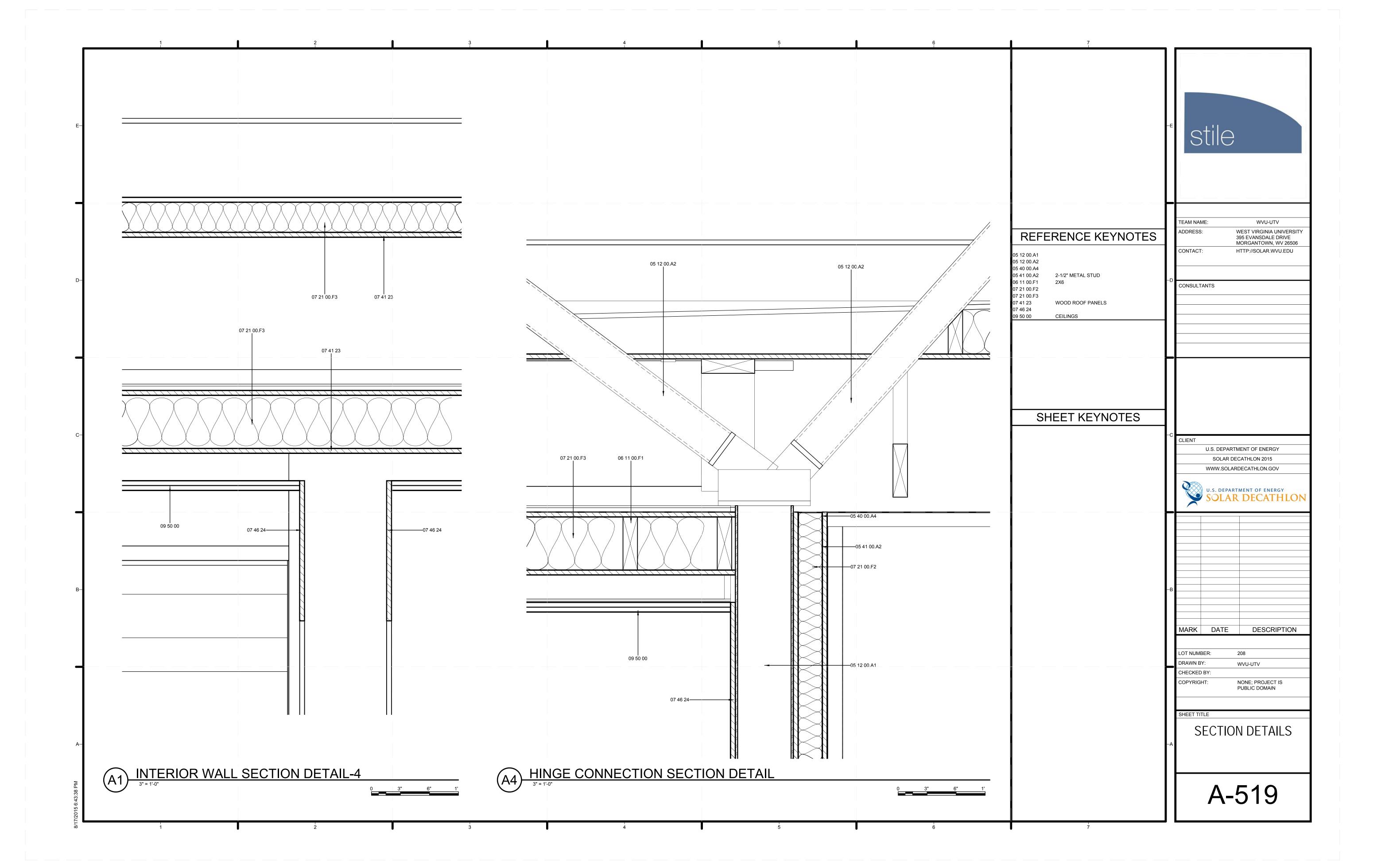


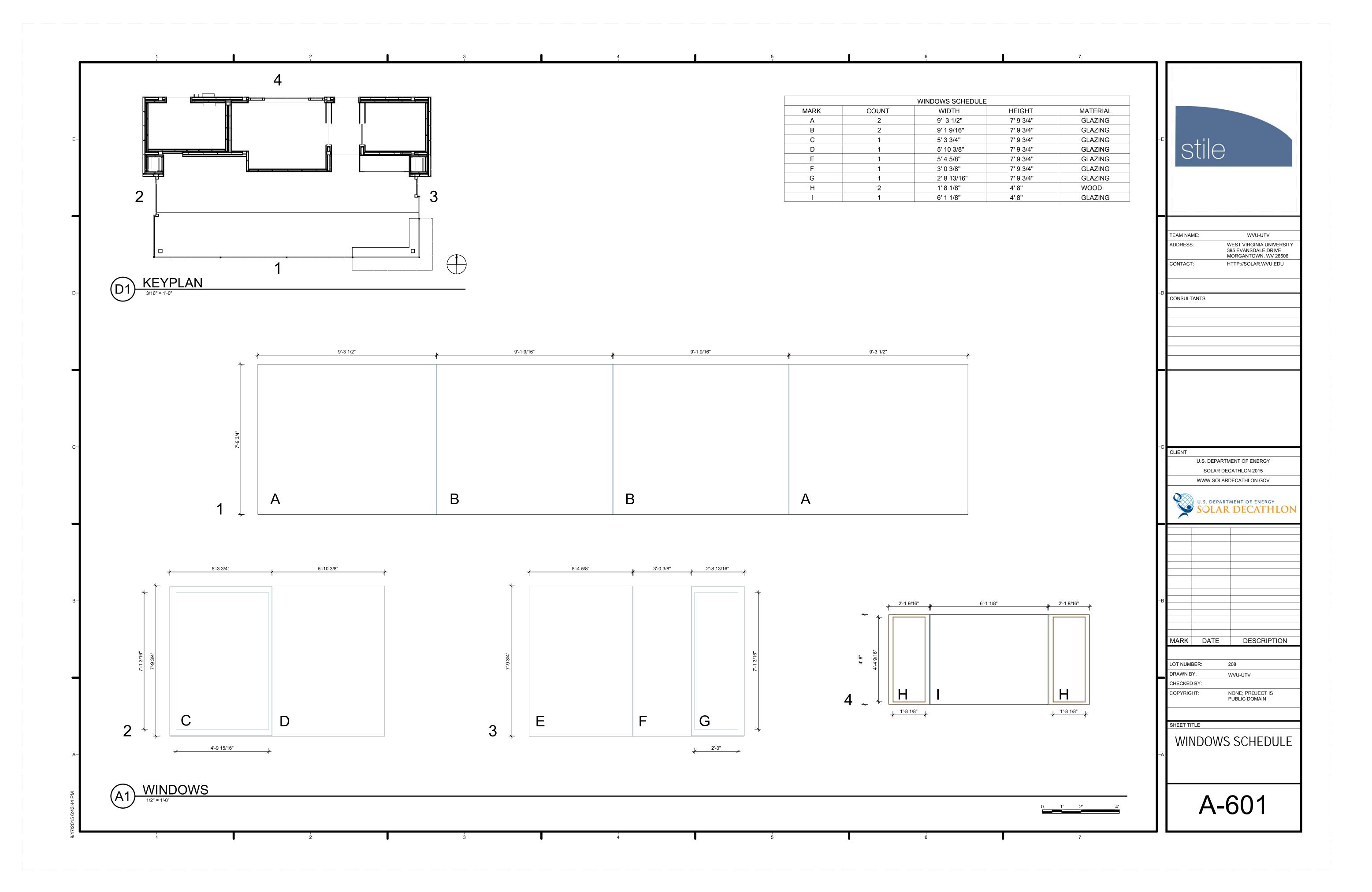












STRUCTURAL STEEL: 1. ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH THE "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS" (13TH **GENERAL STRUCTURAL NOTES:** PERFORMANCE REQUIREMENT S: EDITION) OF THE AISC. MAINTAIN COPY OF EACH ON JOB SITE DURING CONSTRUCTION. 1. SEE PROJECT MANUAL FOR: A. QUALITY OF CONSTRUCTION REQUIRED. 1. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT 2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING: SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO B. PERFORMANCE LEVELS OF WORKMANSHIP A. WIDE FLANGE SHAPES AND WT'S - ASTM A 992 WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI. C. MANUFACTURING AND INDUSTRY STANDARDS. CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF B. CHANNELS, ANGLES, PLATES, AND MISCELLANEOUS CONNECTION MATERIAL - ASTM A36 WITH A MINIMUM YIELD STRENGTH OF 36,000 PSI UNLESS NOTED OTHERWISE. D. STRENGTH AND PHYSICAL REQUIREMENTS OF MATERIALS. THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS C. PIPES - ASTM A501 WITH A MINIMUM YIELD STRENGTH OF 36,000 PSI OR ASTM A53 TYPE E OR S WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE E. CONFORMANCE TO CODES AND REGULATIONS. D. TUBES - ASTM A500, GRADE B WITH A MINIMUM YIELD STRENGTH OF 46,000 PSI. STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANT DUTY OR AUTHORITY F. WARRANTY REQUIREMENTS TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY 2. SHOULD A DISCREPANCY OCCUR BETWEEN THE CONSTRUCTION DRAWINGS AND THE PROJECT TECHNICAL 3. ALL BOLTS SHALL BE 3/4 " DIA. UNLESS NOTED OTHERWISE ASTM A325 H.S. BOLT OF EITHER FRICTION OR BEARING TYPE. USE SLIP CRITICAL CONNECTIONS FOR ALL WIND BRACING SPECIFICATIONS IN THE PROJECT MANUAL, THE SPECIFICATIONS (INCLUDING GEOTECHNICAL REPORT) WILL GOVERNTO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OR THE CONTRACT DOCUMENTS. CONNECTIONS. THREADS SHALL BE INCLUDED IN THE SHEAR PLANE. 3. DESIGN CODE: IBC 2012, RISK CATEGORY II 4. NO PROVISIONS HAVE BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION. 2. CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS 4. ALL BOLTED CONNECTIONS SHALL BE MADE ACCORDING TO AISC TABLE II OR III FRAMED BEAM CONNECTIONS. THE MINIMUM DEPTH OF CONNECTION MUST BE MORE THAN ONE HALF (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWING, VENDOR DRAWINGS, OR THE DEPTH OF THE BEAM EXCEPT THAT BEAMS FRAMING TO COLUMNS SHALL HAVE FULL DEPTH CONNECTIONS USING 3/8 " CONNECTION ANGLES OR PLATES. CONTRACTOR SHALL WIND DESIGN DATA: MATERIALS PREPARED AND SUBMITTED BY THE CONTRACTOR. PROVIDE CERTIFIED DESIGN FOR ALL SHEAR CONNECTIONS BY A PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED. SUBMIT CALCULATIONS FOR MOMENT **ULTIMATE 3-SECOND GUST DESIGN WIND SPEED:** CONNECTIONS USING BRACED MEMBER CAPACITY U.N.O. ON PLANS. MINIMUM END REACTION OF BEAMS: NOMINAL 3-SECOND GUST DESIGN WIND SPEED: 85 MPH 3. REFERENCE TO STANDARD SPECIFICATIONS OR ANY TECHNICAL SOCIETY, ORGANIZATION, OR W8'S = 10 KIPSASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES. SHALL MEAN THE LATEST STANDARD. WIND EXPOSURE CLASSIFICATION: W10'S = 12 KIPS +/-0.18 COMPONENTS AND CLADDING INTERNAL PRESSURE COEFFICIENT: CODE. SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS. UNLESS W12'S = 16 KIPS DESIGN WIND PRESSURE FOR EXTERIOR COMPONENT:25 PSF SPECIFICALLY STATED OTHERWISE. W14'S = 18 KIPSW16'S = 20 KIPS 6. EARTHQUAKE DESIGN DATA 4. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR W18'S = 22 KIPS SEISMIC IMPORTANCE FACTOR, IE = 1.00 SPECIFICATIONS OF ACI. PCI. AISC, SJI. OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE W21'S = 24 KIPS MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS: CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN. W24'S = 26 KIPSSS =1.404, S1 = 0.503 6. ALL WELDING SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS OF THE AWS AND THE AISC. USE E70XX ELECTRODES. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: 5. CONTRACTOR SHALL OBTAIN AND COORDINATE EDGE OF SLAB AND ROOF DECK EDGE DIMENSIONS. OPENING LOCATIONS AND DIMENSIONS, DEPRESSED SLAB LOCATIONS AND EXTENTS, SLAB SLOPES, CURB SDS =0.936, SD1 = 0.503 7. DO NOT PAINT STEEL WHERE ENCASED IN CONCRETE OR AT FIELD WELD AREAS. LOCATIONS, AND CMU WALL LOCATION. ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY SEISMIC SITE CLASS: **TEAM NAME** WVU-UTV SEISMIC DESIGN CATEGORY: D DISCREPANCY OR OMISSION. IN THE EVENT OF DISCREPANCIES, THE NON- STRUCTURAL ARCHITECTURAL 8. NO SHOP OR FIELD HOLES OR CUTS ARE TO BE PLACED IN STRUCTURAL MEMBERS UNLESS INDICATED ON THE CONTRACT OR SHOP DRAWINGS. DETAILS SHALL GOVERN WEST VIRGINIA LINIVERSITY ADDRESS: BASIC SEISMIC FORCE RESISTING SYSTEM: 395 EVANSDALE DRIVE 9. THE STRUCTURAL STEEL FABRICATOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION. PARTICULARLY FOR STAIRS, HANDRAIL SYSTEMS, ETC. ORDINARY STEEL BRACED AND MOMENT FRAMES 6. CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE MORGANTOWN, WV 26506 STARTING WORK. ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY. 10. THE STRUCTURAL STEEL FABRICATOR SHALL PROVIDE FOR VERTICAL AND HORIZONTAL ADJUSTMENT OF ALL SUPPORT ASSEMBLIES. CONTACT HTTP://SOLAR.WVU.EDU ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE 7. CONTRACTOR SHALL VERIFY THE STRUCTURALLY SUPPORTED MECHANICAL EQUIPMENT WEIGHTS, 11. THE STRUCTURAL STEEL FABRICATOR AND/OR THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AT THE SITE. ALL DISCREPANCIES FOUND OPENING SIZES, AND LOCATIONS IDENTIFIED ON THE STRUCTURAL DRAWING WITH ARCHITECTURAL AND SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PREPARATION OF SHOP DRAWINGS. SHOP DRAWINGS SHALL INCLUDE ALL FIELD MEASUREMENTS AND CONDITIONS. 7. LIVE LOAD DATA: 12. EXPANSION BOLTS: USE EXPANSIVE ANCHORS OF THE DIAMETER INDICATED ON THE DRAWINGS AS MANUFACTURED BY HILTI FASTENING SYSTEMS OR APPROVED EQUAL. **UNIFORM FLOOR LIVE LOADS:** 8. CONTRACTOR SHALL VERIFY THAT MISCELLANEOUS FRAMING SHOWN ON THE STRUCTURAL DRAWINGS A. IN CONCRETE, USE HSL HEAVY DUTY ANCHORS. CONSULTANTS FOR MECHANICAL EQUIPMENT, OWNER-FURNISHED ITEMS, PARTITIONS, ETC. IS CONSISTENT WITH THE B. IN BRICK AND CMU. USE SLEEVE AND FILL CMU CELLS AT ALL BOLT LOCATIONS. REQUIREMENTS OF SUCH ITEMS. 13. ANCHOR BOLTS MUST MEET ASTM A1554 GR. 36 SPECIFICATIONS AND BE 3/4" DIAMETER (UNLESS OTHERWISE INDICATED). CONCENTRATED FLOOR LIVE LOADS (DISTRIBUTED OVER AN ARE2-1/2 SQ. FT., UNLESS NOTED OTHERWISE):OFFICE 9. CONTRACTOR HAS RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND 16. ALL GALVANIZING SHALL BE PER ASTM A123 AND A 780. ALL STEEL EXPOSED TO THE ELEMENTS AND MASONRY SUPPORT MEMBERS SHALL BE GALVANIZED. BACKUP STEEL BUILDINGS 2000 LBS PROCEDURES OF CONSTRUCTION. SUPPORTING MASONRY VENEER AND PRECAST SUPPORT ANGLES SHALL BE ZINC PRIMED AND PAINTED. 10. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR 17. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR POSSIBLE MISCELLANEOUS STEEL. THIS STEEL SHALL ALSO CONFORM TO THE REQUIREMENTS IN THESE GENERAL TOP RAIL: 200 LB. OR 50 LB/FT APPLIED NON-CONCURRENTLY IN ANY DIRECTION. STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND NOTES AND THE STRUCTURAL STEEL SPECIFICATIONS. INSTALLED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTABILITY ANALYSIS, AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FRAMEWORK, TEMPORARY 8. SNOW LOAD DATA: 18. STEEL FABRICATOR SHALL BE CERTIFIED UNDER THE AISC QUALITY CERTIFICATION PROGRAM. GROUND SNOW LOAD, PG = 20 PSF 20. STEEL FABRICATOR SHALL REVIEW ARCHITECTURAL DRAWINGS AND INCLUDE ALL MISCELLANEOUS STEEL IN THEIR BID. IF NOTES ON ARCHITECTURAL DRAWINGS REFER TO "SEE FLAT ROOF SNOW LOAD, PF = 20 PSF (MIN) 11. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS. STRUCTURAL" AND THE STRUCTURAL DRAWINGS DO NOT ADDRESS THIS ITEM NOTIFY THE E.O.R. AT LEAST TWO WEEKS PRIOR TO BID OPENING TO ALLOW TIME FOR ISSUE OF ADDENDUM. SNOW EXPOSURE FACTOR, C_e =1.0 THERMAL FACTOR, CT =1.1 12. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED. 21. COLUMN SCHEDULE MAY NOT INCLUDE ALL COLUMNS ON THE PROJECT. REVIEW ALL DRAWINGS TO INSURE ALL COLUMNS ARE INCLUDED IN BID. SNOW LOAD IMPORTANCE FACTOR, IS =1.0 13. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR. 23. SUPPORT FOR RTU'S SHALL BE LIMITED TO FRAMED OPENING STEEL AROUND ROOF OPENINGS. ADDITIONAL STEEL REQUIRED FOR RTU SUPPORT SHALL BE DESIGNED AND PROVIDED 9. GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS RELATED TO EXISTING CONSTRUCTION, BY THE GENERAL CONTRACTOR WITH COORDINATION WITH THE RTU MANUFACTURER. EXISTING SERVICES, AND THE SITE. 14. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE DESIGN OF STEEL STAIRS, HANDRAILS, CURTAIN WALL/WINDOW SYSTEMS, COLD-FORMED METAL FRAMING, TOILET PARTITION 10. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LIVE LOADS. SHORING AND RE-SHORING IS THE RESPONSIBILISUPPORTS, SHELF SYSTEMS, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS, SUCH THE GENERAL CONTRACTOR. SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY OTHERS AS REQUIRED BY OTHER PORTIONS 15. STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR SPECIFYING ALL WATERPROOFING DETAILS AND ELEMENTS ON THE SUPERSTRUCTURE AND BELOW GRADE STRUCTURES. 16. GENERAL CONTRACTOR SHALL REVIEW AND COORDINATE ELEVATOR RAIL AND HOIST REQUIREMENTS U.S. DEPARTMENT OF ENERGY WITH STRUCTURAL DRAWINGS NOTIFY STRUCTURAL ENGINEER IMMEDIATELY IF CHANGES ARE REQUIRED. SOLAR DECATHLON 2015 WWW SOLARDECATHLON GOV U.S. DEPARTMENT OF ENERGY SOLAR DECATHLO CONSTRUCTION MEANS AND METHODS 1. CONTRACTOR AGREES THAT CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFELY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD OWNER AND STRUCTURAL ENGINEER HARMLESS FROM ANY AND LIGHTGAGE STEEL FRAMING (LSF): ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT. EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER OR STRUCTURAL ENGINEER. 1 ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISL "SPECIFICATION FOR THE DESIGN OF COLD-FORMED." STEEL STRUCTURAL MEMBERS", LATEST EDITION). WIND LOAD DETERMINATION FOR COMPONENTS AND CLADDING SHALL BE PER ASCE STANDARD, MINIMUM DESIGN LOADS FOR 2. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE METHOD OF **BUILDINGS AND OTHER STRUCTURES** CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: PROTECTION OF SUBGRADE FROM 2. ALL STRUCTURAL STUD AND/OR JOIST FRAMING MEMBERS SHALL BE ENGINEERED BY THE MANUFACTURER. DESIGN CALCULATIONS AND SHOP DRAWINGS INDICATING ALL FREEZING CONDITIONS, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY JAMBS, POSTS, HEADERS, BRACING, AND PIECES NECESSARY FOR CONSTRUCTION SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW. STRUCTURES, AND PARTIALLY COMPLETED WORK. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. 3. EXTERIOR STUD WALLS SHALL BE DESIGNED FOR A MINIMUM UNIFORM WIND PRESSURE AS PER IBC - 2012 FOR COMPONENTS AND CLADDING AND A MAXIMUM PERMISSIBLE HORIZONTAL DEFLECTION OF L/360 (L600 FOR UNREINFORCED VENEER). 3. ADS CONSULTING ENGINEERS SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR SAFETY OR MARK DATE DESCRIPTION 4. MAXIMUM STUD SPACING SHALL BE 16" O.C. SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ANY CONSTRUCTION ACTIVITIES, SINCE THESE ARE SOLELY CONTRACTOR'S RESPONSIBILITY UNDER THE CONTRACT. 5. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS. 4. ADS CONSULTING ENGINEERS SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S SCHEDULE OR FAILURES TO 6. ALL FIELD CUTTING OF STUDS MUST BE DONE BY SAWING OR SHEARING. TORCH CUTTING OF COLD-FORMED MEMBERS IS UNACCEPTABLE. LOT NUMBER: CARRY OUT ANY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ADS CONSULTING 1. DESIGN OF STEEL DECK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO THE DRAWN BY: ENGINEERS SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTIONS OF CONTRACTOR, SUBCONTRACTOR, SUBCONT WVU-UTV DESIGN LOAD DATA SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE. REVIEW OF SHOP DRAWINGS SHALL WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED. ALL WELDS SHALL BE TOUCHED-UP WITH ZINC-RICH PAINT. OF THEIR AGENTS, OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING PORTIONS OF ANY CONSTRUCTION **CHECKED BY** BE FOR CONTRACTOR'S INTERPRETATION OF DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR THE DESIGN OF THE STEEL DECK. DECK SHOWN OB. LSF MEMBERS SHALL BE SECURELY ATTACHED TO THE STRUCTURE WHERE INDICATED ON THE DRAWINGS OR APPROVED SHOP DRAWINGS. FASTENERS SHALL BE NONE; PROJECT IS 5. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY OF DESIGN DRAWINGS ARE FOR ESTIMATING PURPOSES ONLY. COMPATIBLE TO THE STRUCTURAL MEMBERS. PUBLIC DOMAIN THE STRUCTURE DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY CONTRACTOR 9. PROVIDE VERTICAL SLIDE TRACKS OR SLIDE CLIPS WHERE INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED TO ALLOW FOR VERTICAL STRUCTURAL MOVEMENTS. 2. COMPOSITE STEEL DECK SHALL BE CAPABLE OF SUPPORTING THE LOADS DESCRIBED IN THE SPECIFICATIONS, MAXIMUM EXPECTED STRUCTURE DEFLECTIONS ARE L/360 AT FLOORS AND L/240 AT ROOFS. CORRESPONDING TO THE NUMBER OF SPANS AND THE SPAN LENGTH. A. COMPOSITE FLOOR DECK IS DESIGNED TO BE UNSHORED UNLESS NOTED OTHERWISE. SHEET TITLE 10. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION, SUCH AS SHEETING TYPE, FINISHES, OPENINGS, ETC. B. COMPOSITE FLOOR SLABS ARE TO BE FINISHED LEVEL. THE WEIGHT OF THE WET CONCRETE WILL CAUSE DEFLECTIONS OF THE STEEL FRAMING, THUS CONCRETE OVERRUNS ARE TO BE ANTICIPATED AND 11. FOR VERTICAL LOAD BEARING STUD WALLS, DO NOT LOAD OVERBEARING ROOF OR FLOORS WITH CONSTRUCTION EQUIPMENT AND/OR STORE BUILDING MATERIALS UNTIL TYPICAL DETAILS INCLUDED IN THE CONTRACTOR'S BASE BID. BEARING STUDS ARE FULLY INSTALLED AND BRACED ACCORDINGLY. CONTRACTOR REMAINS RESPONSIBLE FOR MEANS AND METHODS AND CONSTRUCTION SITE SAFETY. C. COORDINATE EMBEDDED ITEMS REQUIRED FOR ARCHITECTURAL, STRUCTURAL AND MECHANICAL

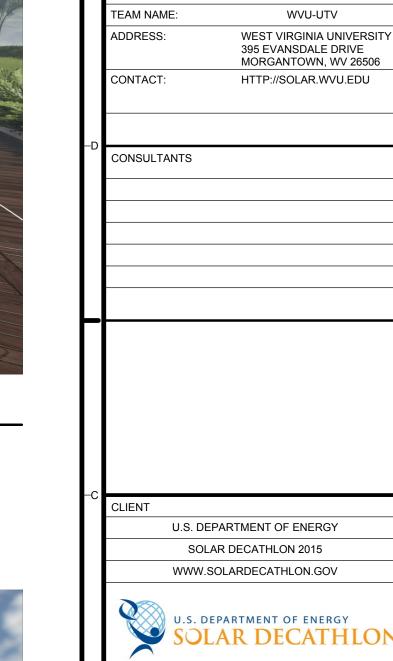
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C4 EXTERIOR VIEW



EXTERIOR VIEW



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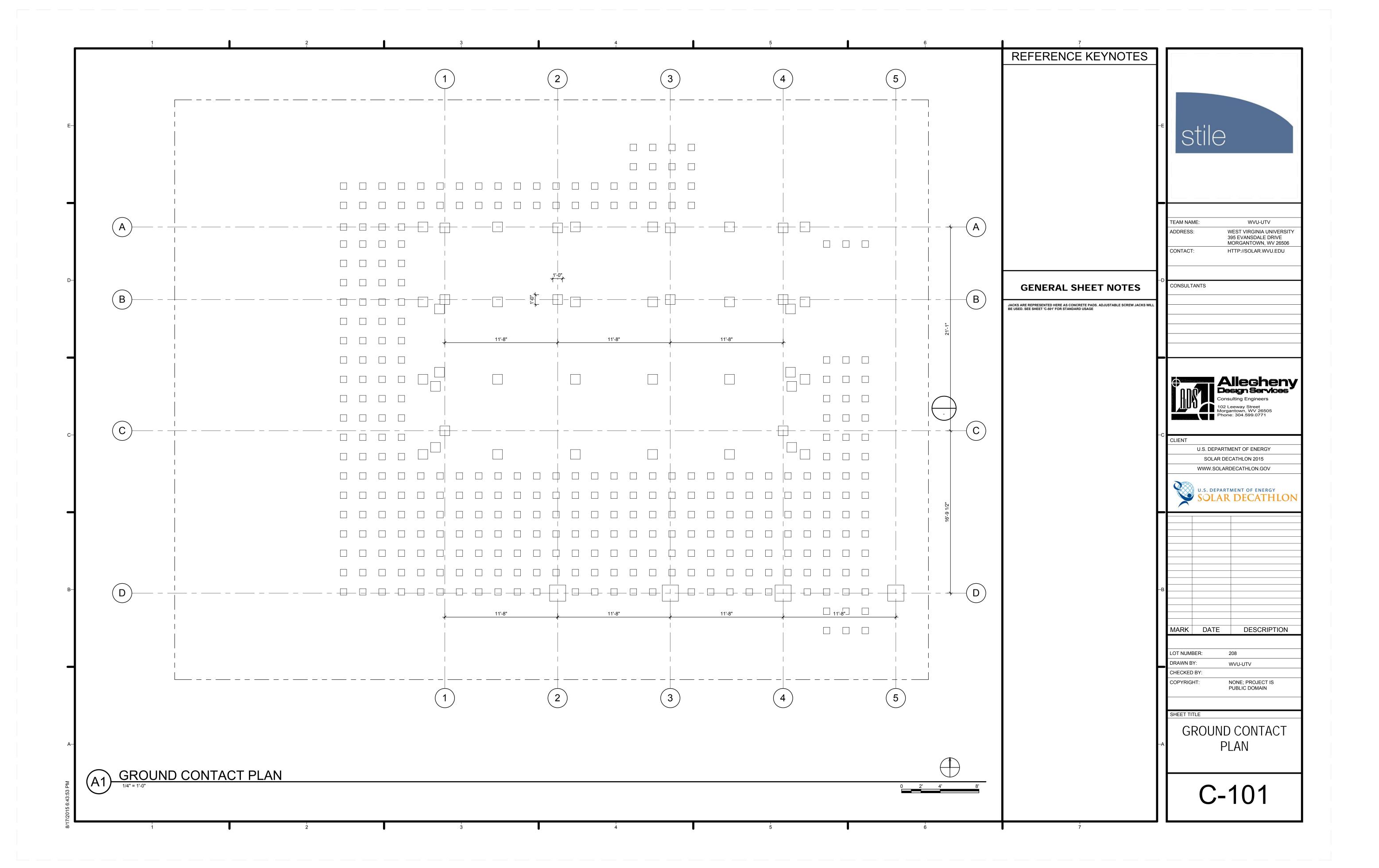
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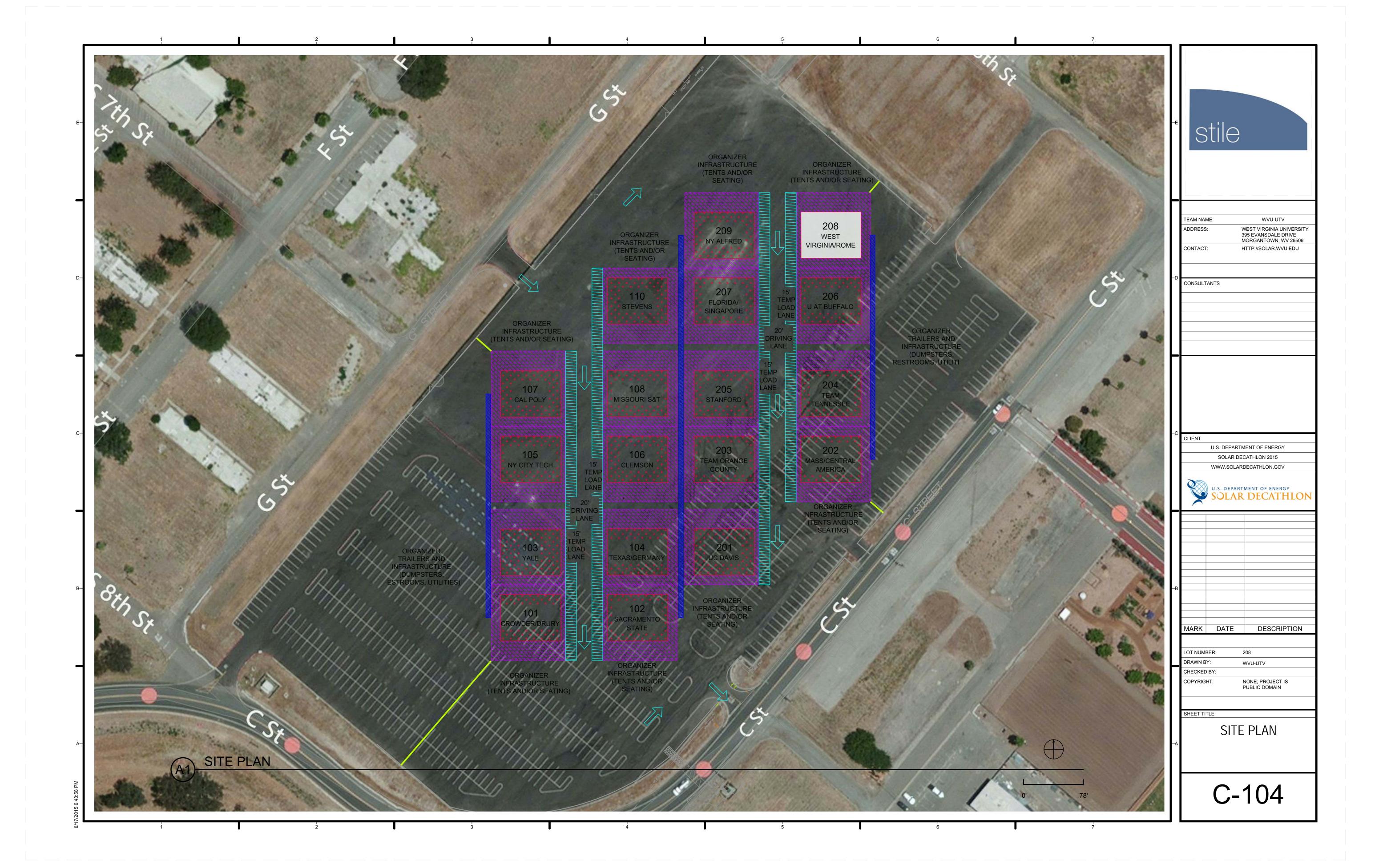
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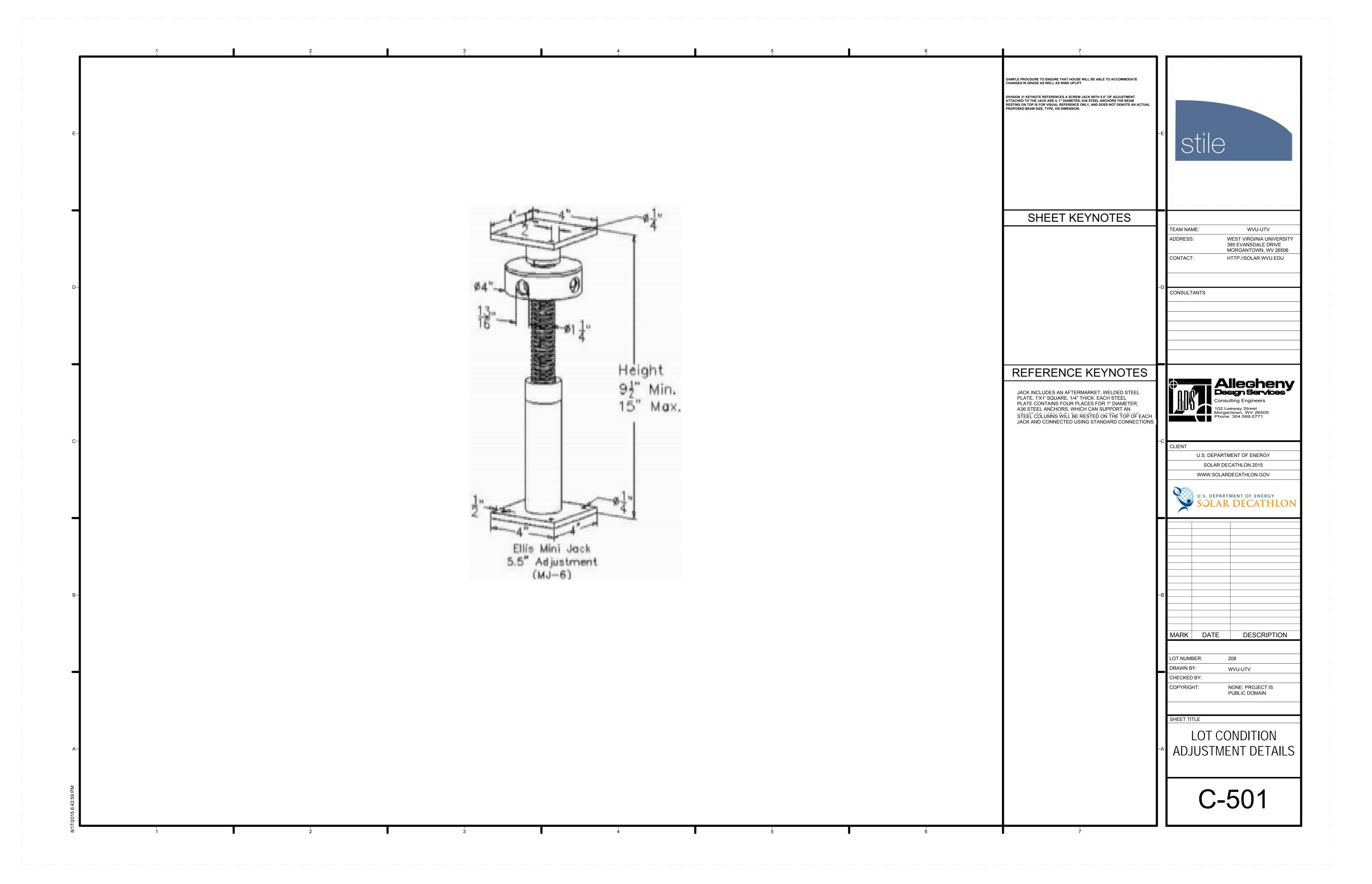
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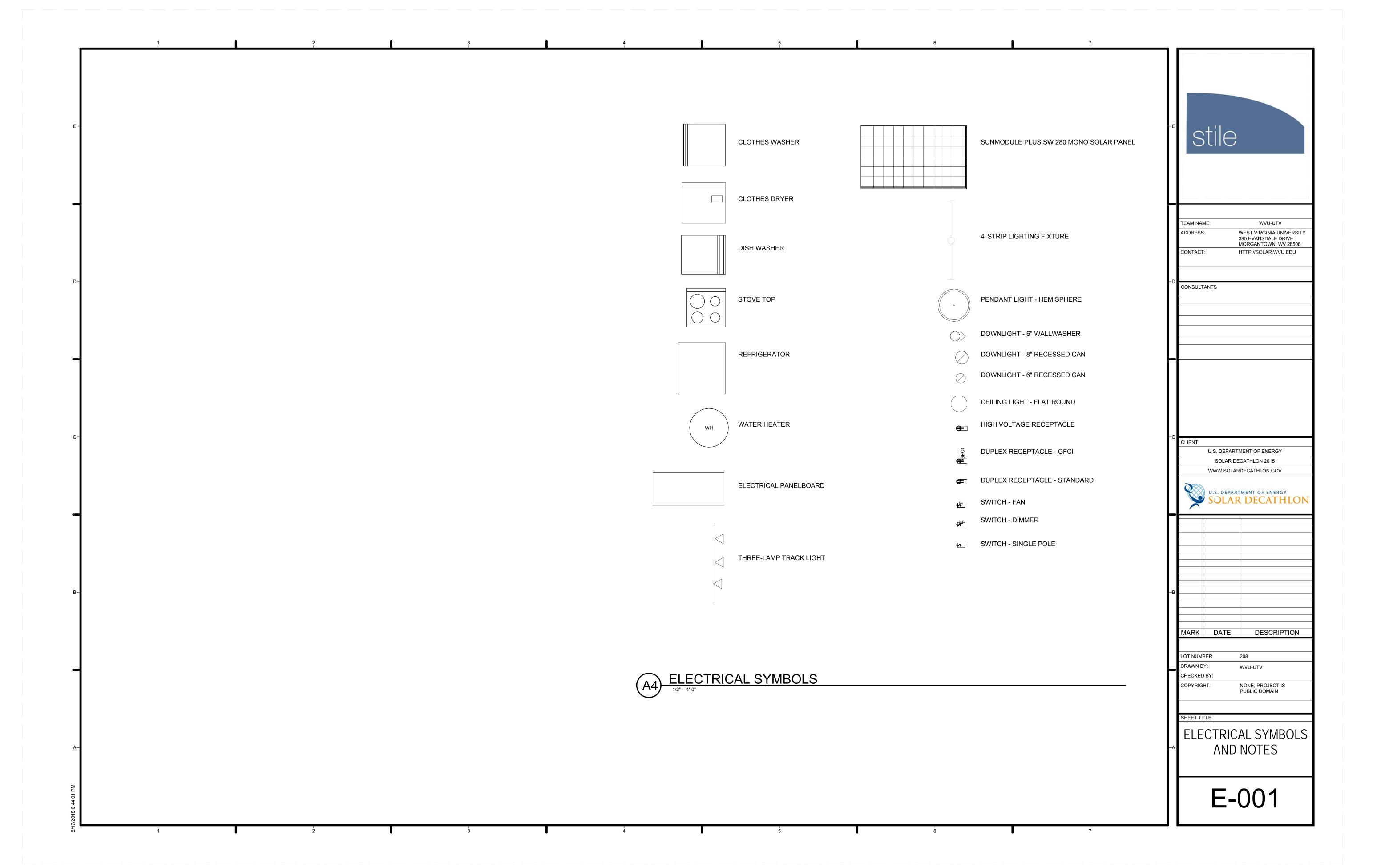
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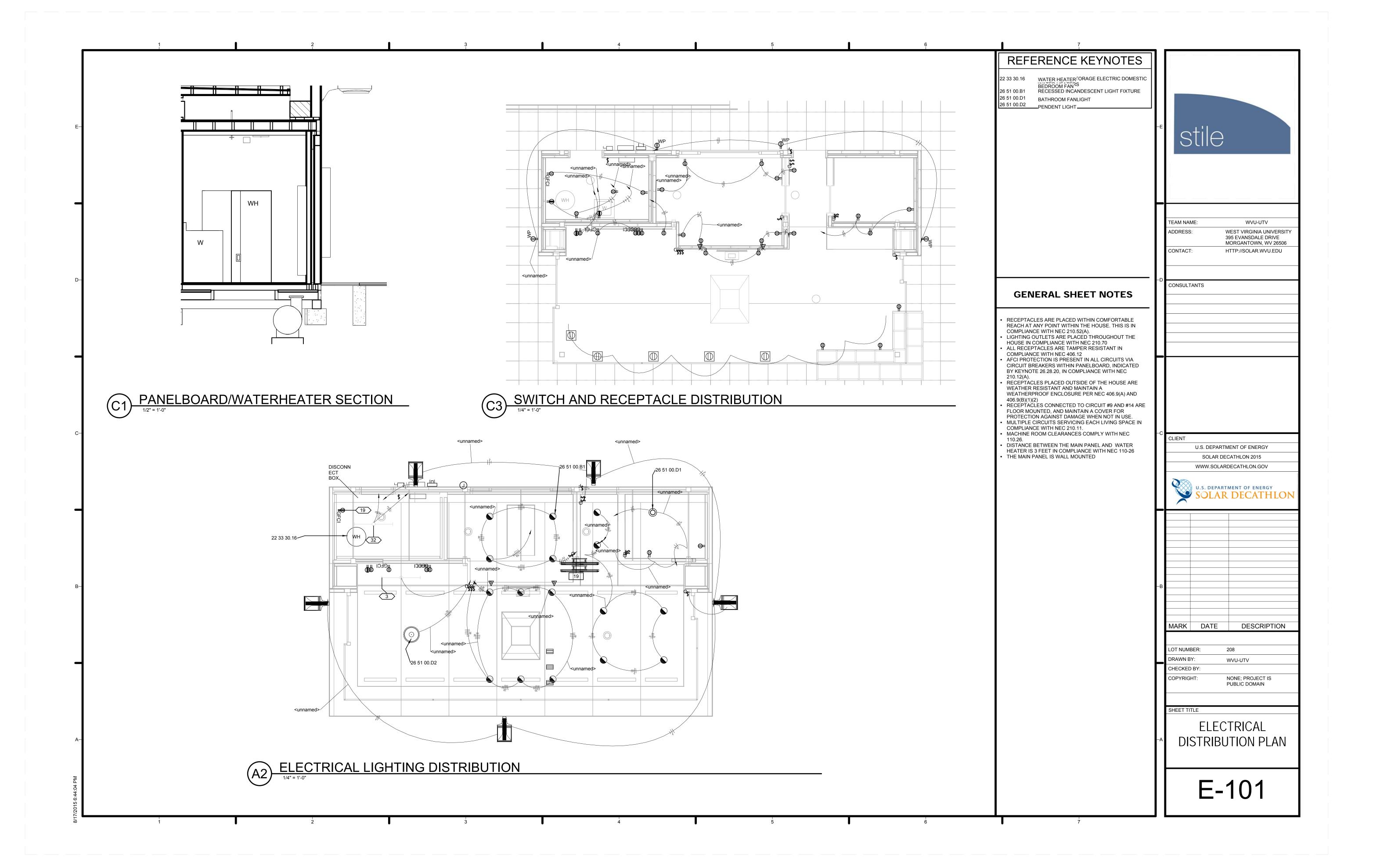
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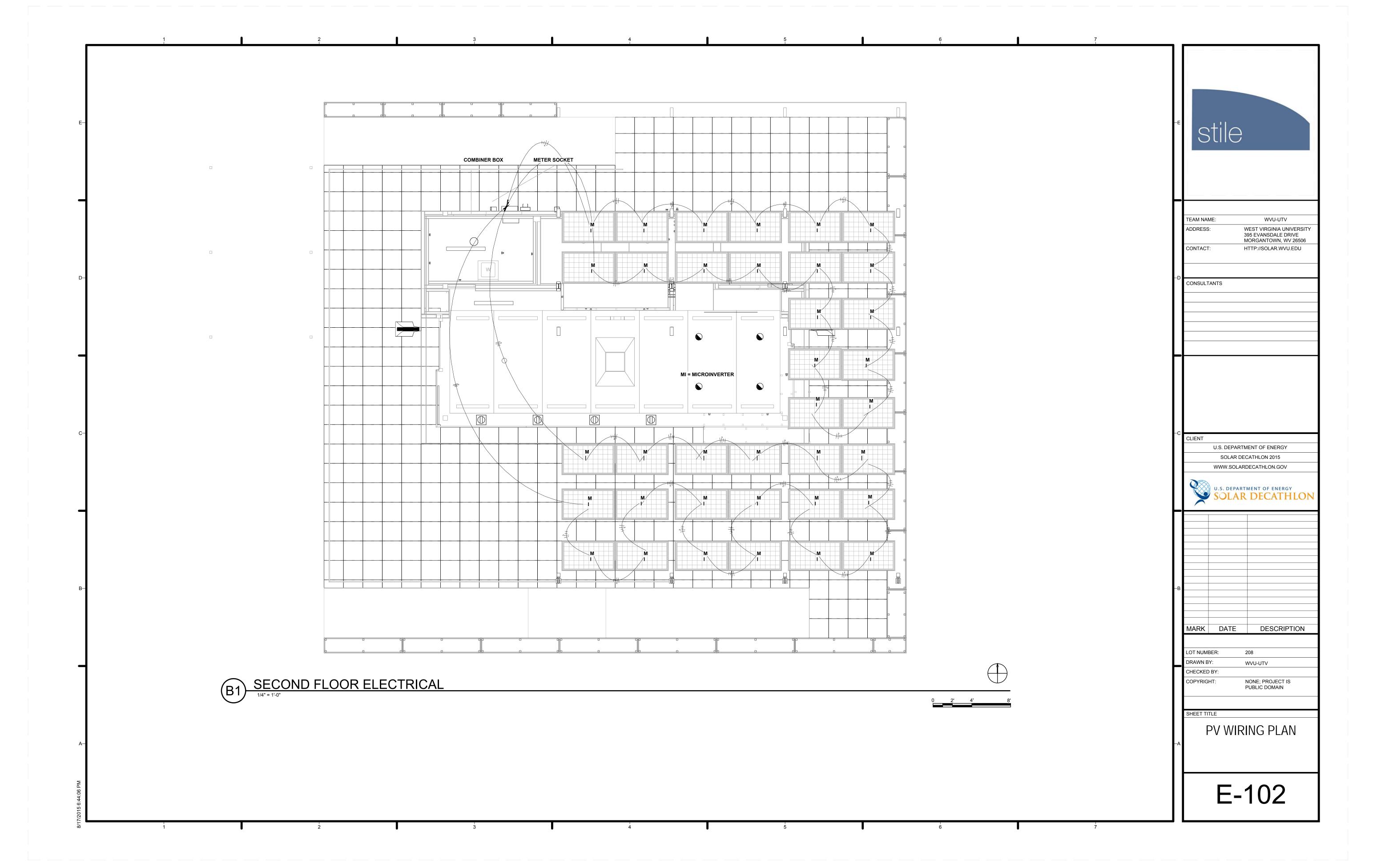


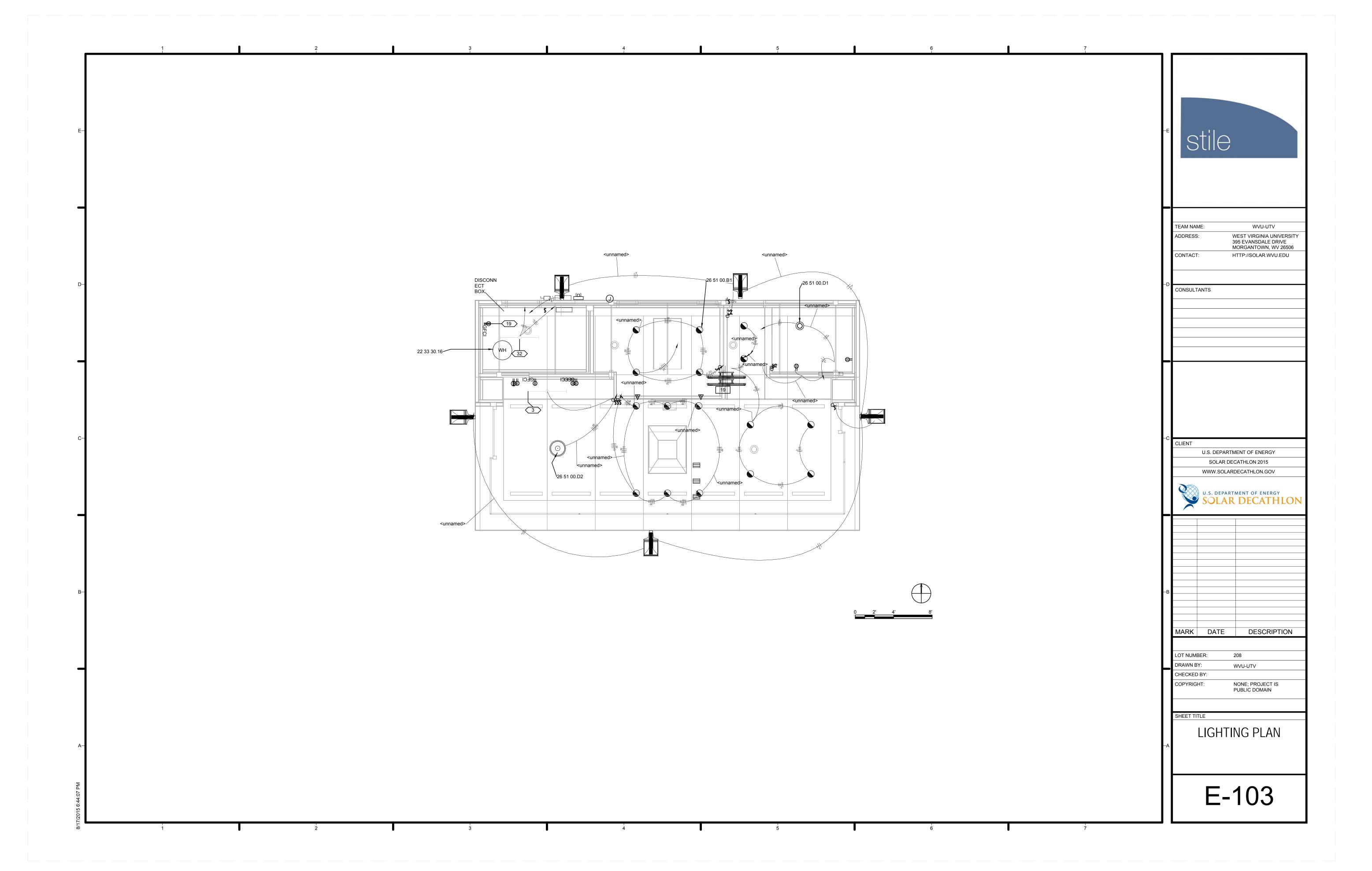


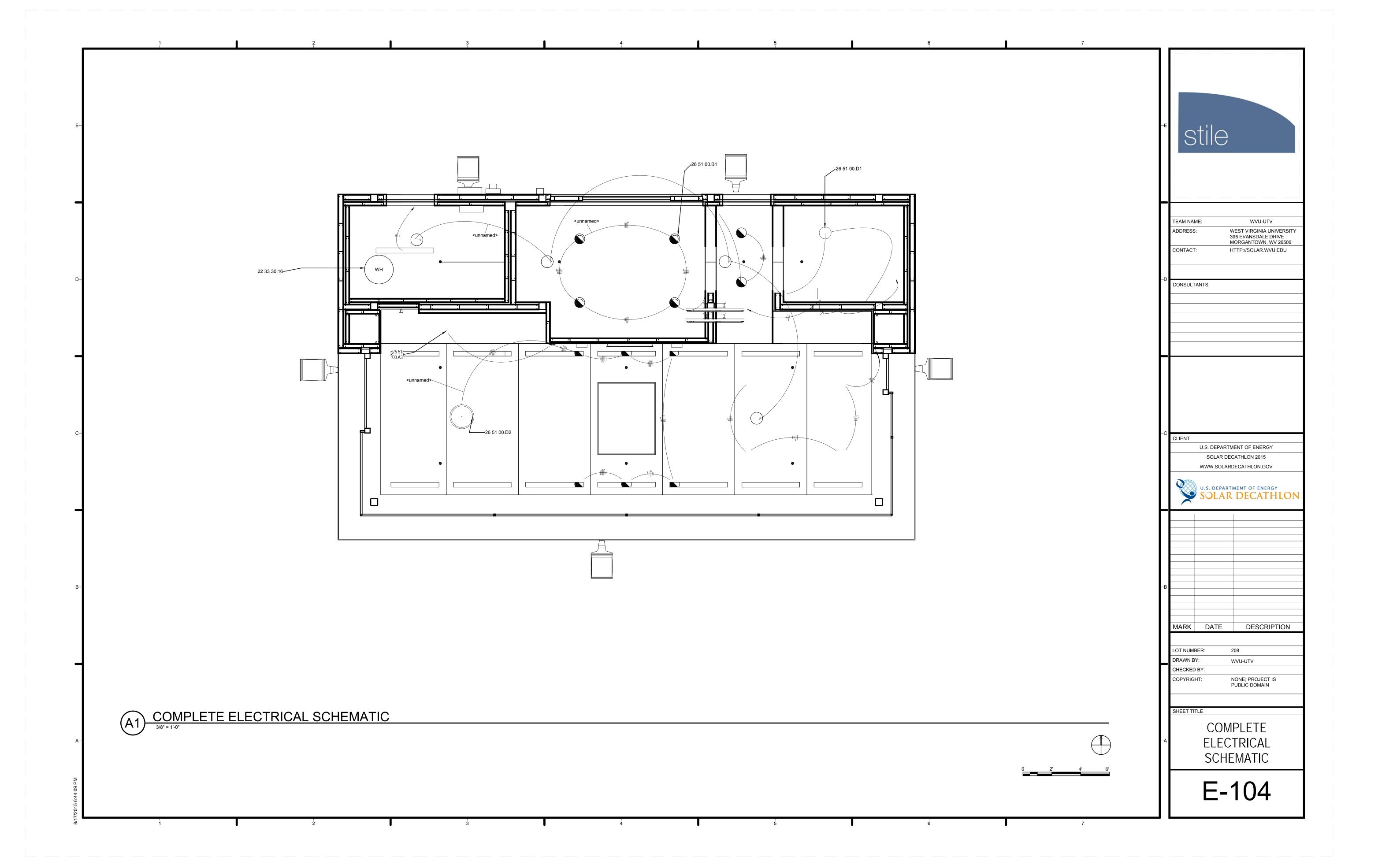


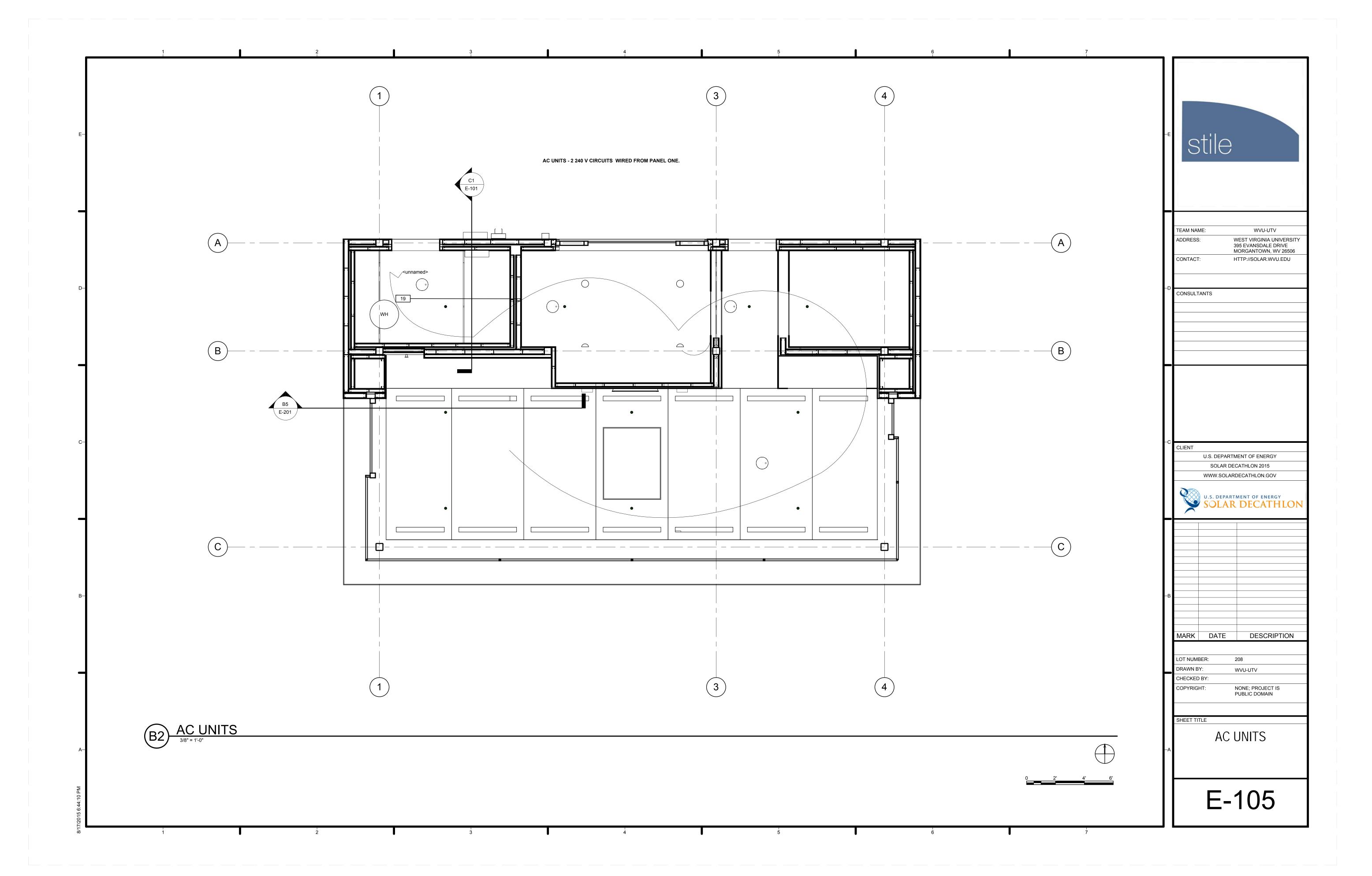


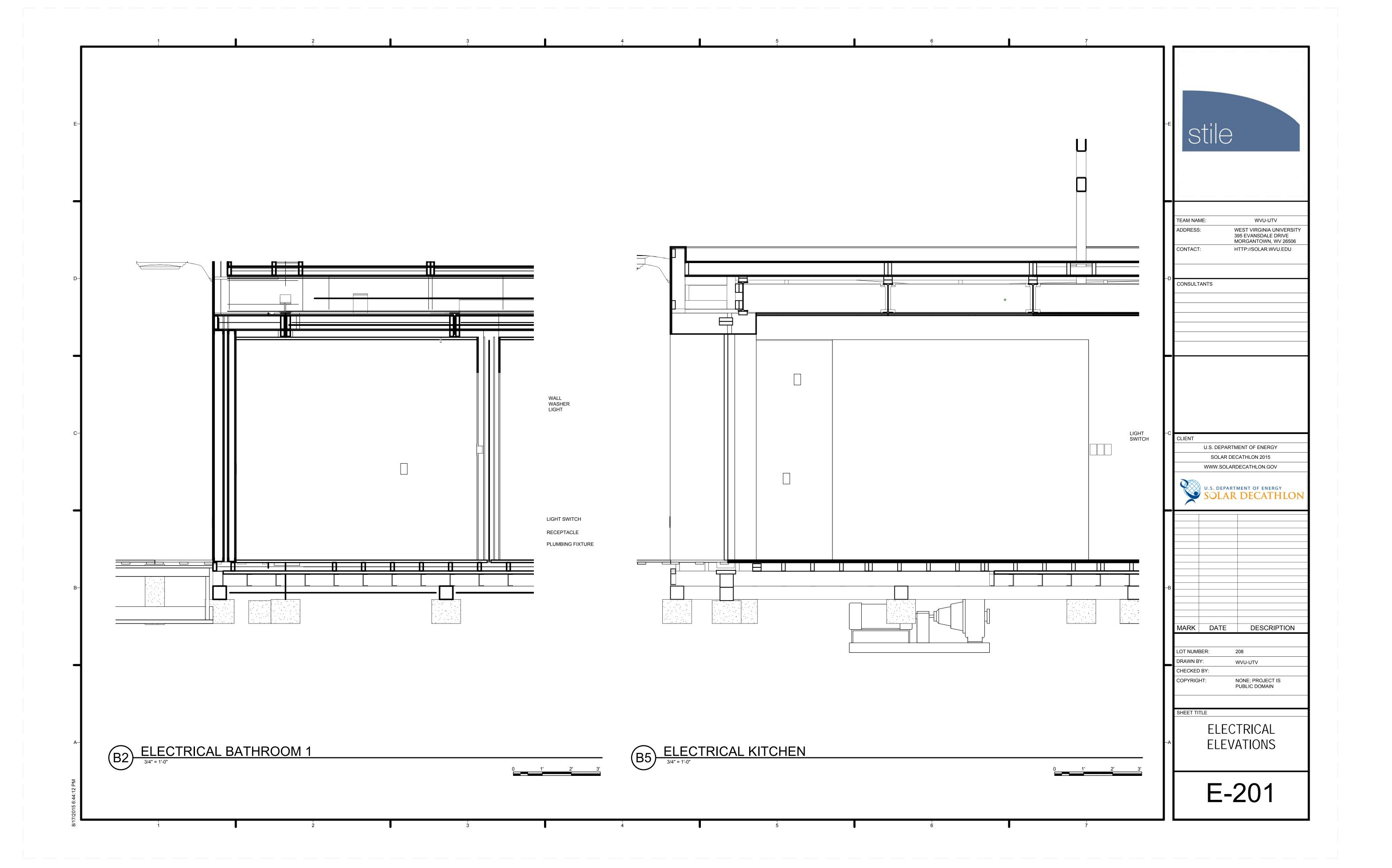


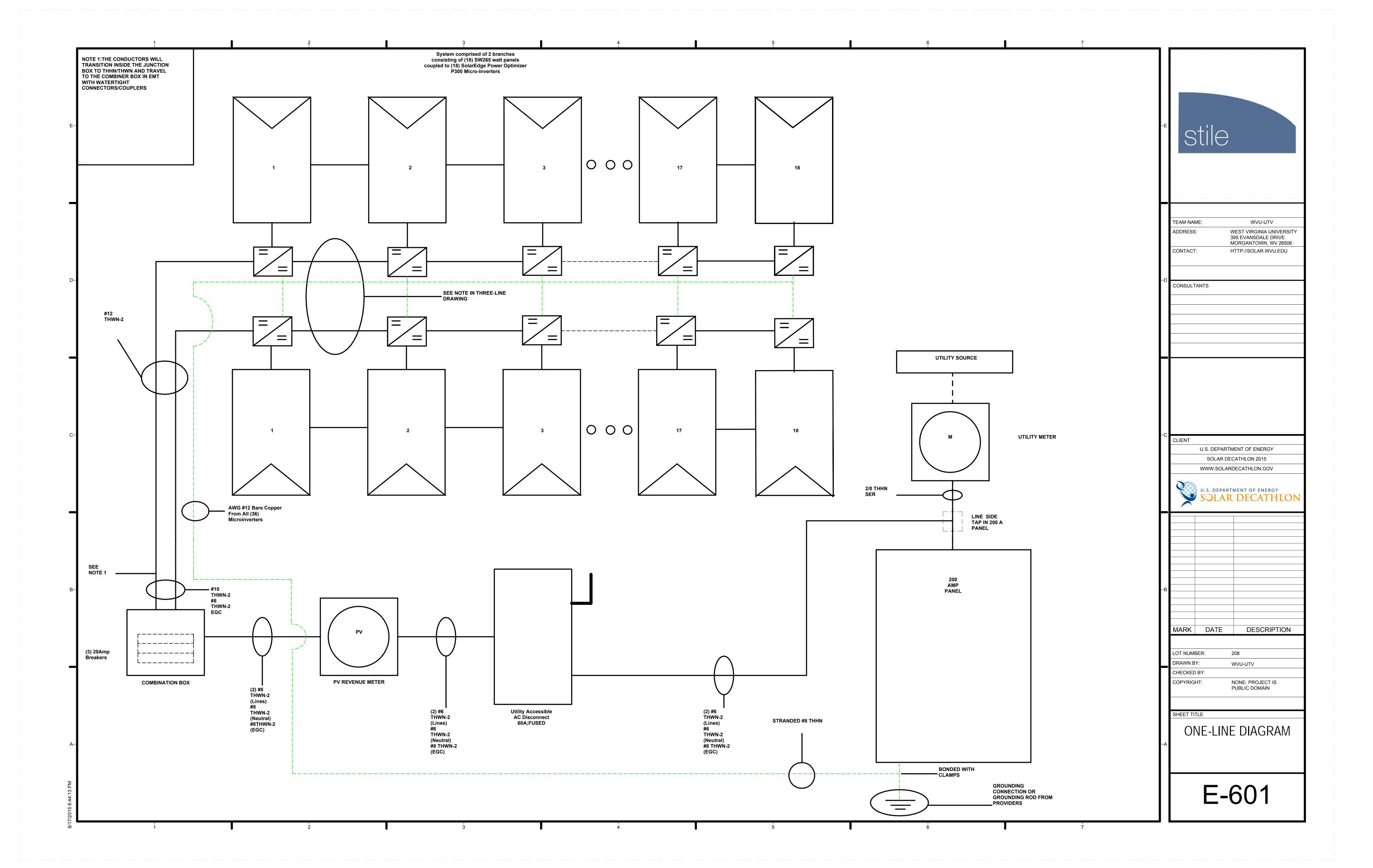


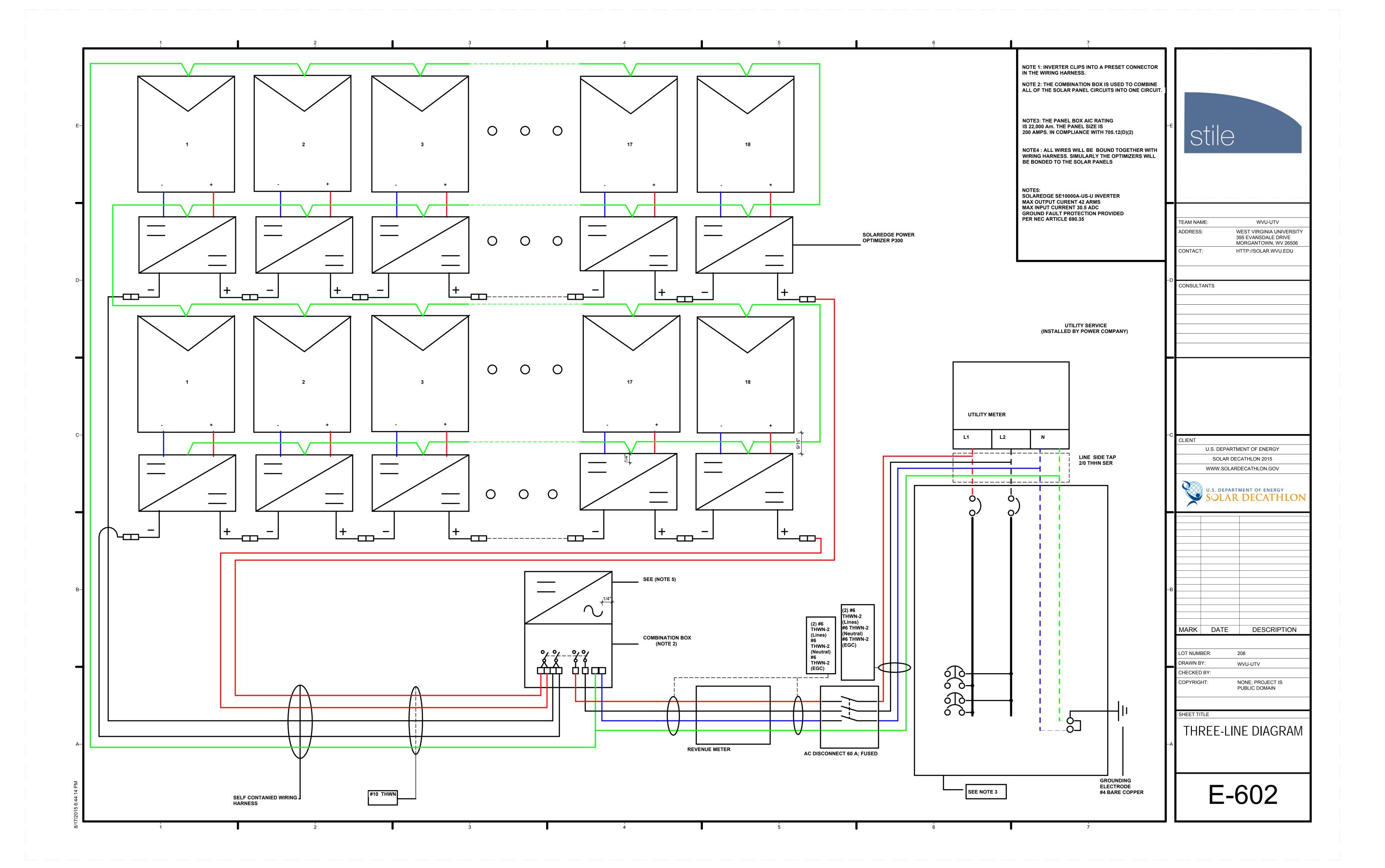












FLECTRICAL FIVELINE COLLEGIUE				
ELECTRICAL FIXTURE SCHEDULE				
MARK	CIRCUIT NUMBER	COUNT	FAMILY AND TYPE	TYPE COMMENTS
9	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
11	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
12	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
13	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
15	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
16	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
17	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
18	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
19	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
20	<unnamed></unnamed>	1	Weather Proof Receptacle: Standard	
21	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
22	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
23	<unnamed></unnamed>	1	Duplex Receptacle: GFCI	
24	<unnamed></unnamed>	1	High Voltage Receptacle: Standard	
25	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
26	<unnamed></unnamed>	1	High Voltage Receptacle: Standard	
27	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
29	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
32	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
33		1	Junction Boxes - Load: 6x6x4"junction box	
35		1	Weather Proof Receptacle: Standard	
36	<unnamed></unnamed>	1	Duplex Receptacle: GFCI	
37		1	Duplex Receptacle: Standard	
38		1	Duplex Receptacle: Standard	
39		1	Weather Proof Receptacle: Standard	
40		1	Weather Proof Receptacle: Standard	
41		2		
42		1	Duplex Receptacle: Standard	
44	<unnamed></unnamed>	1	High Voltage Receptacle: Standard	
45	<unnamed></unnamed>	1	Duplex Receptacle: GFCI	
46	<unnamed></unnamed>	1	Duplex Receptacle: GFCI	
47	<unnamed></unnamed>	1	Duplex Receptacle: GFCI	
48	<unnamed></unnamed>	1	Duplex Receptacle: Standard	
56		1	Switch: Door bell	
58	7	1	ZMM_Duplex Receptacle - Floor Mounted: Standard	
59		1	ZMM_Duplex Receptacle - Floor Mounted: Standard	
60		1	Duplex Receptacle: Standard	
66		1	ZMM_Duplex Receptacle - Floor Mounted: Standard	
67	20.04	1	ZMM_Duplex Receptacle - Floor Mounted: Standard	
69	29,31	1	Duplex Receptacle: Standard	
70		1	Duplex Receptacle: Standard	
73	10	1	Duplex Receptacle: Standard	

	LIGHTING FIXTURE SCHEDULE				
MARK	FAMILY AND TYPE	MANUFACTURER	MODEL	LAMP	COMMENTS
	600-LED: 600-LED			LED	
	flat_panel_lcd_4 936: flat_panel_lcd_4 936				
	Lighting-Wall-Co oper-Shaper-60 0-Series-LED: Lighting-Wall-Co oper-Shaper-60 0-Series-LED	Cooper Lighting	600 Series LED	LED	Luminous Sconce Vanity
2	Ceiling Light - Flat Round: 60W - 120V			A-19	
3	Luminaries_Site _Gull-Area_Gar dco_G18: As Specified	Philips Gardco Lighting	G18	As Specified in 26 56 00	
3	Strip Lighting Fixtures: 4' 1 Lamp - 120				
4	Pendant Light - Hemisphere: 100W - 120V			A-19	
7	ZMM_Downlight - Recessed Can: 6" Incandescent - 120V			A-19	
32	Strip Lighting Fixtures: 4' 2 Lamp - 120				

LOAD CALCULATIONS

LOAD DESCRIPTION LIGHTING 990 SQ FT * 3 VA / FT SMALL APPLIANCE CIRCUITS WASHER DRYER HVAC UNIT REFRIDGERATOR @75% RANGE WATER HEATER @ 75% DISHWASHER @75%	CODE REFERENCE (NEC 220.12 (NEC 220.14) (NEC 220.52 B) (NEC 220.54 (NEC 440 IV) (NEC 440 IV) (NEC TABLE 220.55) (NEC 220.53) (NEC 220.53)	2970 2879 1500 5600 4000 600 8000 3375 639
DISHWASHER @75%	(NEC 220.53)	639
CAR CHARGER	(NEC 625))	7200

TOTAL VA TOTAL CURRENT - (TOTAL VA)/(240 V) 36763 VA 153 AMPS ELECTRICAL SERVICE / MAIN BREAKER RATING

NEUTRAL CONDUCTOR CALCULATIONS
LOAD DESCRIPTION
GENERAL LIGHTING AND RECEPTACLES
COOKING
FIXED APPLIANCES
DRYER
CAR CHARGER VA 4502 8400 5135 3920 7200

TOTAL VA 29157 VA

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ADDRESS:	WEST VIRGINIA UNIVERSITY 395 EVANSDALE DRIVE MORGANTOWN, WV 26506
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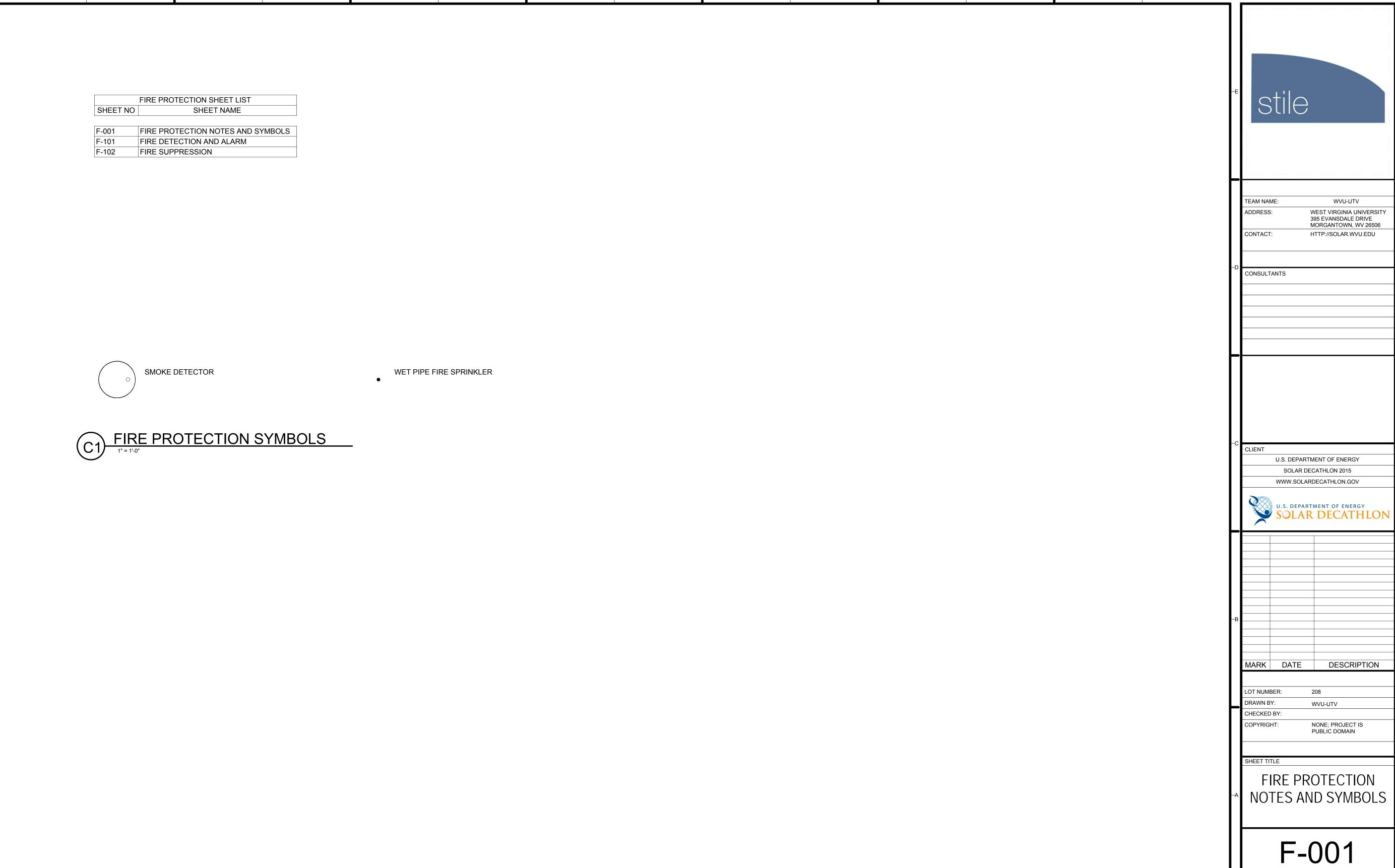
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SCHEDULES AND CALCULATIONS

E-603



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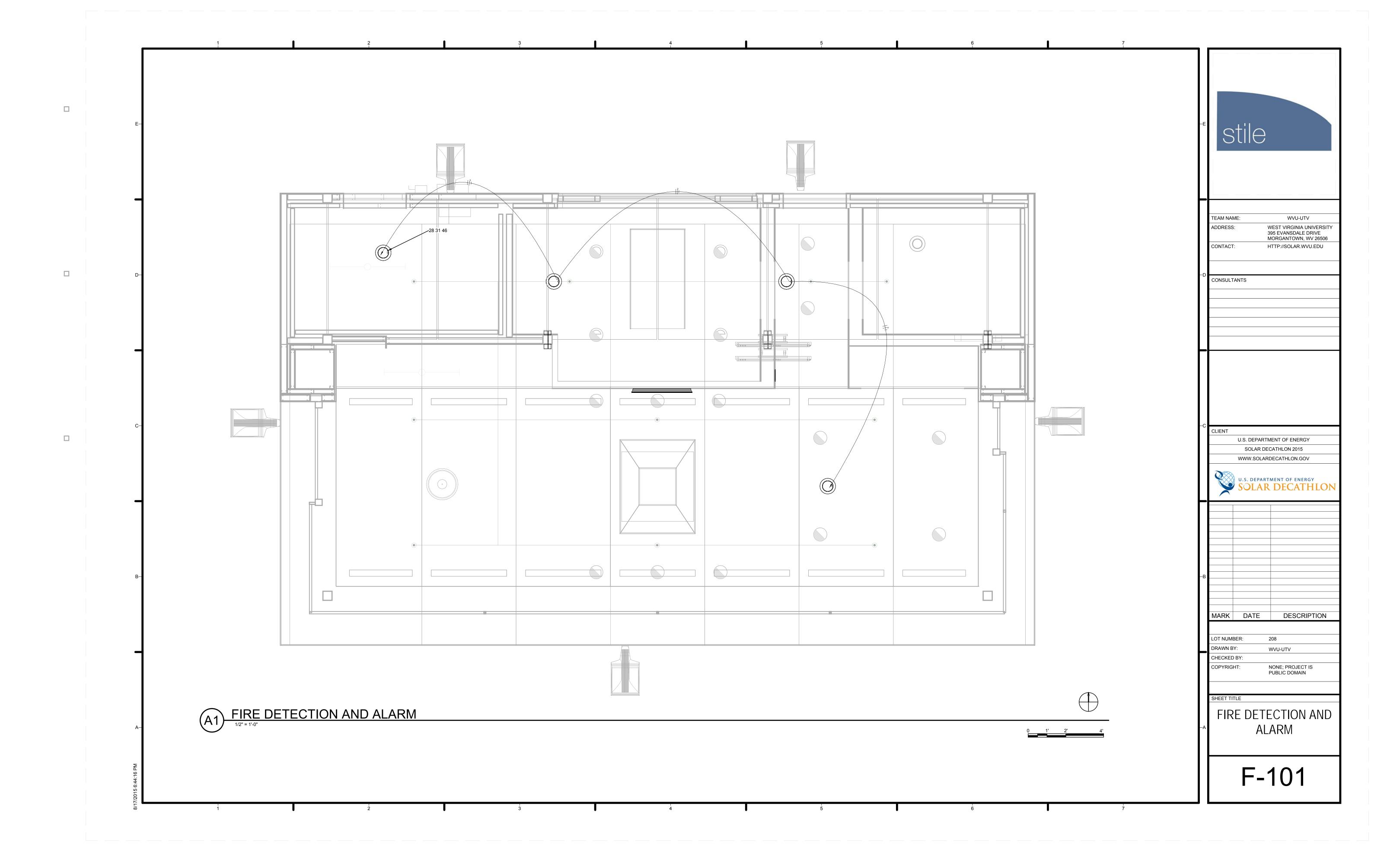
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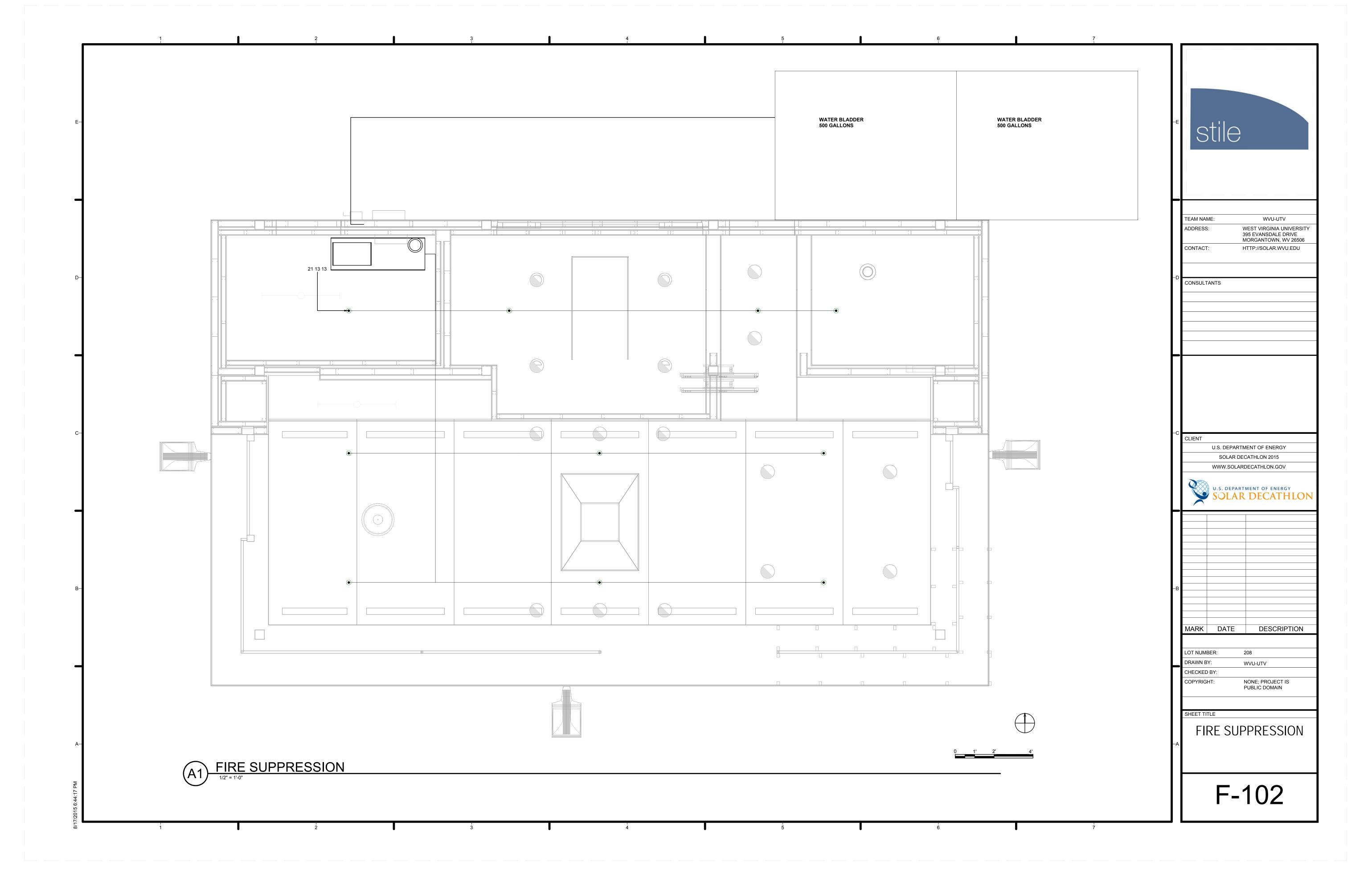
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COVER PAGE

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G-001

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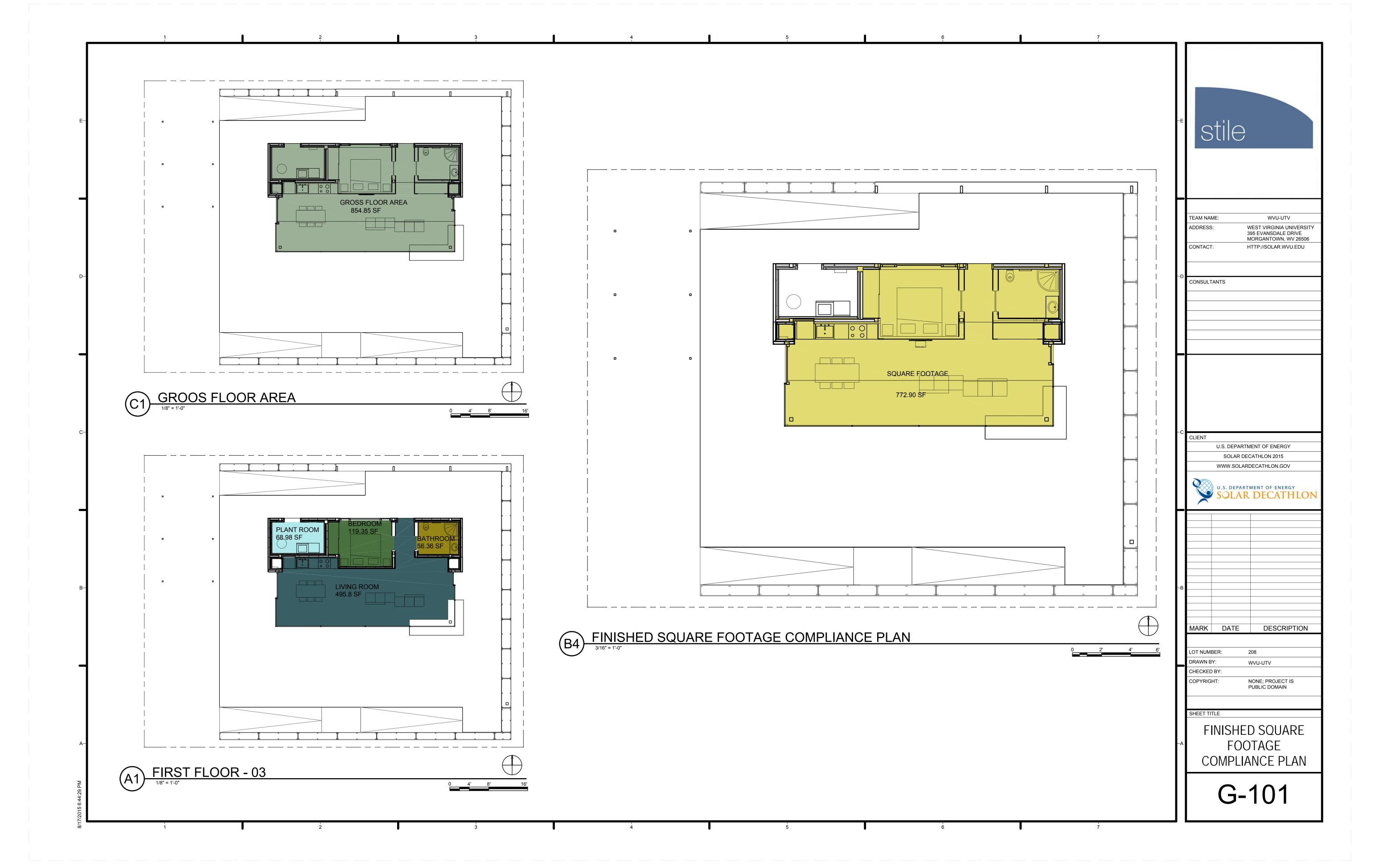
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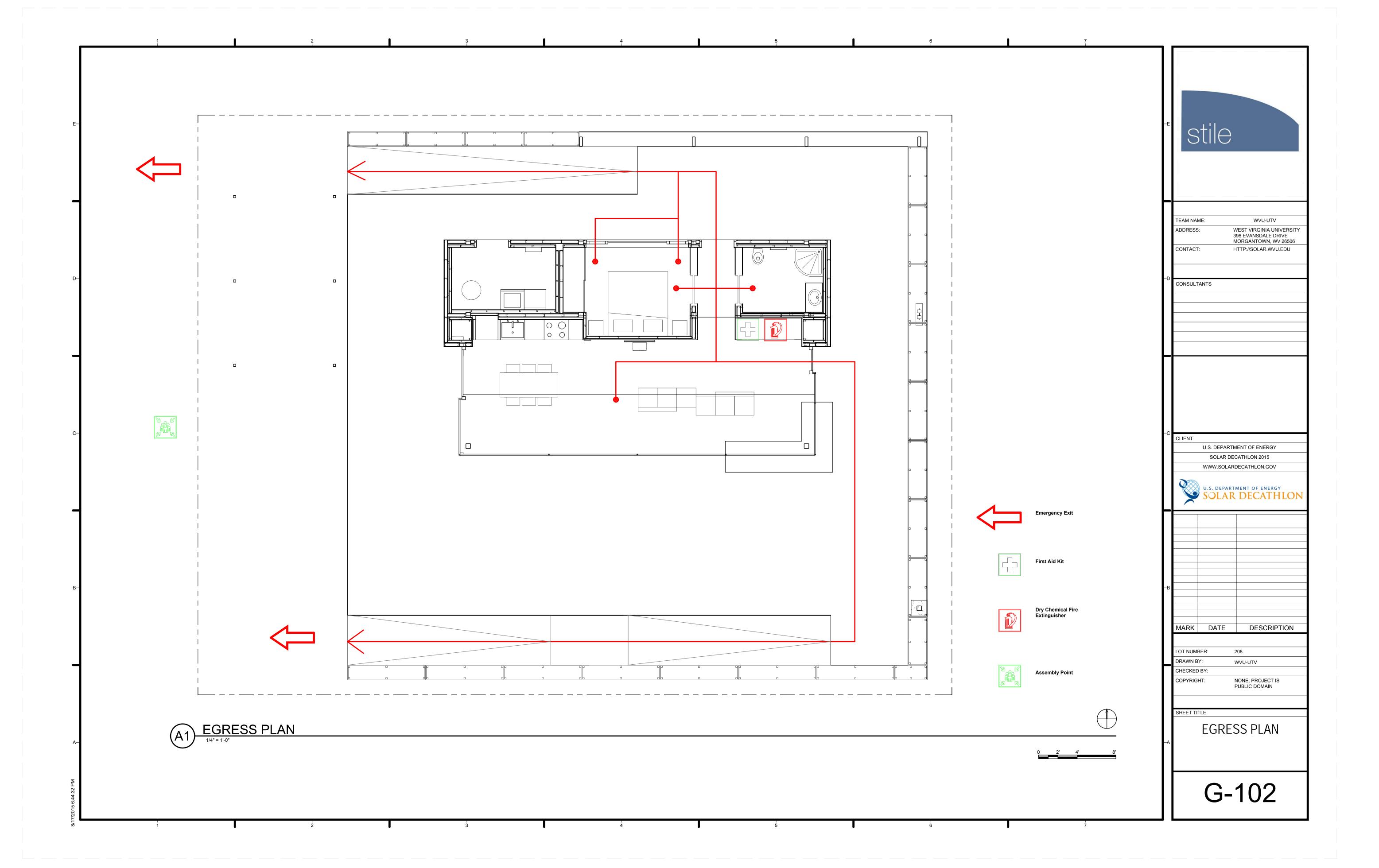
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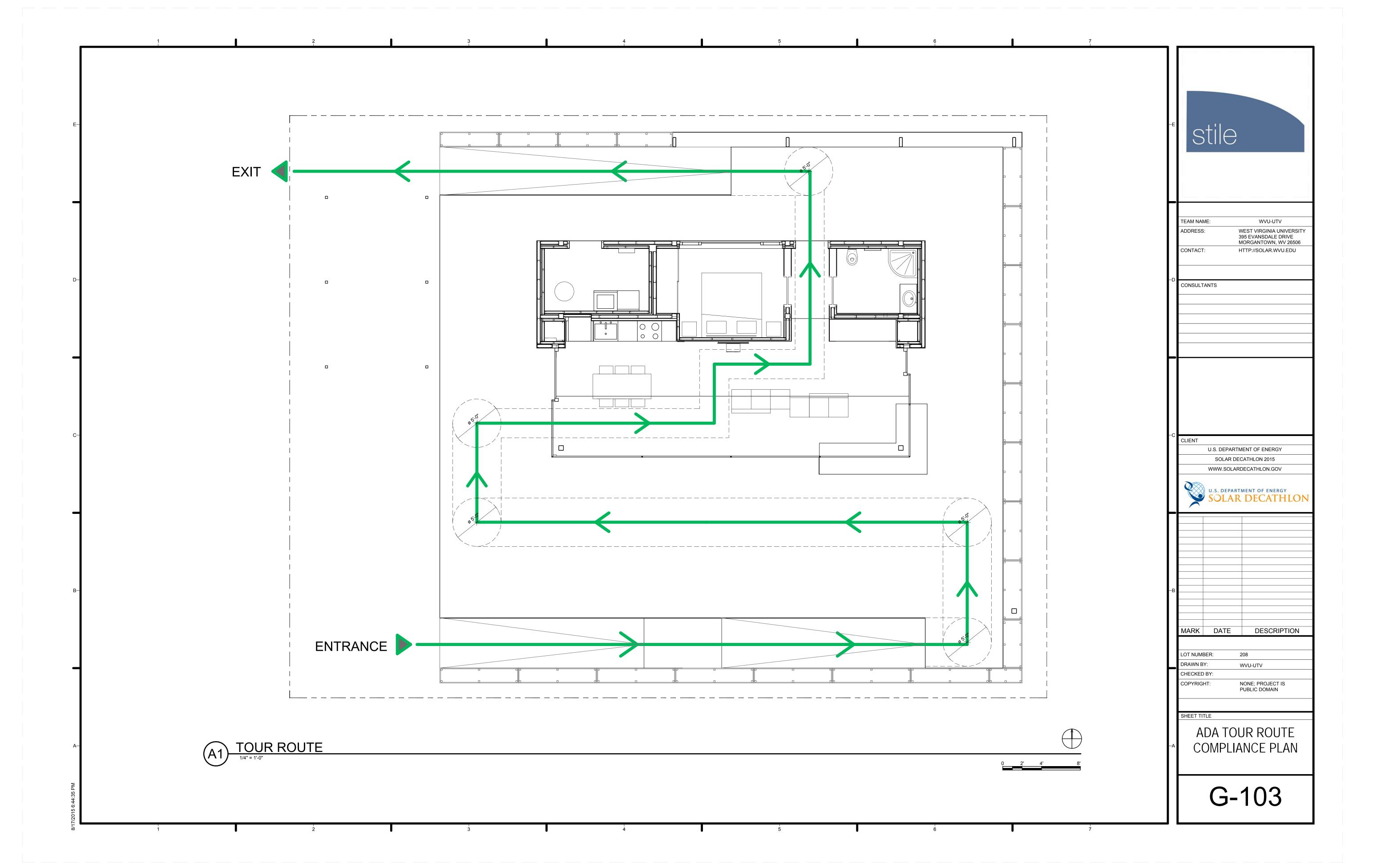
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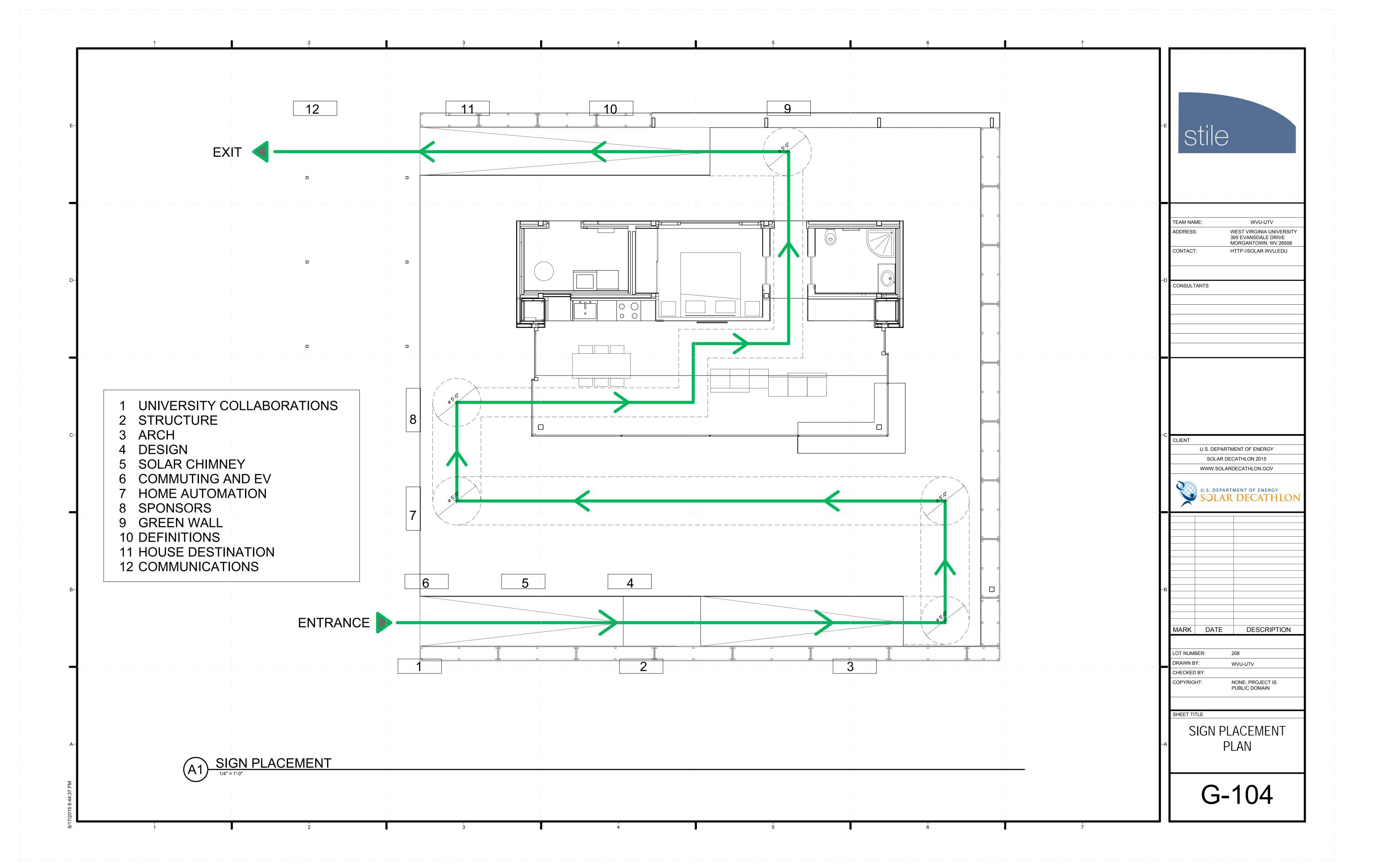
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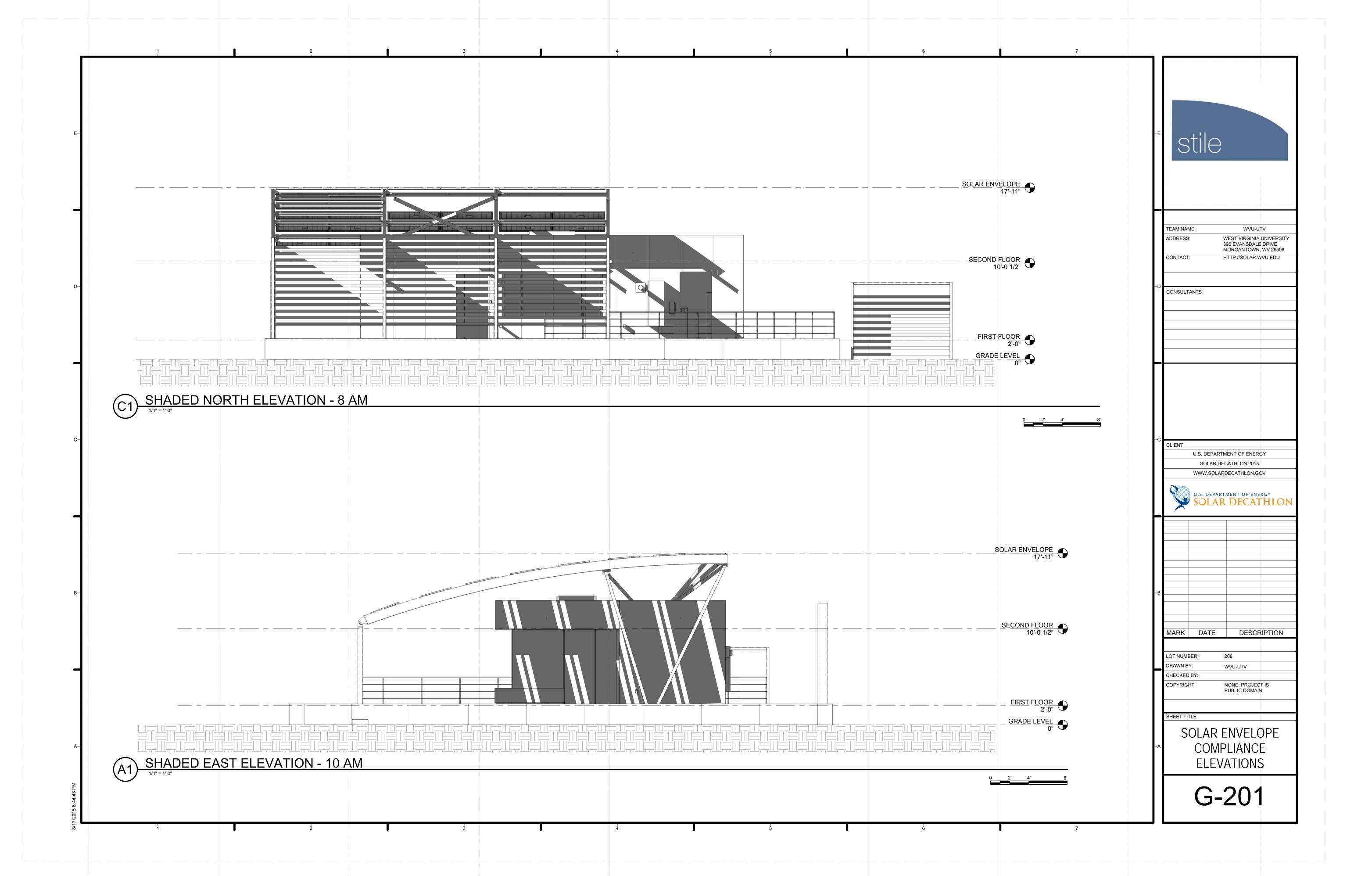
TEAM NAME: WVU-UTV WEST VIRGINIA UNIVERSITY 395 EVANSDALE DRIVE MORGANTOWN, WV 26506 ADDRESS: HTTP://SOLAR.WVU.EDU CONTACT: SYMBOL LEGEND ABBREVIATION LEGEND CONSULTANTS DESCRIPTION MARK A AAA A B BBCCCCCDDDEELLE FEEFEGGGGCT HTTHHINNING **ROOM NAME** 150 SF AREA TAG DETAIL NUMBER SHEET NUMBER CALL OUT TAG CENTERLINE Ę 101 DOOR TAG EXTERIOR ELEVATION TAG U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON **GRAPHIC SCALE** L LDW LICL MAT MAX MEP MI NORTH ARROW SECTION TAG 01 **REVISION TAG** MARK DATE DESCRIPTION **⟨**1T⟩ WINDOW TAG LOT NUMBER: DRAWN BY: WVU-UTV CHECKED BY: NONE; PROJECT IS PUBLIC DOMAIN SHEET TITLE GENERAL NOTES AND SYMBOLS G-003

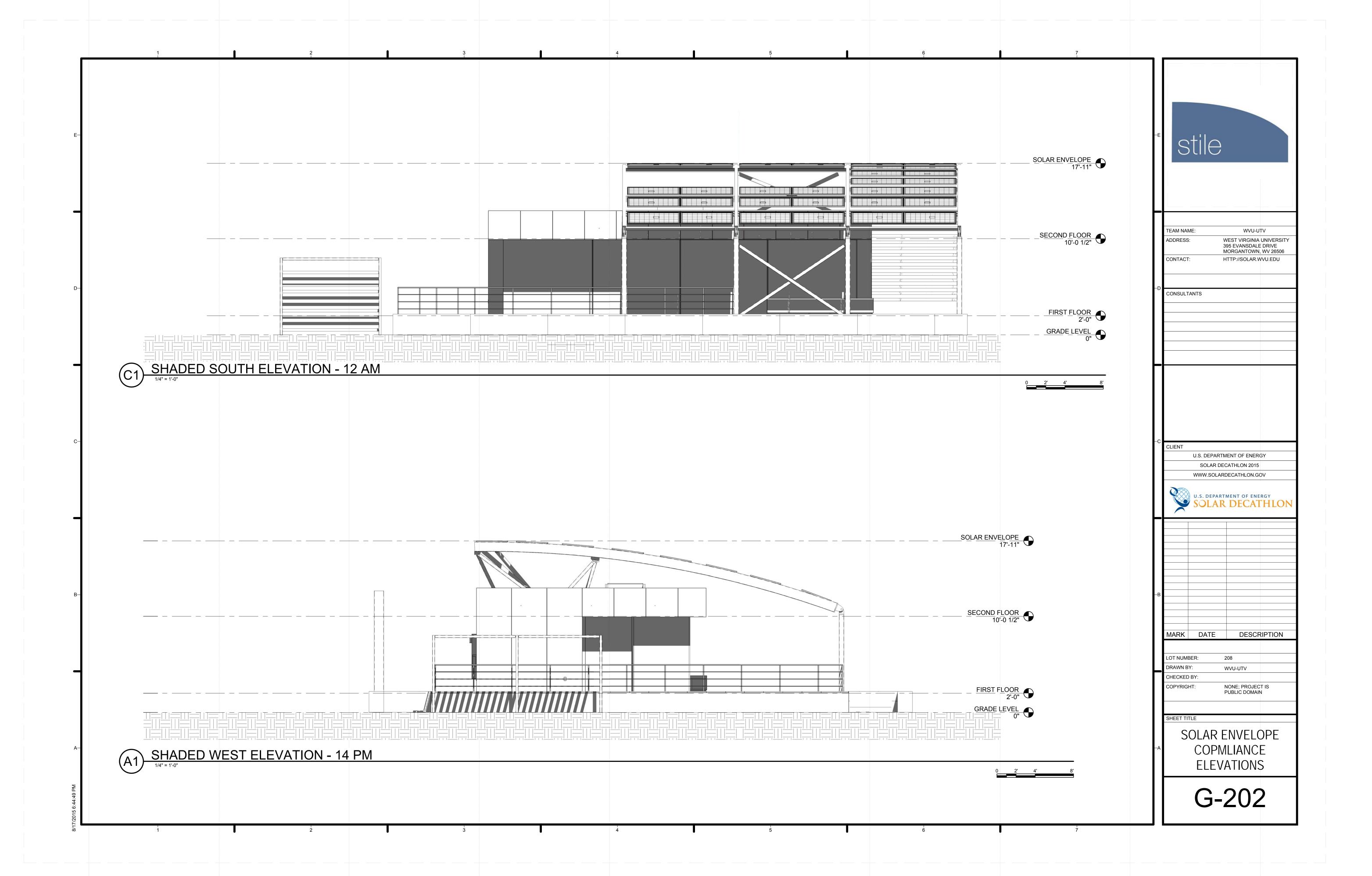


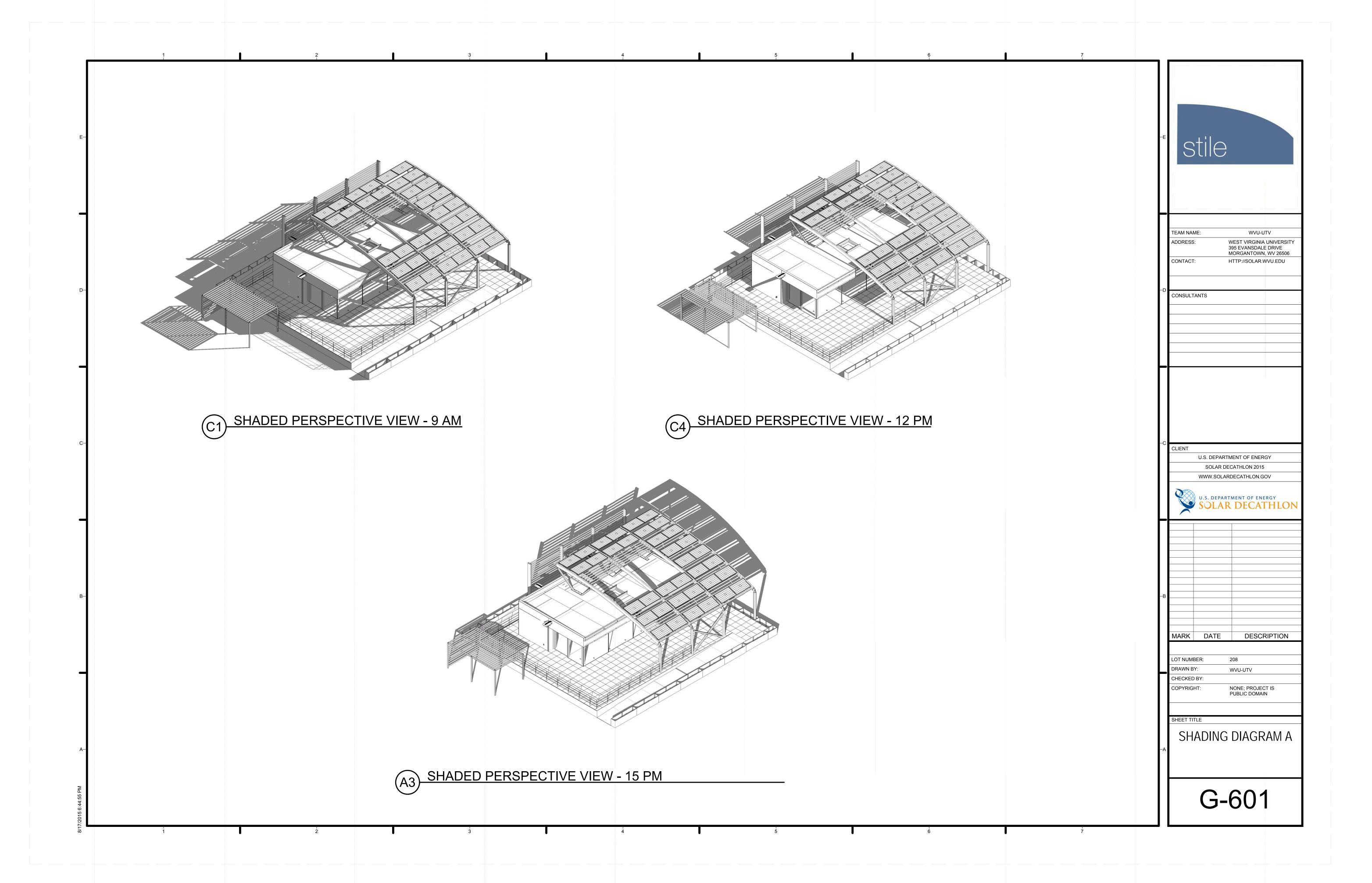


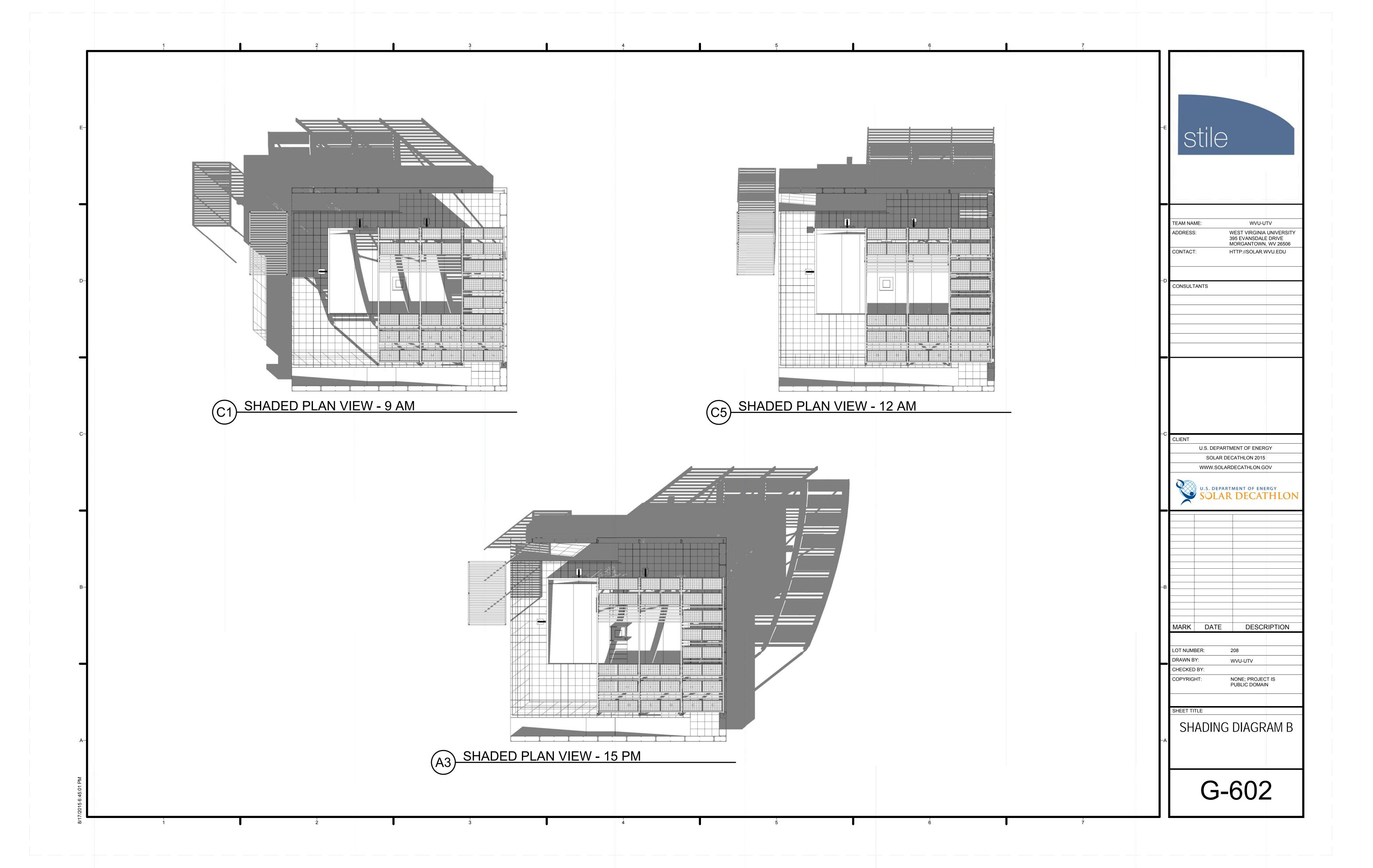


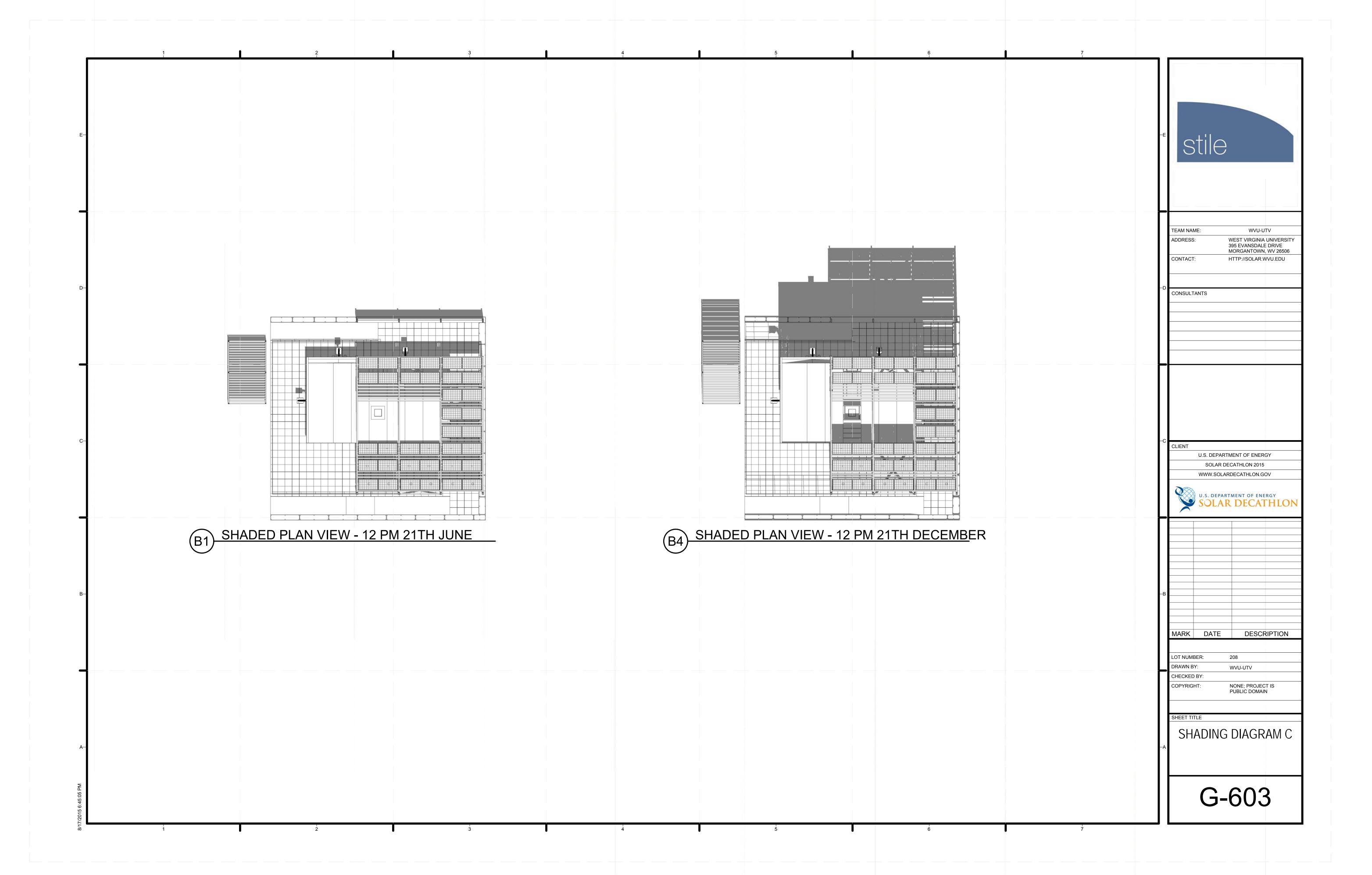


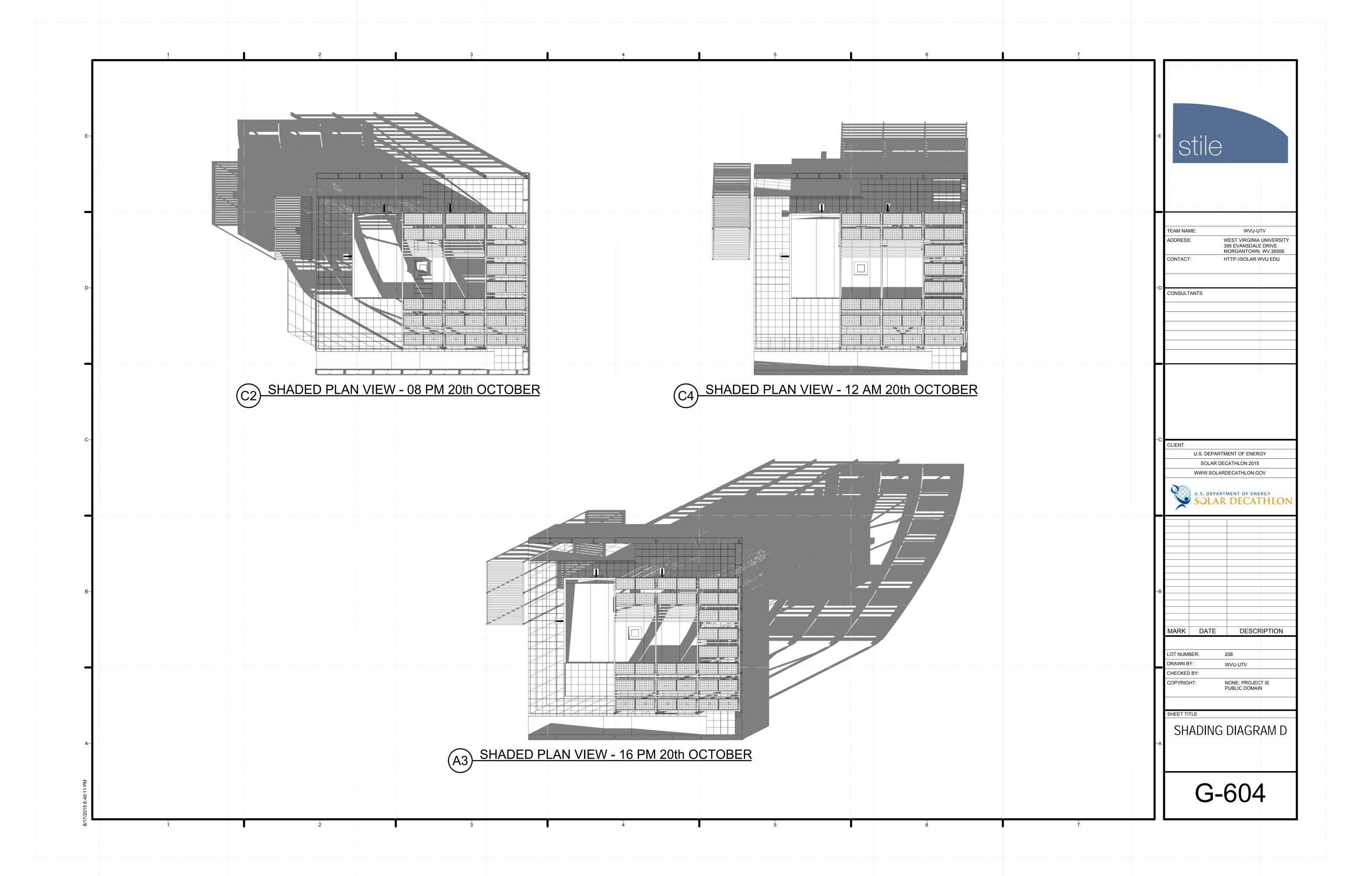


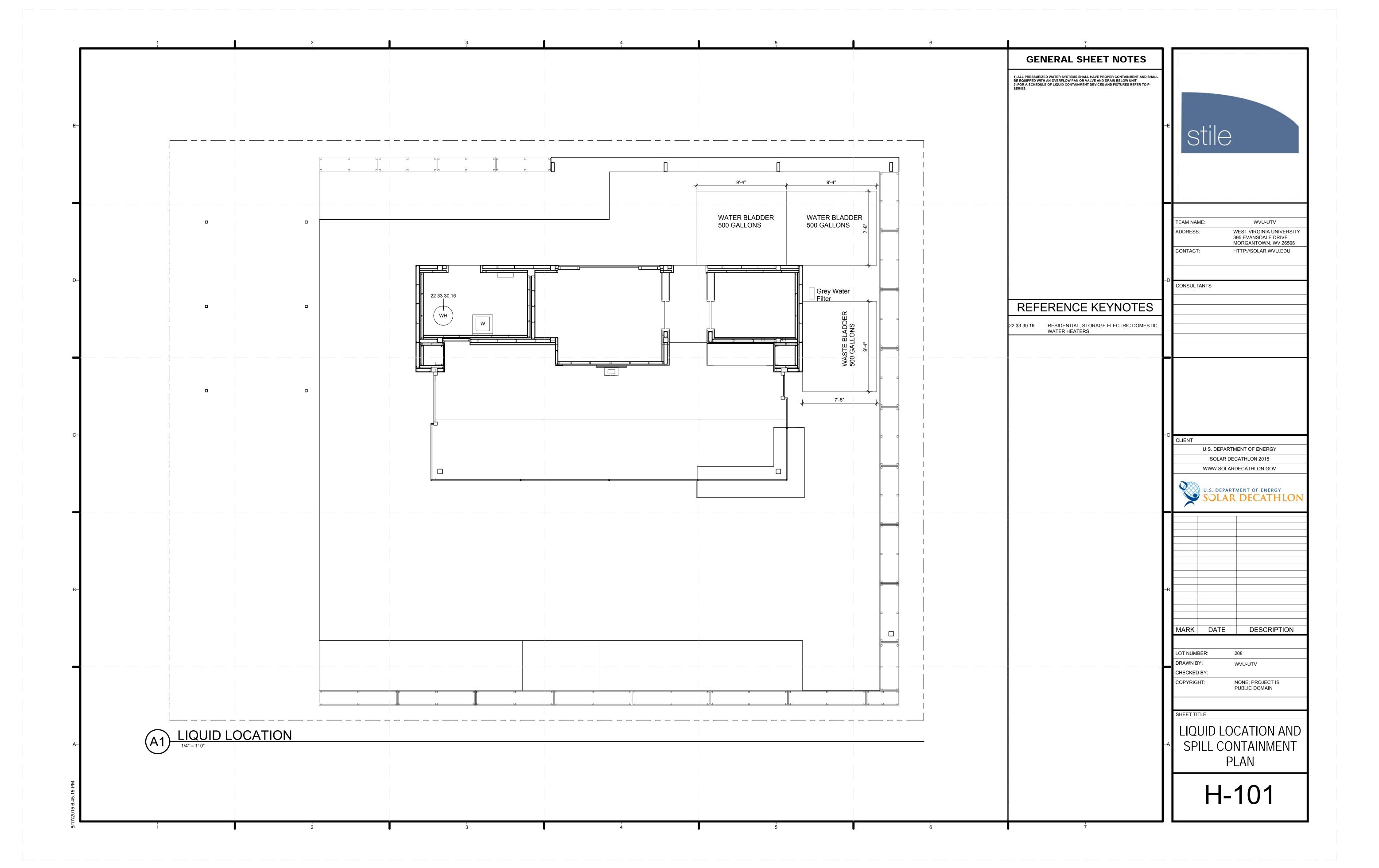


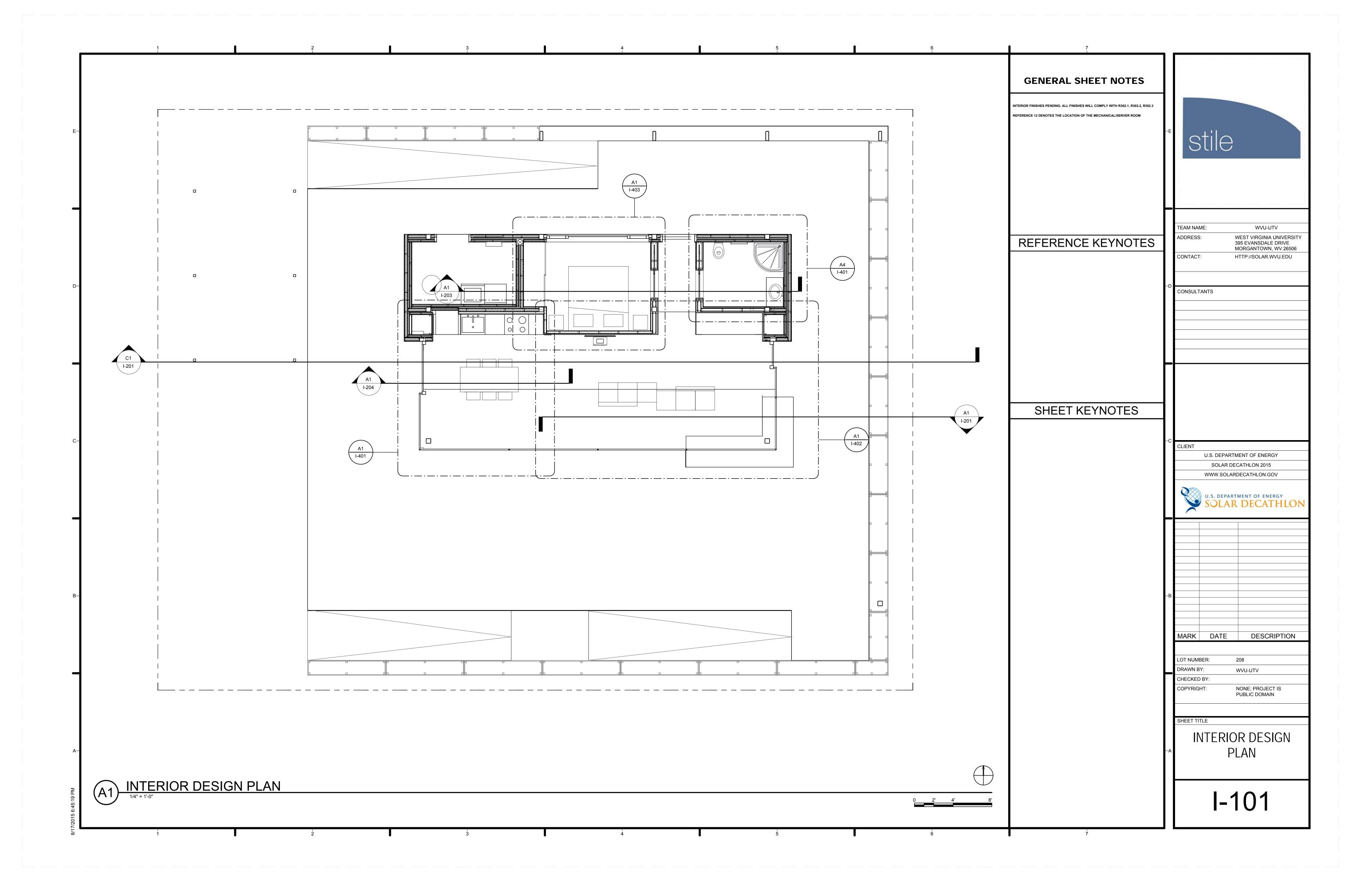


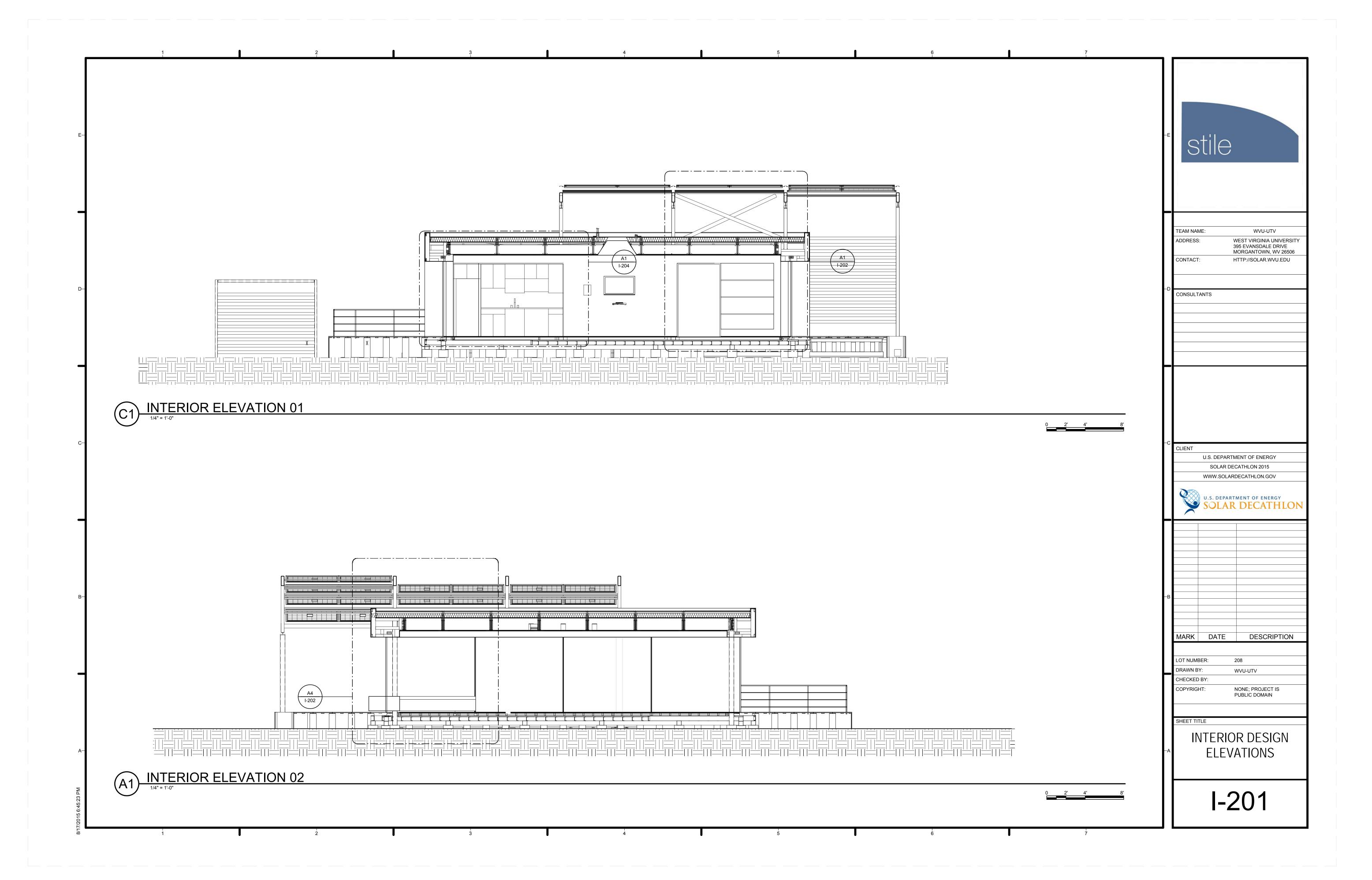


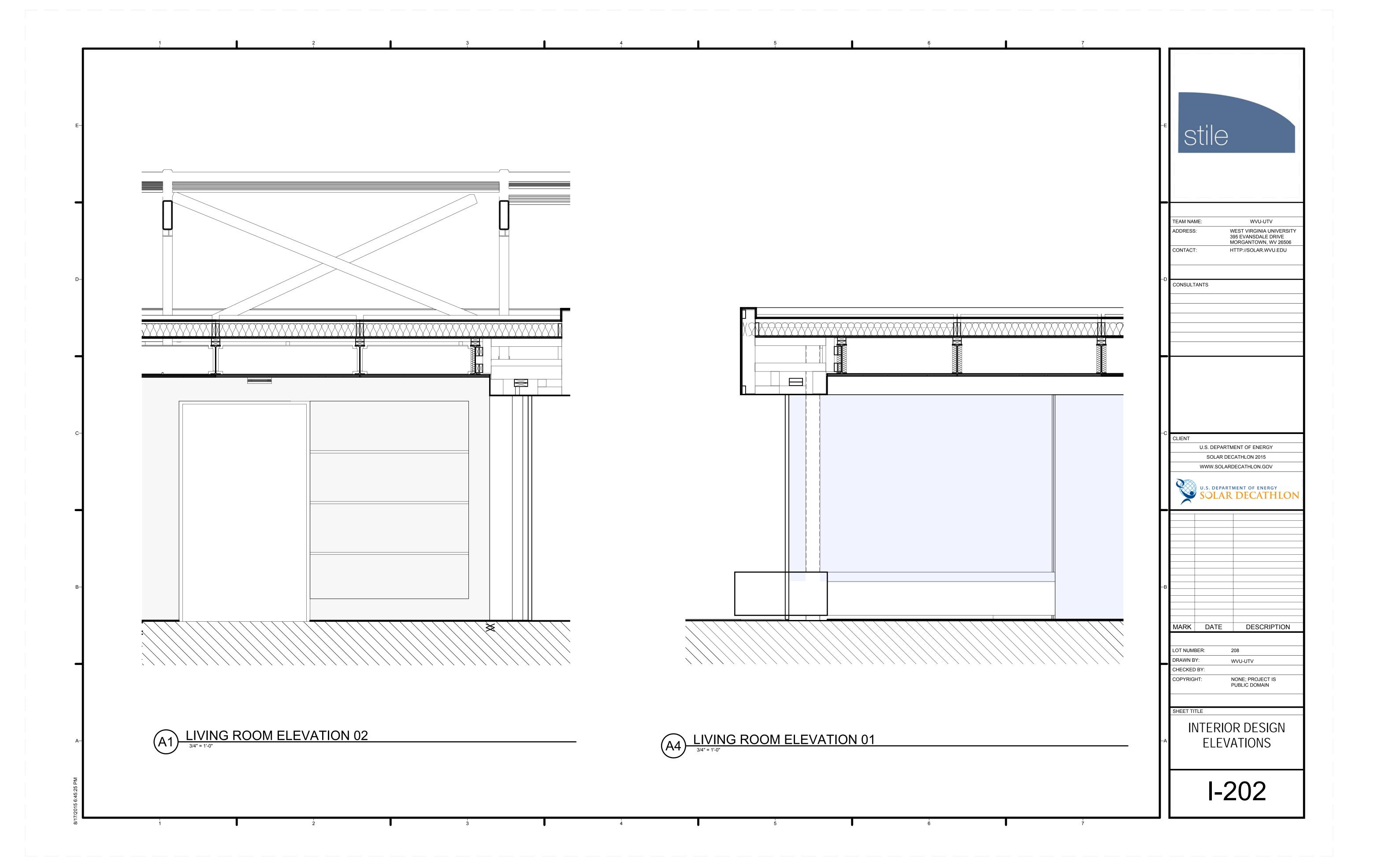


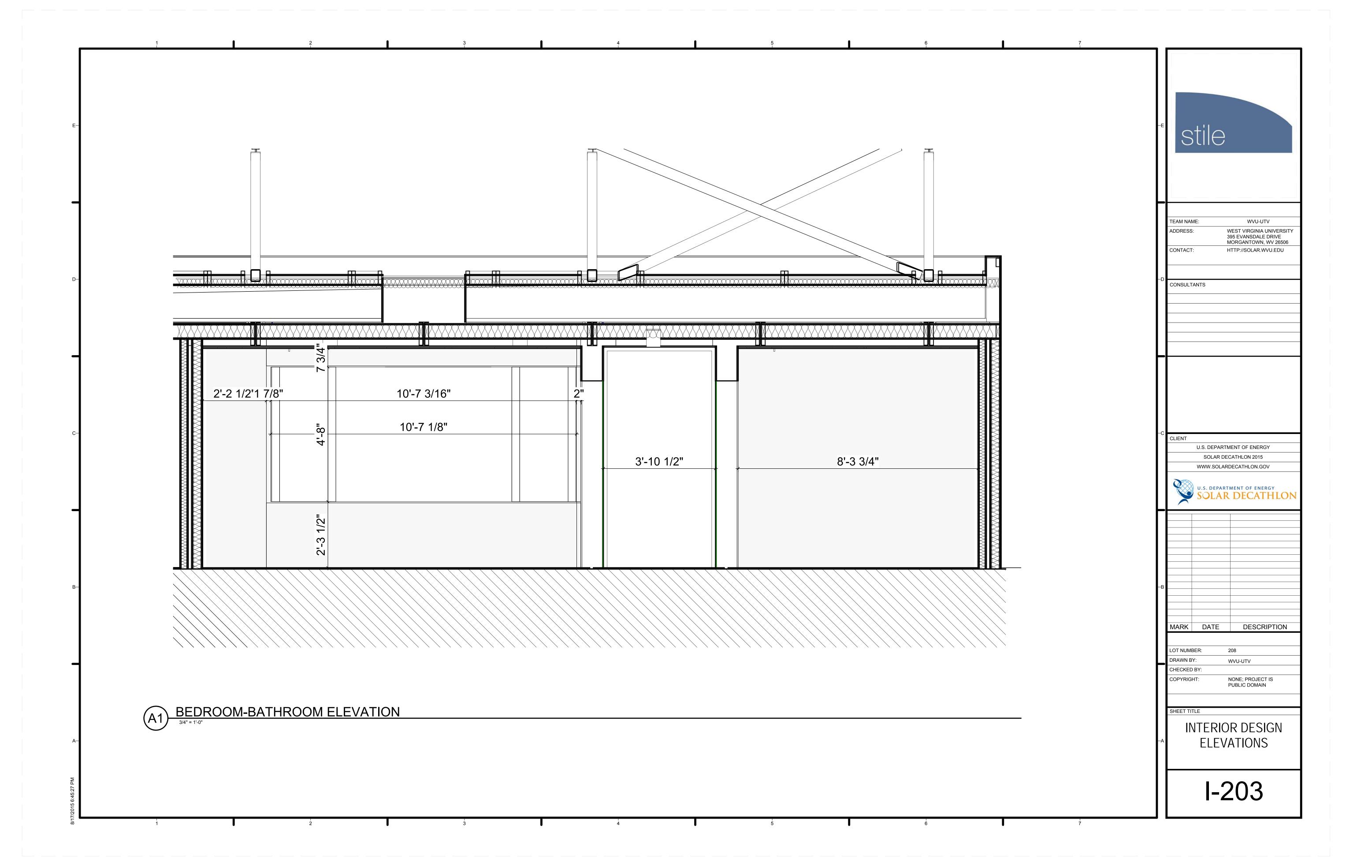


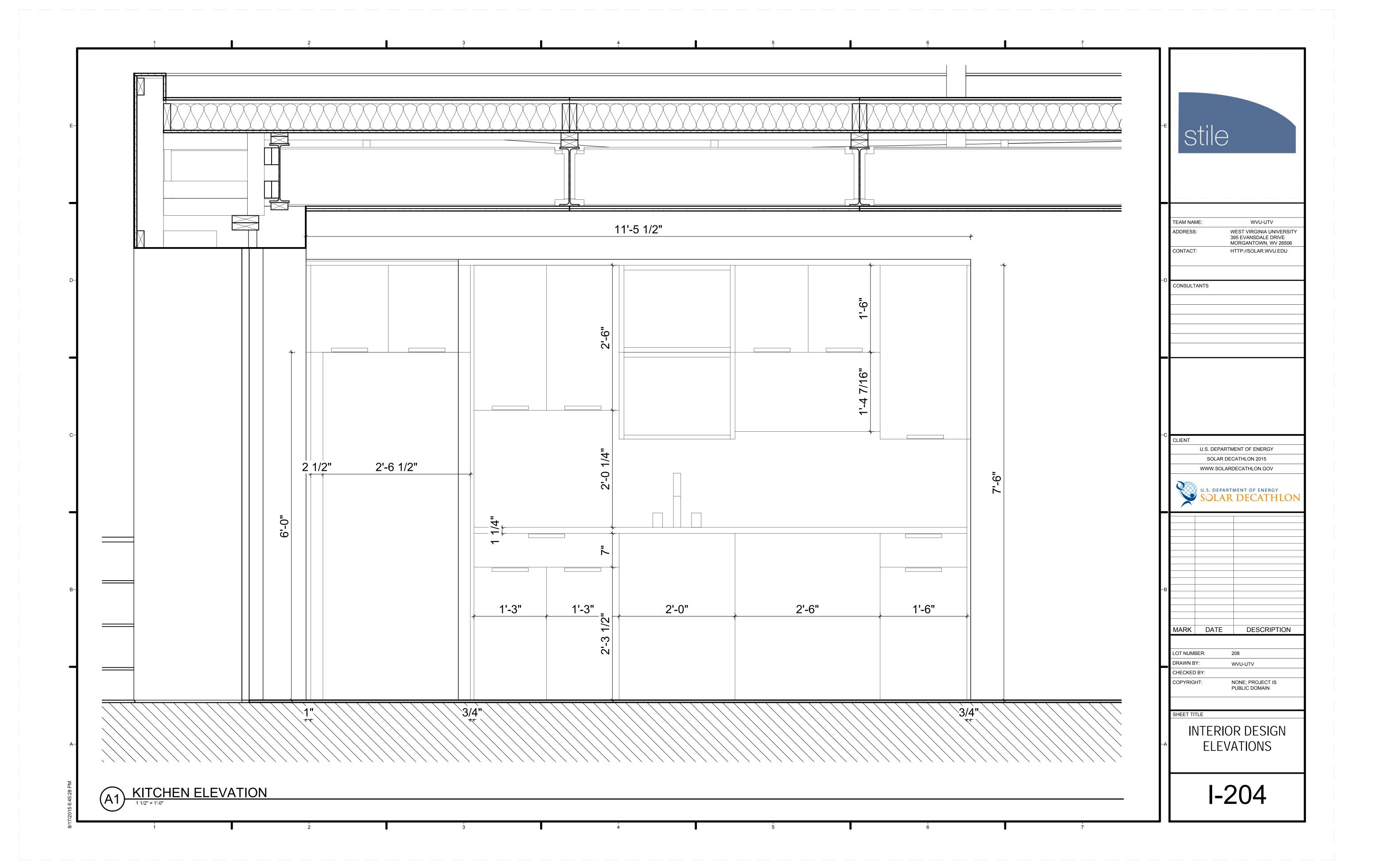


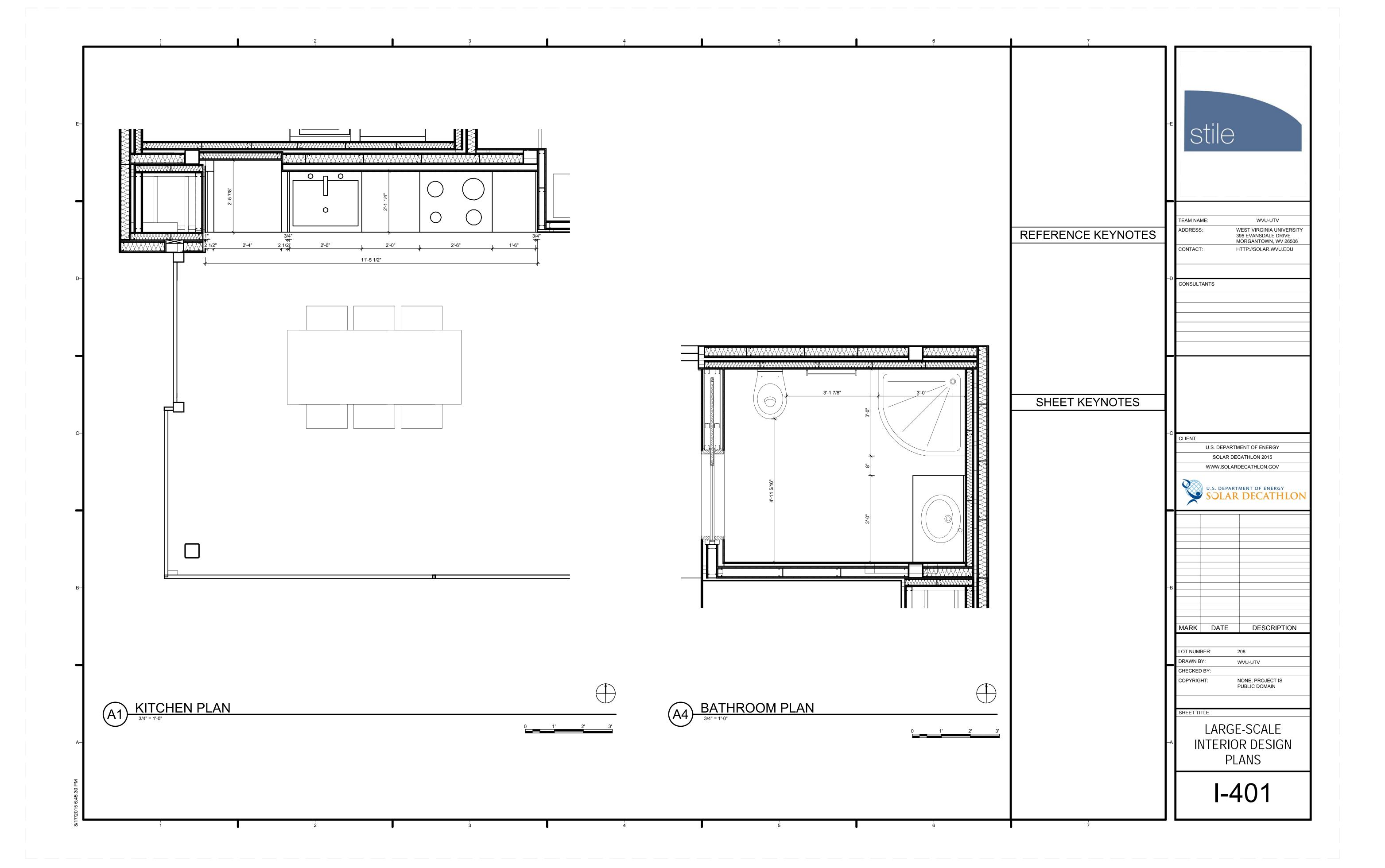


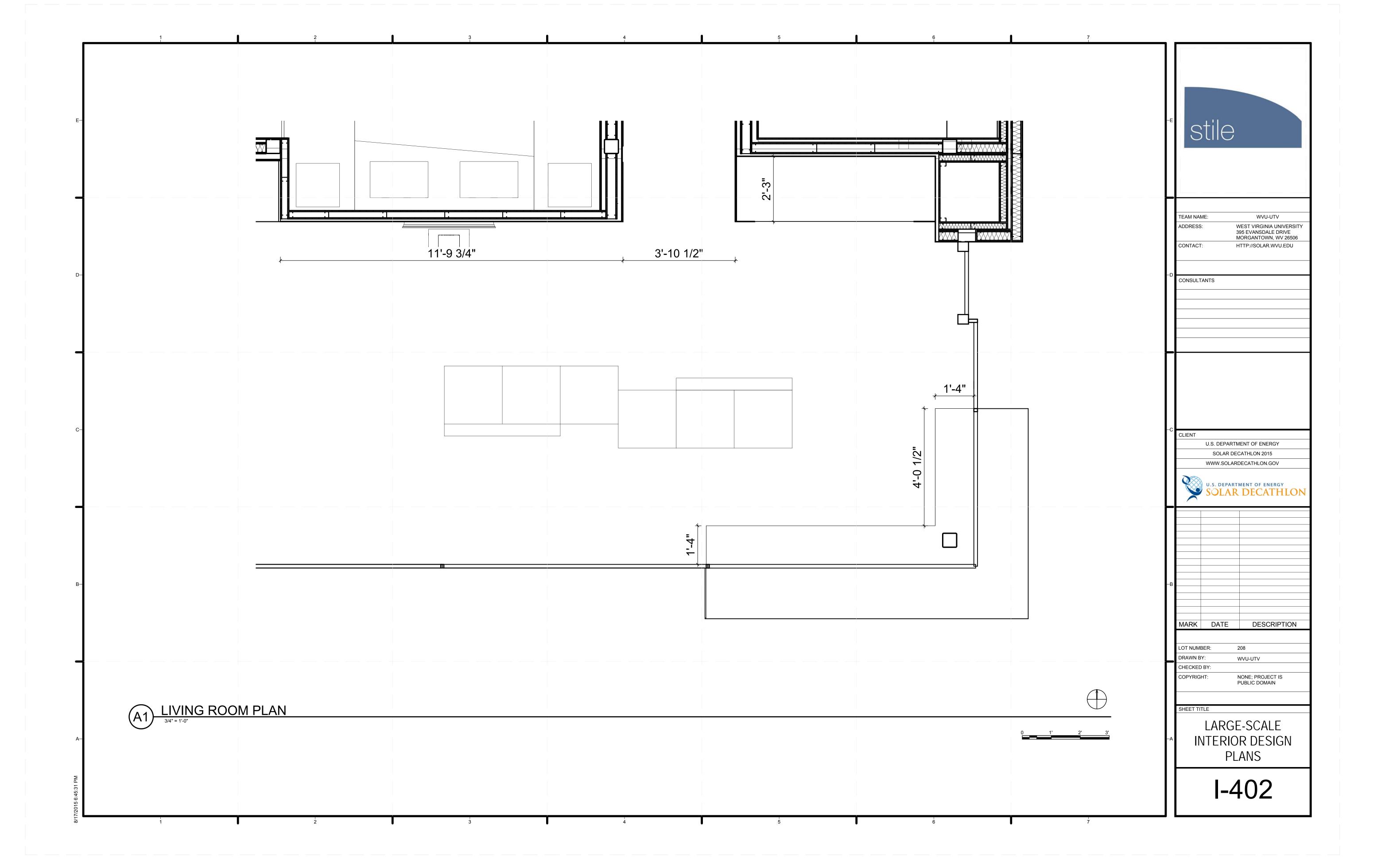




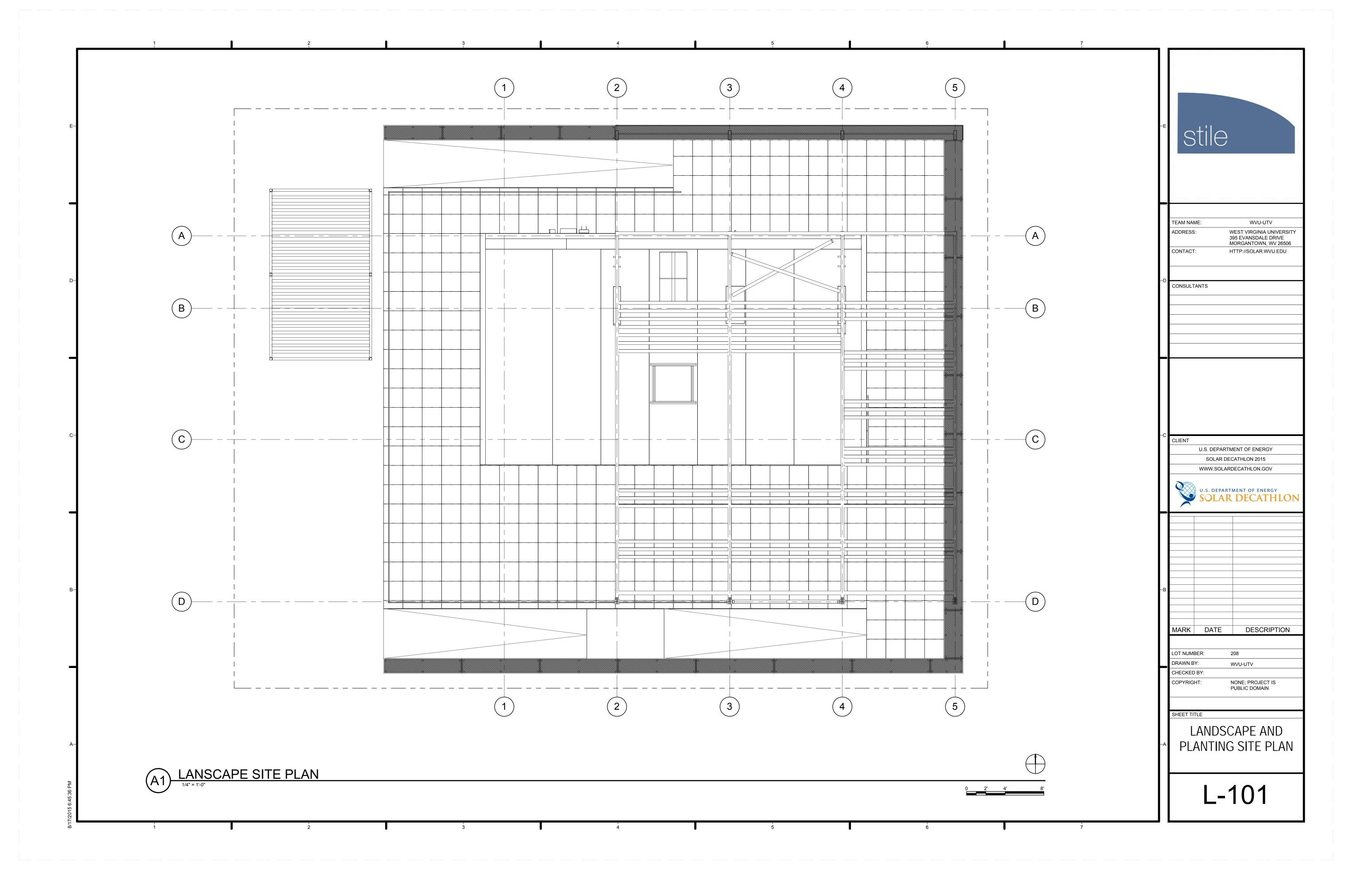


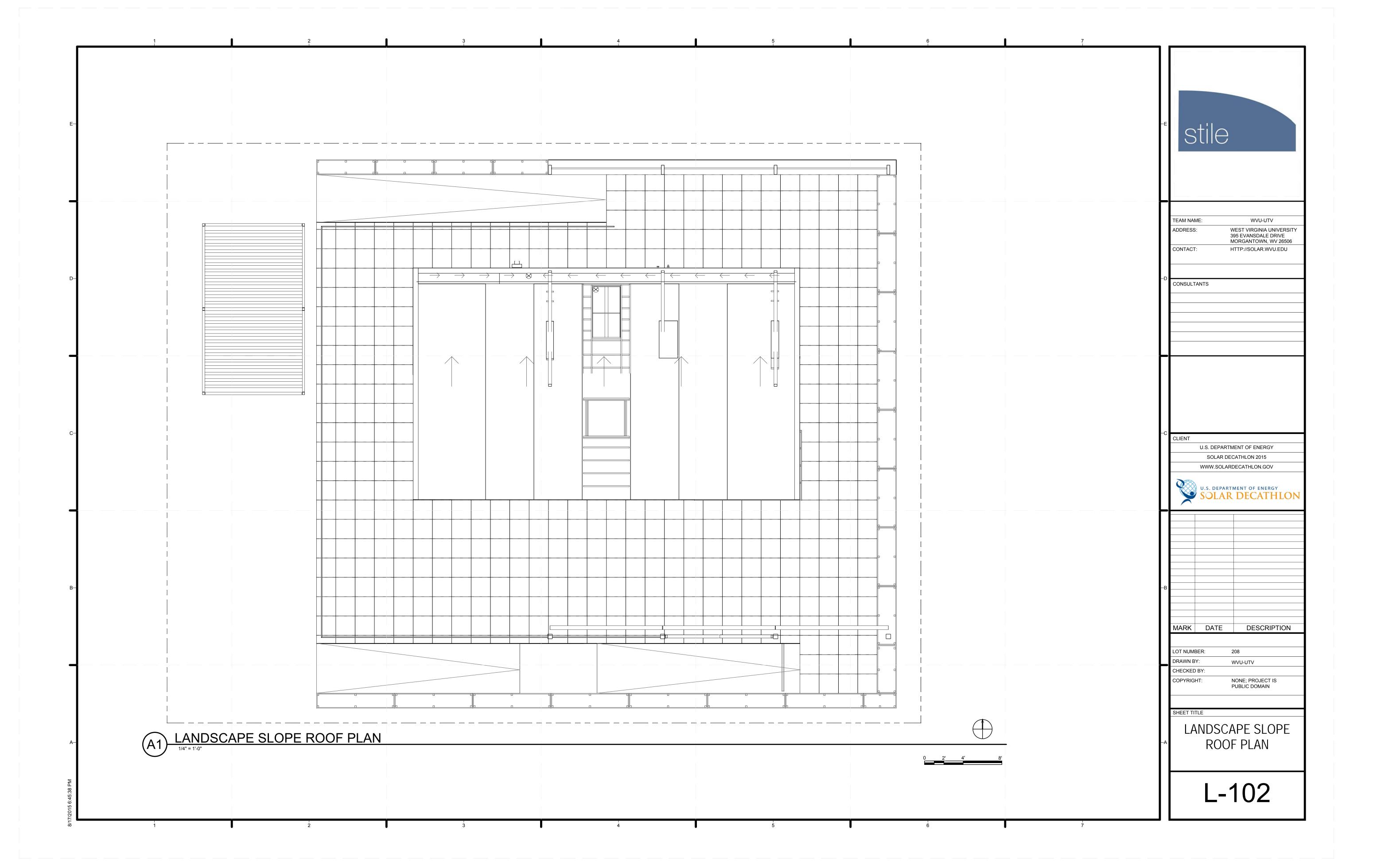


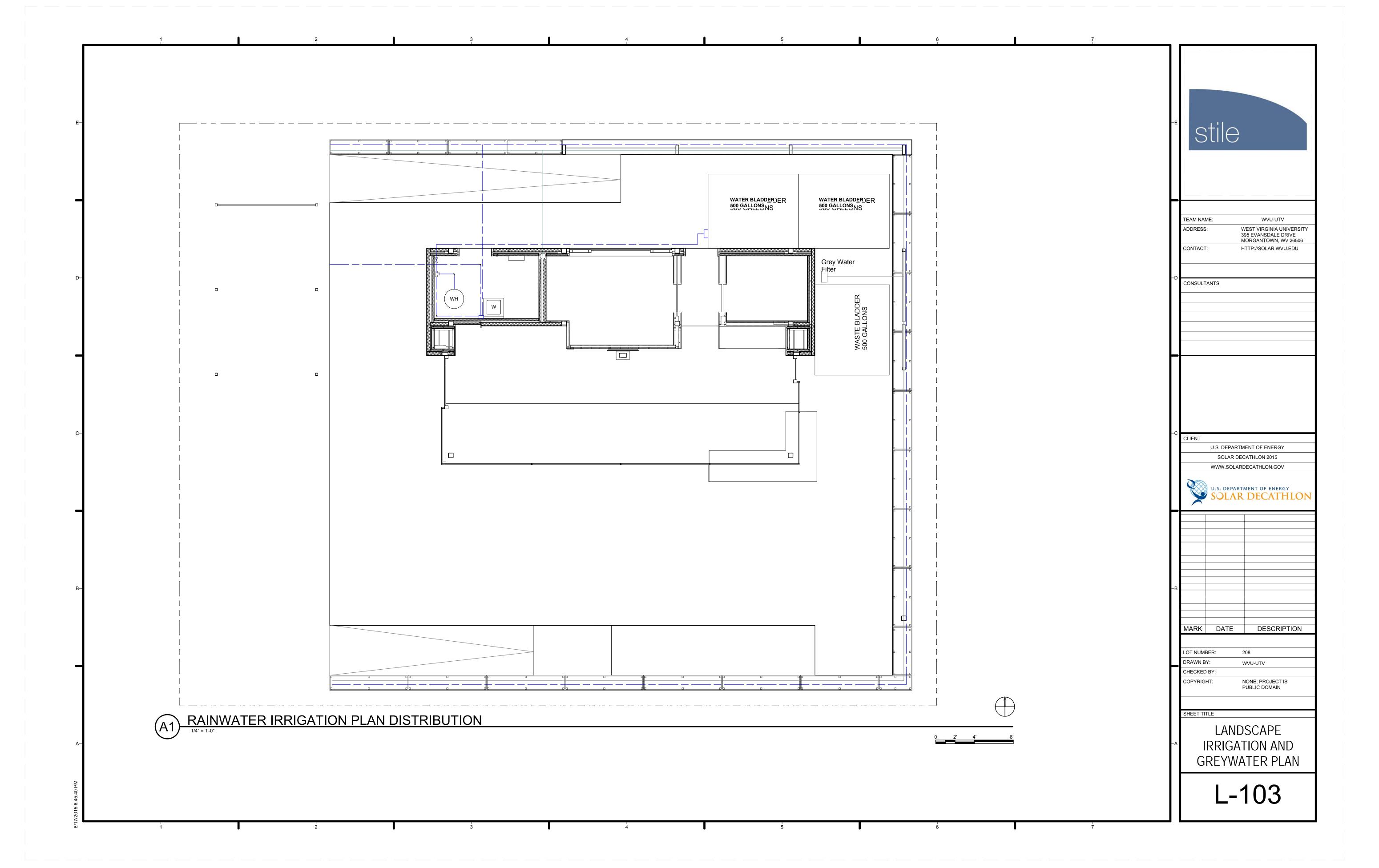


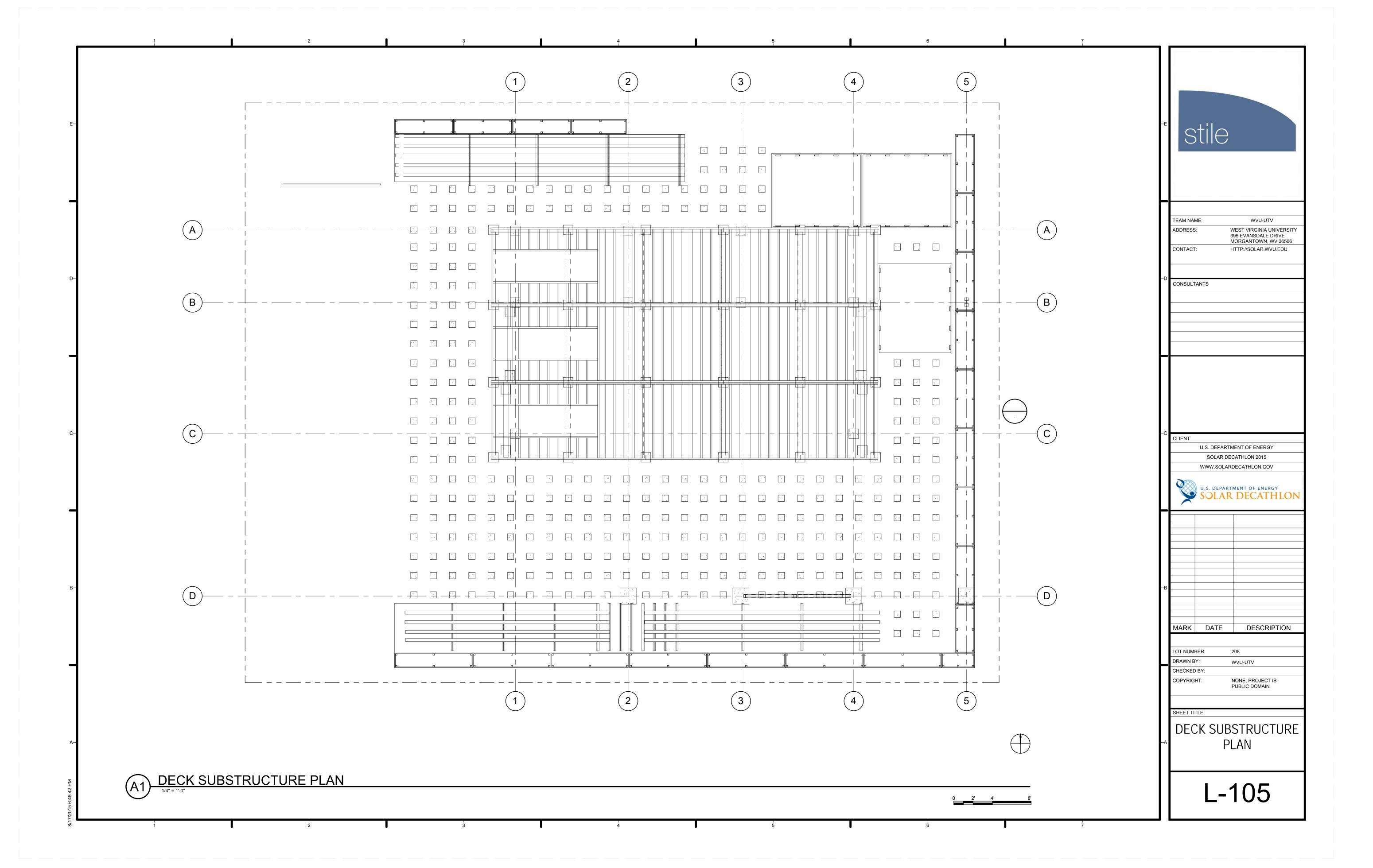


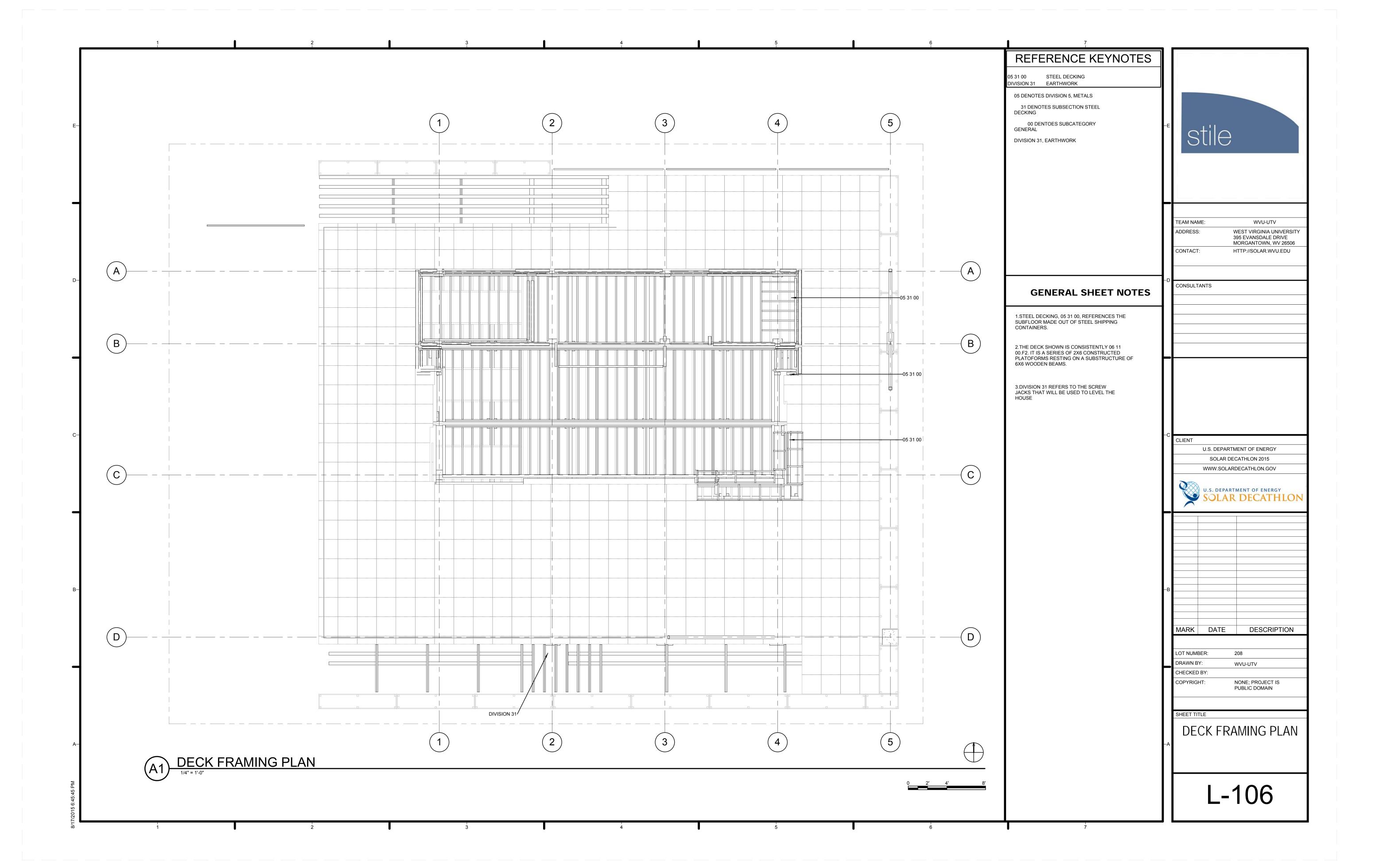
TEAM NAME: WVU-UTV WEST VIRGINIA UNIVERSITY 395 EVANSDALE DRIVE MORGANTOWN, WV 26506 HTTP://SOLAR.WVU.EDU CONSULTANTS 2'-2 1/2" 6'-2 1/4" 2'-3 1/4" 2'-5 1/4" U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2015 WWW.SOLARDECATHLON.GOV U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON A1) BEDROOM PLAN
3/4" = 1'-0" MARK DATE DESCRIPTION LOT NUMBER: DRAWN BY: WVU-UTV NONE; PROJECT IS PUBLIC DOMAIN LARGE-SCALE INTERIOR DESIGN PLANS I-403

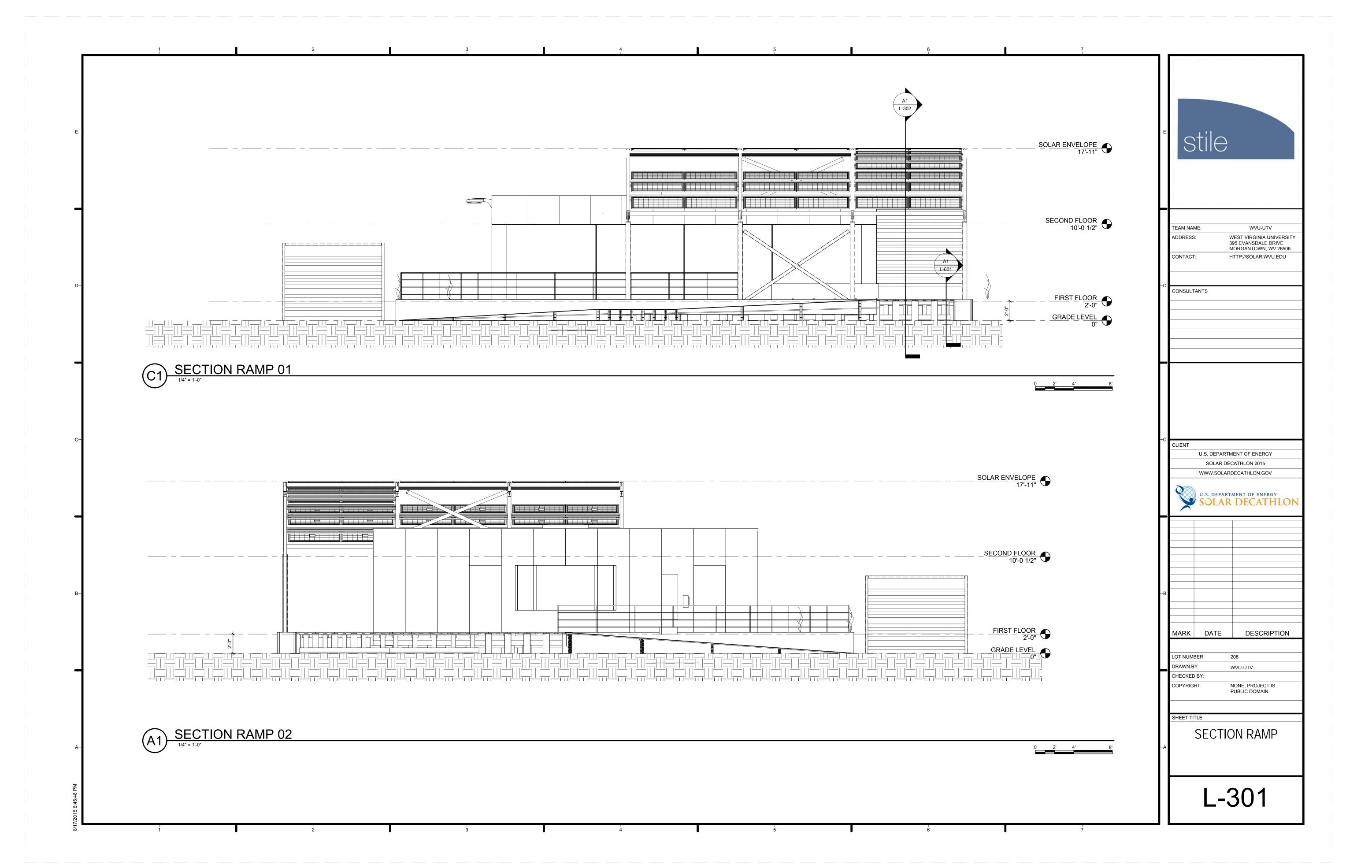


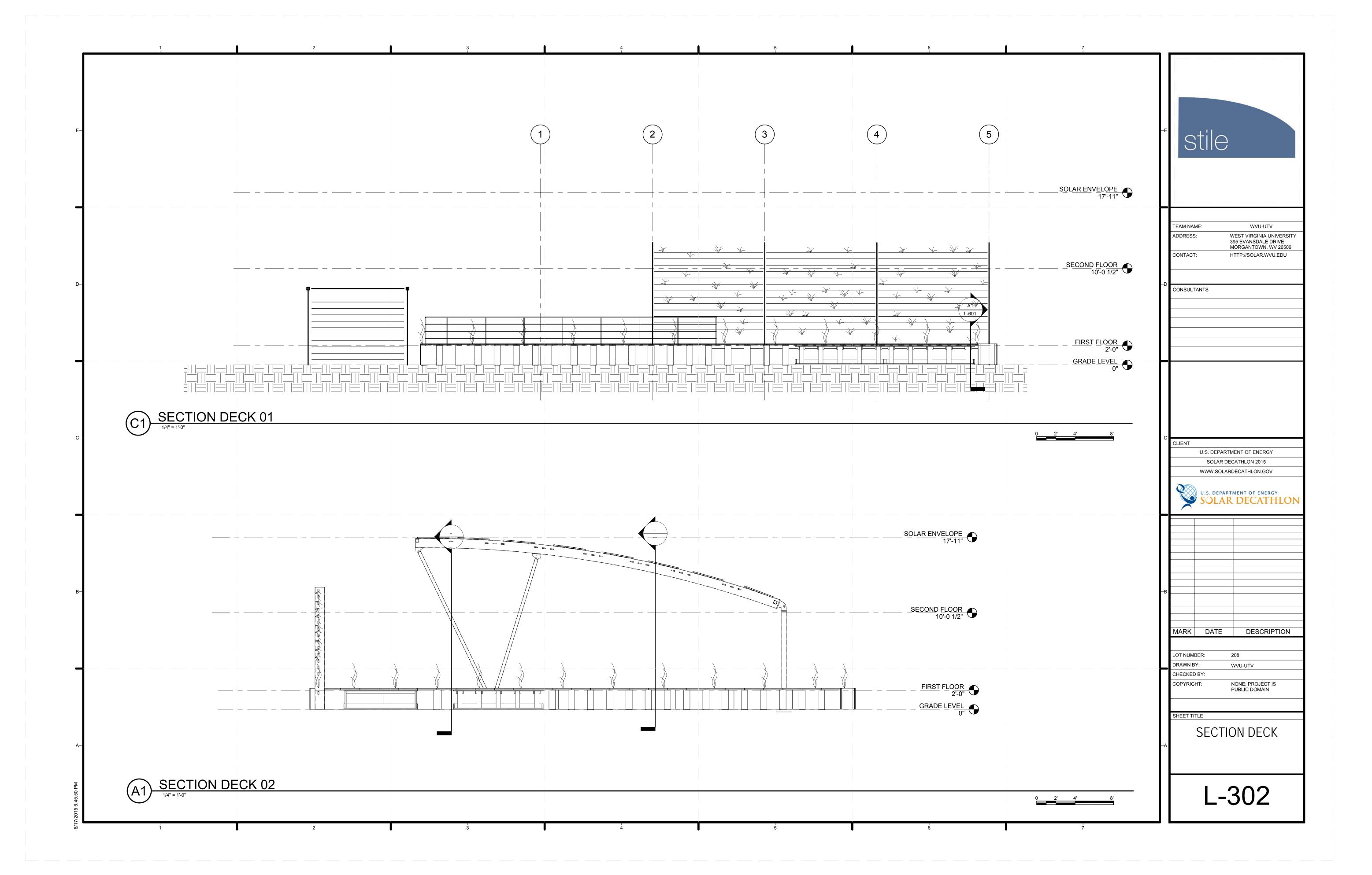


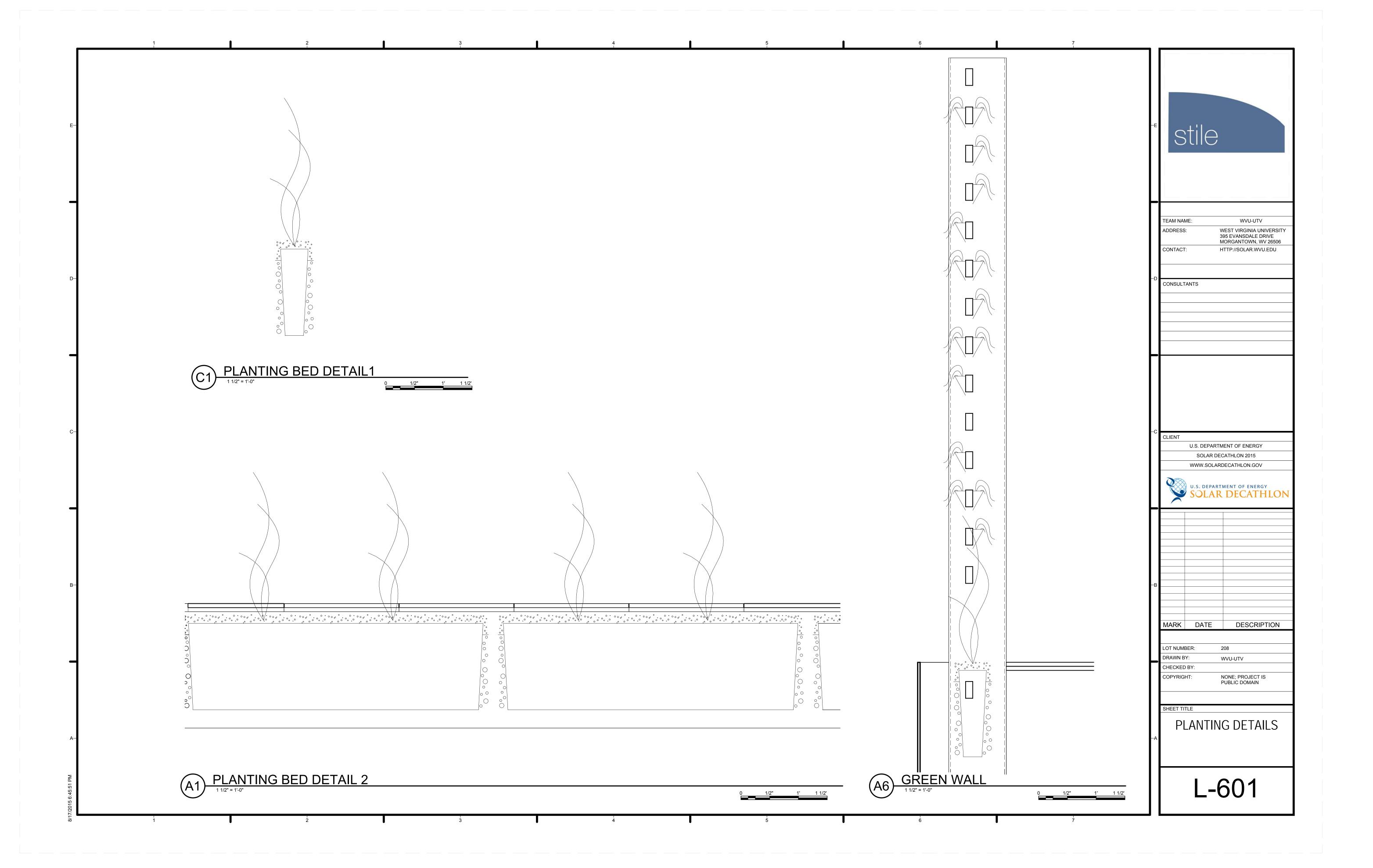














C4 SOUTH-EAST VIEW



(A1) SOUTH-WEST VIEW



SOUTH-EAST VIEW

stile

TEAM NAME: WVU-UTV

ADDRESS: WEST VIRGINIA UNIVERSITY
395 EVANSDALE DRIVE
MORGANTOWN, WV 26506

CONTACT: HTTP://SQLAR WVI LEDIT

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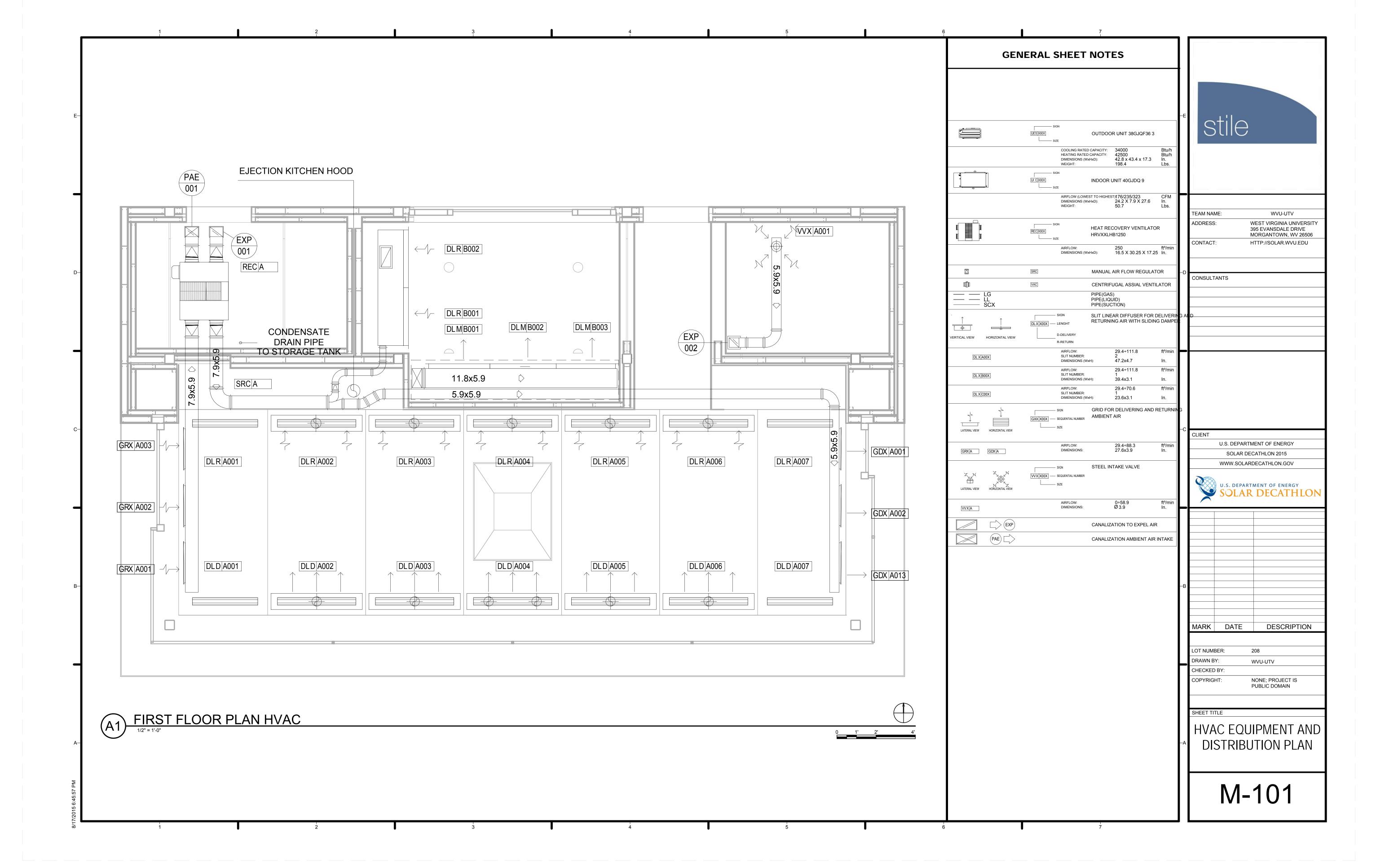
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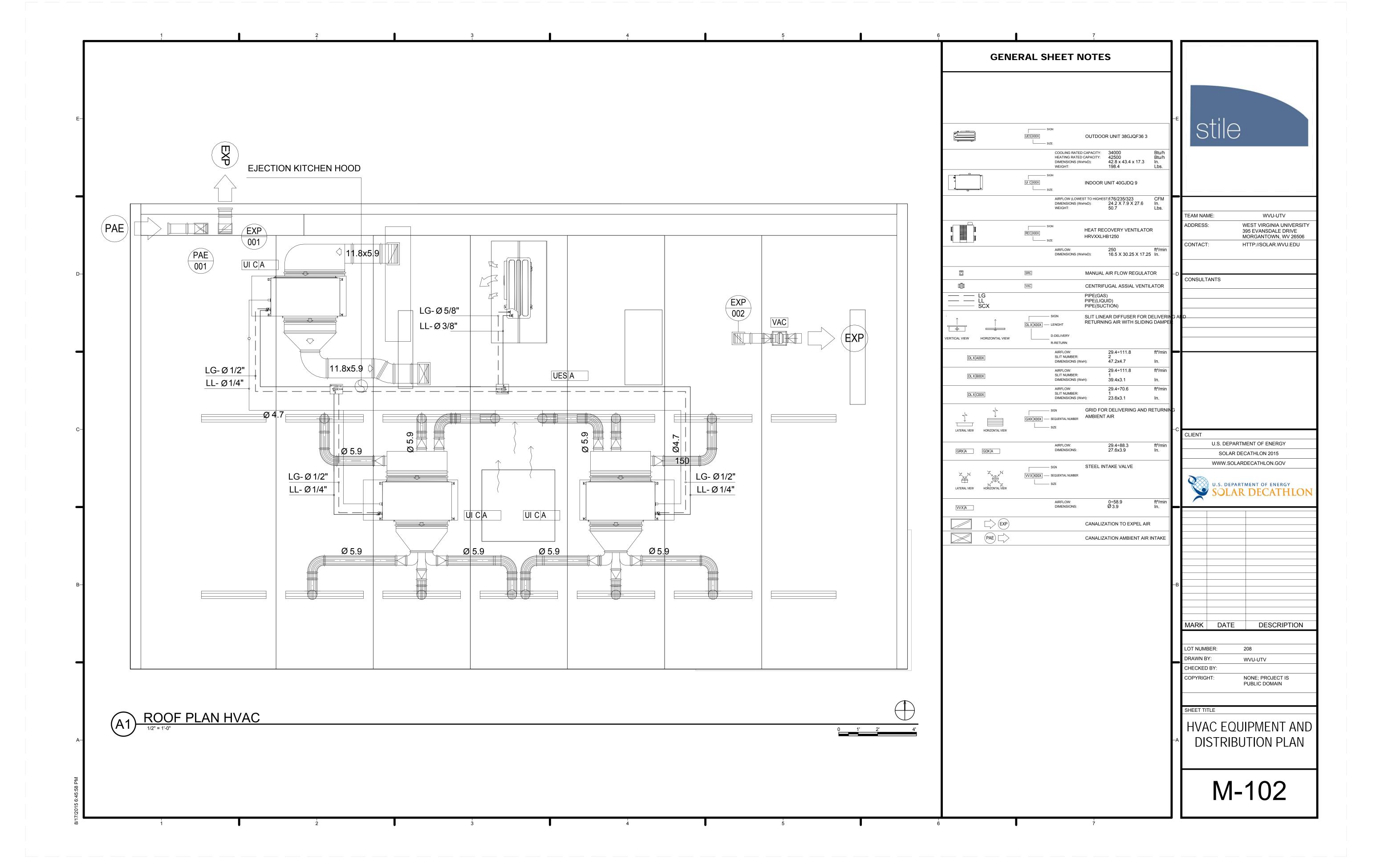
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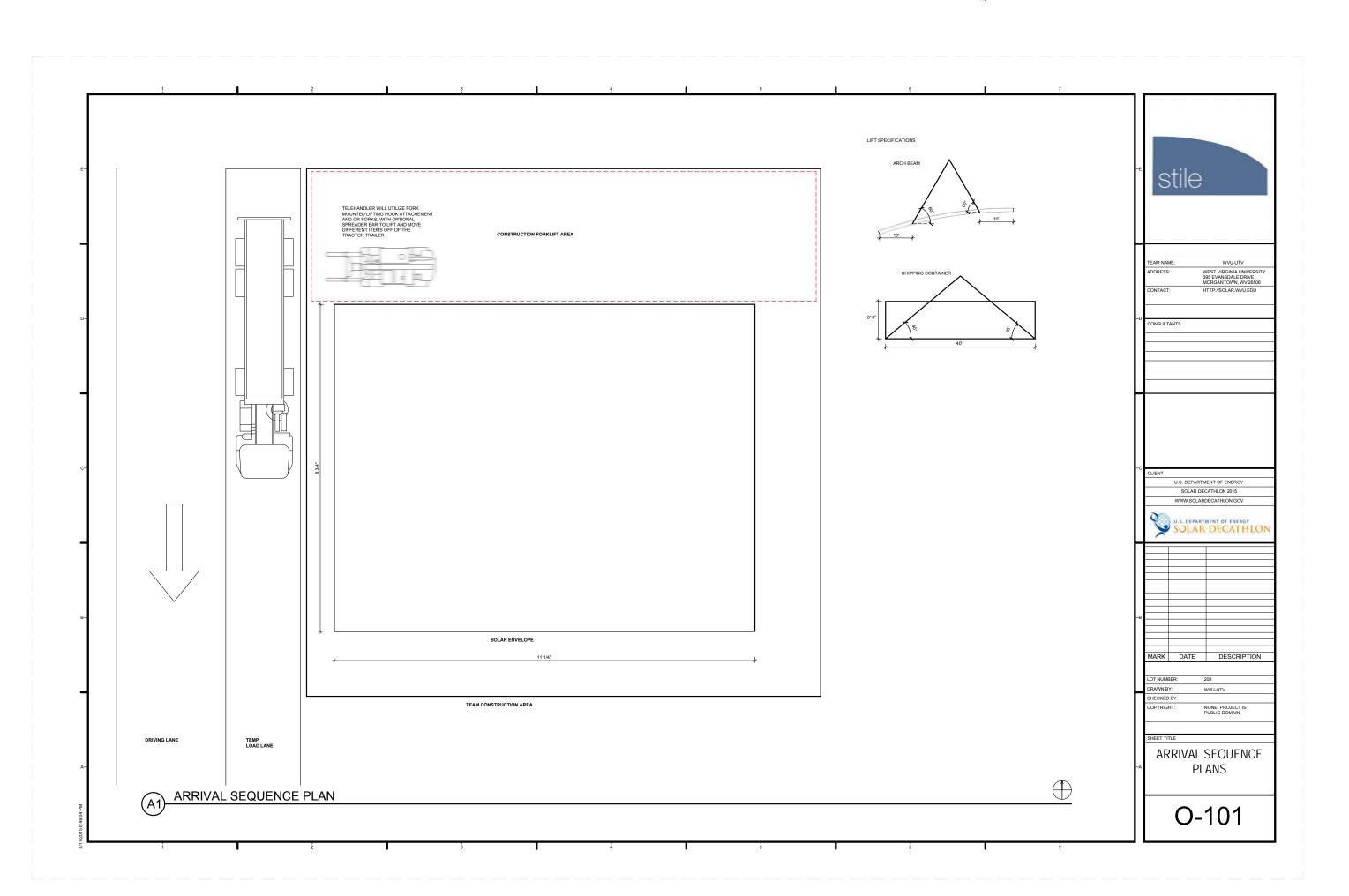
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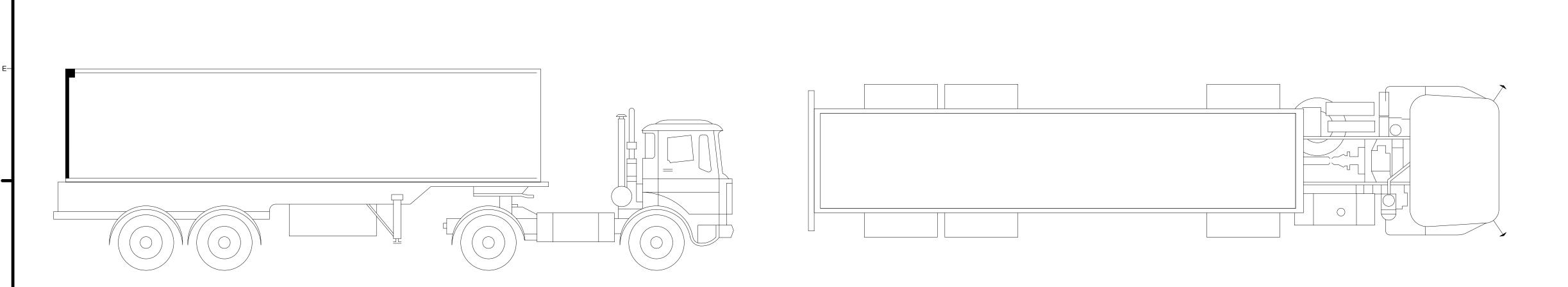
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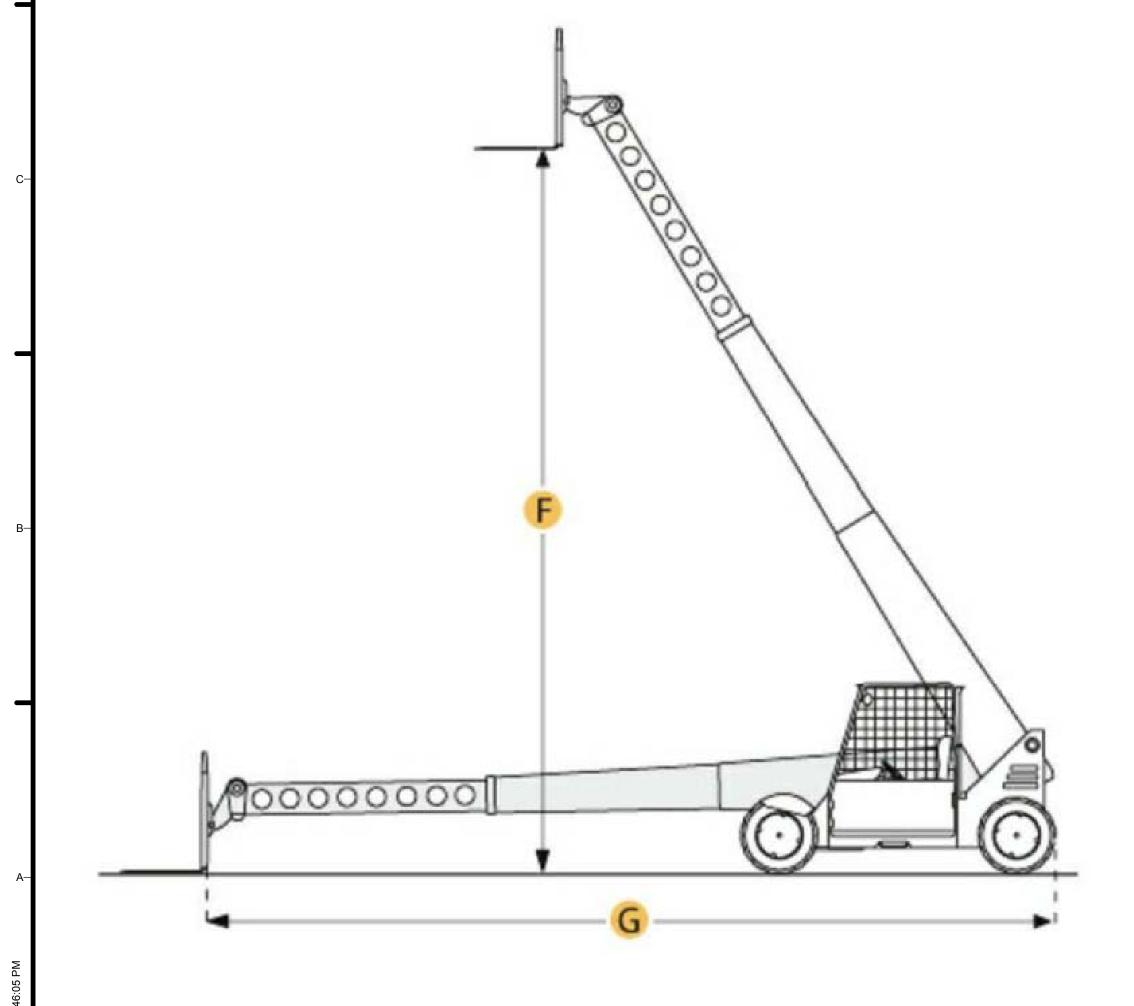


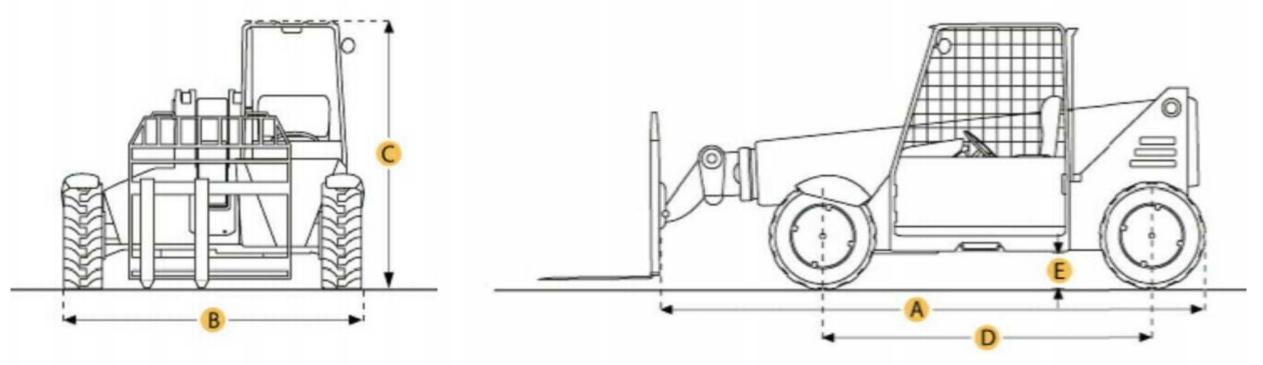






3 TRUCKS CARRYING THREE 40' HIGH-CUBE CONTAINER





Dimensions

A. LENGTH TO FORK FACE	20 ft in	6100 mm
B. WIDTH OVER TIRES	8.5 ft in	2590 mm
C. OVERALL HEIGHT	8.9 ft in	2720 mm
D. WHEELBASE	10.8 ft in	3300 mm
E. GROUND CLEARANCE	1.4 ft in	430 mm
Lift		
F. MAX LIFT HEIGHT	42 ft in	12800 mm
G. MAX FORWARD REACH	25 ft in	7620 mm



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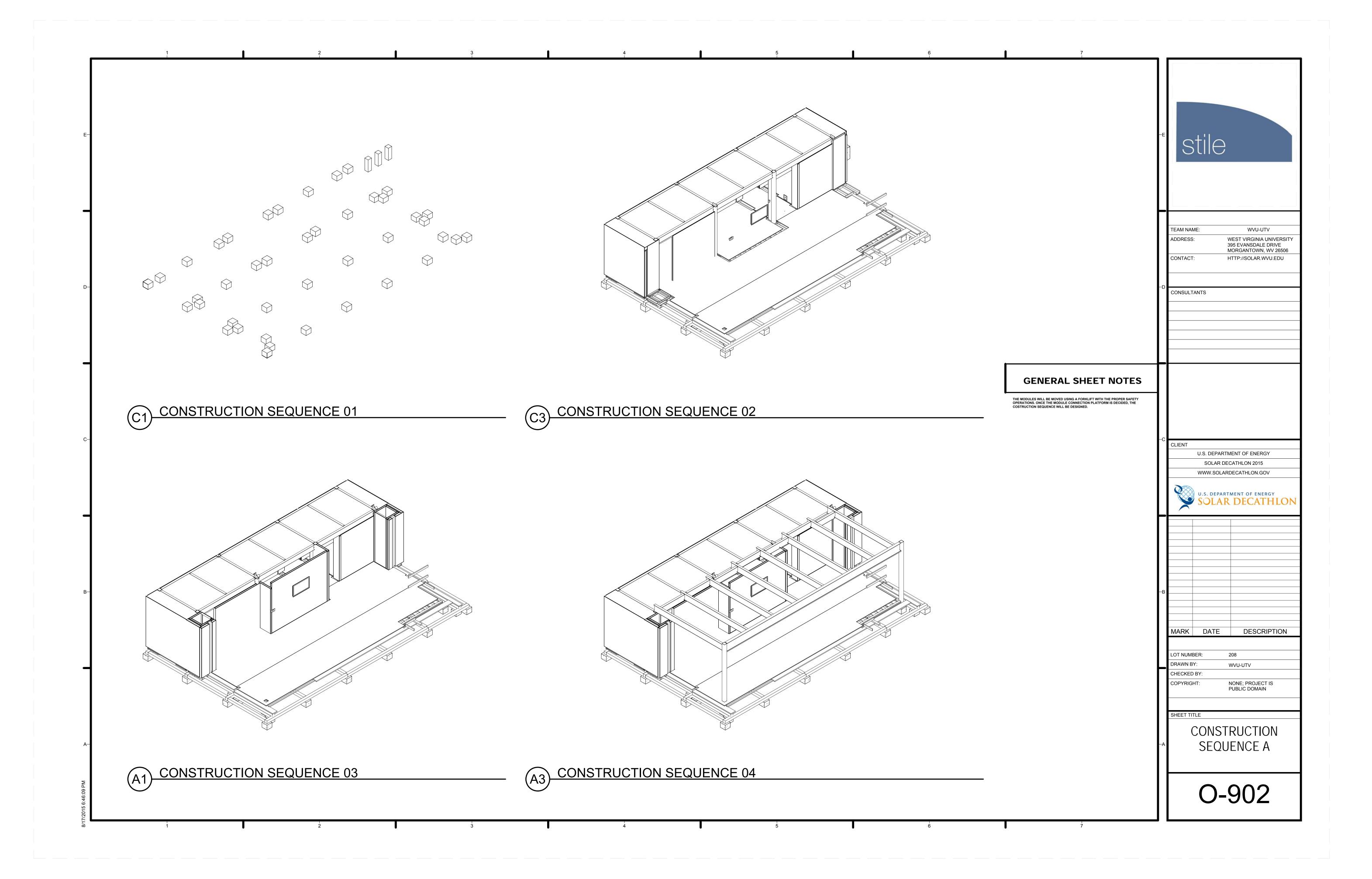
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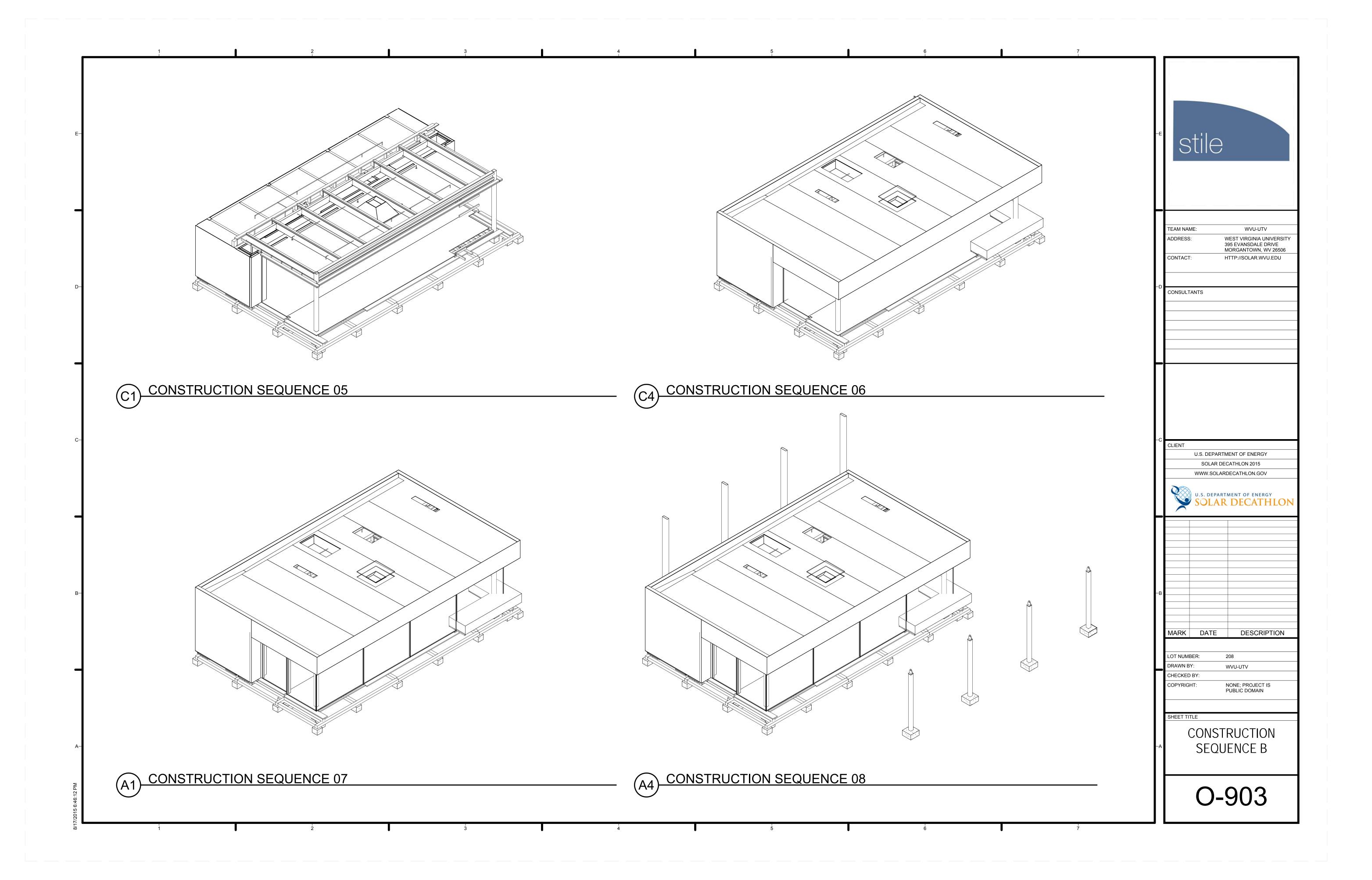
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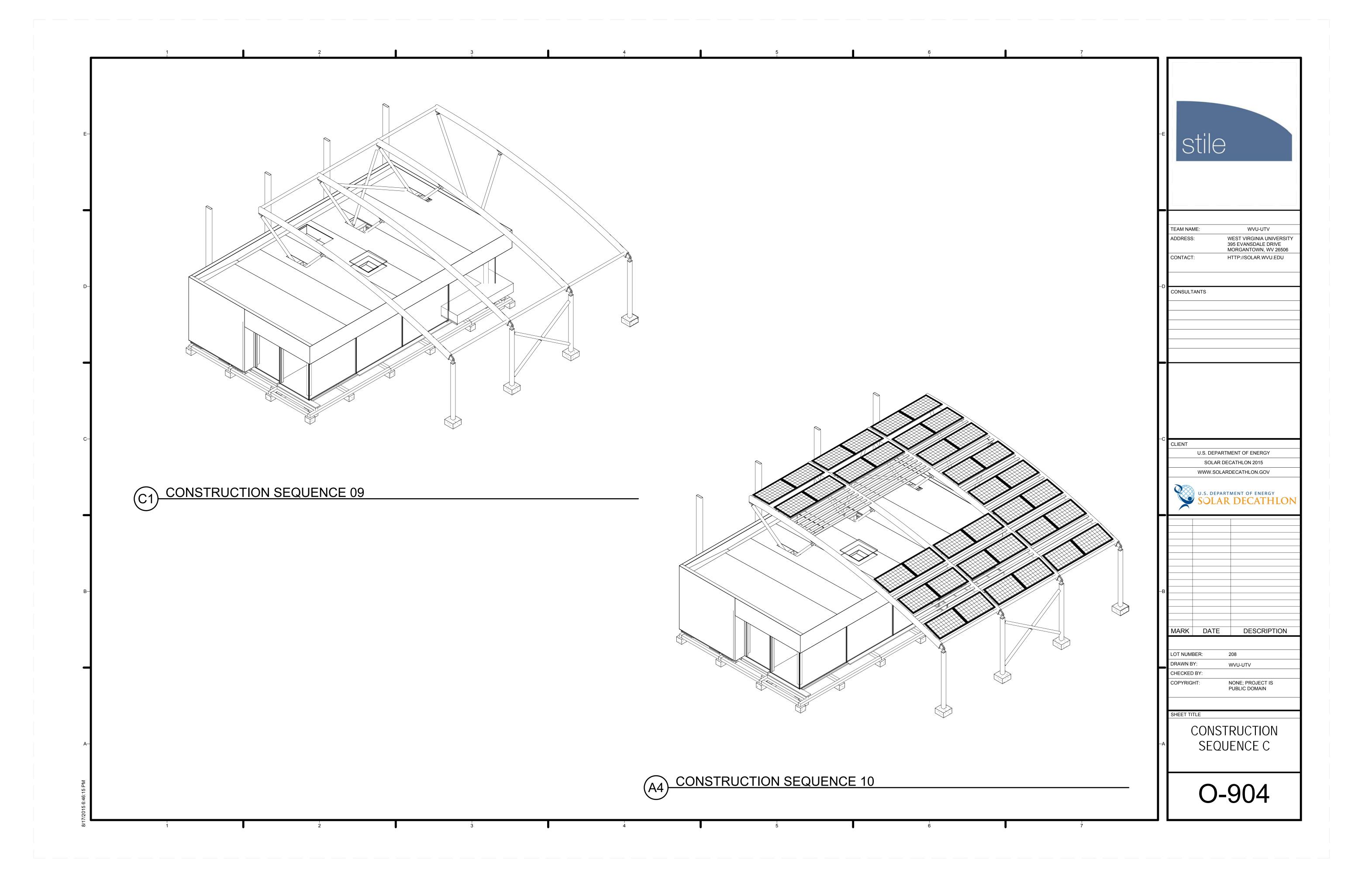
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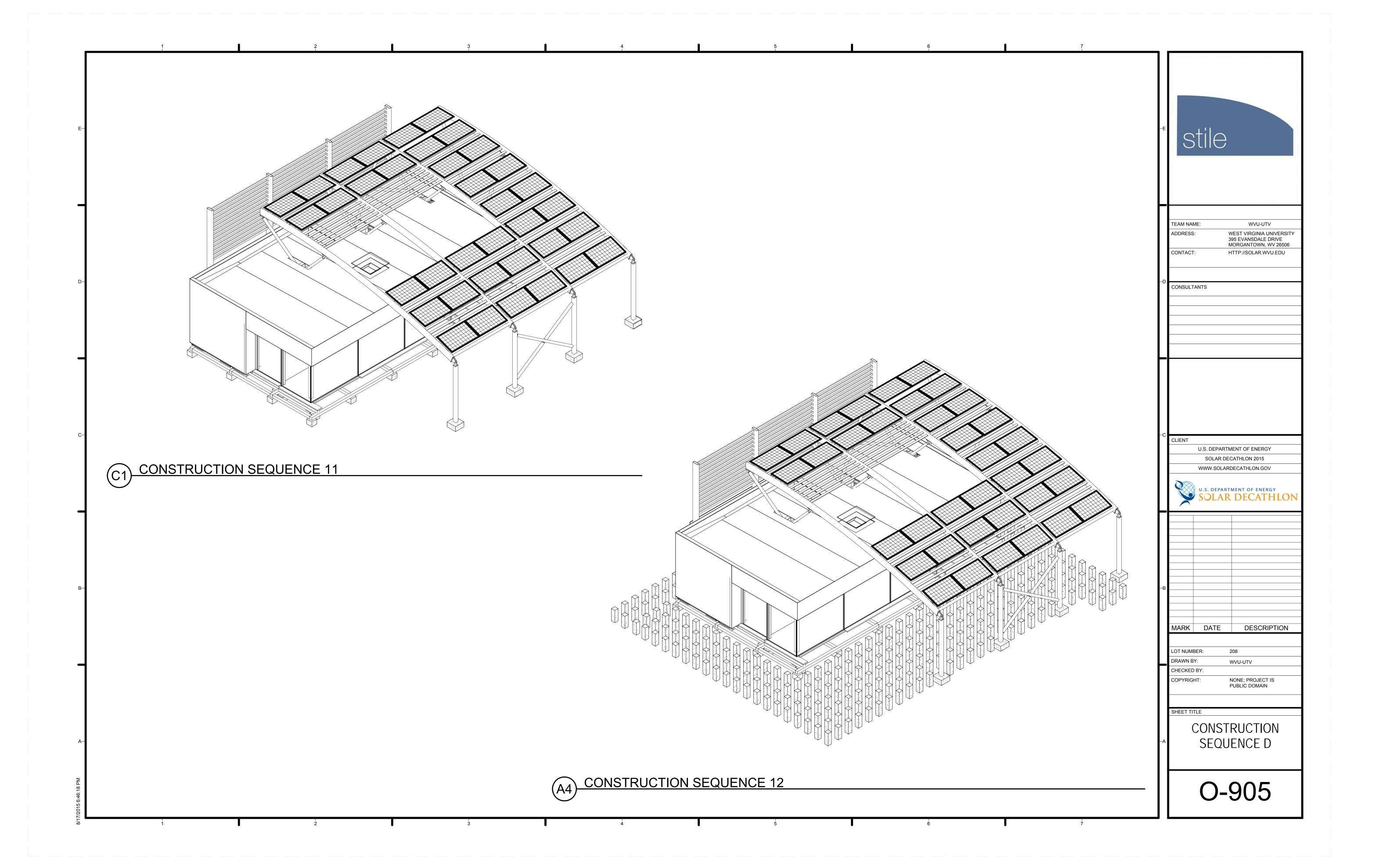
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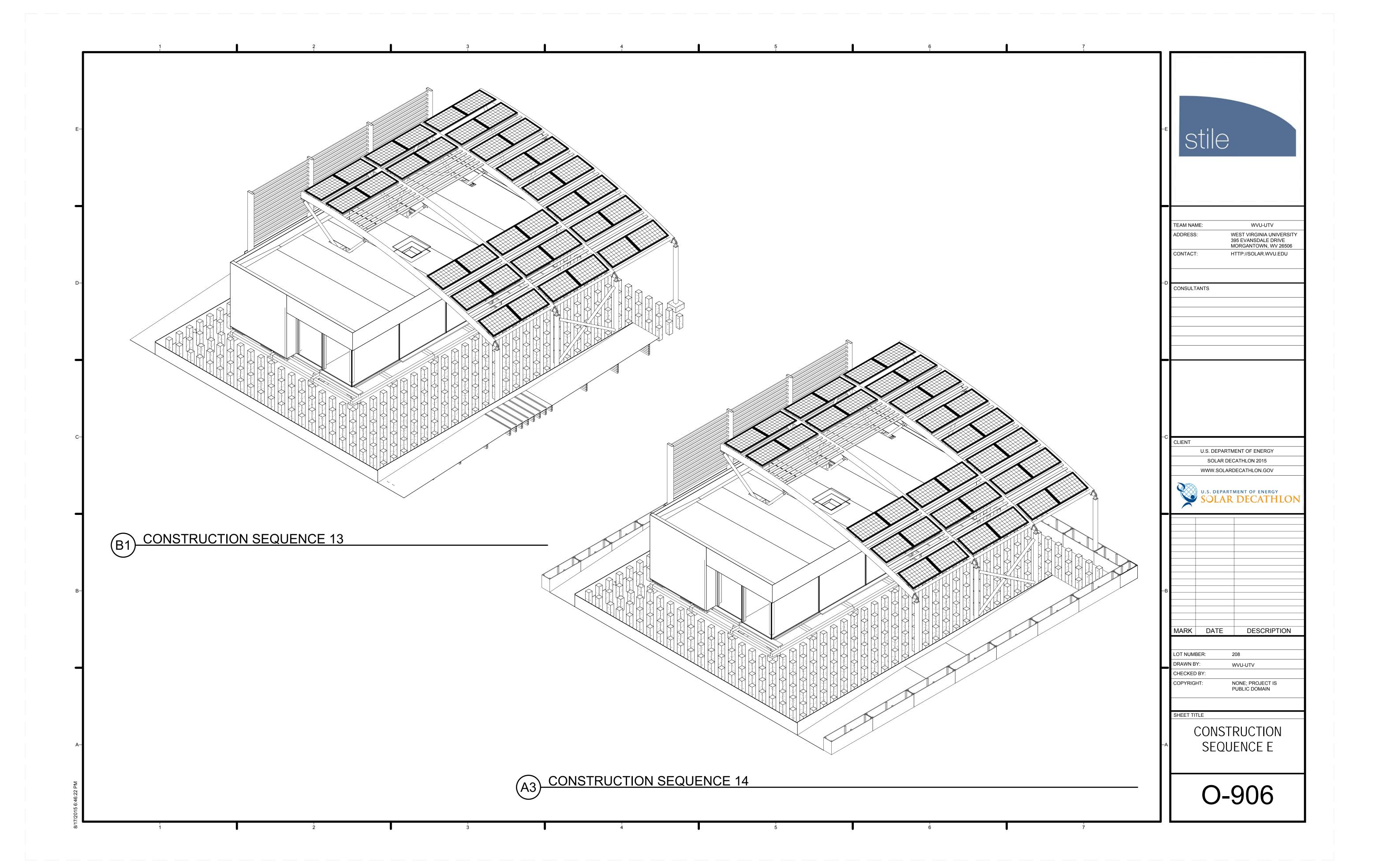
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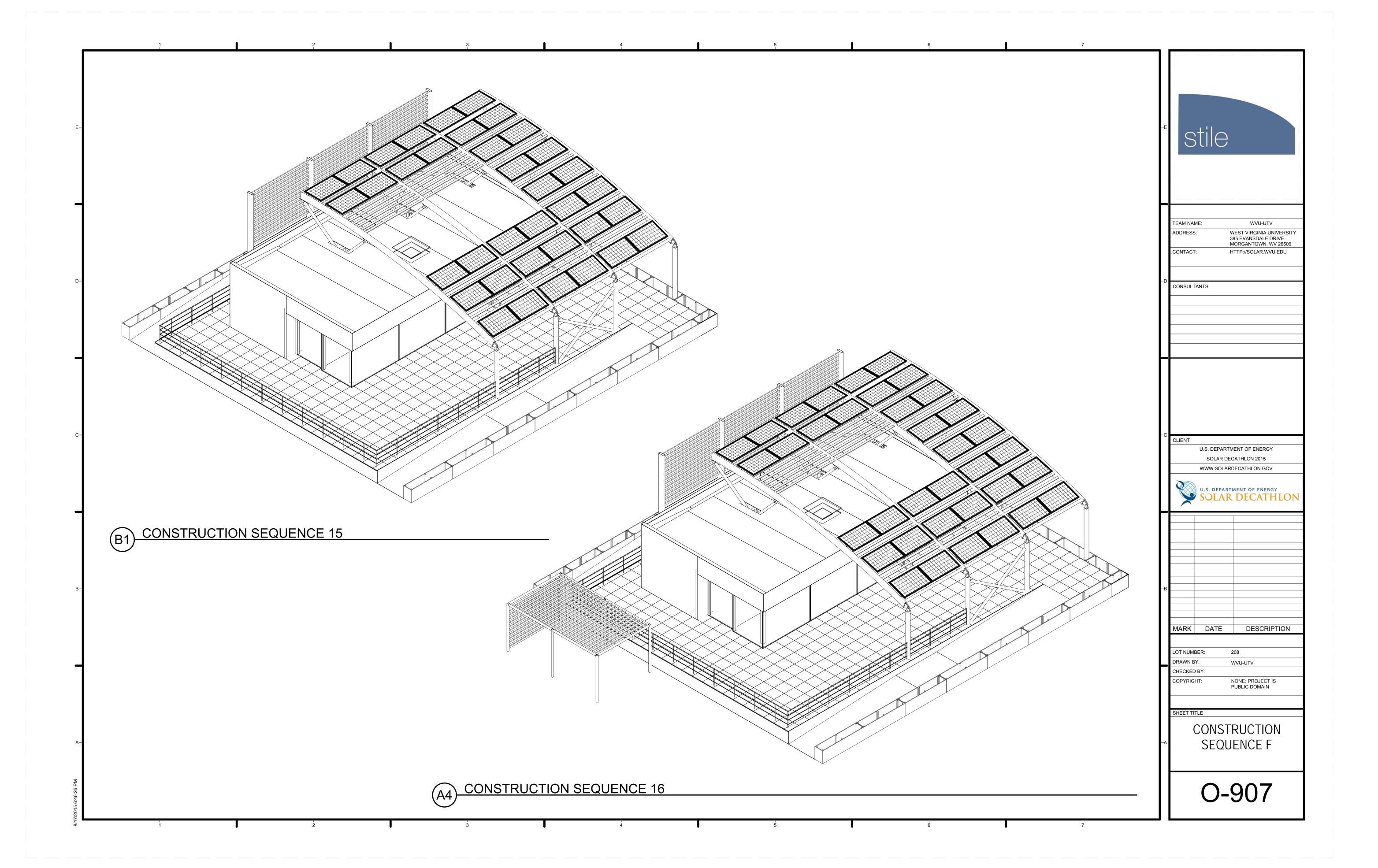


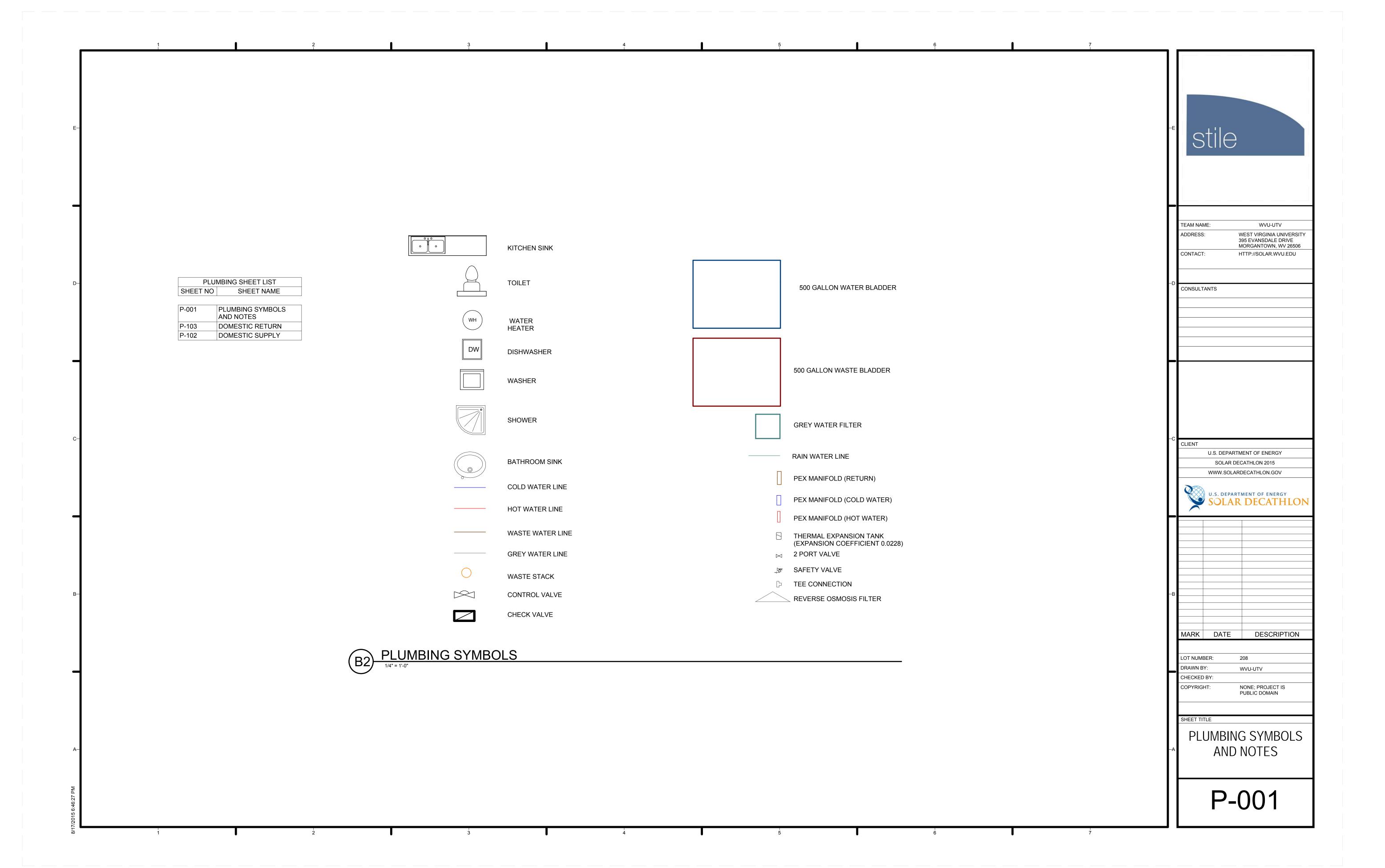


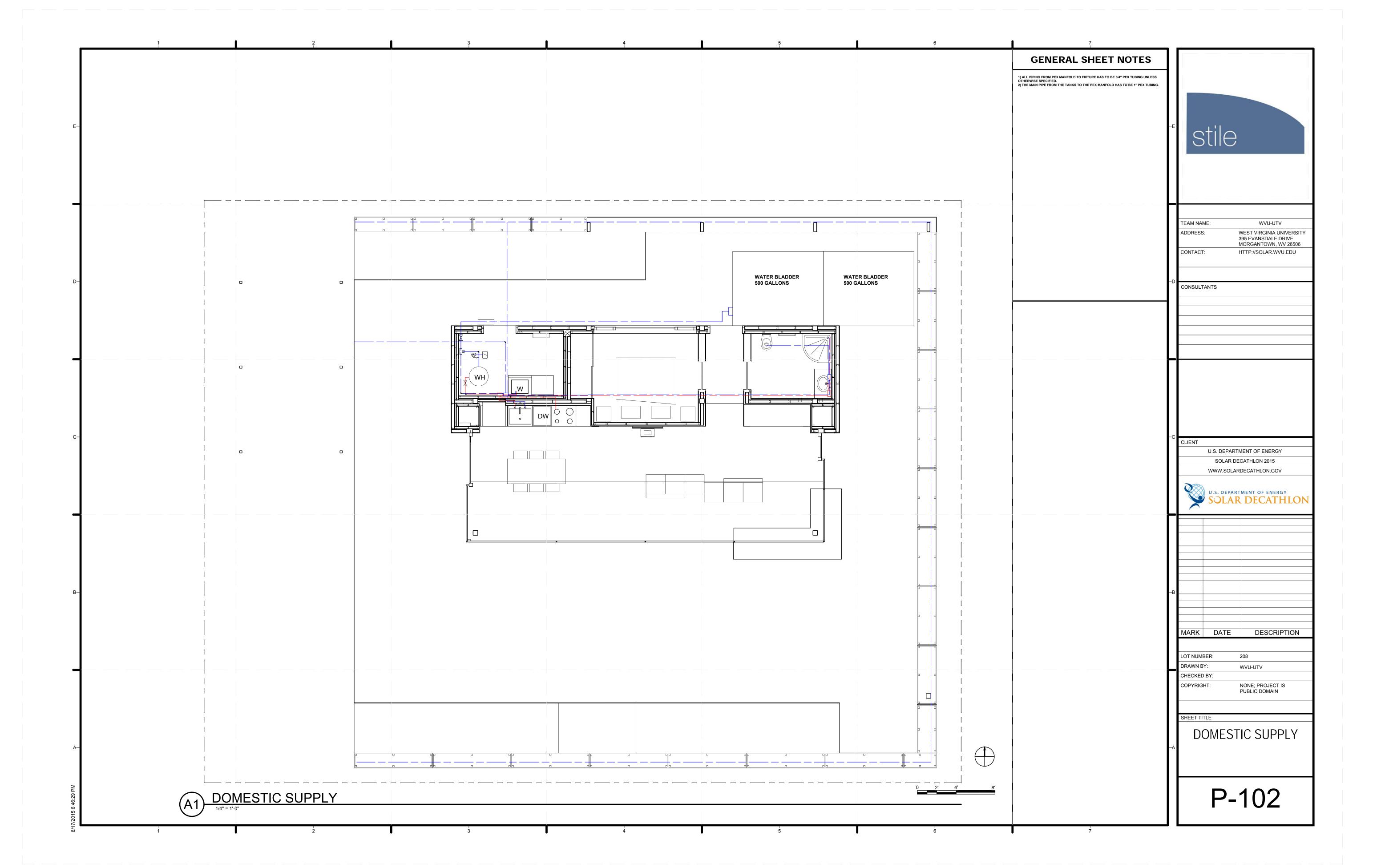


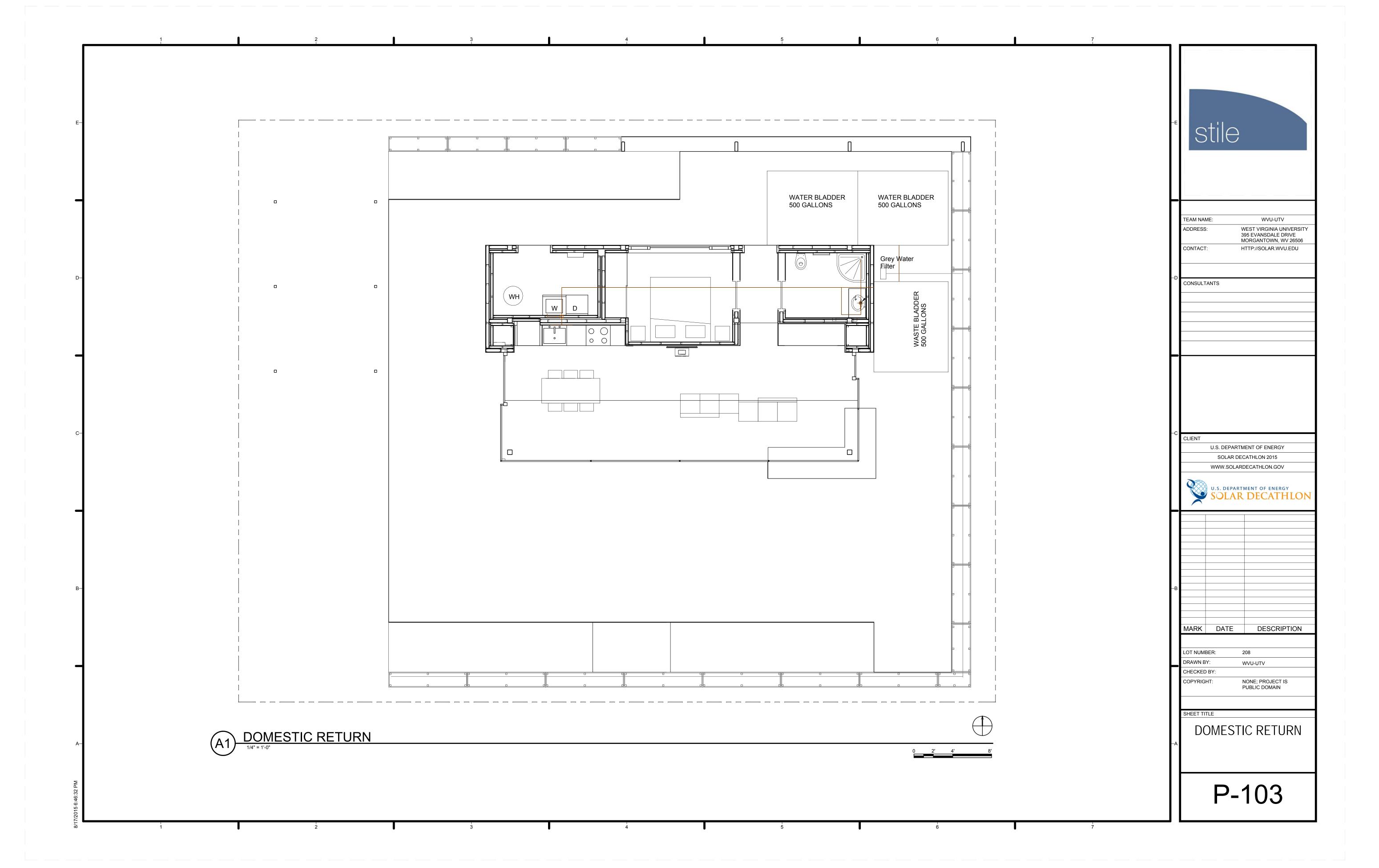












GENERAL STRUCTURAL NOTES: PERFORMANCE REQUIREMENT S: 1. SEE PROJECT MANUAL FOR A. QUALITY OF CONSTRUCTION REQUIRED. 1. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO B. PERFORMANCE LEVELS OF WORKMANSHIP. C. MANUFACTURING AND INDUSTRY STANDARDS. CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF D. STRENGTH AND PHYSICAL REQUIREMENTS OF MATERIALS. THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS. E. CONFORMANCE TO CODES AND REGULATIONS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANT DUTY OR AUTHORITY F. WARRANTY REQUIREMENTS 2. SHOULD A DISCREPANCY OCCUR BETWEEN THE CONSTRUCTION DRAWINGS AND THE PROJECT TECHNICAL TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY SPECIFICATIONS IN THE PROJECT MANUAL, THE SPECIFICATIONS (INCLUDING GEOTECHNICAL REPORT) WILL GOVERNTO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OR THE CONTRACT DOCUMENTS. 3. DESIGN CODE: IBC 2012, RISK CATEGORY II 4. NO PROVISIONS HAVE BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION. 2. CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWING, VENDOR DRAWINGS, OR MATERIALS PREPARED AND SUBMITTED BY THE CONTRACTOR. ULTIMATE 3-SECOND GUST DESIGN WIND SPEED: 115 MPH NOMINAL 3-SECOND GUST DESIGN WIND SPEED: 3. REFERENCE TO STANDARD SPECIFICATIONS OR ANY TECHNICAL SOCIETY, ORGANIZATION, OR 85 MPH WIND EXPOSURE CLASSIFICATION: ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, +/-0.18 COMPONENTS AND CLADDING CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS, UNLESS INTERNAL PRESSURE COEFFICIENT: DESIGN WIND PRESSURE FOR EXTERIOR COMPONENT:25 PSF SPECIFICALLY STATED OTHERWISE. 4. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI, OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE SEISMIC IMPORTANCE FACTOR. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS: CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN. SS =1 404 S1 = 0 503 DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: 5. CONTRACTOR SHALL OBTAIN AND COORDINATE EDGE OF SLAB AND ROOF DECK EDGE DIMENSIONS, OPENING LOCATIONS AND DIMENSIONS, DEPRESSED SLAB LOCATIONS AND EXTENTS, SLAB SLOPES, CURB SDS =0.936, SD1 = 0.503 LOCATIONS, AND CMU WALL LOCATION, ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY SEISMIC SITE CLASS: SEISMIC DESIGN CATEGORY: D DISCREPANCY OR OMISSION. IN THE EVENT OF DISCREPANCIES. THE NON-STRUCTURAL ARCHITECTURAL DETAILS SHALL GOVERN. BASIC SEISMIC FORCE RESISTING SYSTEM: ORDINARY STEEL BRACED AND MOMENT FRAMES 6. CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY. DESIGN BASE SHEAR: ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE 7. CONTRACTOR SHALL VERIFY THE STRUCTURALLY SUPPORTED MECHANICAL EQUIPMENT WEIGHTS, OPENING SIZES, AND LOCATIONS IDENTIFIED ON THE STRUCTURAL DRAWING WITH ARCHITECTURAL AND 7. LIVE LOAD DATA: MECHANICAL DRAWINGS. 8. CONTRACTOR SHALL VERIFY THAT MISCELLANEOUS FRAMING SHOWN ON THE STRUCTURAL DRAWINGS FOR MECHANICAL EQUIPMENT, OWNER-FURNISHED ITEMS, PARTITIONS, ETC. IS CONSISTENT WITH THE REQUIREMENTS OF SUCH ITEMS CONCENTRATED FLOOR LIVE LOADS (DISTRIBUTED OVER AN ARE2-1/2 SQ. FT., UNLESS NOTED OTHERWISE):OFFICE 9. CONTRACTOR HAS RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. BUILDINGS 2000 LBS 10. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR TOP RAIL: 200 LB. OR 50 LB/FT APPLIED NON-CONCURRENTLY IN ANY DIRECTION. STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTABILITY ANALYSIS, AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FRAMEWORK, TEMPORARY 8. SNOW LOAD DATA: BRACING, ETC. GROUND SNOW LOAD, PG = 20 PSF FLAT ROOF SNOW LOAD, PF =20 PSF (MIN) 11. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS. SNOW EXPOSURE FACTOR, Ce = 1.0 THERMAL FACTOR, CT =1.1 12. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED. SNOW LOAD IMPORTANCE FACTOR, IS =1.0 13. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR. 9. GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS RELATED TO EXISTING CONSTRUCTION, 14. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE DESIGN OF STEEL STAIRS, EXISTING SERVICES, AND THE SITE. HANDRAILS, CURTAIN WALL/WINDOW SYSTEMS, COLD-FORMED METAL FRAMING, TOILET PARTITION 10. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LIVE LOADS. SHORING AND RE-SHORING IS THE RESPONSIBILISUPPORTS, SHELF SYSTEMS, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS, SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY OTHERS AS REQUIRED BY OTHER PORTIONS THE GENERAL CONTRACTOR. OF THE CONTRACT DOCUMENTS. 15. STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR SPECIFYING ALL WATERPROOFING DETAILS AND ELEMENTS ON THE SUPERSTRUCTURE AND BELOW GRADE STRUCTURES. 16. GENERAL CONTRACTOR SHALL REVIEW AND COORDINATE ELEVATOR RAIL AND HOIST REQUIREMENTS WITH STRUCTURAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY IF CHANGES ARE REQUIRED. **CONSTRUCTION MEANS AND METHODS** 1. CONTRACTOR AGREES THAT CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFELY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD OWNER AND STRUCTURAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER OR STRUCTURAL ENGINEER. 2. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE METHOD OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE. BUT NOT BE LIMITED TO: PROTECTION OF SUBGRADE FROM FREEZING CONDITIONS, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. 3. ADS CONSULTING ENGINEERS SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR SAFETY OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ANY CONSTRUCTION ACTIVITIES, SINCE THESE ARE SOLELY CONTRACTOR'S RESPONSIBILITY UNDER THE CONTRACT. 4. ADS CONSULTING ENGINEERS SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S SCHEDULE OR FAILURES TO CARRY OUT ANY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ADS CONSULTING 1. DESIGN OF STEEL DECK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE WITH SELF-DRILLING SCREWS OR WELDING. SCREWS SHALL BE OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE COMPONENT. ENGINEERS SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTIONS OF CONTRACTOR, SUBCONTRACTOR, SUBCONT DESIGN LOAD DATA SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE. REVIEW OF SHOP DRAWINGS SHALL

2. COMPOSITE STEEL DECK SHALL BE CAPABLE OF SUPPORTING THE LOADS DESCRIBED IN THE SPECIFICATIONS,

B. COMPOSITE FLOOR SLABS ARE TO BE FINISHED LEVEL. THE WEIGHT OF THE WET CONCRETE WILL CAUSE

DEFLECTIONS OF THE STEEL FRAMING, THUS CONCRETE OVERRUNS ARE TO BE ANTICIPATED AND

C. COORDINATE EMBEDDED ITEMS REQUIRED FOR ARCHITECTURAL, STRUCTURAL AND MECHANICAL

A. COMPOSITE FLOOR DECK IS DESIGNED TO BE UNSHORED UNLESS NOTED OTHERWISE.

CORRESPONDING TO THE NUMBER OF SPANS AND THE SPAN LENGTH.

INCLUDED IN THE CONTRACTOR'S BASE BID.

FLEMENTS

5. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY OF DESIGN DRAWINGS ARE FOR ESTIMATING PURPOSES ONLY.

THE STRUCTURE DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH THE "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS" (13TH EDITION) OF THE AISC. MAINTAIN COPY OF EACH ON JOB SITE DURING CONSTRUCTION.

2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

- A. WIDE FLANGE SHAPES AND WT'S ASTM A 992 WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.
- B. CHANNELS, ANGLES, PLATES, AND MISCELLANEOUS CONNECTION MATERIAL ASTM A36 WITH A MINIMUM YIELD STRENGTH OF 36,000 PSI UNLESS NOTED OTHERWISE.
- C. PIPES ASTM A501 WITH A MINIMUM YIELD STRENGTH OF 36,000 PSI OR ASTM A53 TYPE E OR S WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI. D. TUBES - ASTM A500, GRADE B WITH A MINIMUM YIELD STRENGTH OF 46,000 PSI.

3. ALL BOLTS SHALL BE 3/4 " DIA. UNLESS NOTED OTHERWISE ASTM A325 H.S. BOLT OF EITHER FRICTION OR BEARING TYPE. USE SLIP CRITICAL CONNECTIONS FOR ALL WIND BRACING CONNECTIONS. THREADS SHALL BE INCLUDED IN THE SHEAR PLANE.

4. ALL BOLTED CONNECTIONS SHALL BE MADE ACCORDING TO AISC TABLE II OR III FRAMED BEAM CONNECTIONS. THE MINIMUM DEPTH OF CONNECTION MUST BE MORE THAN ONE HALF THE DEPTH OF THE BEAM EXCEPT THAT BEAMS FRAMING TO COLUMNS SHALL HAVE FULL DEPTH CONNECTIONS USING 3/8 " CONNECTION ANGLES OR PLATES. CONTRACTOR SHALL PROVIDE CERTIFIED DESIGN FOR ALL SHEAR CONNECTIONS BY A PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED. SUBMIT CALCULATIONS FOR MOMENT CONNECTIONS USING BRACED MEMBER CAPACITY U.N.O. ON PLANS. MINIMUM END REACTION OF BEAMS:

W8'S = 10 KIPSW10'S = 12 KIPS W12'S = 16 KIPS W14'S = 18 KIPS W16'S = 20 KIPS W18'S = 22 KIPS

W21'S = 24 KIPS

W24'S = 26 KIPS6. ALL WELDING SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS OF THE AWS AND THE AISC. USE E70XX ELECTRODES.

- 7. DO NOT PAINT STEEL WHERE ENCASED IN CONCRETE OR AT FIELD WELD AREAS.
- 8. NO SHOP OR FIELD HOLES OR CUTS ARE TO BE PLACED IN STRUCTURAL MEMBERS UNLESS INDICATED ON THE CONTRACT OR SHOP DRAWINGS.
- 9. THE STRUCTURAL STEEL FABRICATOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION. PARTICULARLY FOR STAIRS, HANDRAIL SYSTEMS, ETC.
- 10. THE STRUCTURAL STEEL FABRICATOR SHALL PROVIDE FOR VERTICAL AND HORIZONTAL ADJUSTMENT OF ALL SUPPORT ASSEMBLIES.
- 11. THE STRUCTURAL STEEL FABRICATOR AND/OR THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AT THE SITE. ALL DISCREPANCIES FOUND SHALL BE REPORTED TO THE ARCHITECT PRIOR TO PREPARATION OF SHOP DRAWINGS. SHOP DRAWINGS SHALL INCLUDE ALL FIELD MEASUREMENTS AND CONDITIONS.
- 12. EXPANSION BOLTS: USE EXPANSIVE ANCHORS OF THE DIAMETER INDICATED ON THE DRAWINGS AS MANUFACTURED BY HILTI FASTENING SYSTEMS OR APPROVED EQUAL. A. IN CONCRETE, USE HSL HEAVY DUTY ANCHORS.
- B. IN BRICK AND CMU, USE SLEEVE AND FILL CMU CELLS AT ALL BOLT LOCATIONS. 13. ANCHOR BOLTS MUST MEET ASTM A1554 GR. 36 SPECIFICATIONS AND BE 3/4" DIAMETER (UNLESS OTHERWISE INDICATED).
- 16. ALL GALVANIZING SHALL BE PER ASTM A123 AND A 780. ALL STEEL EXPOSED TO THE ELEMENTS AND MASONRY SUPPORT MEMBERS SHALL BE GALVANIZED. BACKUP STEEL
- SUPPORTING MASONRY VENEER AND PRECAST SUPPORT ANGLES SHALL BE ZINC PRIMED AND PAINTED.
- 17. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR POSSIBLE MISCELLANEOUS STEEL. THIS STEEL SHALL ALSO CONFORM TO THE REQUIREMENTS IN THESE GENERAL NOTES AND THE STRUCTURAL STEEL SPECIFICATIONS.
- 18. STEEL FABRICATOR SHALL BE CERTIFIED UNDER THE AISC QUALITY CERTIFICATION PROGRAM.
- 20. STEEL FABRICATOR SHALL REVIEW ARCHITECTURAL DRAWINGS AND INCLUDE ALL MISCELLANEOUS STEEL IN THEIR BID. IF NOTES ON ARCHITECTURAL DRAWINGS REFER TO "SEE STRUCTURAL" AND THE STRUCTURAL DRAWINGS DO NOT ADDRESS THIS ITEM NOTIFY THE E.O.R. AT LEAST TWO WEEKS PRIOR TO BID OPENING TO ALLOW TIME FOR ISSUE OF
- 21. COLUMN SCHEDULE MAY NOT INCLUDE ALL COLUMNS ON THE PROJECT. REVIEW ALL DRAWINGS TO INSURE ALL COLUMNS ARE INCLUDED IN BID.
- 23. SUPPORT FOR RTU'S SHALL BE LIMITED TO FRAMED OPENING STEEL AROUND ROOF OPENINGS. ADDITIONAL STEEL REQUIRED FOR RTU SUPPORT SHALL BE DESIGNED AND PROVIDED BY THE GENERAL CONTRACTOR WITH COORDINATION WITH THE RTU MANUFACTURER.

LIGHTGAGE STEEL FRAMING (LSF):

1. ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION), WIND LOAD DETERMINATION FOR COMPONENTS AND CLADDING SHALL BE PER ASCE STANDARD, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

2. ALL STRUCTURAL STUD AND/OR JOIST FRAMING MEMBERS SHALL BE ENGINEERED BY THE MANUFACTURER. DESIGN CALCULATIONS AND SHOP DRAWINGS INDICATING ALL JAMBS, POSTS, HEADERS, BRACING, AND PIECES NECESSARY FOR CONSTRUCTION SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW.

3. EXTERIOR STUD WALLS SHALL BE DESIGNED FOR A MINIMUM UNIFORM WIND PRESSURE AS PER IBC - 2012 FOR COMPONENTS AND CLADDING AND A MAXIMUM PERMISSIBLE HORIZONTAL DEFLECTION OF L/360 (L600 FOR UNREINFORCED VENEER).

4. MAXIMUM STUD SPACING SHALL BE 16" O.C.

5. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS. 6. ALL FIELD CUTTING OF STUDS MUST BE DONE BY SAWING OR SHEARING. TORCH CUTTING OF COLD-FORMED MEMBERS IS UNACCEPTABLE.

BE FOR CONTRACTOR'S INTERPRETATION OF DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. SUCH REVIEW SHALL BE SECURELY ATTACHED TO THE STRUCTURE WHERE INDICATED ON THE DRAWINGS OR APPROVED SHOP DRAWINGS. FASTENERS SHALL BE NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR THE DESIGN OF THE STEEL DECK. DECK SHOWN O COMPATIBLE TO THE STRUCTURAL MEMBERS.

> 9. PROVIDE VERTICAL SLIDE TRACKS OR SLIDE CLIPS WHERE INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED TO ALLOW FOR VERTICAL STRUCTURAL MOVEMENTS. MAXIMUM EXPECTED STRUCTURE DEFLECTIONS ARE L/360 AT FLOORS AND L/240 AT ROOFS.

10. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION, SUCH AS SHEETING TYPE, FINISHES, OPENINGS, ETC.

11. FOR VERTICAL LOAD BEARING STUD WALLS, DO NOT LOAD OVERBEARING ROOF OR FLOORS WITH CONSTRUCTION EQUIPMENT AND/OR STORE BUILDING MATERIALS UNTIL BEARING STUDS ARE FULLY INSTALLED AND BRACED ACCORDINGLY. CONTRACTOR REMAINS RESPONSIBLE FOR MEANS AND METHODS AND CONSTRUCTION SITE SAFETY.

TEAM NAME:	WVU-UTV
ADDRESS:	WEST VIRGINIA UNIVERSITY 395 EVANSDALE DRIVE MORGANTOWN, WV 26506
CONTACT:	HTTP://SOLAR.WVU.EDU

CONSULTANTS	



n o	102 Leeway Street Morgantown, WV 26505	
	Phone: 304.599.0771	

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STRUCTURAL NOTES

NONE; PROJECT IS

PUBLIC DOMAIN

CONTRACTOR

