

U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON 2013

DRAWINGS  
AS-BUILT  
DOCUMENTATION  
2013/08/22

# AIR HOUSE

TEAM CZECH REPUBLIC

FACULTY ADVISOR:

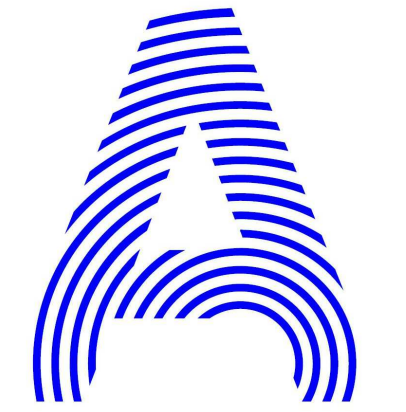
ING. ARCH. DALIBOR HLAVÁČEK, PH.D  
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PROJECT TITLE: AIRHOUSE										
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**D2 PROJECT CONTACTS**  
 12" = 1'-0"

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TEAM NAME: CZECH REPUBLIC / CTU

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4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION

MARK	DATE	DESCRIPTION
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
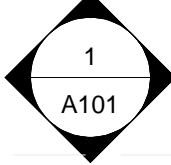
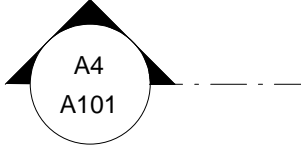

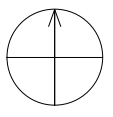
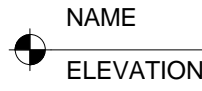
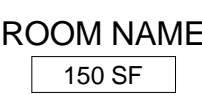
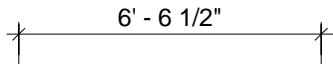

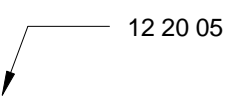



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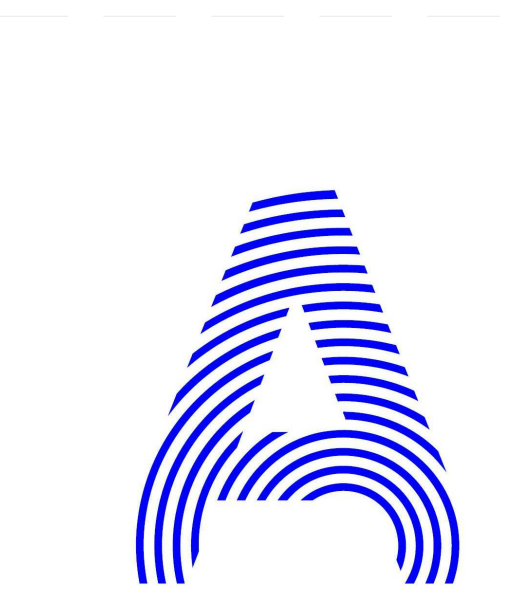
SHEET TITLE

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				STRUCTURAL GRID TAG				
	GENERAL SYMBOLS LEGEND			ELEVATION TAG				
				SECTION TAG				
			GRAPHIC SCALE					
			NORTH ARROW					
			ELEVATION MARKER					
			ROOM DESIGNATION					
			DIMENSION LINE					
			MODULE BREAK LINE					
			REFERENCE KEYNOTE TAG					
			SHEET KEYNOTE TAG					
			VIEW TITLE					
			SOLAR ENVELOPE					



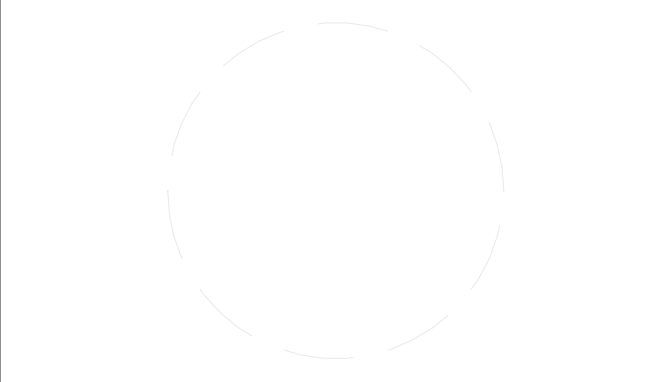
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**GENERAL SHEET NOTES**

**G-003**

## MISSION STATEMENT

THE AIR HOUSE CONCEPT PRESENTS A SMALL HOUSE WITH AN INTENSIVELY USED OUTDOOR LIVING AREA, INTENDED FOR A COUPLE AT THE AGE OF OUR PARENT'S GENERATION. OUR DESIGN IS BASED ON A TYPICAL CZECH CUSTOM OF SPENDING WEEKENDS OUT IN THE COUNTRY. HOWEVER, DURING THE SOCIALIST TIMES FROM 1948 TO 1989, THE MAJORITY OF THE POPULATION HAD NO MONEY TO INVEST IN A „PROPER COUNTRY HOUSE“, A VERY UNIQUE TYPE OF UNORTHODOX. FOLK ARCHITECTURE HAD CREATIVITY TAKEN PLACE FOR OVER FOUR DECADES IN THE FORMER COMMUNIST CZECHOSLOVAKIA. OFTEN STORIES ABOUT THE AMERICAN WILD WEST, ROMANTIC IMAGERY FROM MOVIES AND PHOTOGRAPHS INFLUENCED THE BUILDERS. THE TRADITION OF THE CZECH „CHATA“, A COTTAGE OR A CABIN OUT IN THE COUNTRY FAR FROM INDUSTRIAL CITIES, IS STILL VERY STRONG EVEN THOUGH THE LAST GENERATION OF BUILDERS BECAME CZECH SENIORS (50+). A SPECIFIC STYLE, DO-IT YOURSELF ETHICS, AND STYLE EVOKING DREAMS OF PREVIOUS GENERATIONS INSPIRED THE AIR HOUSE. CZECH SENIORS ARE A VERY LIVELY AND IMPORTANT PART OF THE SOCIETY AND SENIOR'S HOUSING PRESENTS A VERY STRONG AND IMMINENT SOCIAL TOPIC. SO WE PROPOSE A HOUSE THAT IS FIRMLY ROOTED IN THE UNUSUAL EXPERIENCE OF OUR FAMILIES IN THE PAST, YET IT INCORPORATES ELEMENTS OF SUSTAINABLE ARCHITECTURAL DESIGN WITH ALL THE PROGRESS THE TECHNOLOGY AND SCIENCE OF THE 21ST CENTURY HAS BROUGHT.

BY INCORPORATING TRADITIONAL FEATURES OF THE RURAL TYPOLOGY („L“ SHAPE, COURTYARD, SHADED PORCH), AIR HOUSE OFFERS AN ENVIRONMENTALLY RESPONSIBLE HOUSE THAT CAN COMPETE IN THE CURRENT MARKET. MODERN TECHNOLOGY MAKES THE TRADITIONAL FORM MORE ENERGY-EFFICIENT. IT USES LOCAL RESOURCES AND REDUCES ENERGY DEMAND BY UTILIZING SOLAR ENERGY THROUGH PASSIVE (APPROPRIATE ORIENTATION, LAYOUT, COMPACT SHAPE OF THE BUILDING, AND HIGH R-VALUE INSULATION) AND ACTIVE (PHOTOVOLTAIC, ENERGY-MONITORING SOFTWARE) SOLAR DESIGN STRATEGIES. THE DESIGN, DETAILING, AND PERFECTLY CRAFTED MATERIALS SHOULD AWAKEN THE SENSES – SIGHT, SMELL AND TOUCH – AND INVOKE A FEELING OF BEAUTY AND INSPIRATION. THE AIR HOUSE CAN BE ADAPTED TO VARIOUS CLIMATES. IT BENEFITS FROM THE SHADED NORTH TERRACE IN THE CALIFORNIA'S CLIMATE AND BY TURNING THE LAYOUT IT MAXIMISES THE ENTRY OF THE LOW WINTER SUN IN THE CLIMATE OF THE CZECH REPUBLIC.

AIR HOUSE MEANS: “A” AS IN AFFORDABLE, “I” AS IN INNOVATIVE AND “R” AS IN RECYCLABLE.

### “A” AS IN AFFORDABLE

THE PRINCIPLE OF THE AIR HOUSE AFFORDABILITY IS AN ELABORATE CONCEPT OF A FLEXIBLE SINGLE ROOM LIVING AREA, WHICH COMBINES AND ALTERNATES FUNCTIONS, SAVES SPACE, AND OFFERS VARIABILITY IN ACCORDANCE TO THE NEEDS OF ITS OCCUPANTS. THE MAIN EMPHASIS IS ON THE REDUCTION OF OPERATING COSTS USING EFFECTIVE TECHNOLOGY, MATERIALS AND TECHNOLOGIES WE USE ARE INNOVATIVE TODAY, BUT WILL BE A STANDARD IN THE FUTURE. THIS ADDS VALUE TO THE HOUSE AND CONTRIBUTES TO ITS FUTURE MARKETABILITY. THE LOAD-BEARING AND A SPACE SAVING WOOD-PANEL CONSTRUCTION OFFERS 10 % MORE FLOOR AREA THAN THE USUAL BRICK HOUSES. IT IS EASILY ASSEMBLED AND TRANSPORTABLE. THE PREFABRICATION NOTABLY SHORTENS BUILDING TIME, THEREFORE SAVING BUILDING COSTS.

### “I” AS IN INNOVATIVE

THE AIR HOUSE IS INNOVATIVE IN MANY WAYS: THE „HOUSE IN HOUSE“ CONCEPT USES THE PROTECTED AREA AROUND THE CONDITIONED HOUSE AS A BUFFER ZONE TO CONTROL THE INDOOR CLIMATE. A GENEROUS PATIO ALLOWS INHABITANTS TO EFFECTIVELY LIVE OUTSIDE DURING THE SUMMER, AND BRINGS A SENSE OF THE OUTDOORS INSIDE DURING WINTER. CUSTOM-BUILT FURNITURE CAN TRANSFORM TO ACCOMMODATE ALL SORTS OF INDOOR ACTIVITIES. THE INSTALLED SYSTEM PRODUCES 2 TIMES MORE ENERGY THAN REQUISITE.

### “R” AS IN RECYCLABLE

THE AIR HOUSE IS DISTINGUISHED BY A STRONG PRESENCE OF NATURAL MATERIALS TO CREATE HEALTHY INTERIOR ENVIRONMENT. THE SELECTION OF CONSTRUCTION SYSTEMS AND USED MATERIALS IS RESOLVED WITH REGARD TO THEIR RENEWABILITY, AND RECYCLABILITY, AND IT IS COMPREHENSIVELY ASSESSED ACCORDING TO THE LCA PHILOSOPHY. WOOD IS USED AS MUCH AS POSSIBLE IN THE FORM OF AN EXPOSED STRUCTURE OF LOAD BEARING WOODEN PANELS AND A MASSIVE WOODEN CANOPY STRUCTURE. HEAT INSULATIONS USED IN THE FLOOR, ROOF, AND WALL CONSTRUCTIONS ARE DESIGNED TO BE OF ORGANIC ORIGIN. THE AIR HOUSE HAS A DIFFERENTIATED SYSTEM FOR THE TREATMENT OF ITS EFFLUENTS TO PRESERVE QUANTITY AND QUALITY OF WATER RESOURCES. THE CONSTRUCTED WETLANDS FILTER GREY WATER FROM THE SHOWER, DISHWASHER, AND BATHROOM SINK. BY REUSING THE FILTERED WATER TO IRRIGATE THE GARDEN, THE RESIDENTS MINIMIZE THEIR POTABLE WATER USAGE.

## TARGET MARKET DESCRIPTION

ALTHOUGH INSPIRED BY A VACATION HOME, AIR HOUSE IS INTENDED AS A PERMANENT RESIDENCE FOR A COUPLE. THE MARKETING STRATEGY OF THE AIR HOUSE CONCEPT LINKS AFFORDABLE, ECONOMICAL CONSTRUCTION, INNOVATIVE DESIGN AND ENVIRONMENT FRIENDLY MATERIALS AND TECHNOLOGIES.

THE AIR HOUSE IS DESIGNED FOR 1 TO 2 PEOPLE HOUSEHOLDS OF PRE-RETIREMENT AGE AND RETIREMENT AGE (AGES 50+), THUS, IT REACTS TO THE CONTEMPORARY DEMOGRAPHIC DEVELOPMENT IN THE CZECH REPUBLIC, WHERE EVERY FOURTH HOME IS A SINGLE-PERSON HOUSEHOLD. (THIS TREND GREW BY 83% IN THE PAST 15 YEARS.) IN THE US, THE PERCENTAGE OF ONE-PERSON HOUSEHOLDS IS SIMILAR TO THE CZECH REPUBLIC. ACCORDING TO AMERICA'S FAMILIES AND LIVING ARRANGEMENTS: 2010, THE MOST COMMON HOUSEHOLD TYPE IN THE US IS A PERSON LIVING ALONE. THERE ARE MORE THAN 31 MILLION ONE-PERSON HOUSEHOLDS, REPRESENTING ROUGHLY 27% OF ALL HOUSEHOLDS.

SIMPLIFIED TARGET MARKET IDENTIFICATION:  
GEOGRAPHICAL MARKET: CZECH REPUBLIC  
HOUSING CONFIGURATION: OPEN CONCEPT LIVING AREA, ONE BATHROOM  
OCCUPANT DEMOGRAPHY: SENIOR COUPLE, NO KIDS LIVING AT HOME

OUR SENIOR COUPLE LIVES IN THE CITY AND DREAMS ABOUT A SMALL HOUSE IN THE COUNTRY THAT WOULD SATISFY THEIR CONTEMPORARY COMFORT NEEDS. CZECH SENIORS ARE ACTIVE, THEIR HOBBIES HELP THEM MAINTAIN FITNESS AND HEALTH. MANY SENIORS ARE BIKE RIDING, HAVE PETS, LOVE TO WORK IN THE GARDEN AND TO MAINTAIN THEIR HOMES. THEY ARE INTERESTED IN ENERGY SAVINGS AND HAVE A PRO-ACTIVE APPROACH TO ENERGY EFFICIENT TECHNOLOGIES. ALL AT ONCE THEY NEED A SMART HOME SOLUTION TO HELP THEM MAKE OPERATING OF THE HOUSE EASY AND INTUITIVE AND TO CONTROL ENERGY CONSUMPTION OF THEIR HOME.

LAYOUT AND EQUIPMENT OF THE AIR HOUSE SUITS THE TARGET GROUP NEEDS AND ACTIVITIES. THE AIR HOUSE FEATURES A KITCHEN, BATHROOM, TECHNICAL ROOM AND SINGLE ROOM LIVING SPACE. LIVING AREA OCCUPIES THE LARGEST SPACE OF THE AIR HOUSE. ECONOMICAL DESIGN IS BASED ON THE TRADITION OF MINIMAL HOUSING, WHERE SOPHISTICATED DESIGN ALLOWS TO SAVE SPACE AND TO USE IT MORE EFFECTIVELY ELSEWHERE. THEREFORE, MOST FURNITURE IS INBUILT AND SUPPLEMENTED WITH MOBILE ADAPTABLE ELEMENTS. MOBILE TEXTILE BLINDS USED IN THE INTERIOR AND AS PART OF THE CANOPY ENSURE INTIMACY AND ACOUSTIC QUALITY OF THE LIVING AREA.

AT THE HEART OF THE DESIGN IS AN EXTERIOR PATIO COVERED BY A WOODEN CANOPY. THE NEW CONCEPT OF LIVING IN THE COUNTRY COMBINES MINIMAL INDOOR LIVING SPACE AND GENEROUS EXTERIOR PATIO THAT ACCOMMODATES ACTIVITIES SUCH AS COOKING, GARDENING, RELAXATION AND STORING. OUR AIM IS TO LOCATE THE MAXIMUM OF THE FUNCTIONAL UNITS OUTSIDE THE CONDITIONED SPACE TO SAVE ENERGY, AND OPERATING COSTS. A WOODEN CANOPY FUNCTIONS AS A SECOND SKIN THAT PROTECTS THE INDOOR AND OUTDOOR LIVING SPACE FROM EXTREME WEATHER.

THE PATIO INTEGRATES POTTED VEGETATION THAT SERVES AS A GARDEN AND FUNCTIONS AS A MEDIATOR BETWEEN THE BUILDING AND THE SURROUNDING NATURE. IN FRONT OF THE TERRACE FACING WINDOW, WE USE NATIVE PLANTS AND NATURAL LANDSCAPING TO CREATE A HABITAT GARDEN. IN ADDITION AN “EDIBLE” GARDEN IS LOCATED CLOSE TO THE SUMMER KITCHEN AND THE OUTDOOR SHOWER. VEGETATION HELPS TO CREATE A PLEASANT MICROCLIMATE IN THE AIR HOUSE OUTDOOR LIVING AREA; CONDITIONS AIR QUALITY (AIR OXIDATION, HUMIDIFICATION, AND AIR HEAT REGULATION), LESSENS DUSTINESS, AND INHIBITS QUICK RAINWATER RUNOFF.

THE ELDERLY, IN PARTICULAR, ARE SUSCEPTIBLE TO THE QUALITY OF THE INDOOR CLIMATE. OUR MAIN GOAL IS THE MAXIMUM COMFORT AND, MOST OF ALL, INTERIOR ENVIRONMENT QUALITY OF THE AIR HOUSE. ACTIVE AND PASSIVE SYSTEMS REGULATE THE INTERIOR AIR PARAMETERS. WE EXTEND THE STANDARD INTERIOR HEAT AND HUMIDITY MANAGEMENT BY CONTROL OF DANGEROUS SUBSTANCES (VOC, CO<sub>2</sub>) AND THEREFORE UPGRADE THE HEALTHY INTERIOR ENVIRONMENT TO A HIGHER LEVEL.

THE COLOUR AND ARTIFICIAL LIGHTING CONCEPT WILL HELP TO PERCEIVE DIMENSIONS, PROPORTIONS AND MATERIALITY OF THE INTERIOR SPACE. IT WILL HAVE A STIMULATING EFFECT ON THE HOUSE OCCUPANTS AND WILL CREATE AN EMOTIONAL ATMOSPHERE. THE LIGHTING SOLUTION WILL BE SUSTAINABLE, ENERGY EFFICIENT, AND WILL PREVENT UNNECESSARY LIGHT POLLUTION. PRESET LIGHTING SCENES WILL BE INDIVIDUALLY ADAPTABLE TO SUIT PARTICULAR ACTIVITIES.

LOCATION OF PERMANENT SITE - CZECH REPUBLIC

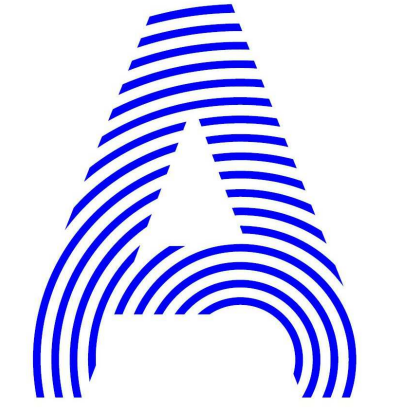
HOUSING TYPE - SINGLE FAMILY / VACATION RETREAT

NO. OF OCCUPANTS – 2

CLIENT DEMOGRAPHIC - PRE-RETIREMENT AND RETIREMENT COUPLE (50+)

CLIENT ANNUAL INCOME (FOR THE COUPLE BEFORE TAXES) - \$70,000

NO. OF BEDROOMS – 1



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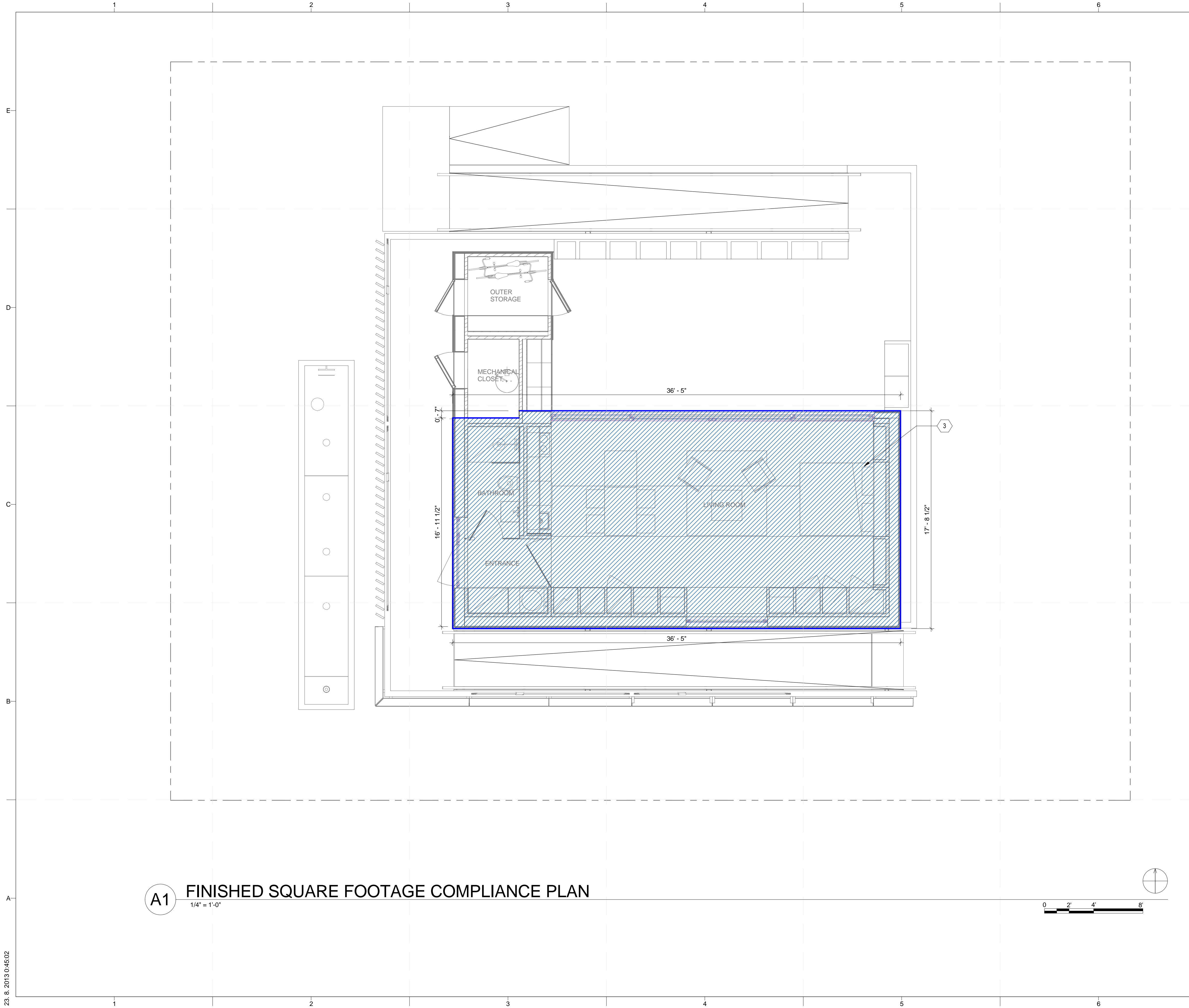
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SHEET TITLE

MISSION STATEMENT  
AND TARGET MARKET  
DESCRIPTION

G-011



**GENERAL SHEET NOTES**

1. FINISHED AREA MEASURED TO THE EXTERIOR FINISHED SURFACE OF OUTSIDE WALLS.
2. TOTAL AREA CALCULATED ACCORDING TO ANSI Z765-2003 IS 876 SQUARE FEET WHICH DEMONSTRATES COMPLIANCE WITH RULE 6-2: FINISHED SQUARE FOOTAGE

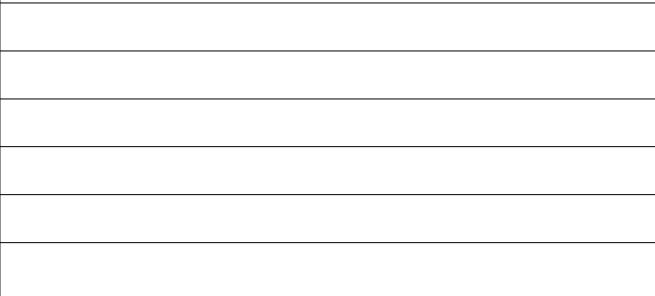
**REFERENCE KEYNOTES**

**SHEET KEYNOTES**

- 3 FINISHED AREA: 641 SQUARE FEET SHOWN SHADED.



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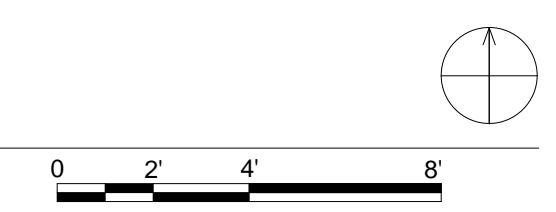
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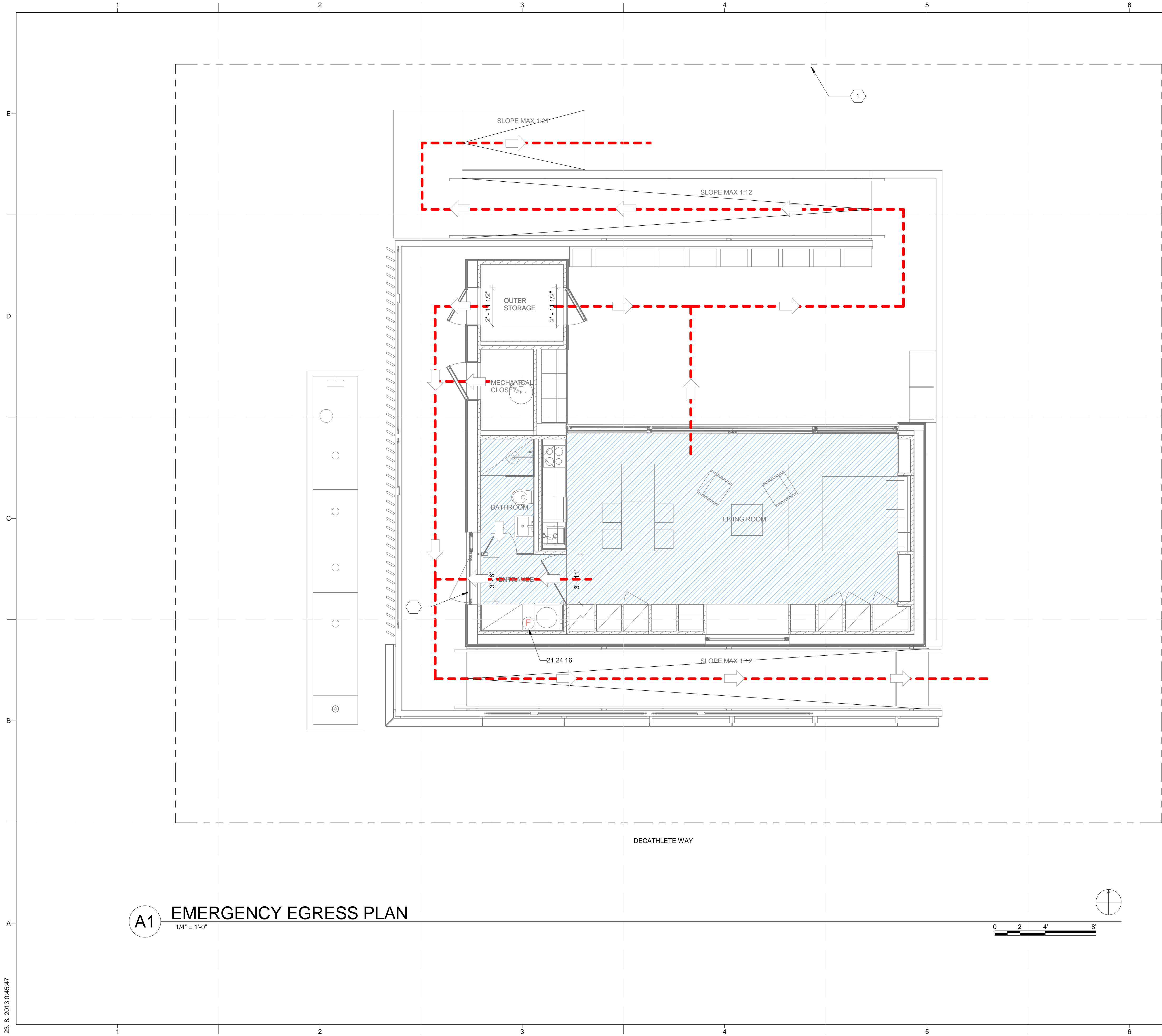
**SHEET TITLE**

**FINISHED SQUARE FOOTAGE COMPLIANCE PLAN**

**G-101**

**A1 FINISHED SQUARE FOOTAGE COMPLIANCE PLAN**  
 1/4" = 1'-0"





**A1 EMERGENCY EGRESS PLAN**  
1/4" = 1'-0"



**GENERAL SHEET NOTES**

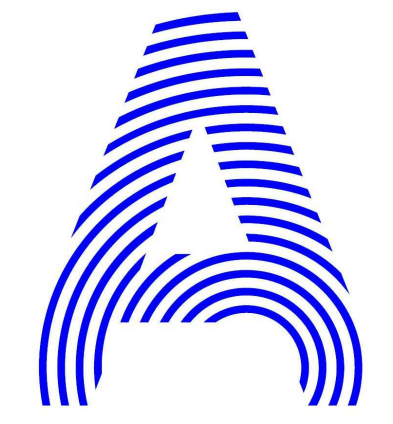
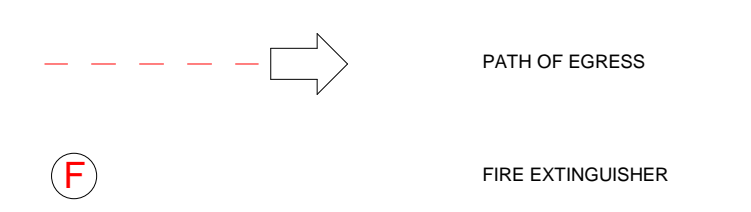
**REFERENCE KEYNOTES**

21 24 16 DRY-CHEMICAL FIRE EXTINGUISHER EQUIPMENT, LOCATED IN CLOTHES CLOSET

**SHEET KEYNOTES**

1 SITE BOUNDARY

**LEGEND**



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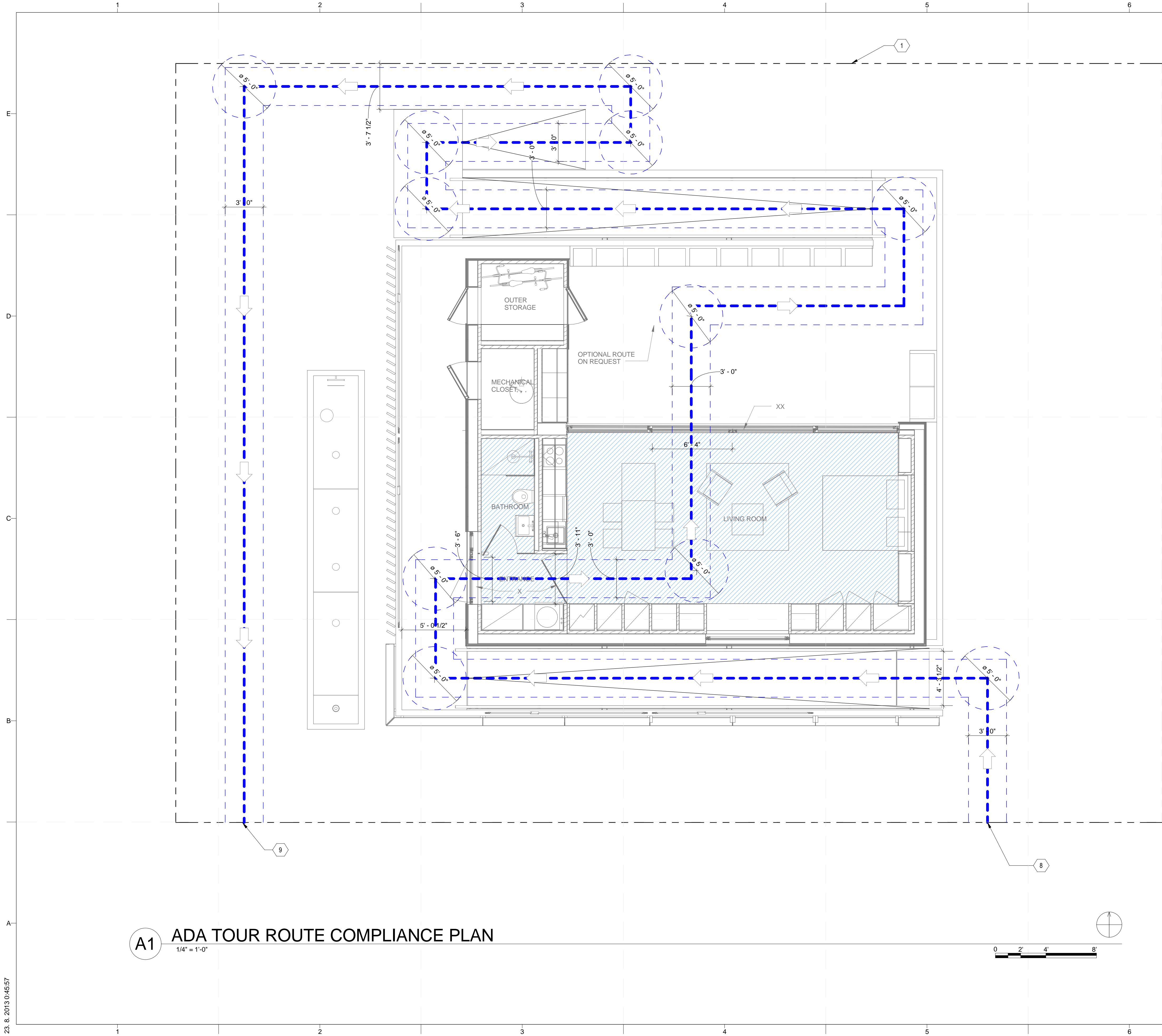


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**EMERGENCY EGRESS PLAN**

**G-102**



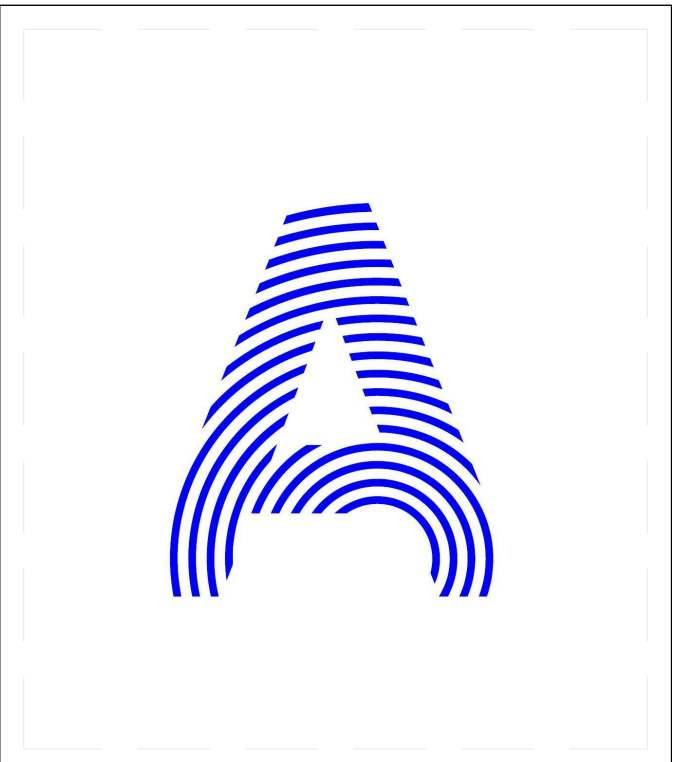
**A1 ADA TOUR ROUTE COMPLIANCE PLAN**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

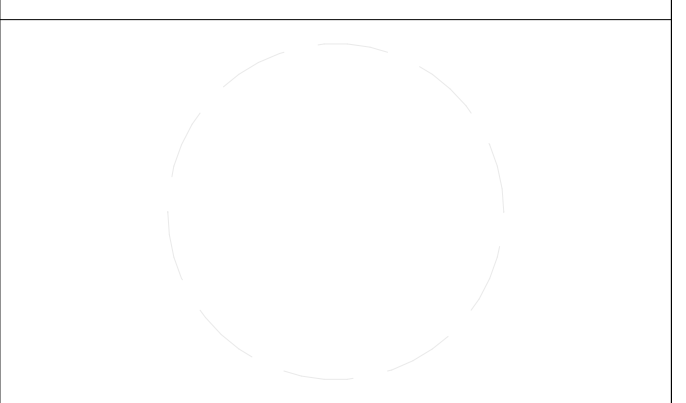
**REFERENCE KEYNOTES**

**SHEET KEYNOTES**

- 1 SITE BOUNDARY
  - 8 SITE ENTRY - TOUR ROUTE STARTS
  - 9 SITE EXIT - TOUR ROUTE ENDS
- X DOOR WILL REMAIN FIXED IN OPEN POSITION DURING PUBLIC TOURS
- XX MIDDLE SECTION OF SLIDING WINDOW WILL BE OPENED DURING PUBLIC TOURS. MINIMUM CLEARANCE IS 75 INCH



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
 WWW.AIRHOUSE.CZ  
 CONSULTANTS



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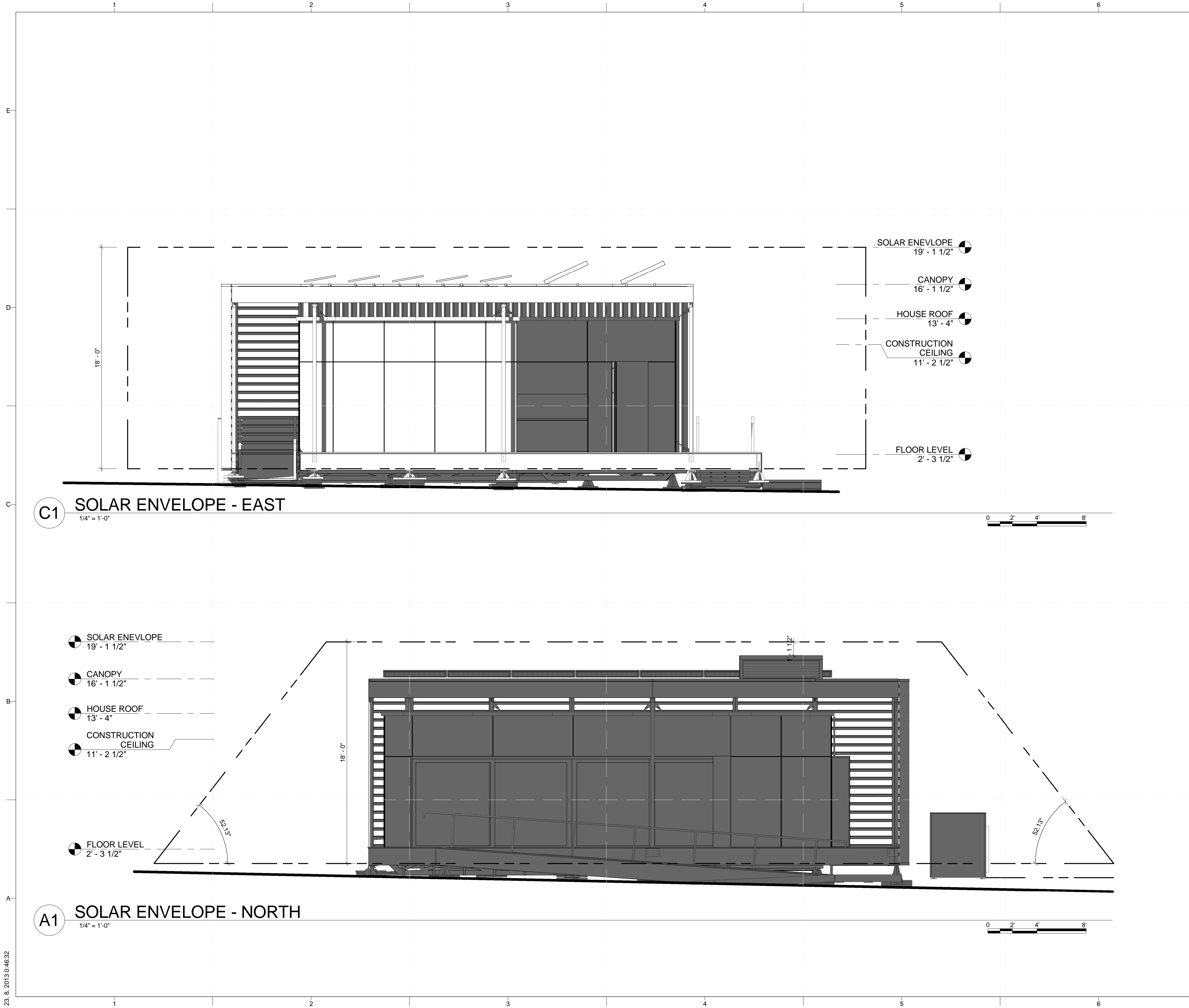
MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

**SHEET TITLE**  
**ADA TOUR ROUTE COMPLIANCE PLAN**

**G-103**



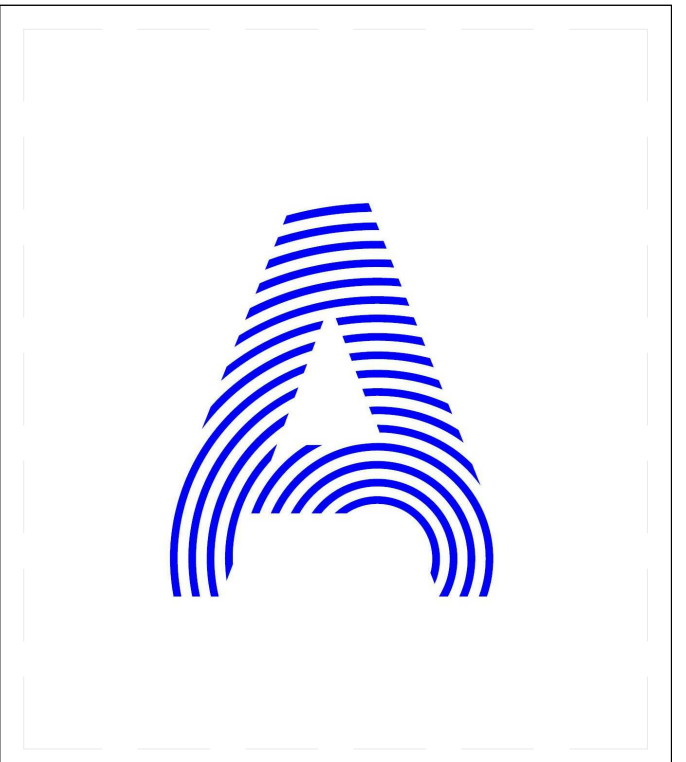


**GENERAL SHEET NOTES**

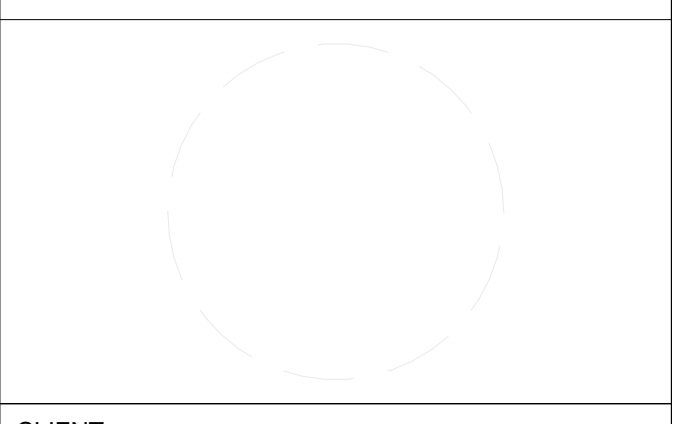
THE HEIGHT OF SOLAR ENVELOPE IS THE VERTICAL DISTANCE FROM THE HIGHEST POINT OF HIGHEST GRADE ALONG THE OUTSIDE PERIMETER, PER RULE 5-2

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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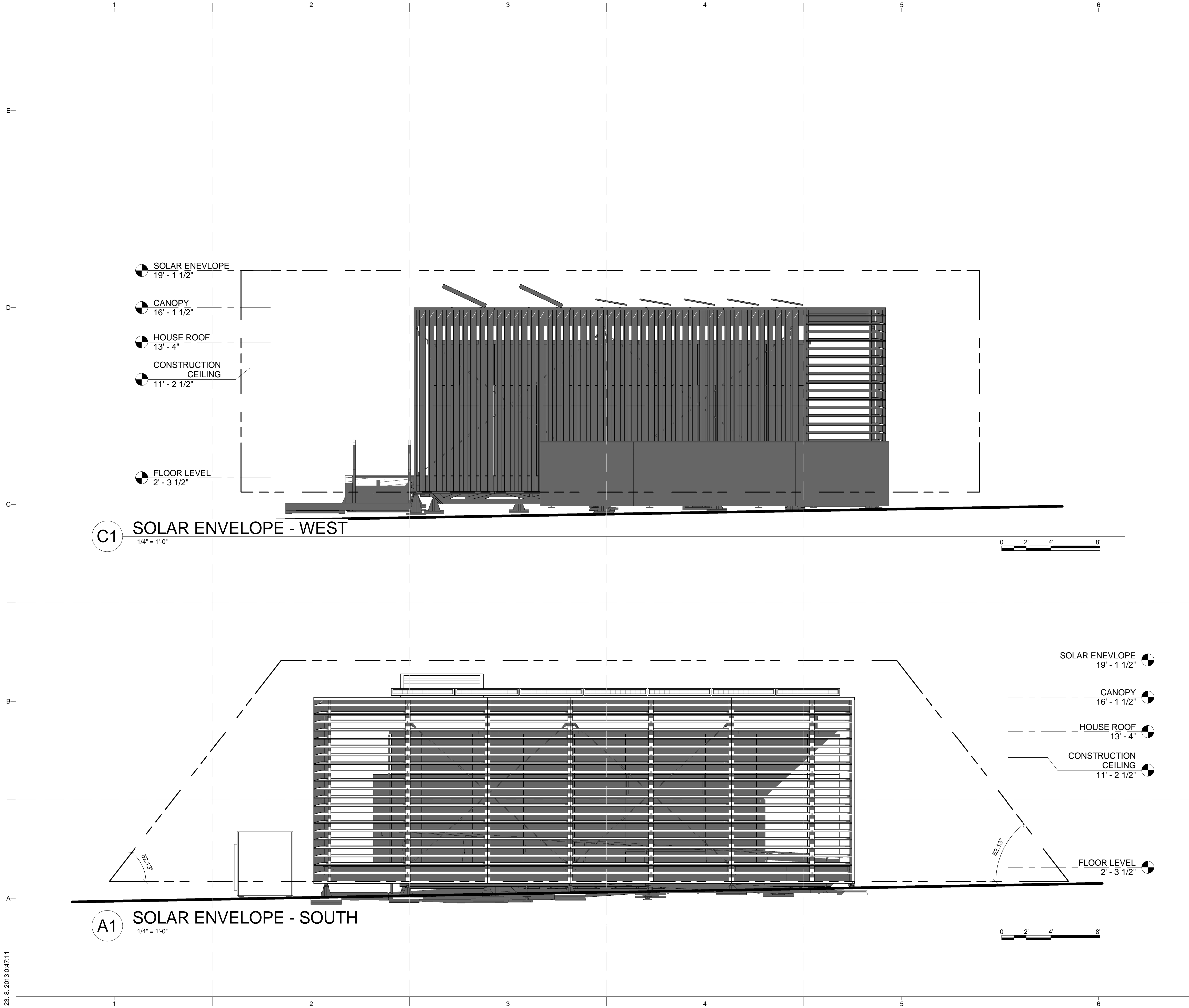
MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

**SHEET TITLE**

**SOLAR ENVELOPE COMPLIANCE ELEVATIONS**

**G-201**



**GENERAL SHEET NOTES**

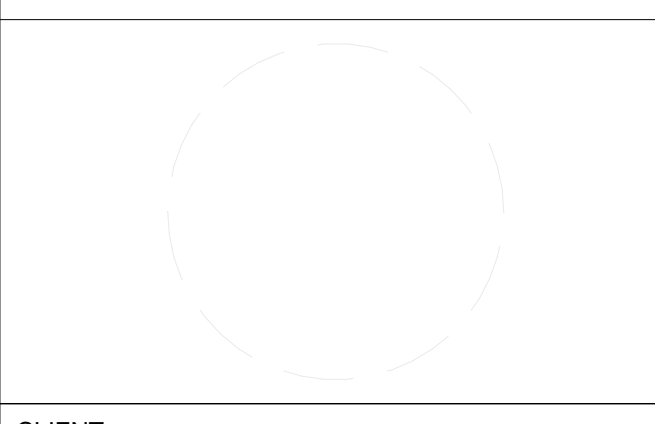
THE HEIGHT OF SOLAR ENVELOPE IS THE VERTICAL DISTANCE FROM THE HIGHEST POINT OF HIGHEST GRADE ALONG THE OUTSIDE PERIMETER, PER RULE 5-2

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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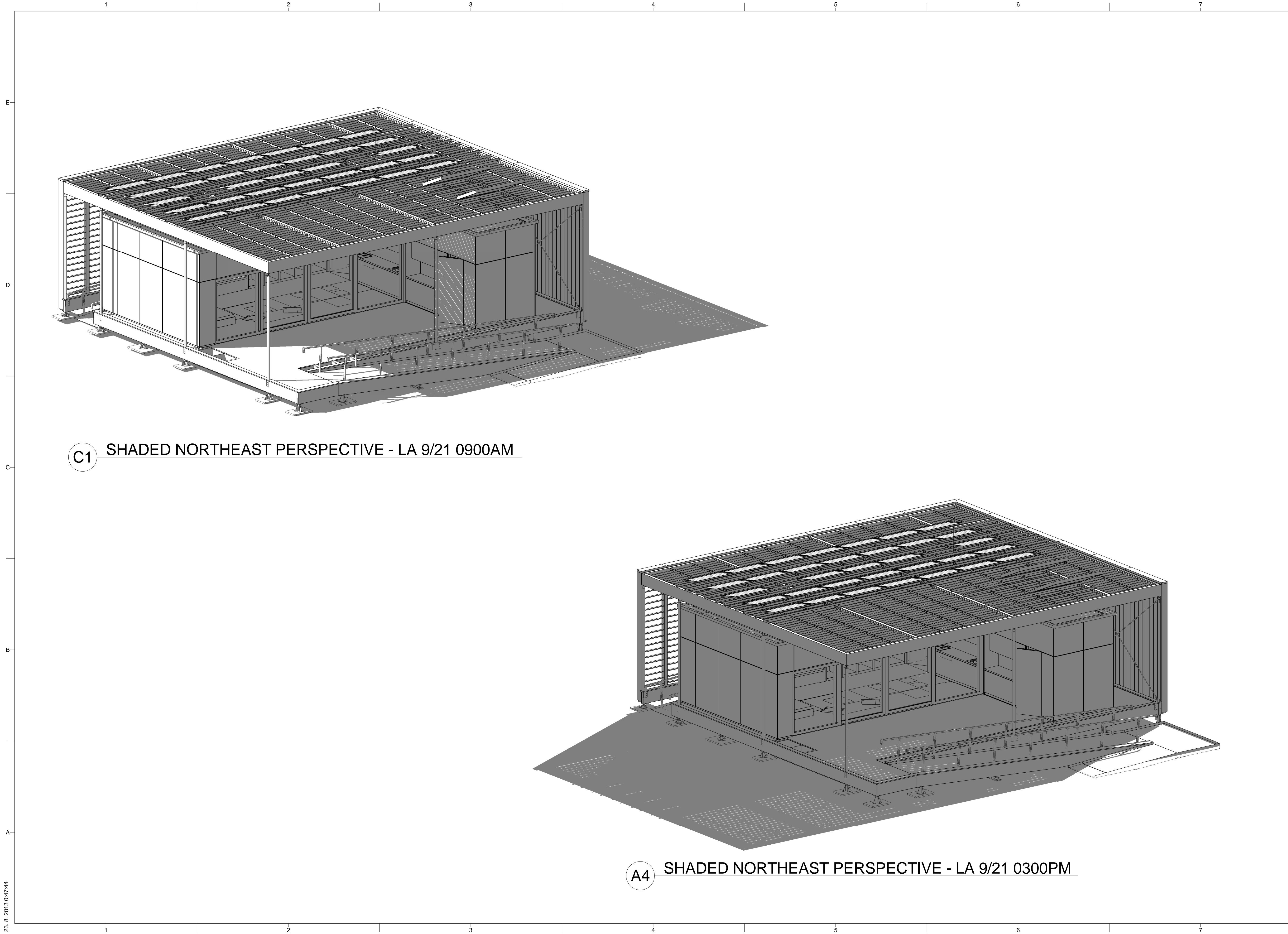


MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**SOLAR ENVELOPE COMPLIANCE ELEVATIONS**

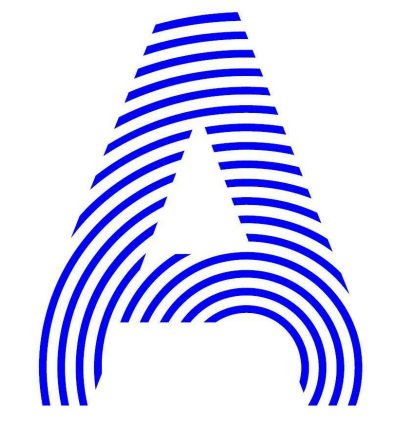
**G-202**



**C1** SHADED NORTHEAST PERSPECTIVE - LA 9/21 0900AM

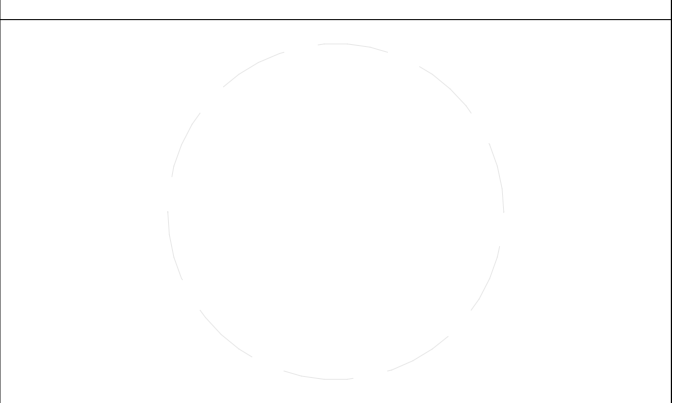
**A4** SHADED NORTHEAST PERSPECTIVE - LA 9/21 0300PM

23. 8. 2013 0:47:44



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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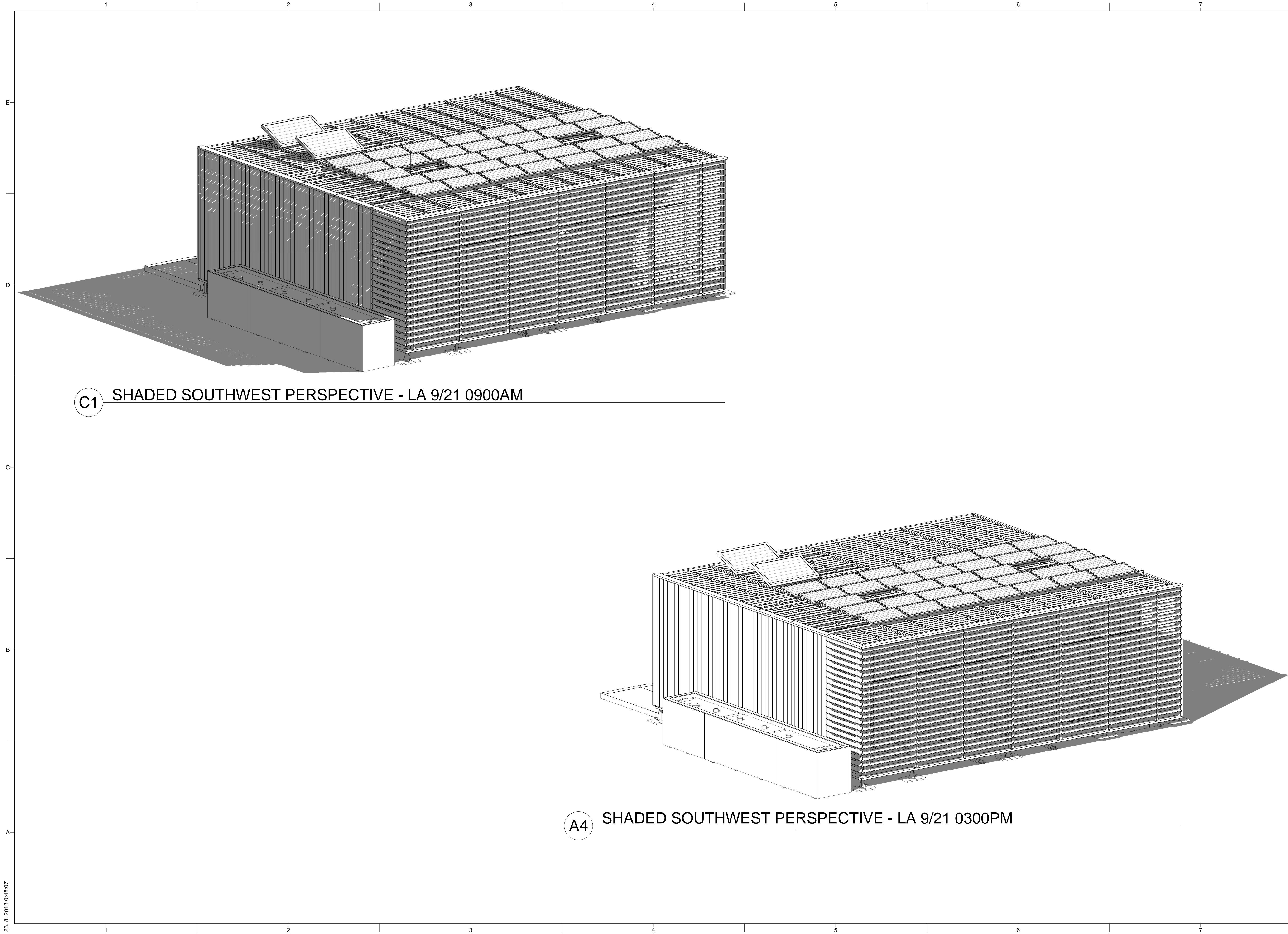


MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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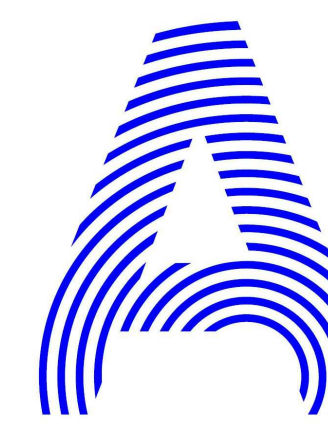
SHEET TITLE  
 SHADED DIAGRAMS -  
 LOS ANGELES

**G-601**



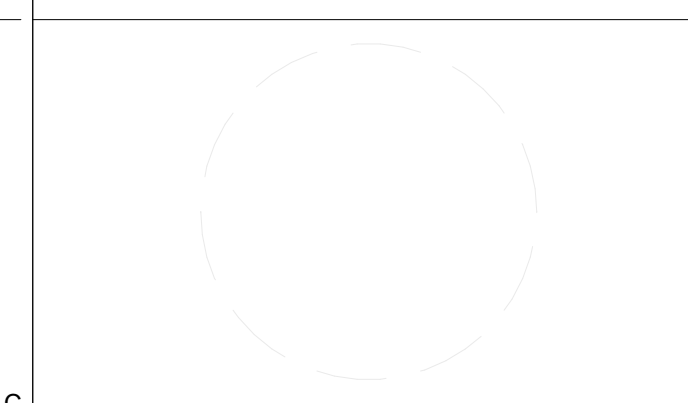
C1 SHADED SOUTHWEST PERSPECTIVE - LA 9/21 0900AM

A4 SHADED SOUTHWEST PERSPECTIVE - LA 9/21 0300PM



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
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 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
 SHADED DIAGRAMS -  
 LOS ANGELES

G-602



C1 AERIAL VIEW FROM NORTHEAST



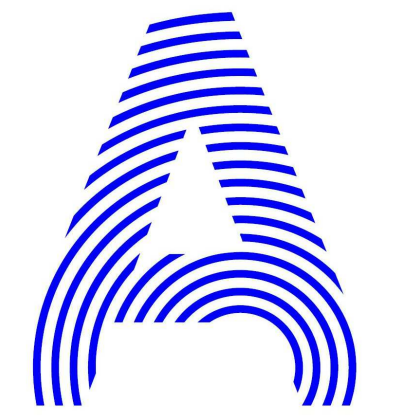
C4 PERSPECTIVE VIEW FROM NORTHEAST



A1 PERSPECTIVE VIEW FROM NORTHWEST

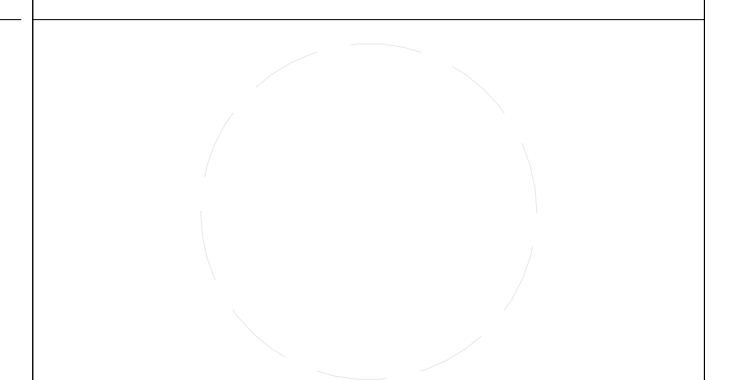


A4 PERSPECTIVE VIEW FROM SOUTHEAST



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE  
 GENERAL PROJECT RENDERINGS

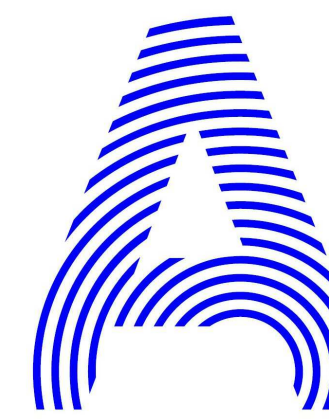
G-901



C1 TERRACE VIEW



C4 INTERIOR VIEW



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
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CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
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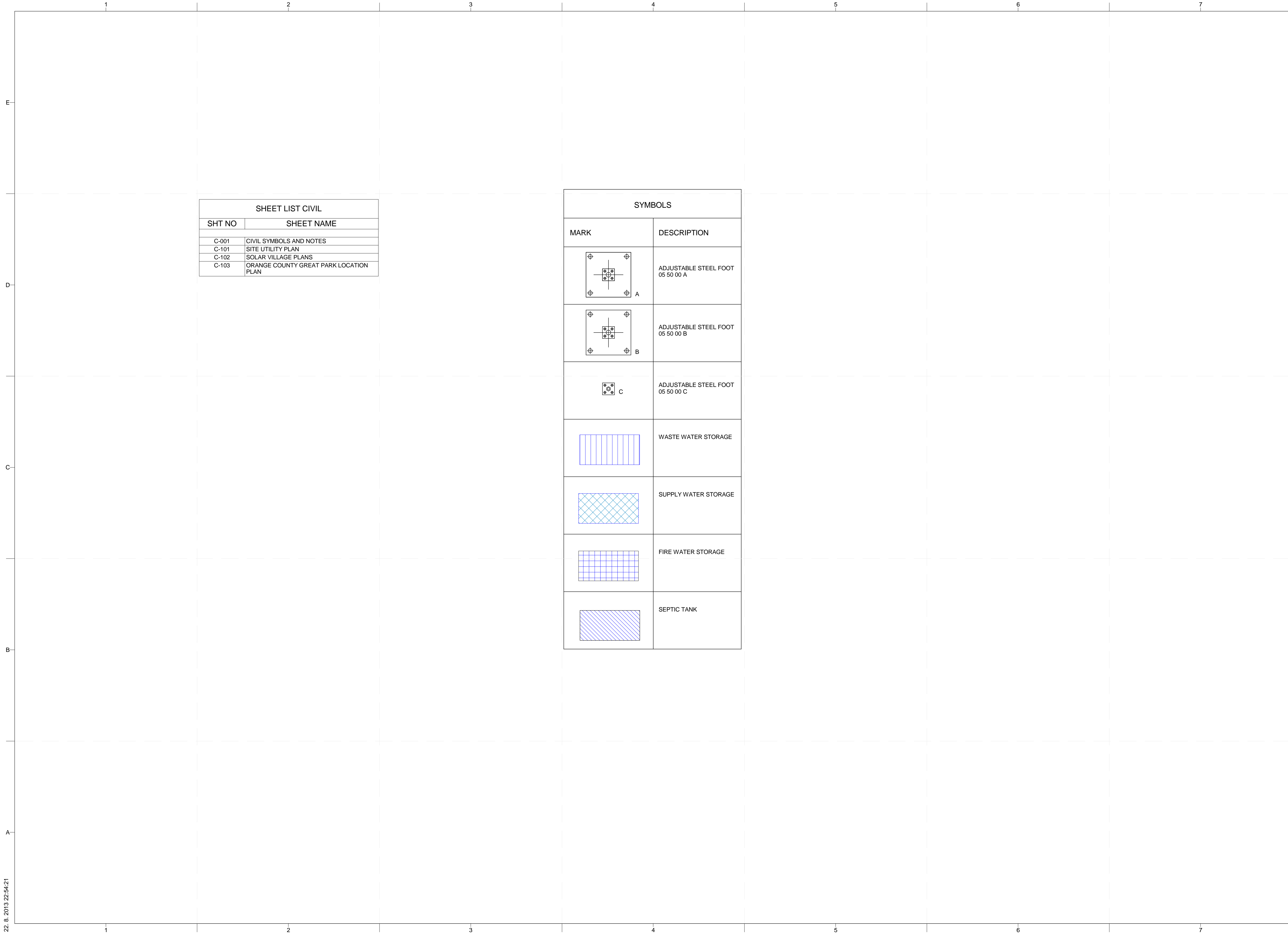
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4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
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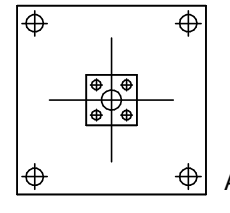
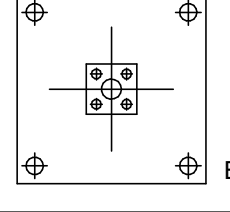
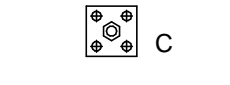
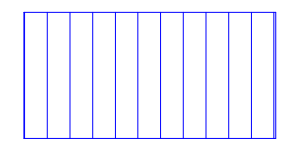
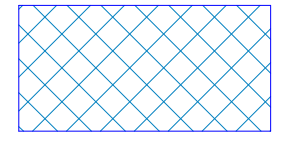
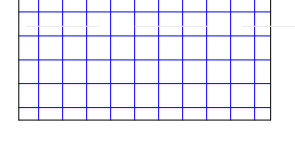
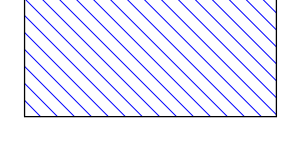
SHEET TITLE

GENERAL PROJECT  
RENDERINGS

G-902



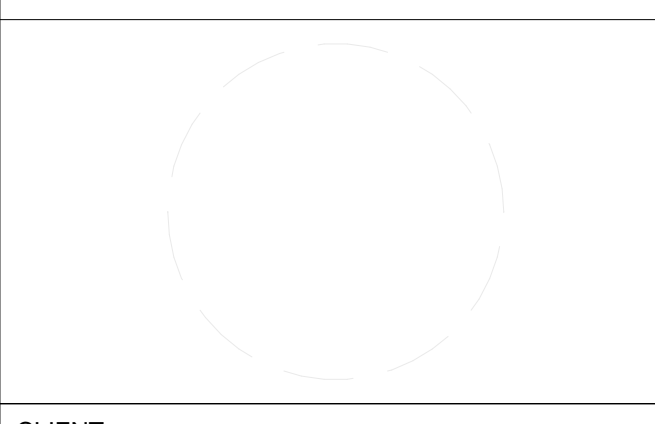
SHEET LIST CIVIL	
SHT NO	SHEET NAME
C-001	CIVIL SYMBOLS AND NOTES
C-101	SITE UTILITY PLAN
C-102	SOLAR VILLAGE PLANS
C-103	ORANGE COUNTY GREAT PARK LOCATION PLAN

SYMBOLS	
MARK	DESCRIPTION
	ADJUSTABLE STEEL FOOT 05 50 00 A
	ADJUSTABLE STEEL FOOT 05 50 00 B
	ADJUSTABLE STEEL FOOT 05 50 00 C
	WASTE WATER STORAGE
	SUPPLY WATER STORAGE
	FIRE WATER STORAGE
	SEPTIC TANK



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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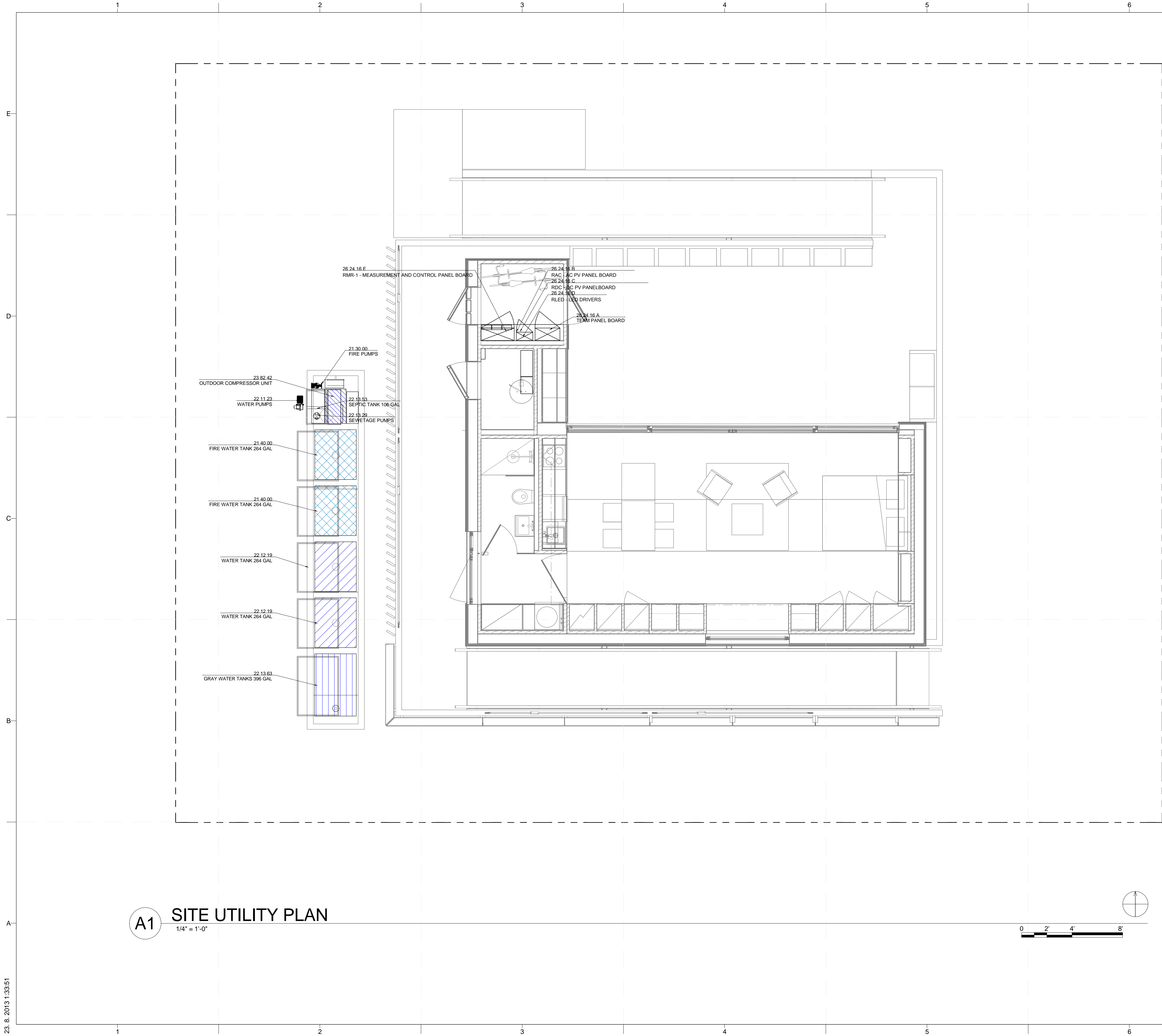
MARK	DATE	DD SUBMISSION	DESCRIPTION
4	10/11/2012		

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
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SHEET TITLE

CIVIL SYMBOLS AND NOTES

C-001

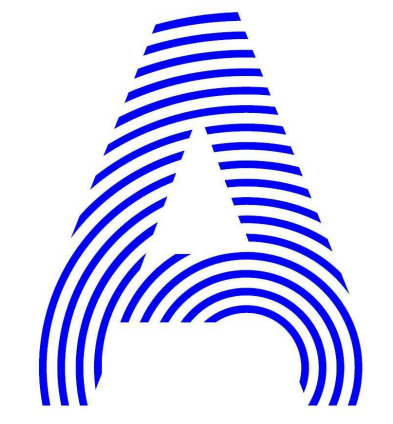


**A1** SITE UTILITY PLAN  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

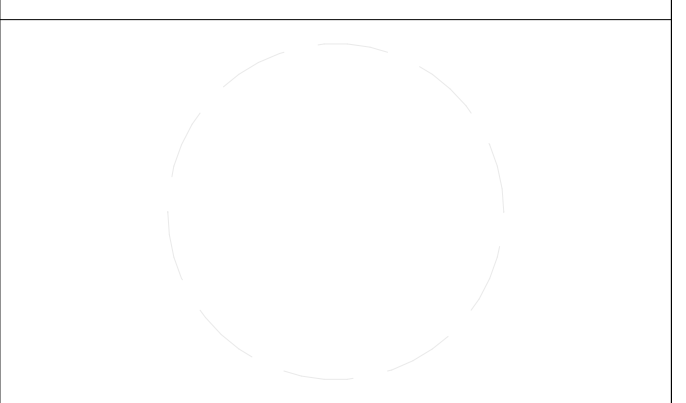
**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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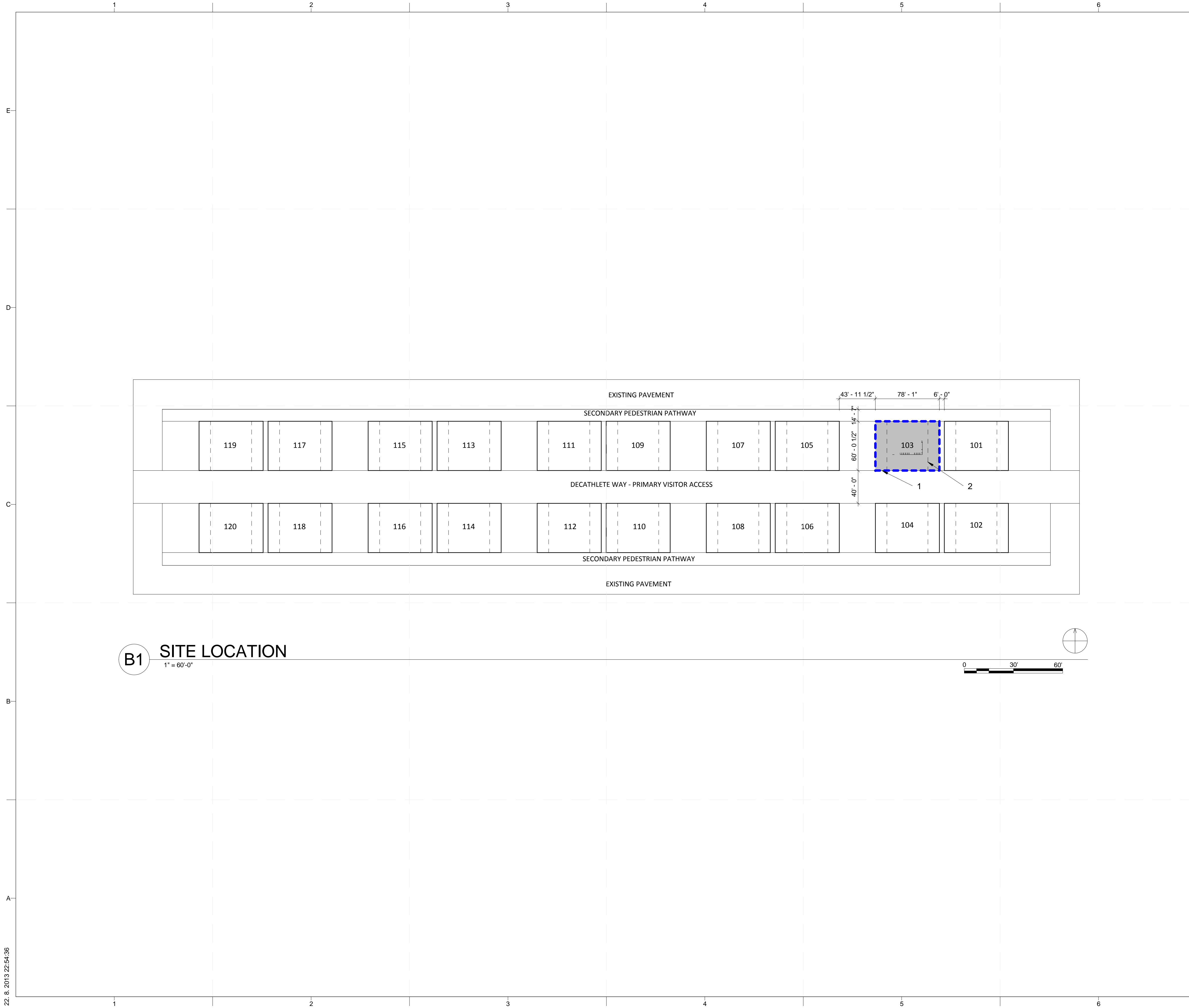
MARK	DATE	DESCRIPTION
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4	10/11/2012	DD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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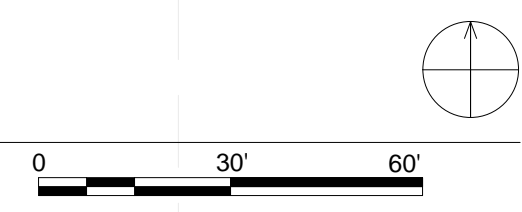
SHEET TITLE  
**SITE UTILITY PLAN**

**C-101**





**B1** SITE LOCATION  
1" = 60'-0"



**GENERAL SHEET NOTES**

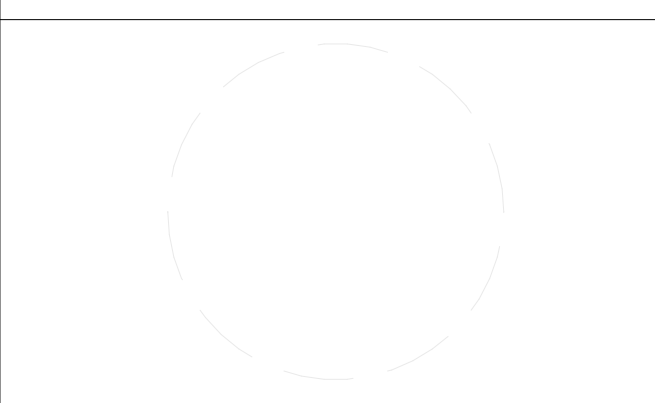
1. SOLAR ENVELOPE
2. LOT DESIGNATED FOR CZECH TECHNICAL UNIVERSITY

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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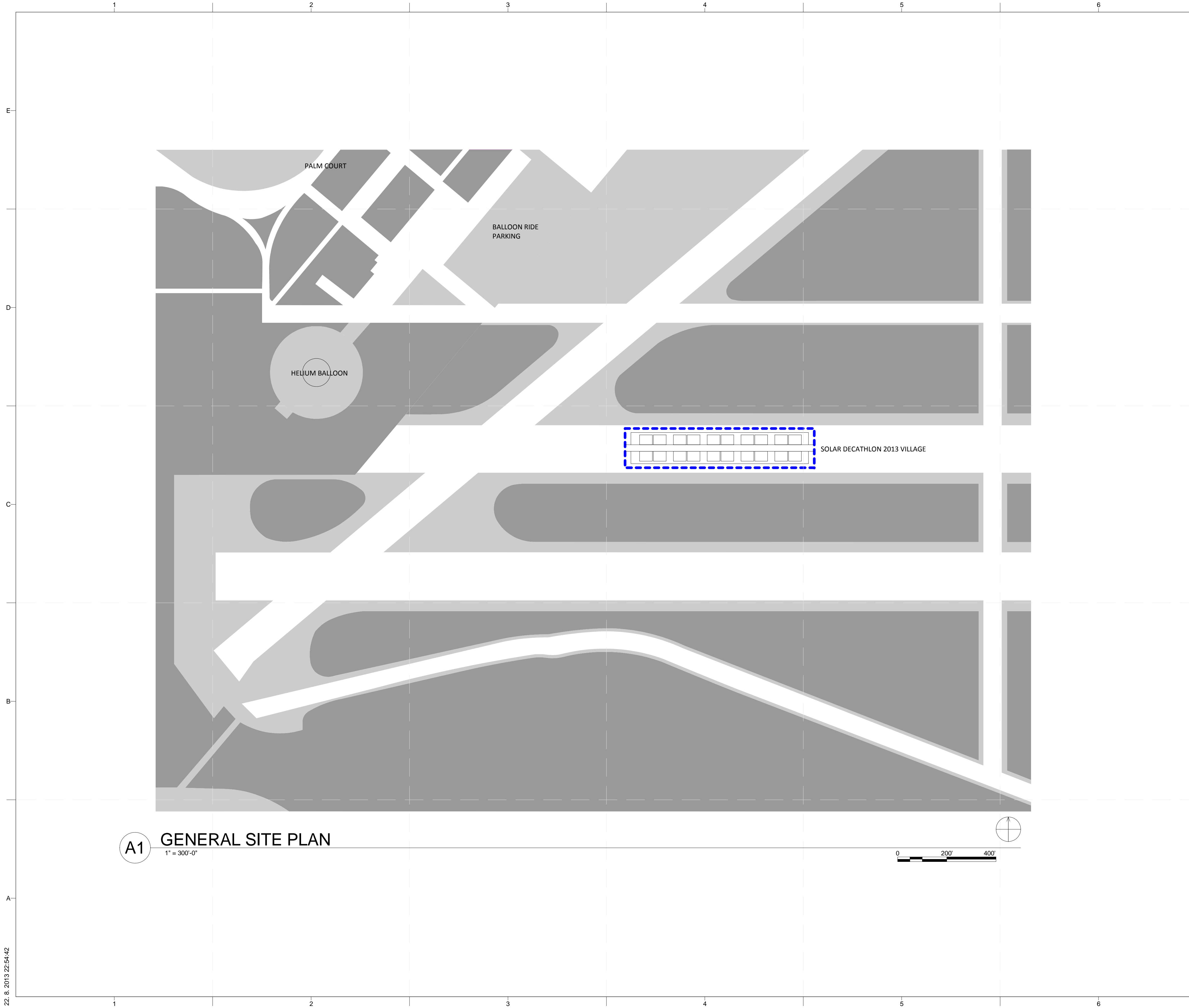


MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
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SHEET TITLE  
**SOLAR VILLAGE PLANS**

**C-102**

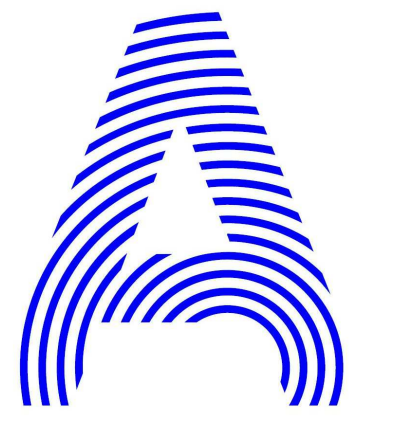


**A1** GENERAL SITE PLAN  
1" = 300'-0"

**GENERAL SHEET NOTES**

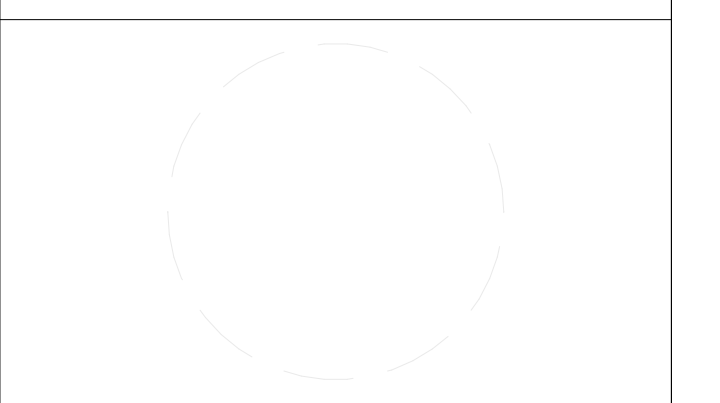
**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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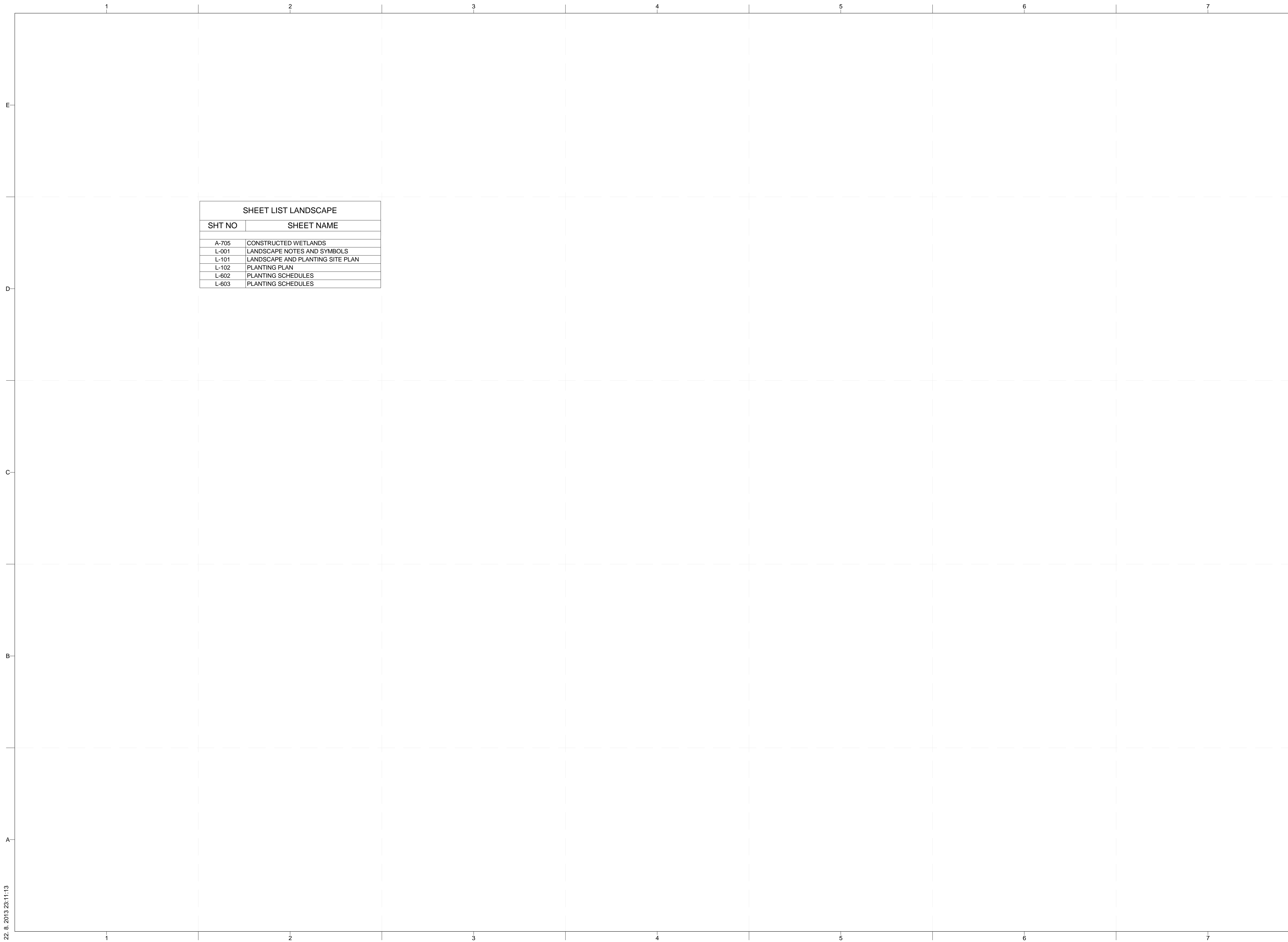


MARK	DATE	DD SUBMISSION	DESCRIPTION
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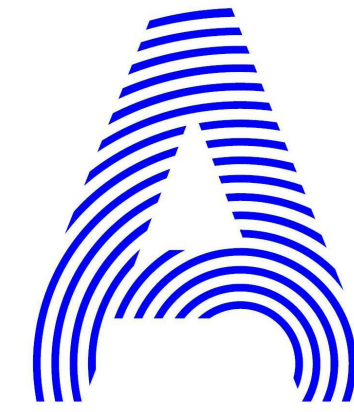
LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
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SHEET TITLE  
**ORANGE COUNTY  
 GREAT PARK  
 LOCATION PLAN**

**C-103**



SHEET LIST LANDSCAPE	
SHT NO	SHEET NAME
A-705	CONSTRUCTED WETLANDS
L-001	LANDSCAPE NOTES AND SYMBOLS
L-101	LANDSCAPE AND PLANTING SITE PLAN
L-102	PLANTING PLAN
L-602	PLANTING SCHEDULES
L-603	PLANTING SCHEDULES



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
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CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
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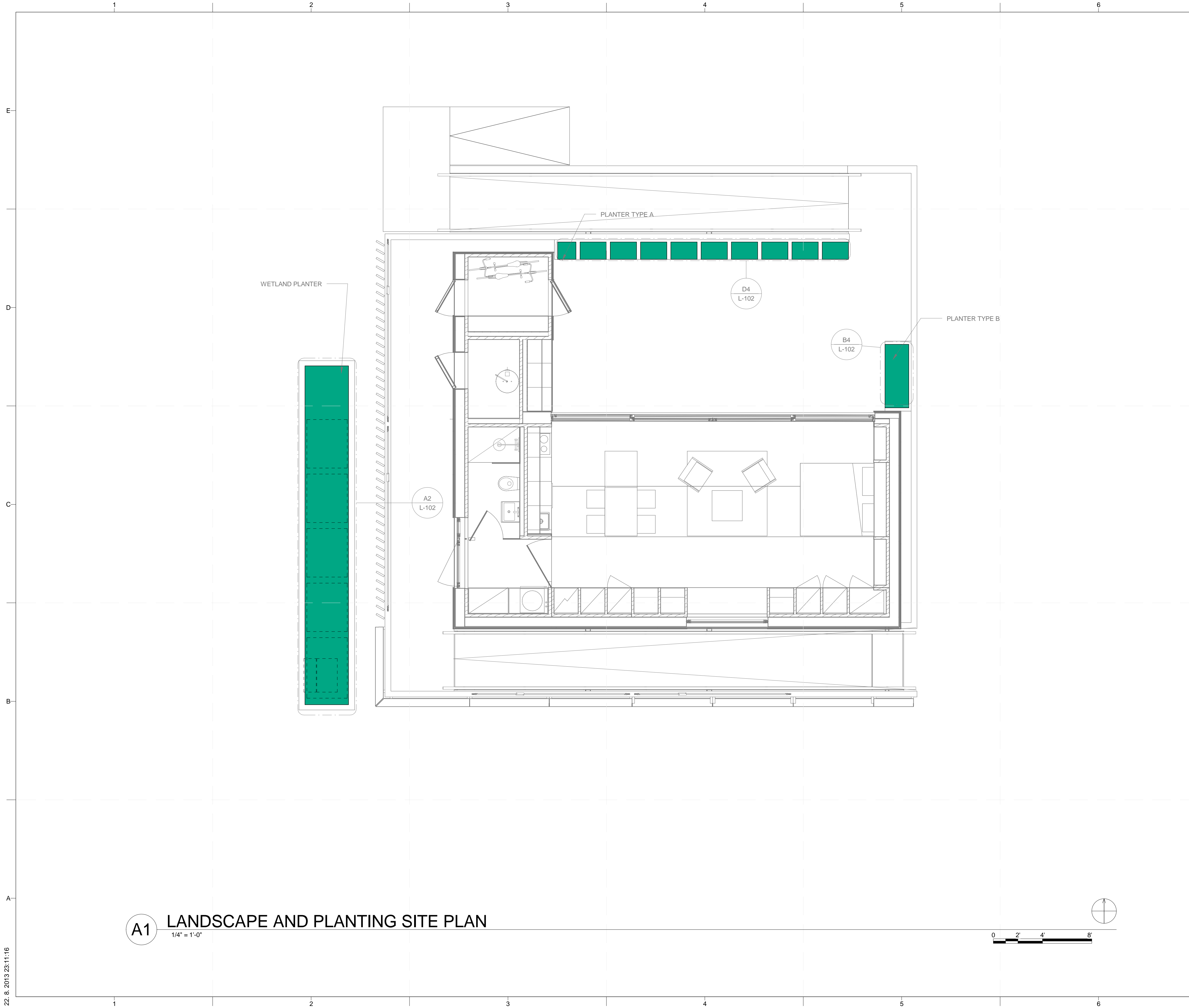
MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION

LOT NUMBER: 103  
DRAWN BY: MATUŠ FICKO  
CHECKED BY: MARTIN ČENĚK  
COPYRIGHT: NONE; PROJECT IS  
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SHEET TITLE

LANDSCAPE NOTES  
AND SYMBOLS

**L-001**



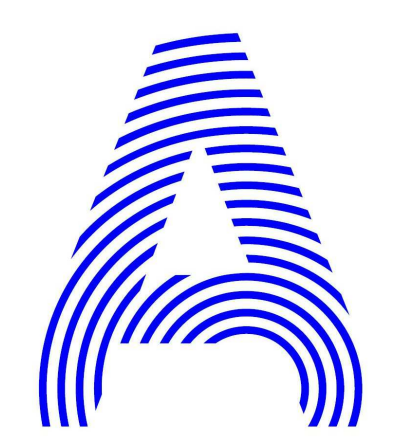
**A1** LANDSCAPE AND PLANTING SITE PLAN  
1/4" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

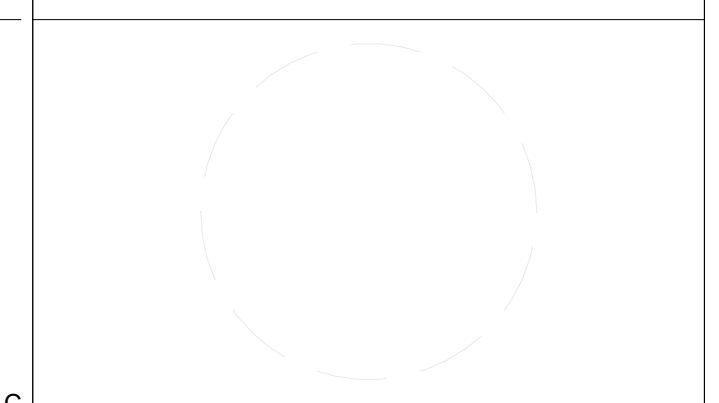
SHEET KEYNOTES

LEGEND



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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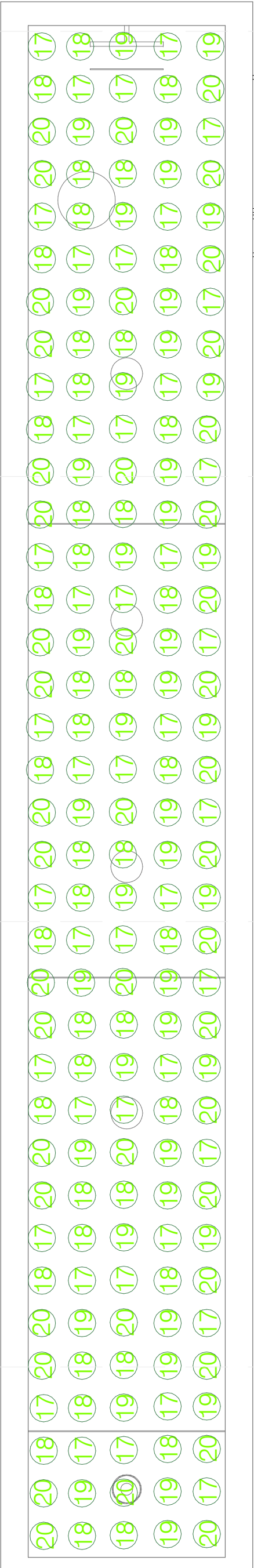
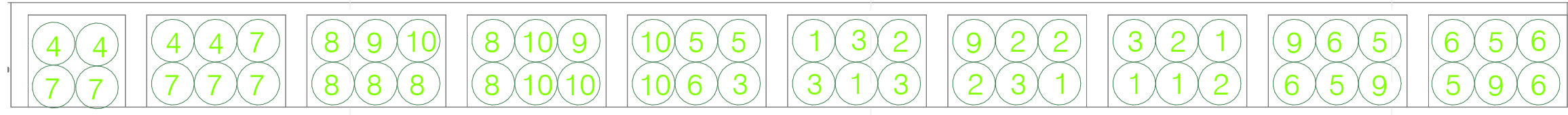


MARK	DATE	DESCRIPTION
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4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

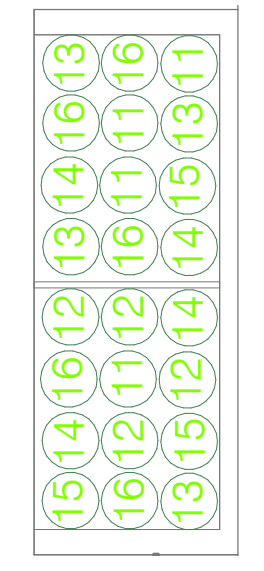
LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**LANDSCAPE AND PLANTING SITE PLAN**

**L-101**

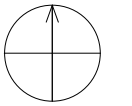
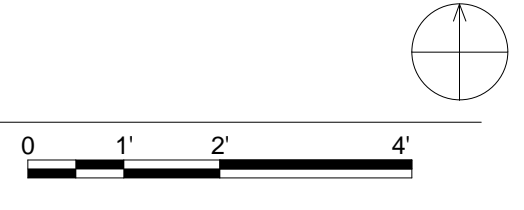
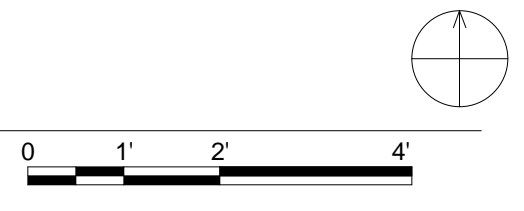


**D4** PLANTER TYPE A  
1/2" = 1'-0"



**B4** PLANTER TYPE B  
1/2" = 1'-0"

**A2** WETLAND PLANTER  
1/2" = 1'-0"

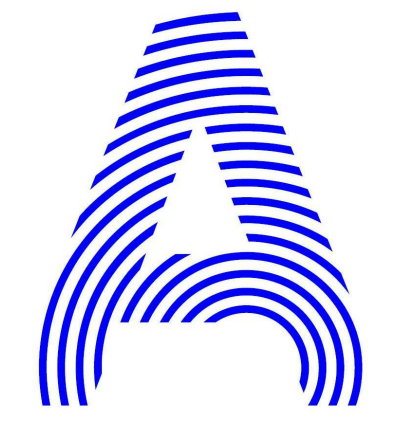


GENERAL SHEET NOTES

REFERENCE KEYNOTES

SHEET KEYNOTES

LEGEND



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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MARK	DATE	DESCRIPTION
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4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

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SHEET TITLE  
**PLANTING PLAN**

**L-102**

HABITAT GARDEN

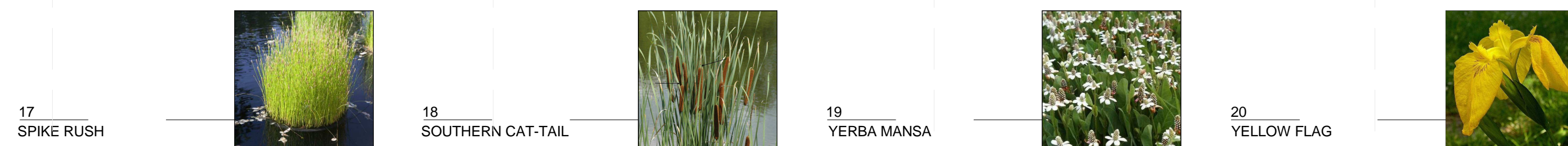
MARK	LATIN NAME	COMMON NAME	QUANTITY	POT SIZE / QUANTITY		COMMENT
11	SALVIA MELLIFERA REPENS	CREEPING BLACK SAGE	4	Ø 8	4	HIGHLY AROMATIC
12	ERIOGONUM FASCICULATUM	CALIFORNIA BUCKWHEAT	4	Ø 8	4	REMEDY FOR HEADACHE, DIARRHEA
13	ENCELIA CALIFORNICA	CALIFORNIA BRITTLEBUSH	4	Ø 8	4	
14	ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUSH	4	Ø 8	4	CULINARY USE - SPICE, HERB TEA
15	ERIOGONUM GRANDE RUBESCENS	RED BUCKWHEAT	3	Ø 8	3	
16	SALVIA CELESTIAL BLUE	PURPLE SAGE	5	Ø 8	5	



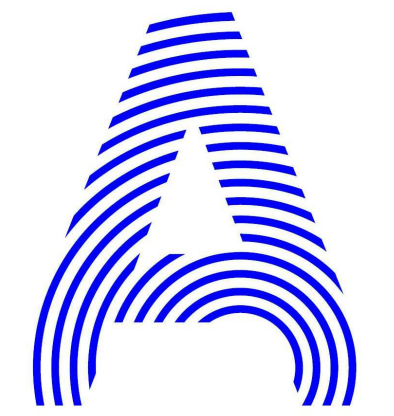
C1 PLANTING SCHEDULE - HABITAT GARDEN

CONSTRUCTED WETLAND

MARK	LATIN NAME	COMMON NAME	QUANTITY	POT SIZE / QUANTITY		COMMENT
17	HELEOCHARIS MACROSTACHYA	SPIKE RUSH	45	Ø 6	45	
18	TYPHA DOMINGENSIS	SOUTHERN CAT-TAIL	45	Ø 6	45	BIRDS AND ANIMALS USE IT FOR SHELTER
19	ANEMOPSIS CALIFORNICA	YERBA MANSA	45	Ø 6	45	LEAVES WERE UTILIZED MEDICINALLY
20	IRIS PSEUDACORUS	YELLOW FLAG	45	Ø 6	45	

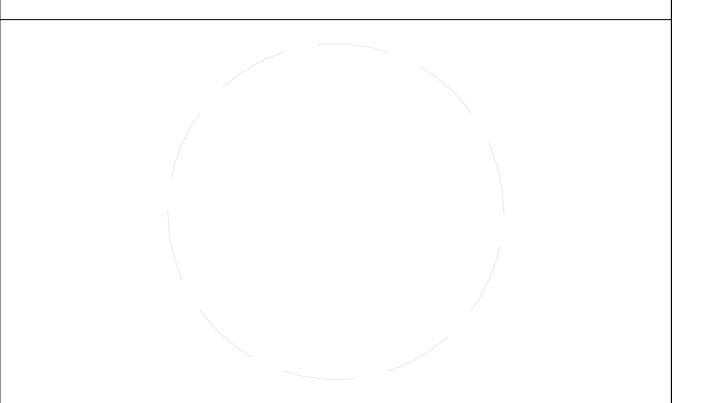


A1 PLANTING SCHEDULE - CONSTRUCTED WETLAND



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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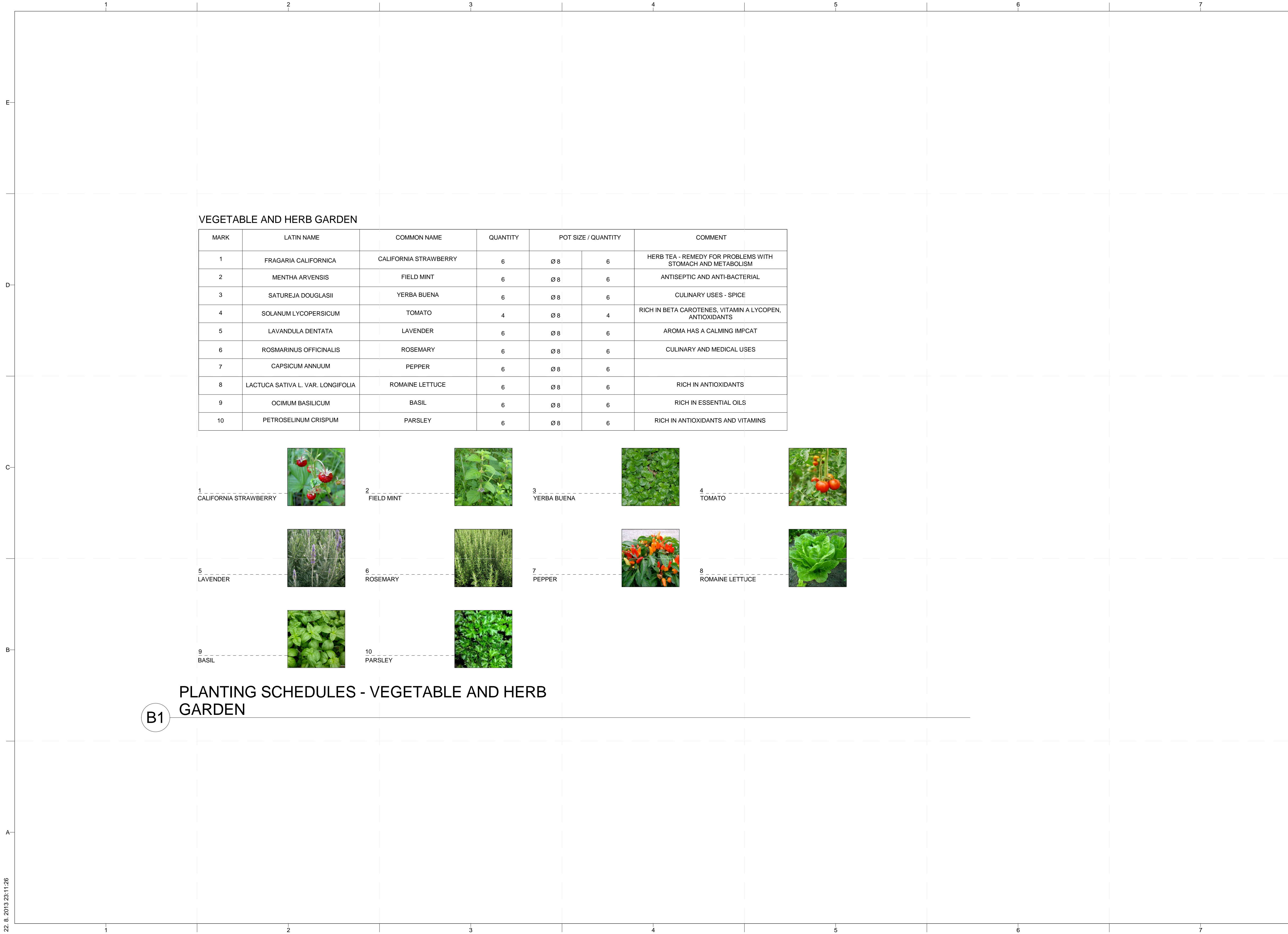


MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
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SHEET TITLE  
 PLANTING SCHEDULES

L-602



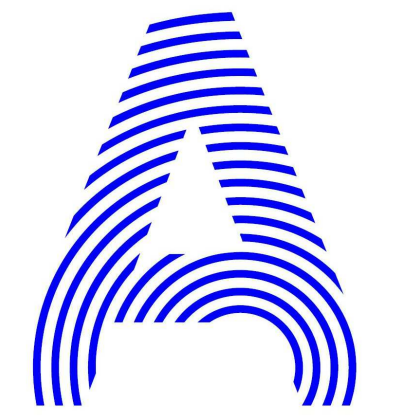
**VEGETABLE AND HERB GARDEN**

MARK	LATIN NAME	COMMON NAME	QUANTITY	POT SIZE / QUANTITY		COMMENT
1	FRAGARIA CALIFORNICA	CALIFORNIA STRAWBERRY	6	Ø 8	6	HERB TEA - REMEDY FOR PROBLEMS WITH STOMACH AND METABOLISM
2	MENTHA ARVENSIS	FIELD MINT	6	Ø 8	6	ANTISEPTIC AND ANTI-BACTERIAL
3	SATUREJA DOUGLASII	YERBA BUENA	6	Ø 8	6	CULINARY USES - SPICE
4	SOLANUM LYCOPERSICUM	TOMATO	4	Ø 8	4	RICH IN BETA CAROTENES, VITAMIN A LYCOPEN, ANTIOXIDANTS
5	LAVANDULA DENTATA	LAVENDER	6	Ø 8	6	AROMA HAS A CALMING IMPCAT
6	ROSMARINUS OFFICINALIS	ROSEMARY	6	Ø 8	6	CULINARY AND MEDICAL USES
7	CAPSICUM ANNUUM	PEPPER	6	Ø 8	6	
8	LACTUCA SATIVA L. VAR. LONGIFOLIA	ROMAINE LETTUCE	6	Ø 8	6	RICH IN ANTIOXIDANTS
9	OCIMUM BASILICUM	BASIL	6	Ø 8	6	RICH IN ESSENTIAL OILS
10	PETROSELINUM CRISPUM	PARSLEY	6	Ø 8	6	RICH IN ANTIOXIDANTS AND VITAMINS



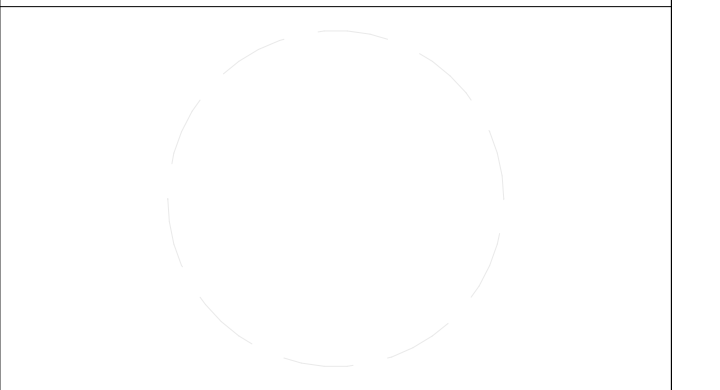
**PLANTING SCHEDULES - VEGETABLE AND HERB GARDEN**

**B1**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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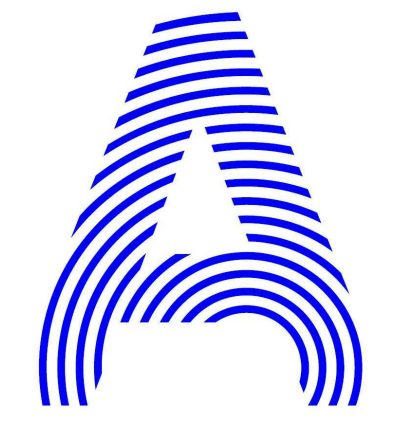
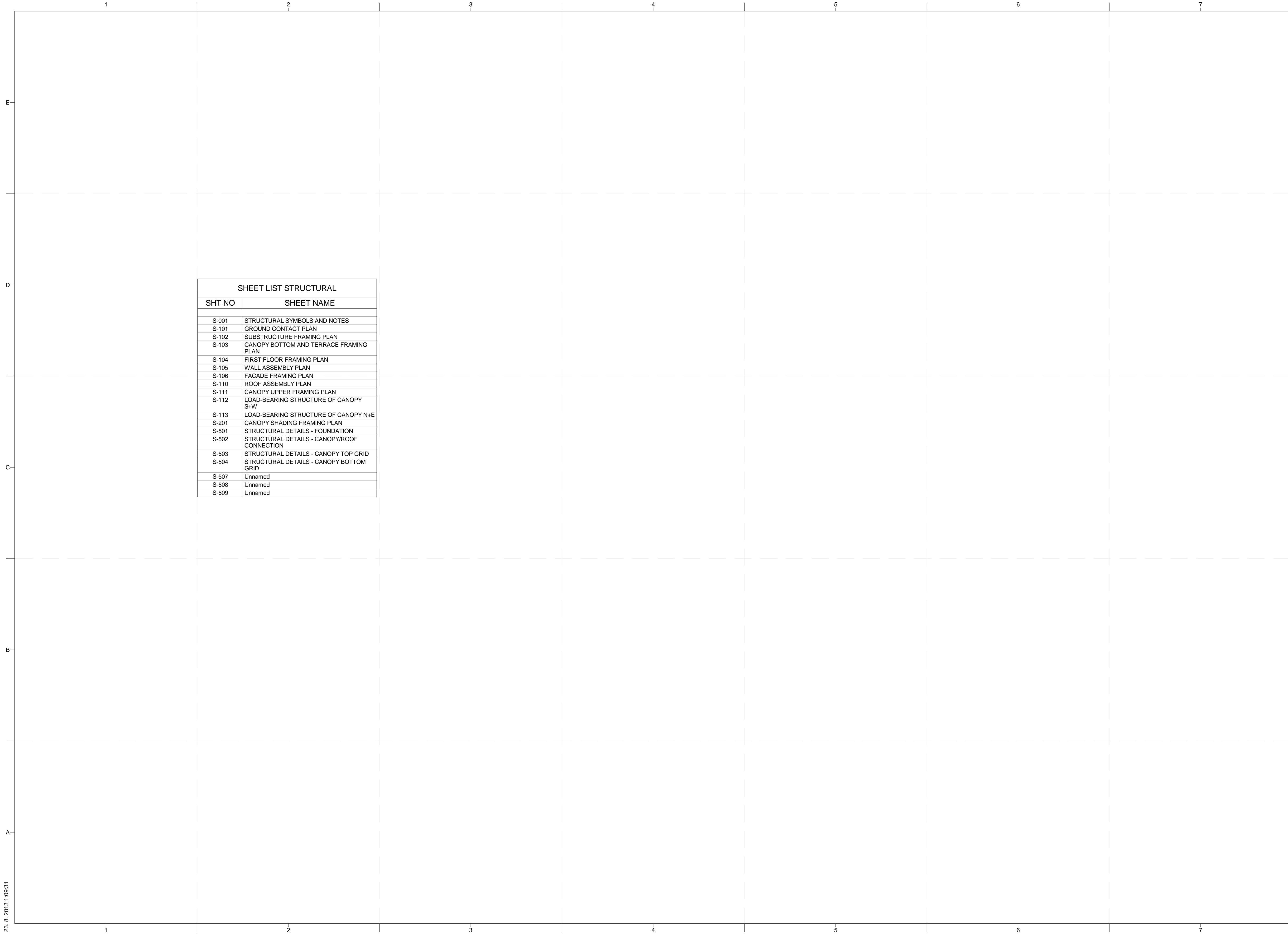


MARK	DATE	DESCRIPTION
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4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

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SHEET TITLE  
**PLANTING SCHEDULES**

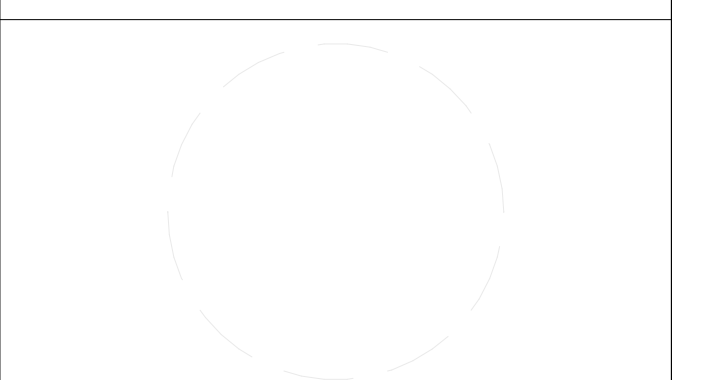
**L-603**



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
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SHEET LIST STRUCTURAL	
SHT NO	SHEET NAME
S-001	STRUCTURAL SYMBOLS AND NOTES
S-101	GROUND CONTACT PLAN
S-102	SUBSTRUCTURE FRAMING PLAN
S-103	CANOPY BOTTOM AND TERRACE FRAMING PLAN
S-104	FIRST FLOOR FRAMING PLAN
S-105	WALL ASSEMBLY PLAN
S-106	FACADE FRAMING PLAN
S-110	ROOF ASSEMBLY PLAN
S-111	CANOPY UPPER FRAMING PLAN
S-112	LOAD-BEARING STRUCTURE OF CANOPY S+W
S-113	LOAD-BEARING STRUCTURE OF CANOPY N+E
S-201	CANOPY SHADING FRAMING PLAN
S-501	STRUCTURAL DETAILS - FOUNDATION
S-502	STRUCTURAL DETAILS - CANOPY/ROOF CONNECTION
S-503	STRUCTURAL DETAILS - CANOPY TOP GRID
S-504	STRUCTURAL DETAILS - CANOPY BOTTOM GRID
S-507	Unnamed
S-508	Unnamed
S-509	Unnamed

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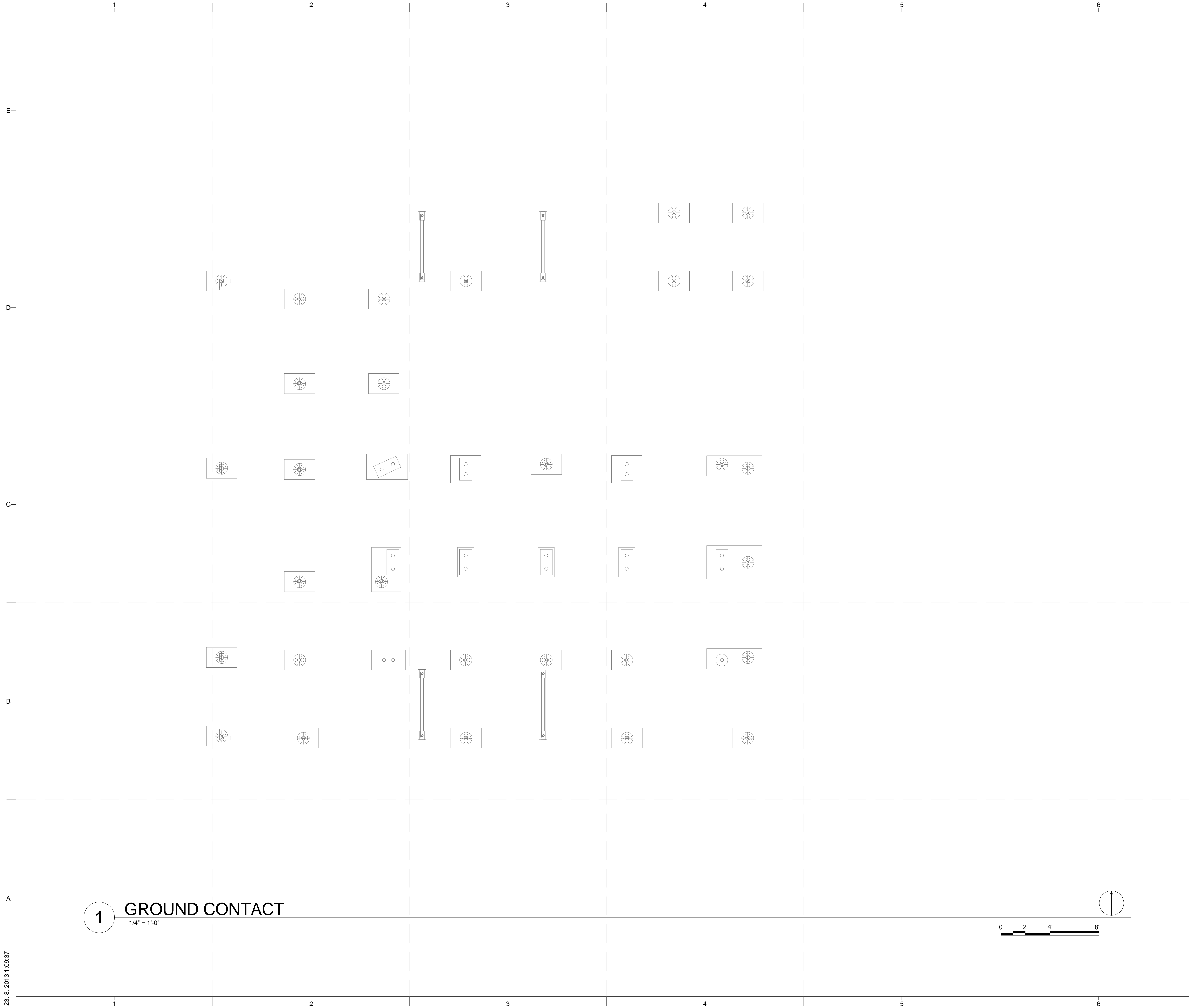
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SHEET TITLE  
**STRUCTURAL SYMBOLS AND NOTES**

**S-001**





GENERAL SHEET NOTES

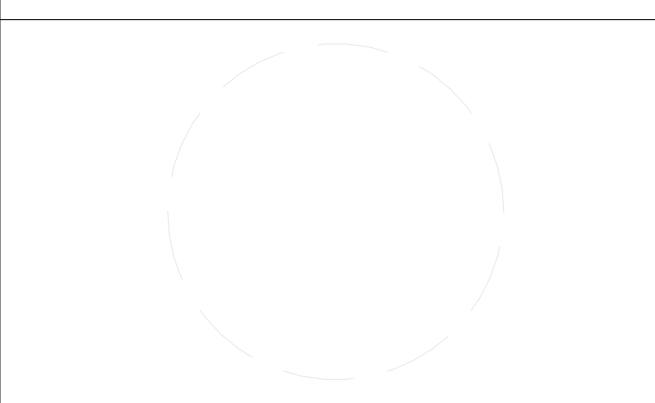
REFERENCE KEYNOTES

SHEET KEYNOTES



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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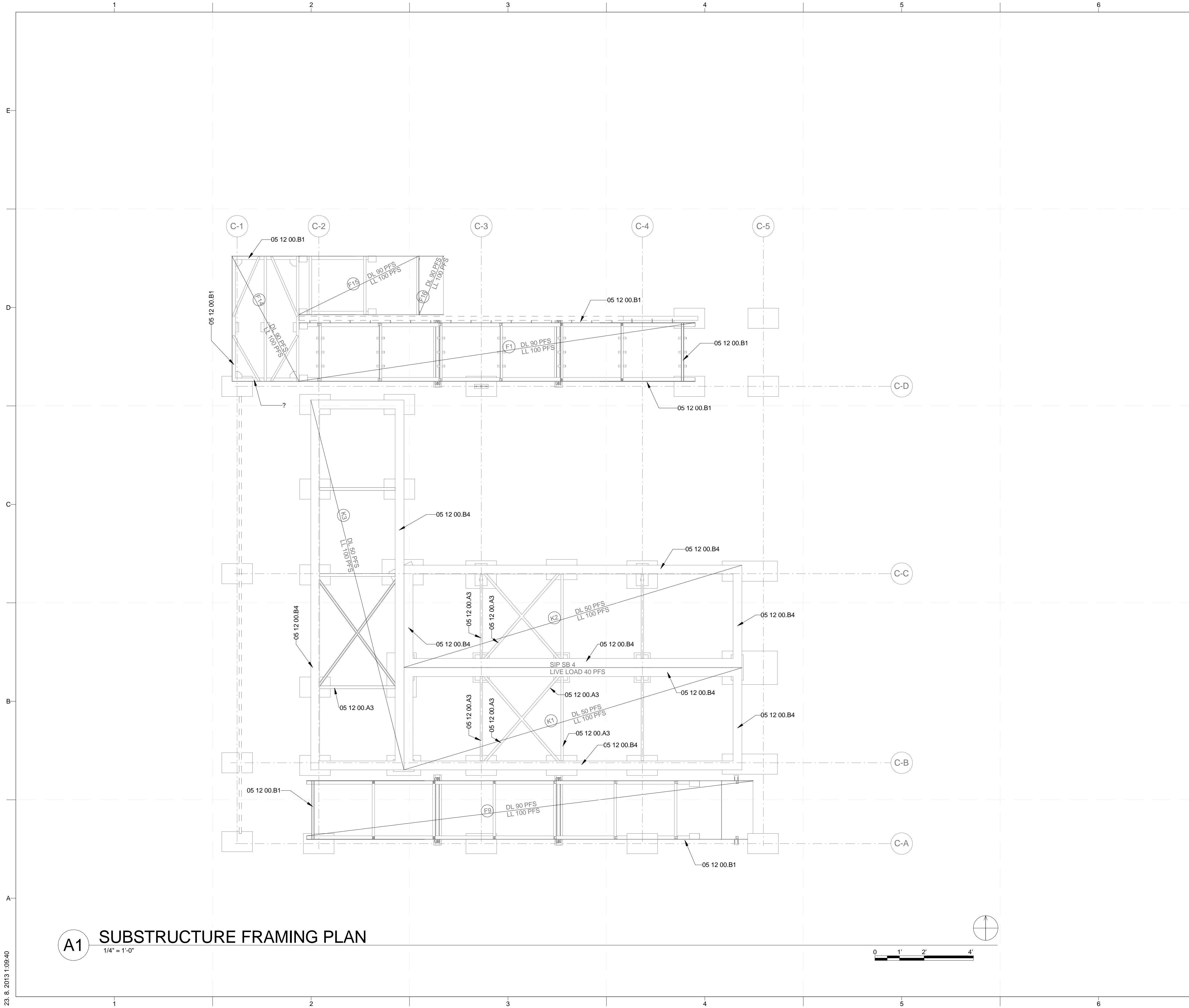
MARK	DATE	DESCRIPTION
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4	10/11/2012	DD SUBMISSION

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SHEET TITLE

GROUND CONTACT PLAN

S-101

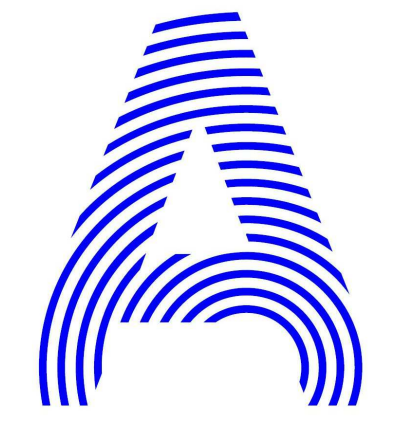


**A1** SUBSTRUCTURE FRAMING PLAN  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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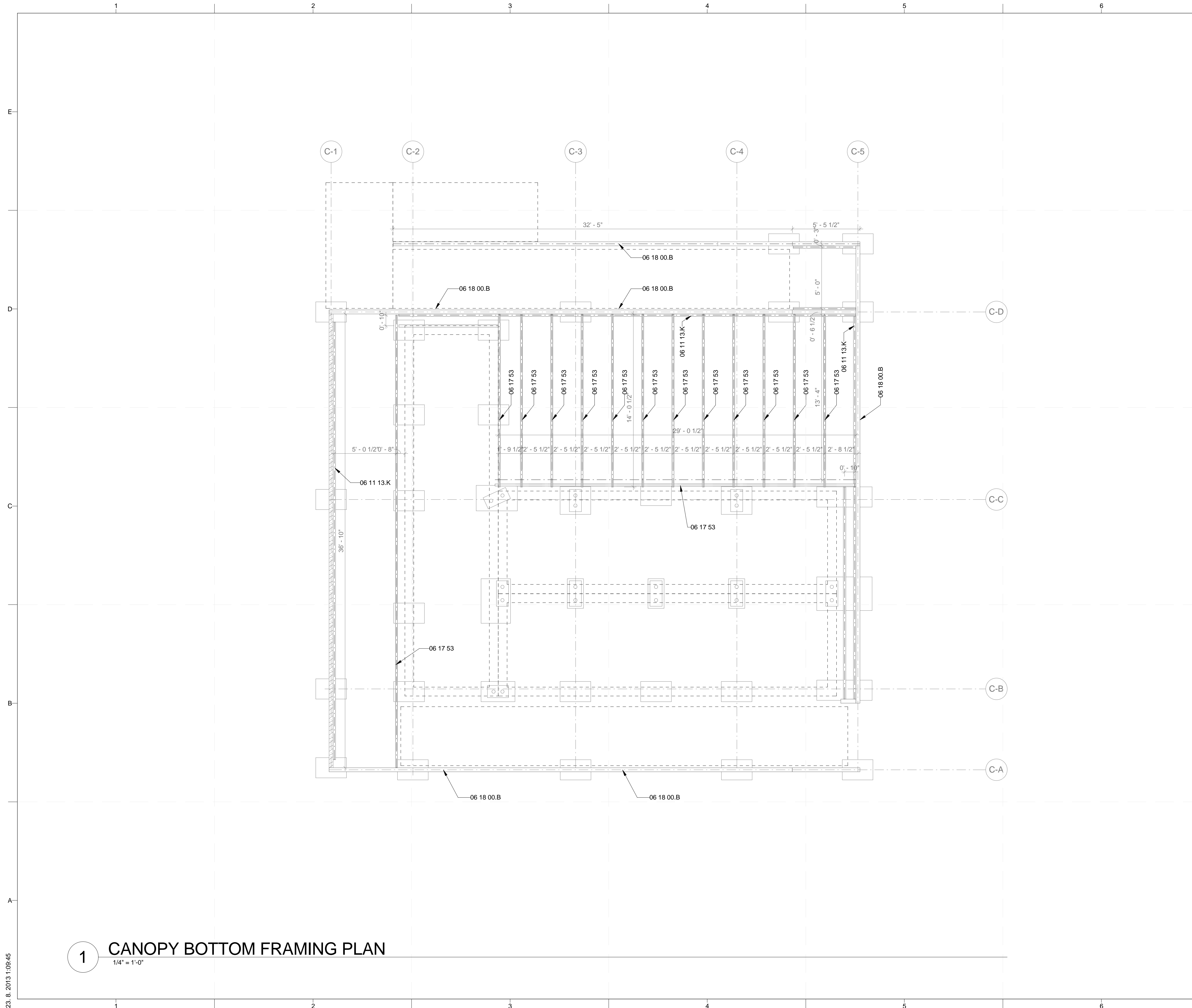


MARK	DATE	CD SUBMISSION DESCRIPTION
2	02/14/2013	CD SUBMISSION

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SHEET TITLE  
**SUBSTRUCTURE FRAMING PLAN**

**S-102**

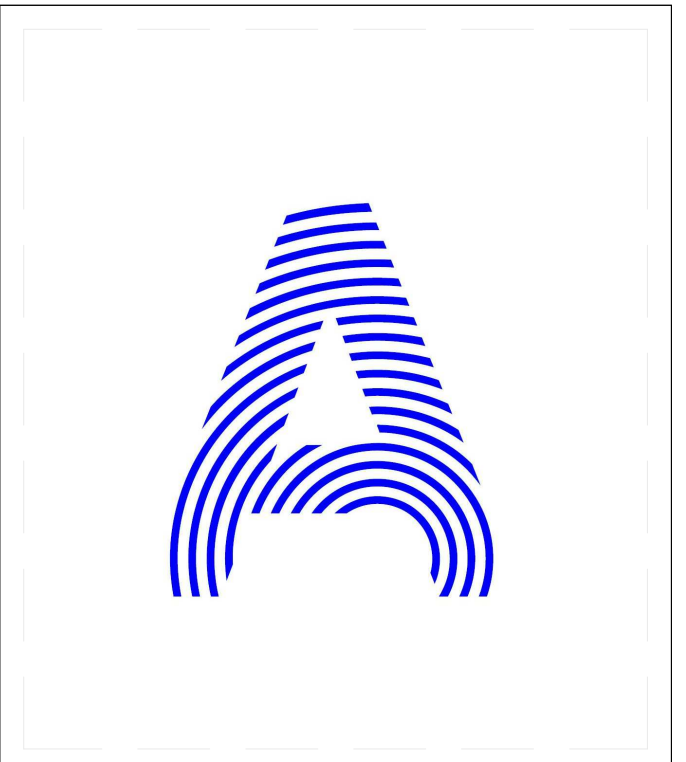


**GENERAL SHEET NOTES**

**REFERENCE KEYNOTES**

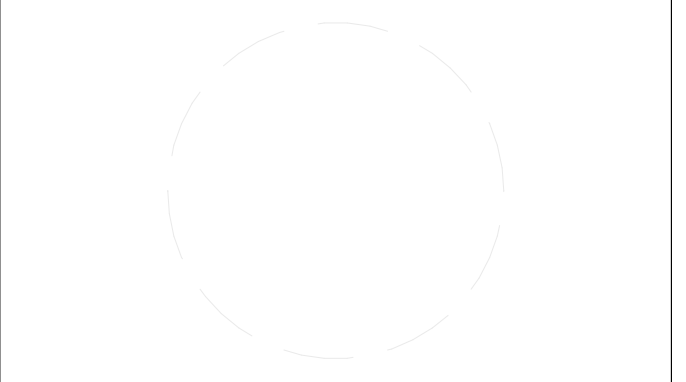
06 17 53 SHOP-FABRICATED WOOD TRUSSES

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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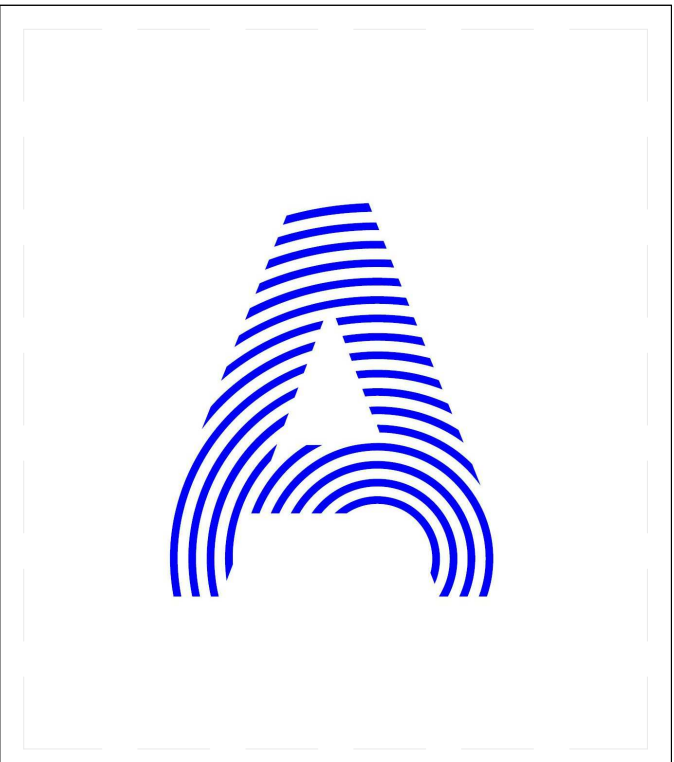
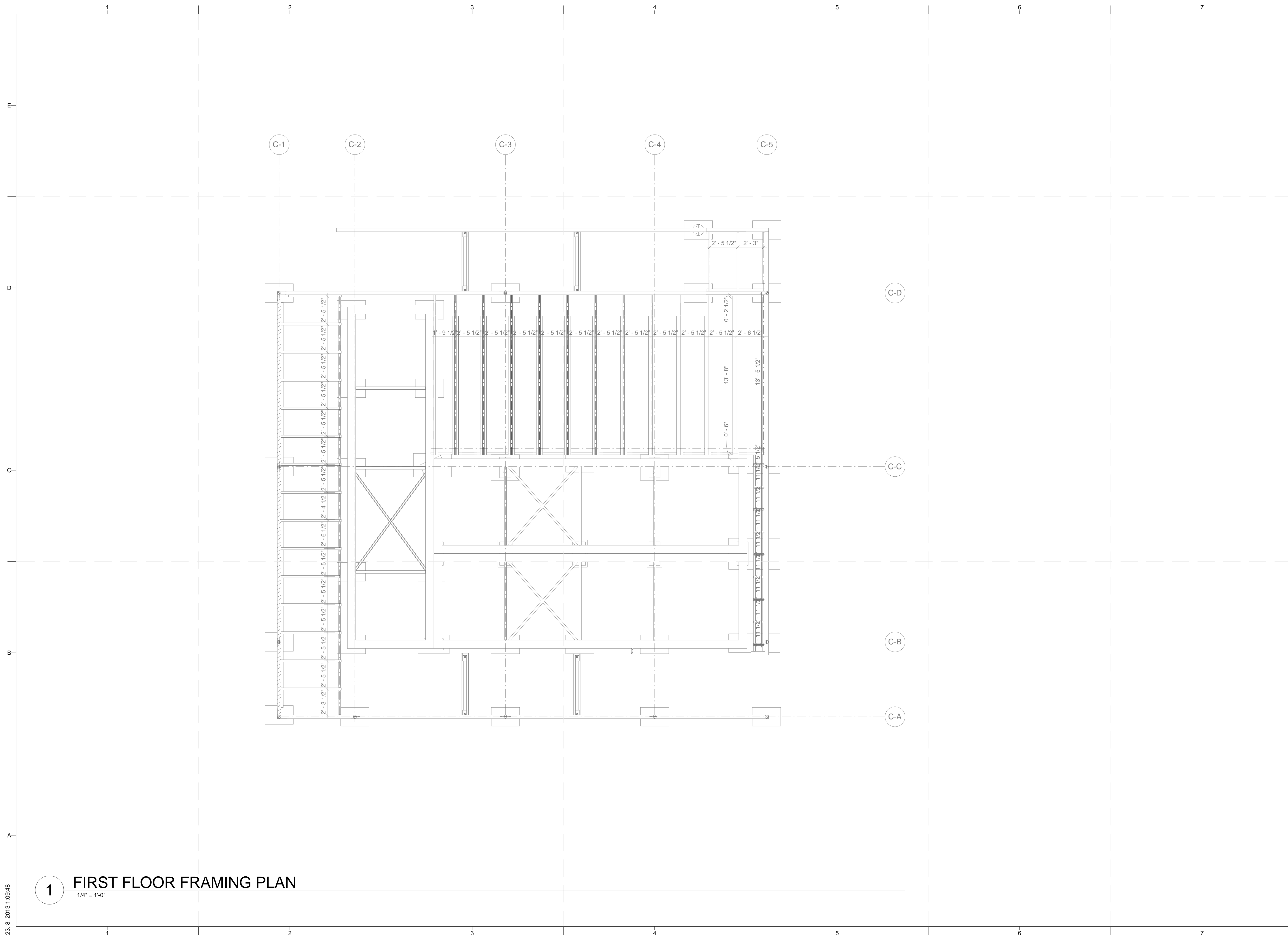
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SHEET TITLE  
**CANOPY BOTTOM AND  
 TERRACE FRAMING  
 PLAN**

**S-103**

**1 CANOPY BOTTOM FRAMING PLAN**  
 1/4" = 1'-0"



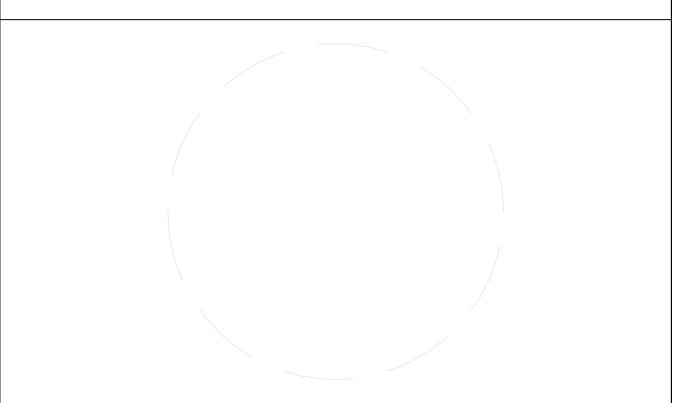
PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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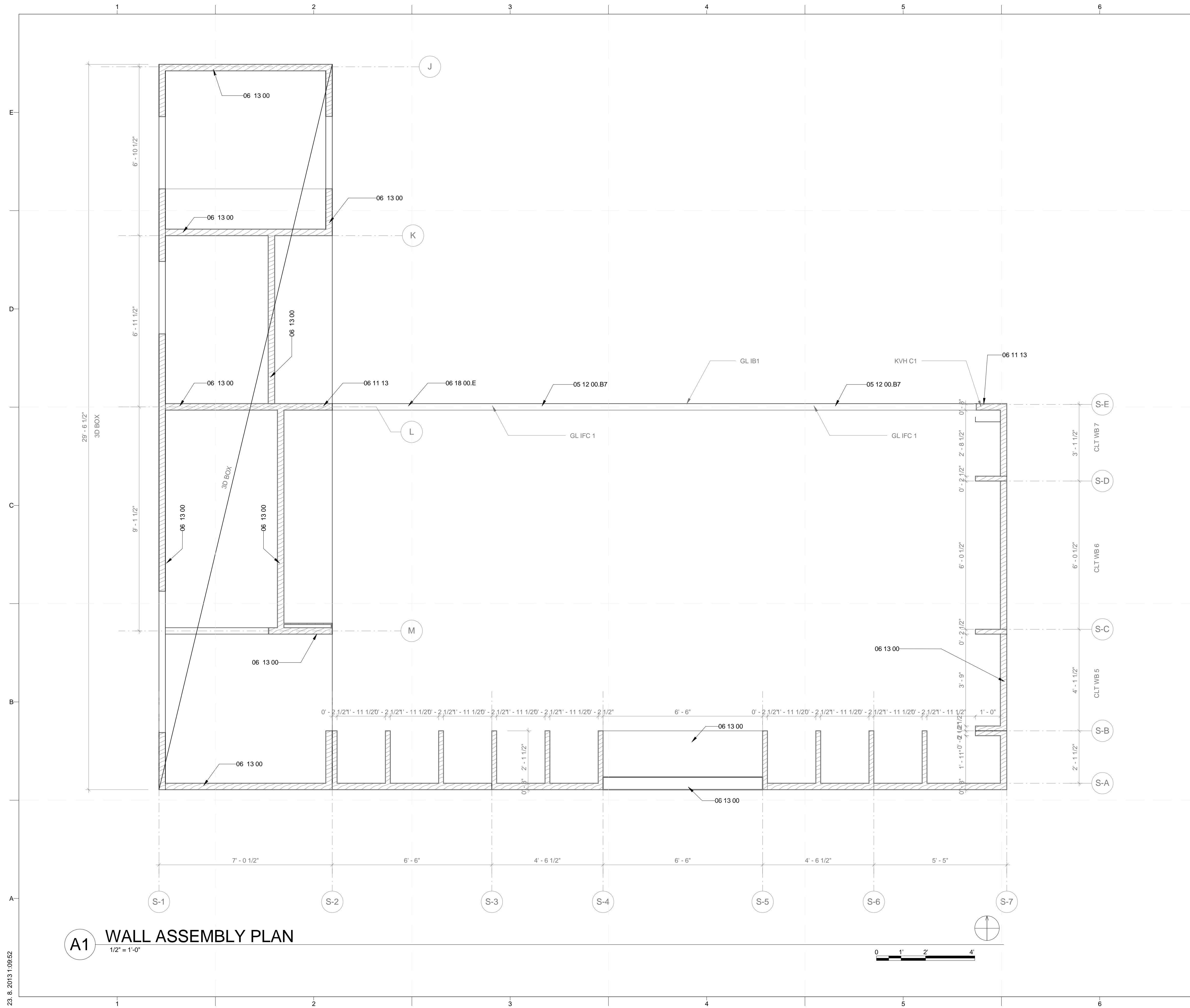
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SHEET TITLE

**FIRST FLOOR FRAMING PLAN**

**S-104**

**1** FIRST FLOOR FRAMING PLAN  
1/4" = 1'-0"



**GENERAL SHEET NOTES**

**REFERENCE KEYNOTES**

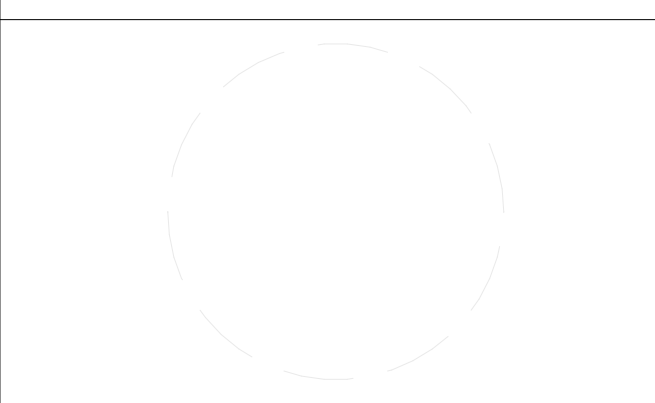
06 11 13 ENGINEERED WOOD PRODUCTS  
06 13 00 HEAVY TIMBER

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
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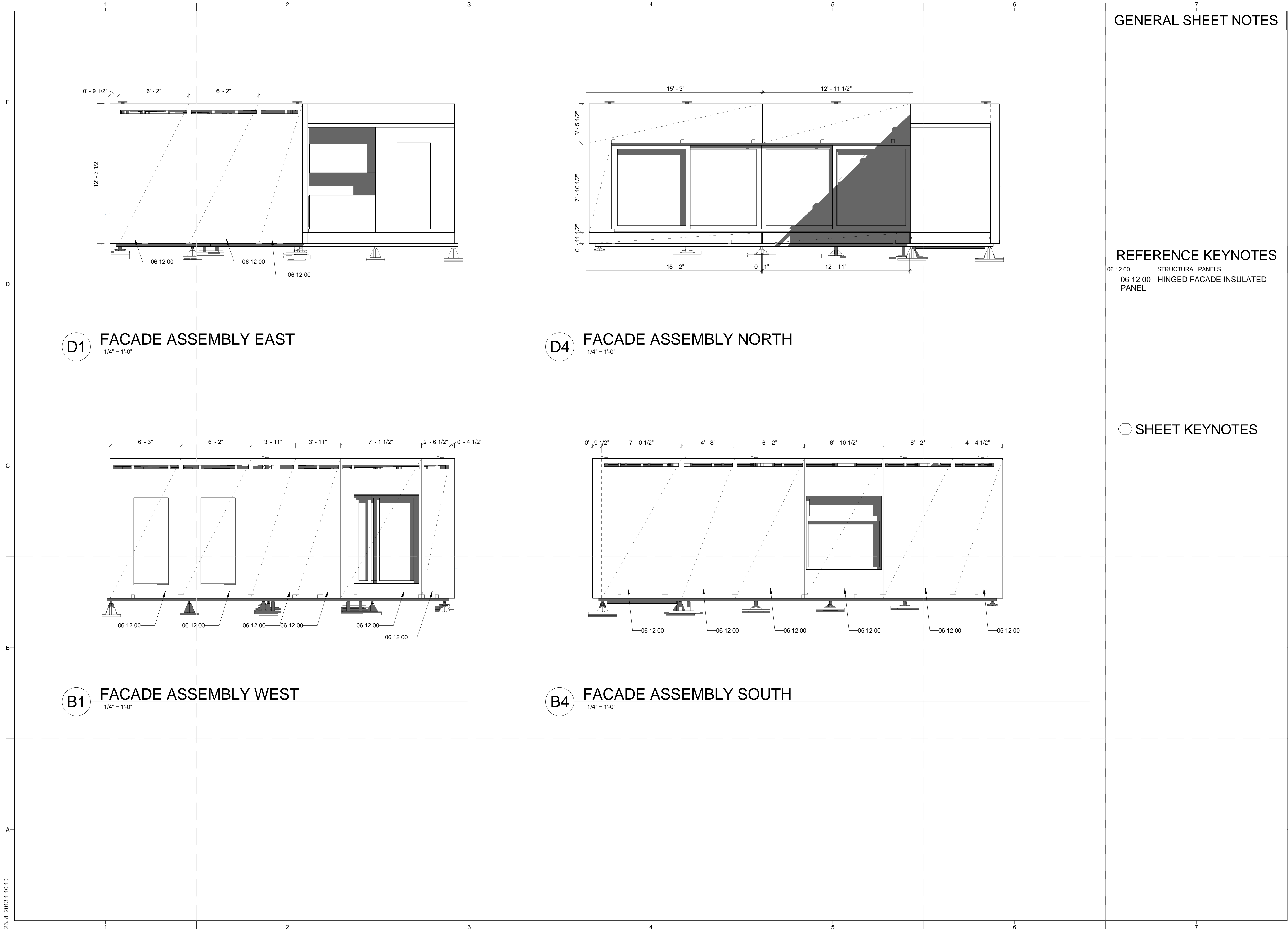
SHEET TITLE  
**WALL ASSEMBLY PLAN**

**S-105**

**A1 WALL ASSEMBLY PLAN**  
1/2" = 1'-0"



23.8.2013 1:09:52



**D1** FACADE ASSEMBLY EAST  
1/4" = 1'-0"

**D4** FACADE ASSEMBLY NORTH  
1/4" = 1'-0"

**B1** FACADE ASSEMBLY WEST  
1/4" = 1'-0"

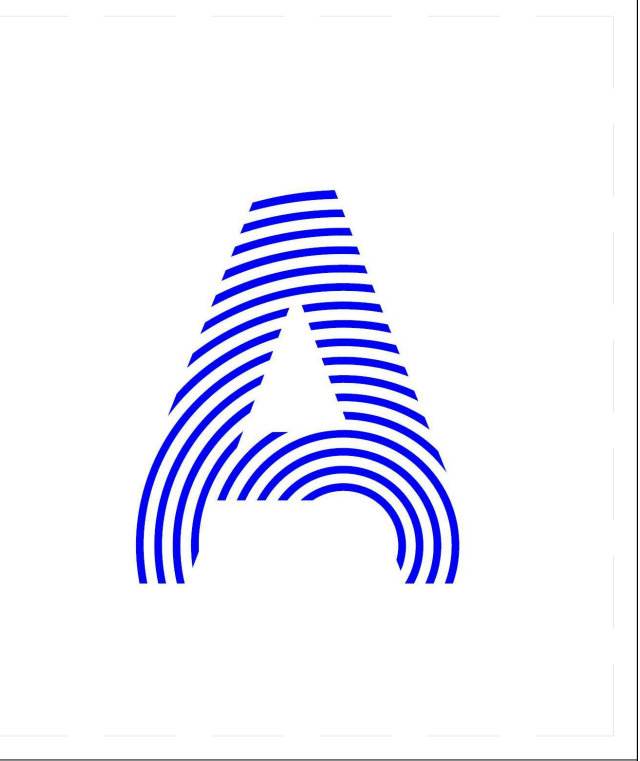
**B4** FACADE ASSEMBLY SOUTH  
1/4" = 1'-0"

GENERAL SHEET NOTES

REFERENCE KEYNOTES

- 06 12 00 STRUCTURAL PANELS
- 06 12 00 - HINGED FACADE INSULATED PANEL

SHEET KEYNOTES



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 - DEJVICE CZECH REPUBLIC  
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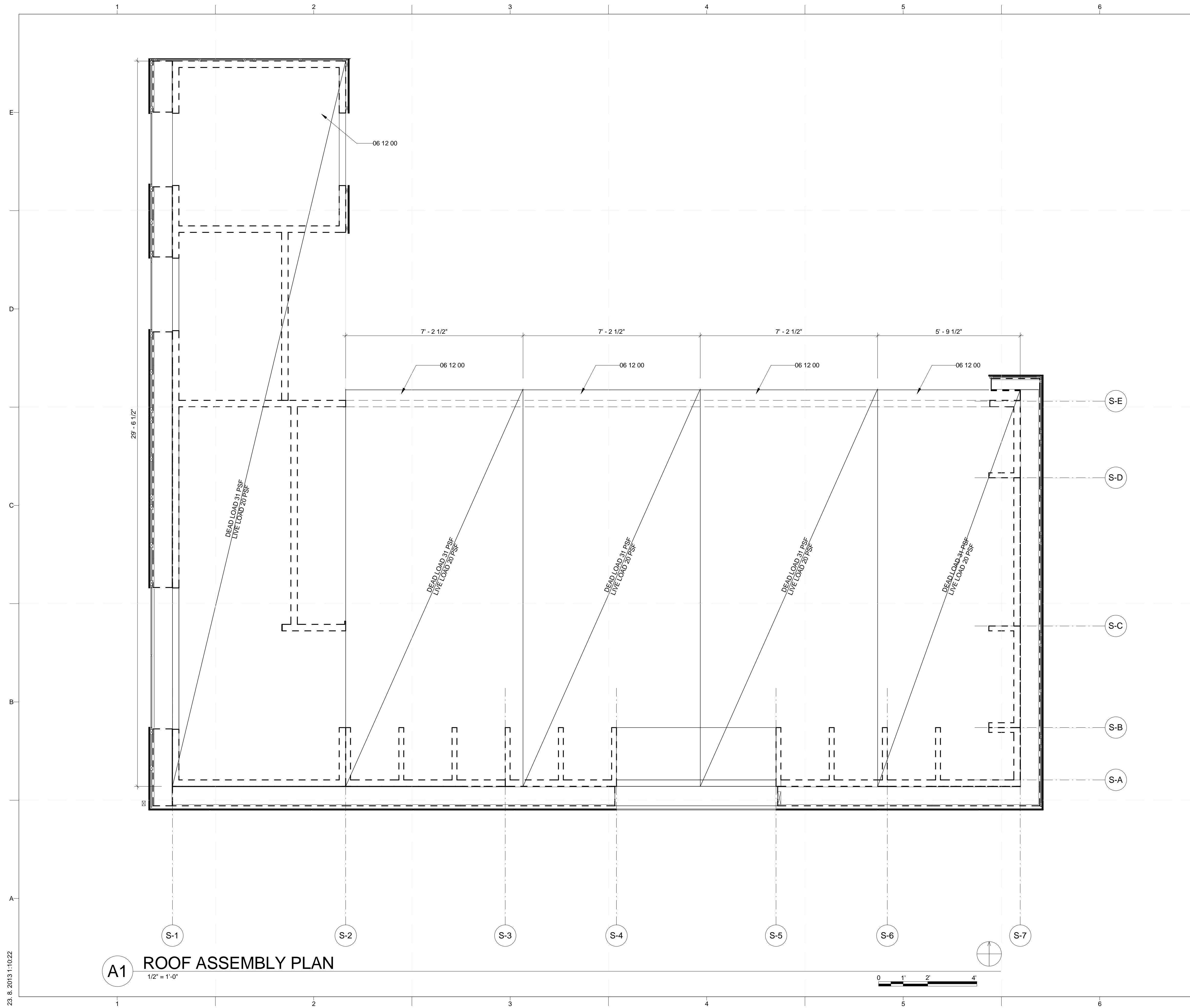
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SHEET TITLE  
**FACADE FRAMING PLAN**

**S-106**

23. 8. 2013 11:0:10



**GENERAL SHEET NOTES**

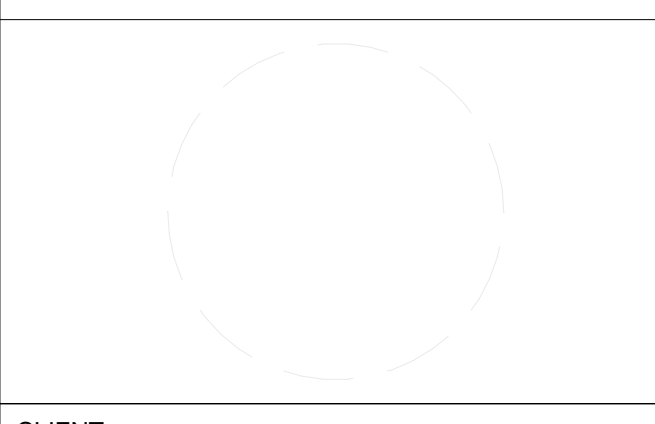
**REFERENCE KEYNOTES**  
06 12 00 STRUCTURAL PANELS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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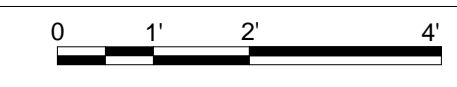
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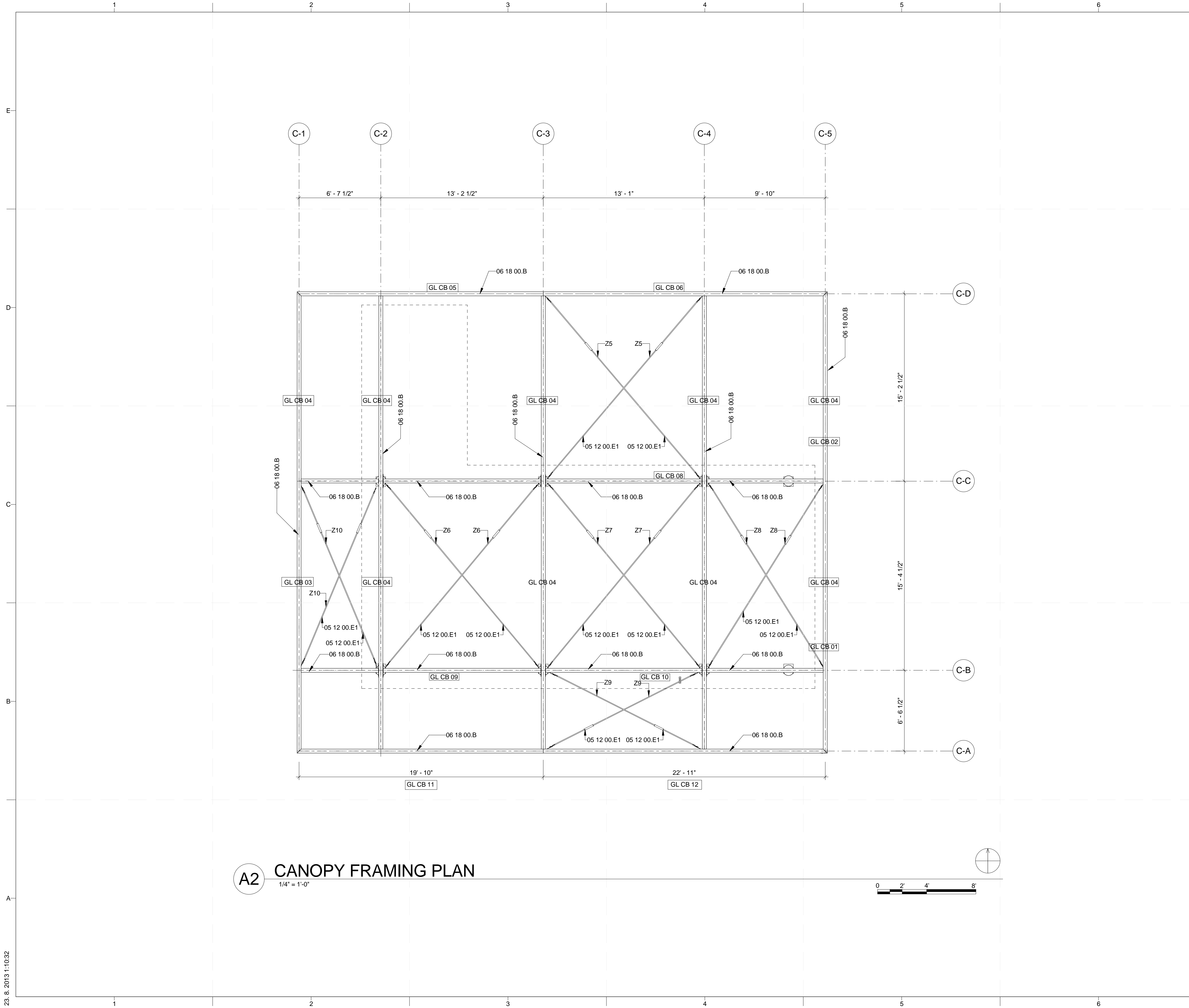
LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
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SHEET TITLE  
**ROOF ASSEMBLY PLAN**

**S-110**

**A1 ROOF ASSEMBLY PLAN**  
1/2" = 1'-0"





**A2** CANOPY FRAMING PLAN  
1/4" = 1'-0"

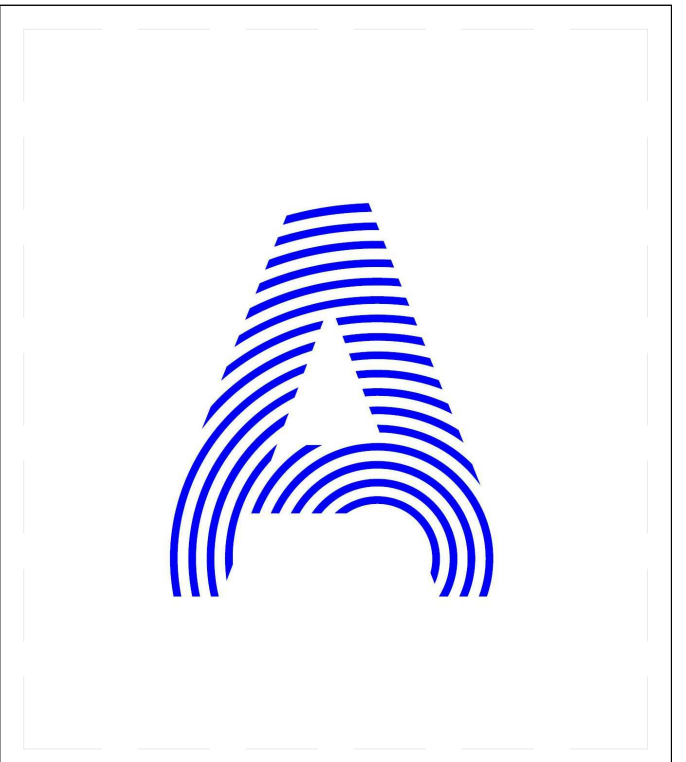
**GENERAL SHEET NOTES**

**REFERENCE KEYNOTES**

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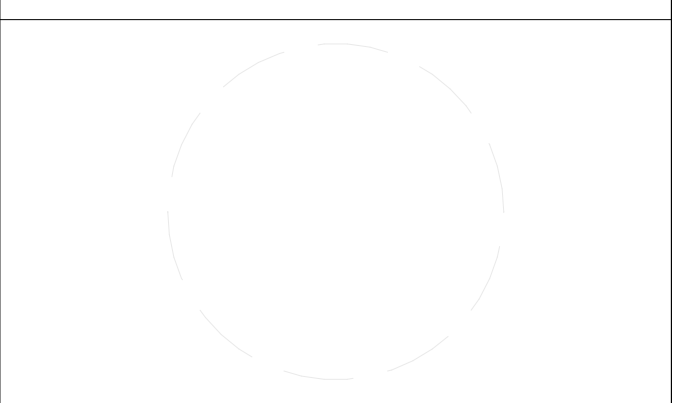
**SHEET KEYNOTES**

- Z5
- Z6
- Z7
- Z8
- Z9
- Z10



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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MARK	DATE	CD SUBMISSION	DESCRIPTION
2	02/14/2013	CD SUBMISSION	

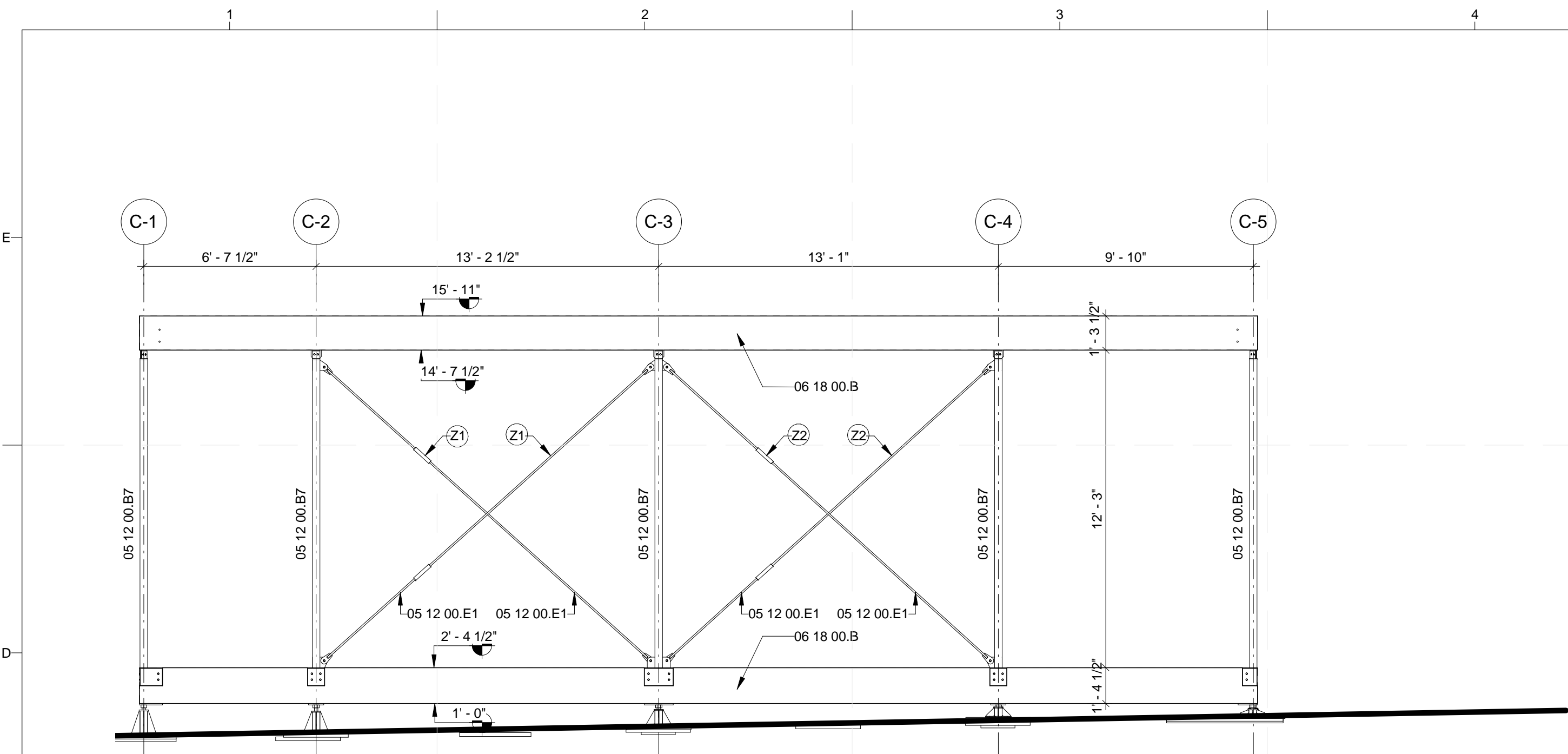
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 DRAWN BY: MATÚŠ FICKO  
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SHEET TITLE

**CANOPY UPPER FRAMING PLAN**

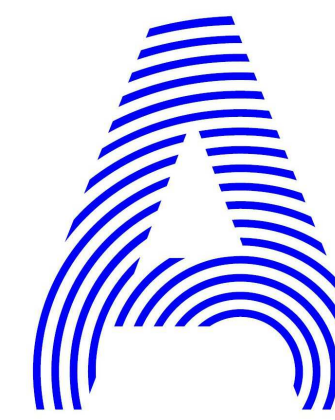
**S-111**





**D1 SOUTH ELEVATION**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
WWW.AIRHOUSE.CZ

CONSULTANTS

**REFERENCE KEYNOTES**

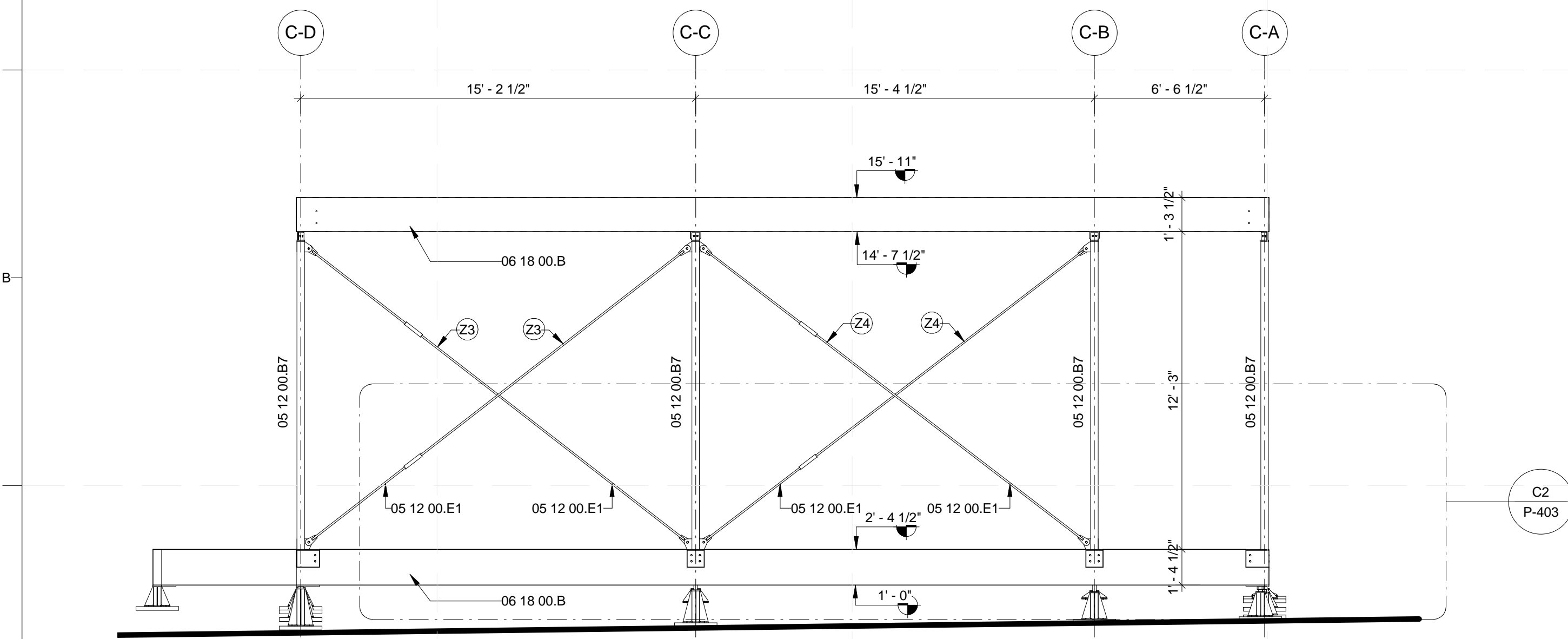
- 05 12 00.E1 STEEL BARS FOR TENSION ROD SYSTEM -
- 05 12 00.B7 STEEL COLUMN
- 05 12 00.E1 STEEL TENSION RODS

**SHEET KEYNOTES**

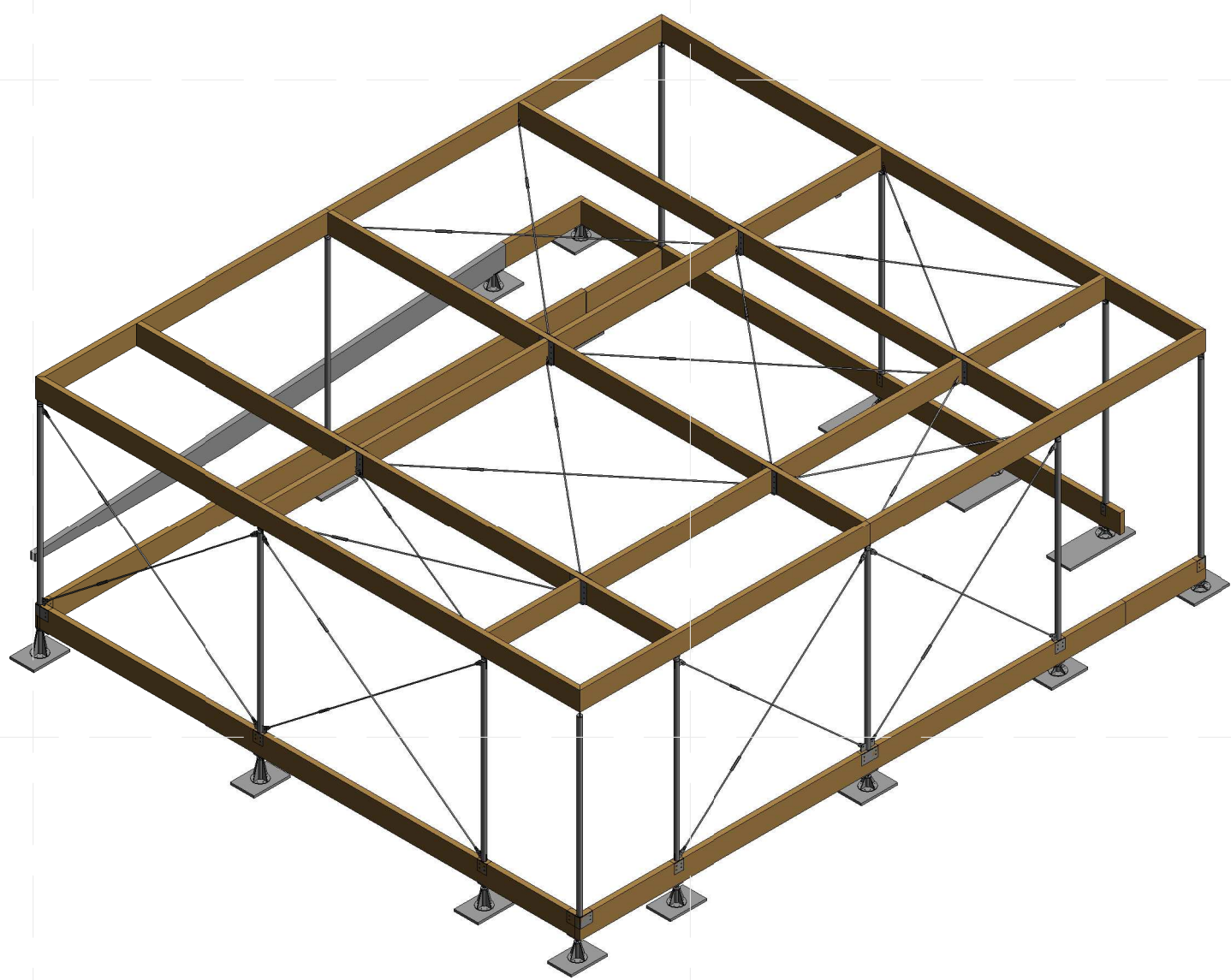
- Z1
- Z2
- Z3
- Z4

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**A1 WEST ELEVATION**  
1/4" = 1'-0"



**A4 3D SOUTHWEST VIEW**

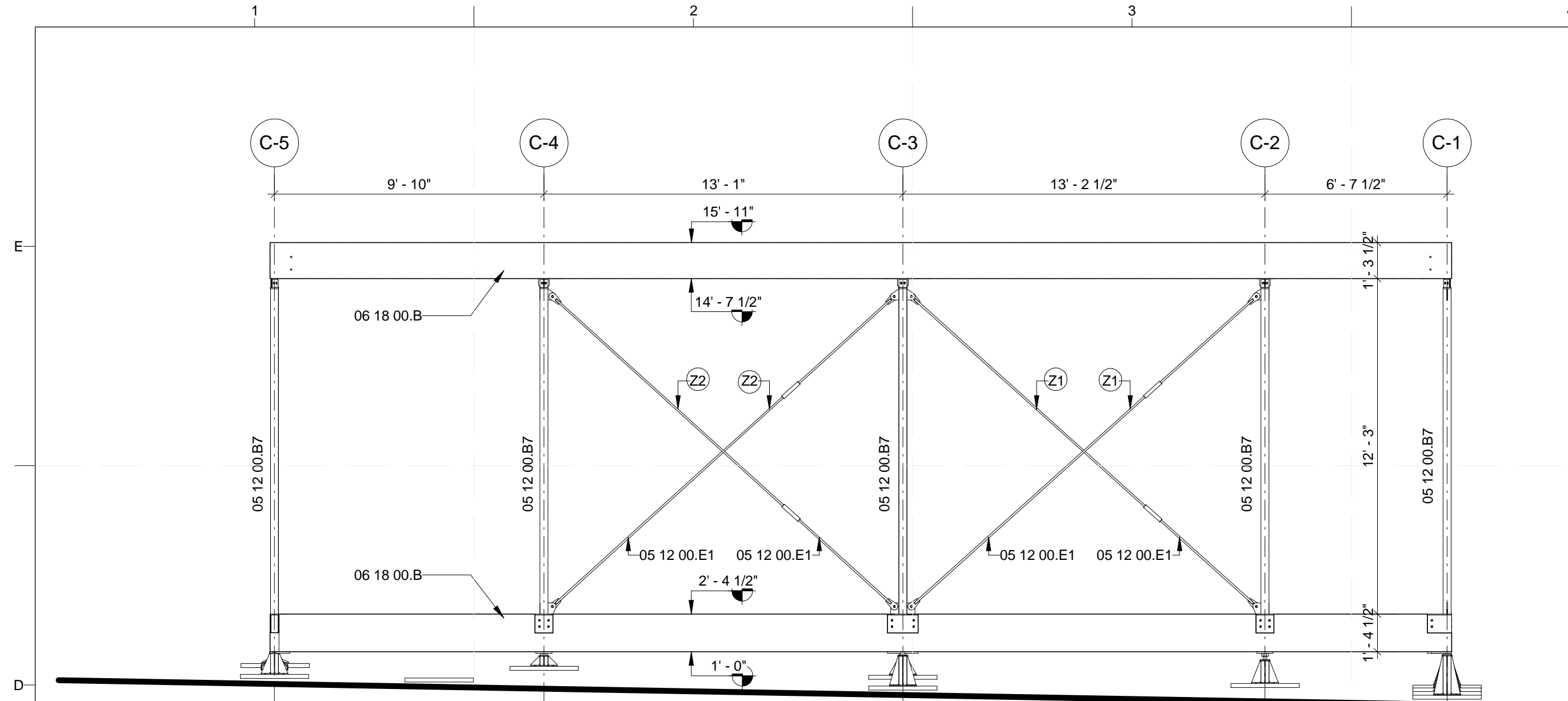
MARK	DATE	DESCRIPTION

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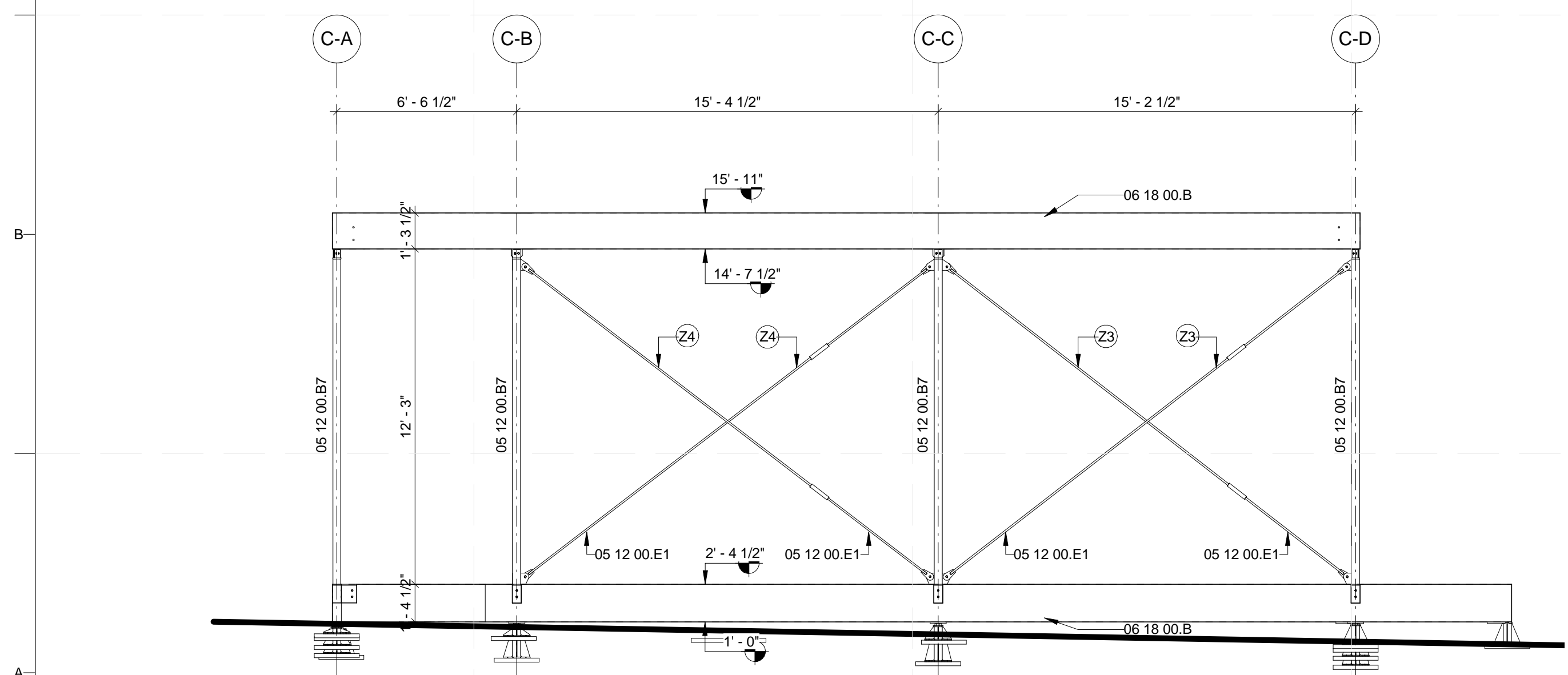
SHEET TITLE

**LOAD-BEARING  
STRUCTURE OF  
CANOPY S+W**

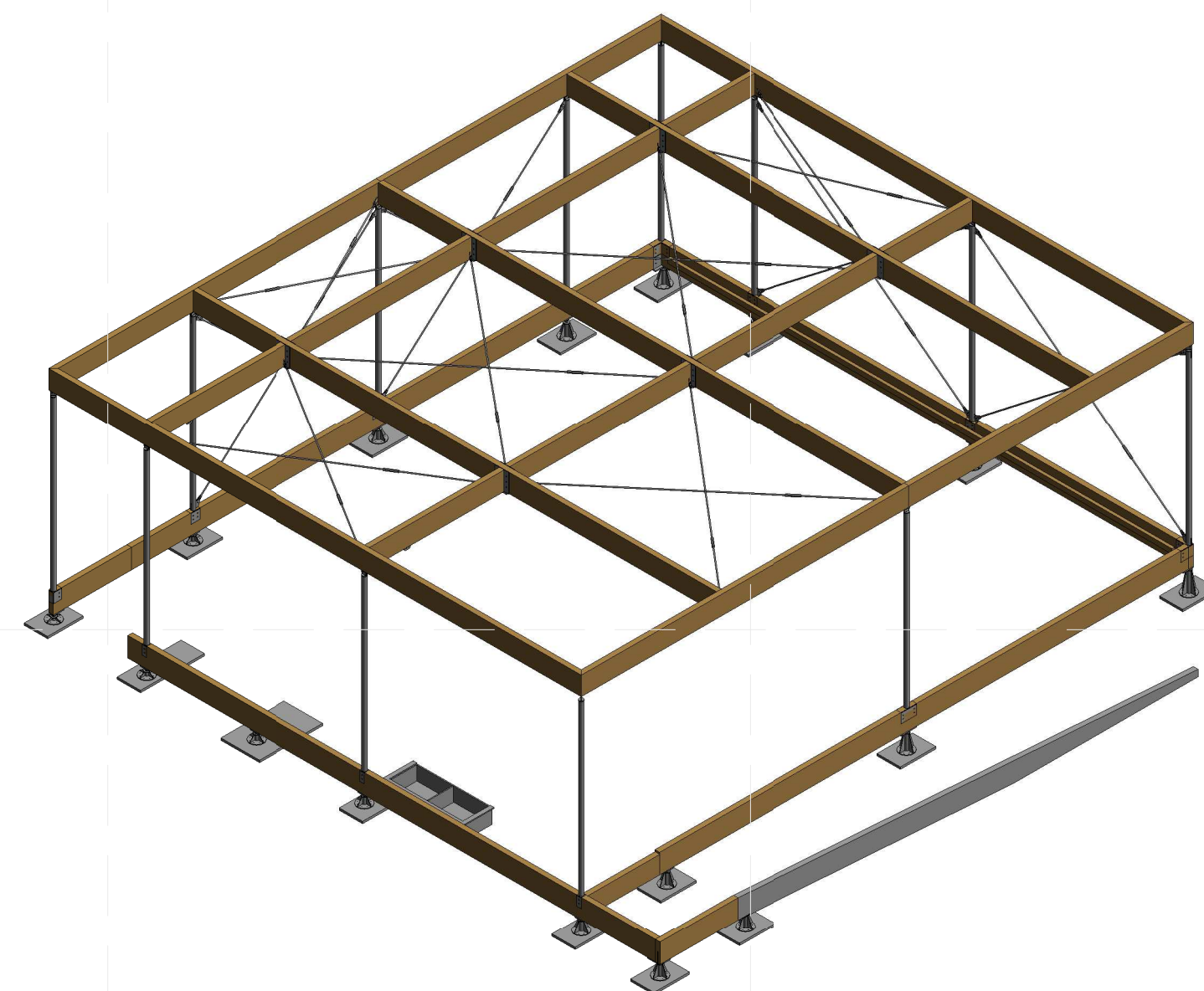
**S-112**



**D1 NORTH ELEVATION**  
1/4" = 1'-0"



**A1 EAST ELEVATION**  
1/4" = 1'-0"



**A4 3D NORTHEAST VIEW**

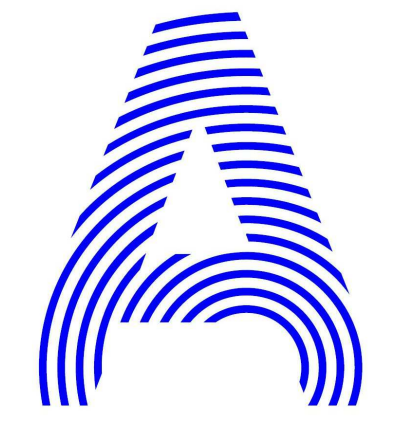
**GENERAL SHEET NOTES**

**REFERENCE KEYNOTES**

05 12 00 E1 STEEL BARS FOR TENSION ROD SYSTEM  
 05 12 00 B7 STEEL COLUMN  
 05 12 00 E1 STEEL TENSION RODS

**SHEET KEYNOTES**

- Z1
- Z2
- Z3
- Z4



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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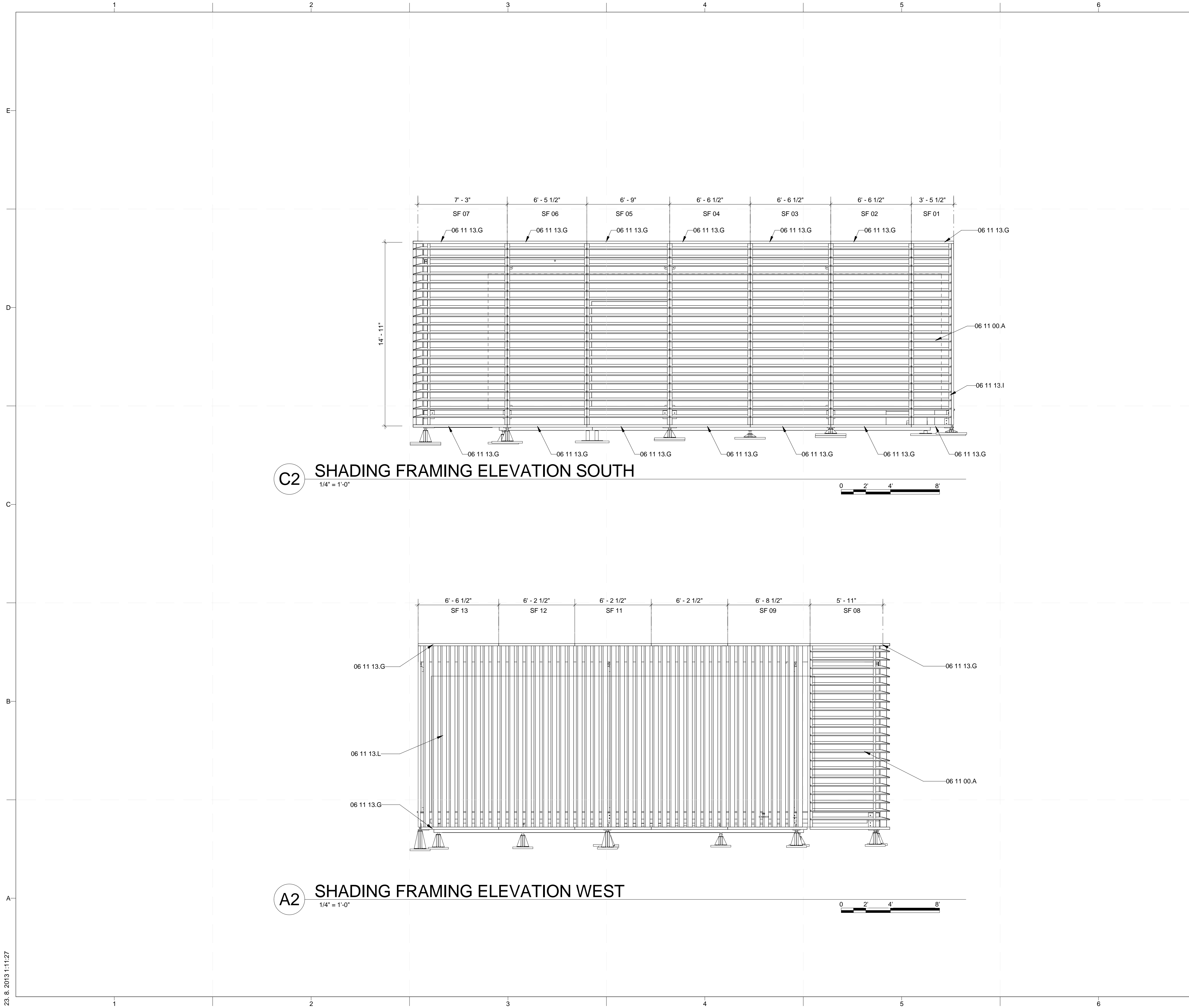


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SHEET TITLE  
**LOAD-BEARING  
 STRUCTURE OF  
 CANOPY N+E**

**S-113**



**C2 SHADING FRAMING ELEVATION SOUTH**  
1/4" = 1'-0"

**A2 SHADING FRAMING ELEVATION WEST**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

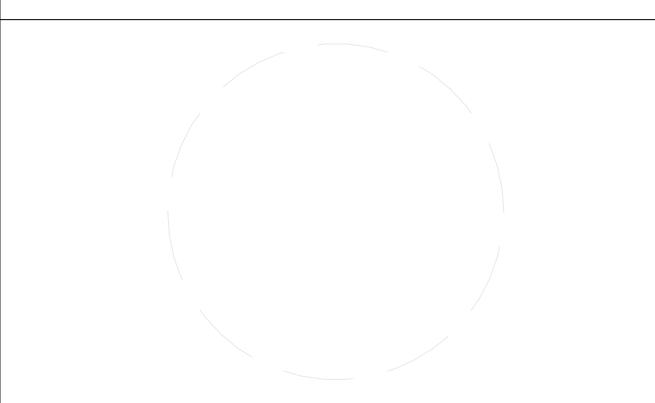
**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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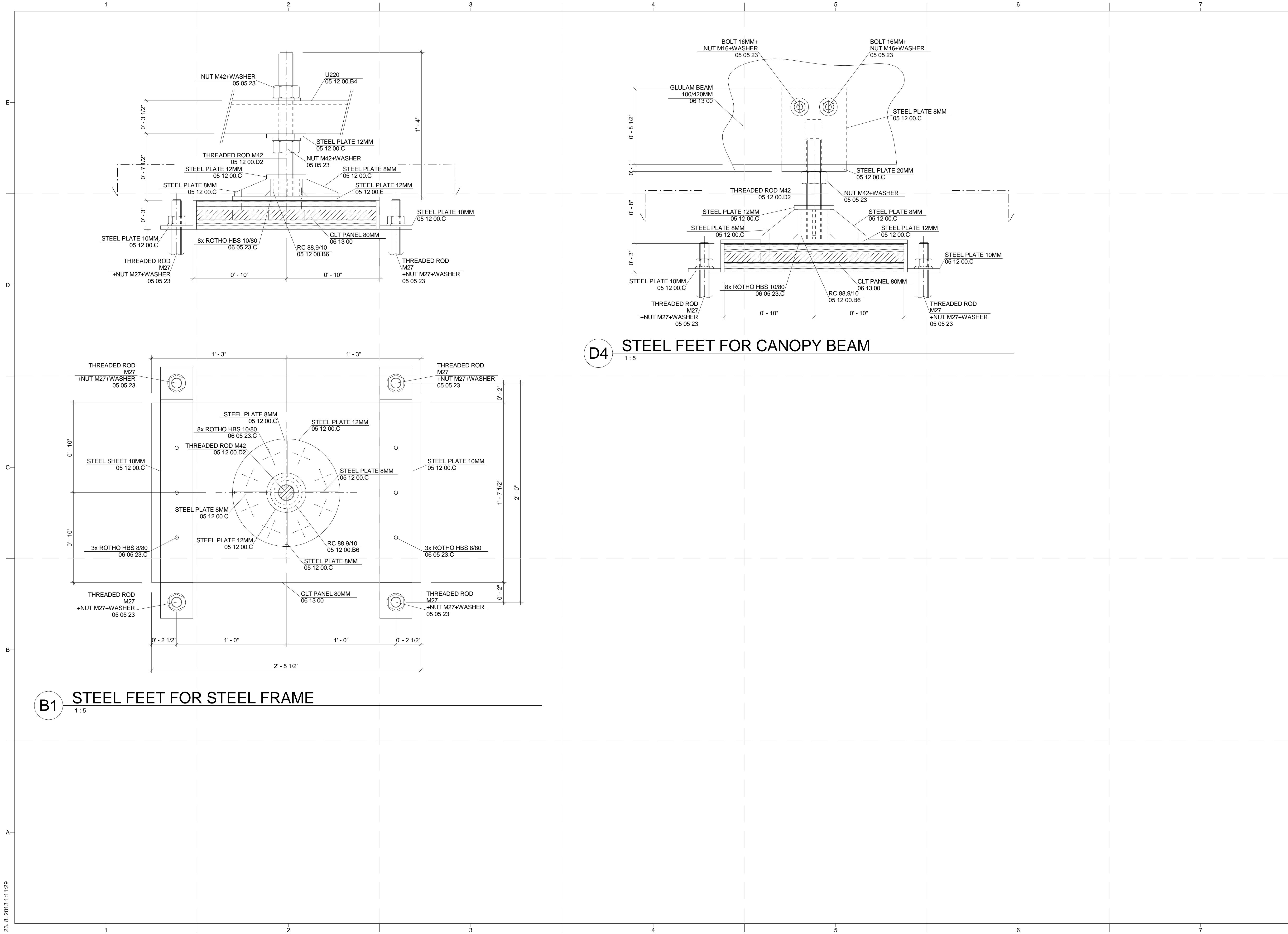


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LOT NUMBER: 103  
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SHEET TITLE  
**CANOPY SHADING FRAMING PLAN**

**S-201**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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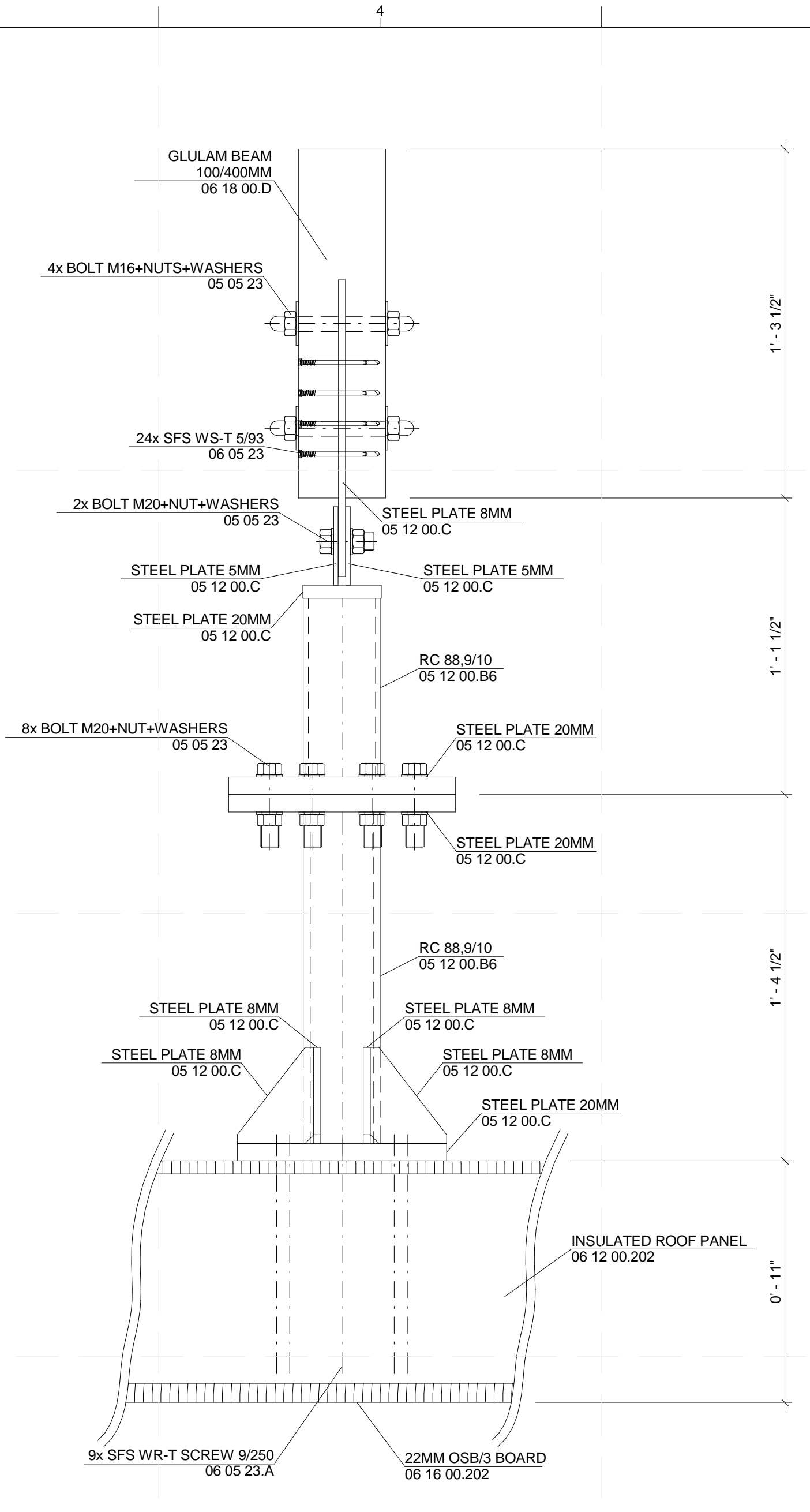
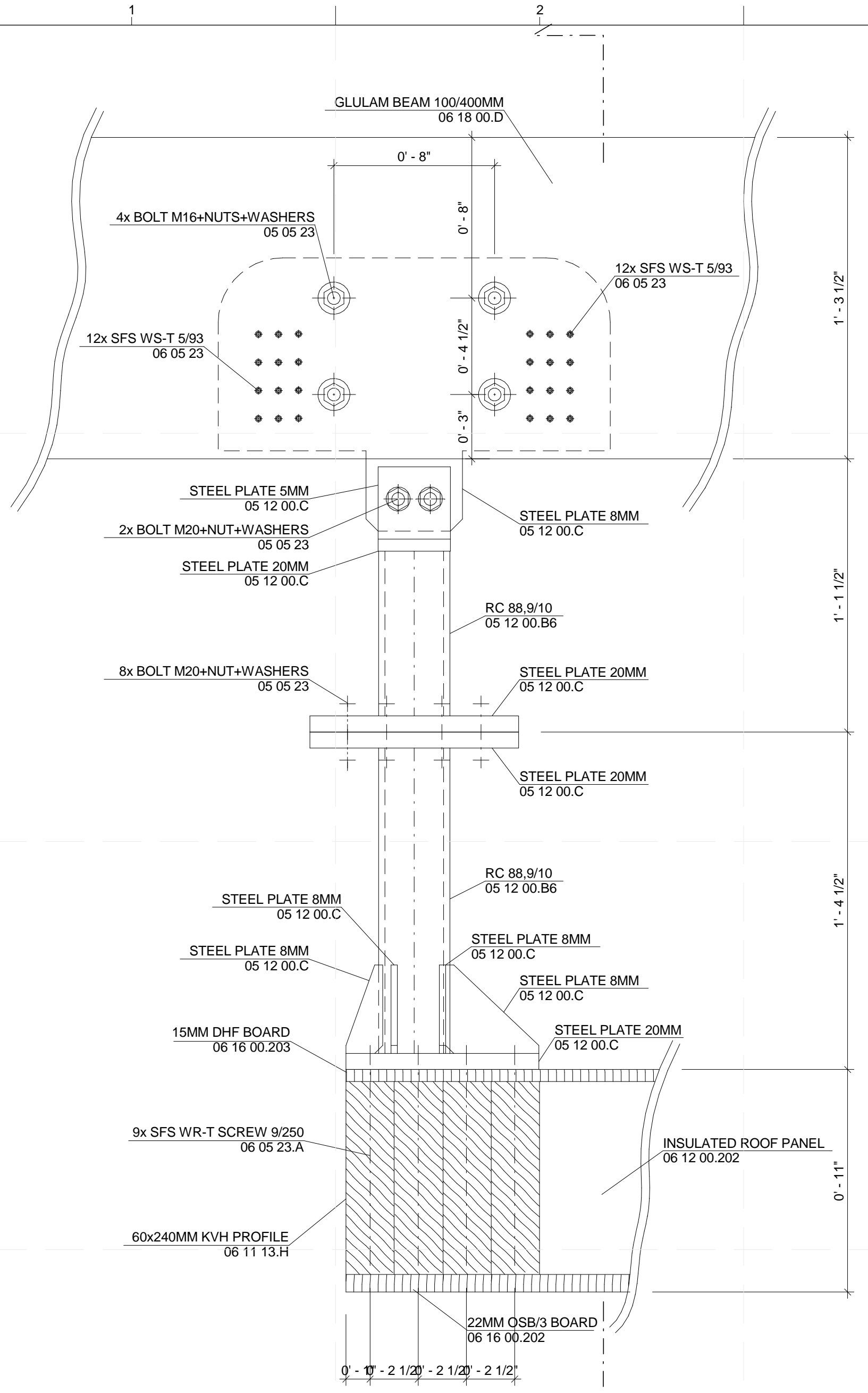


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SHEET TITLE  
STRUCTURAL DETAILS  
- FOUNDATION

S-501



**B1 CANOPY X ROOF CONNECTION**  
1:5



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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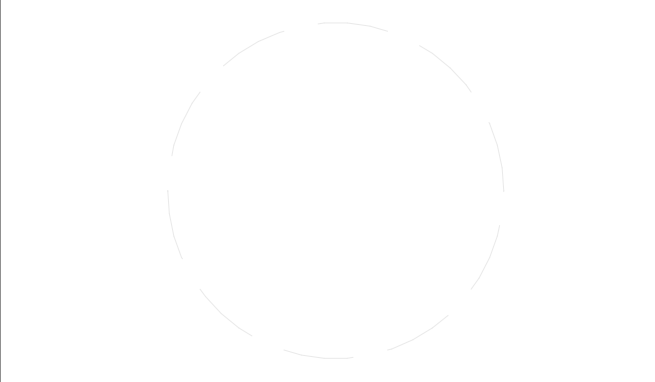
STRUCTURAL DETAILS  
- CANOPY/ROOF  
CONNECTION

S-502



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ

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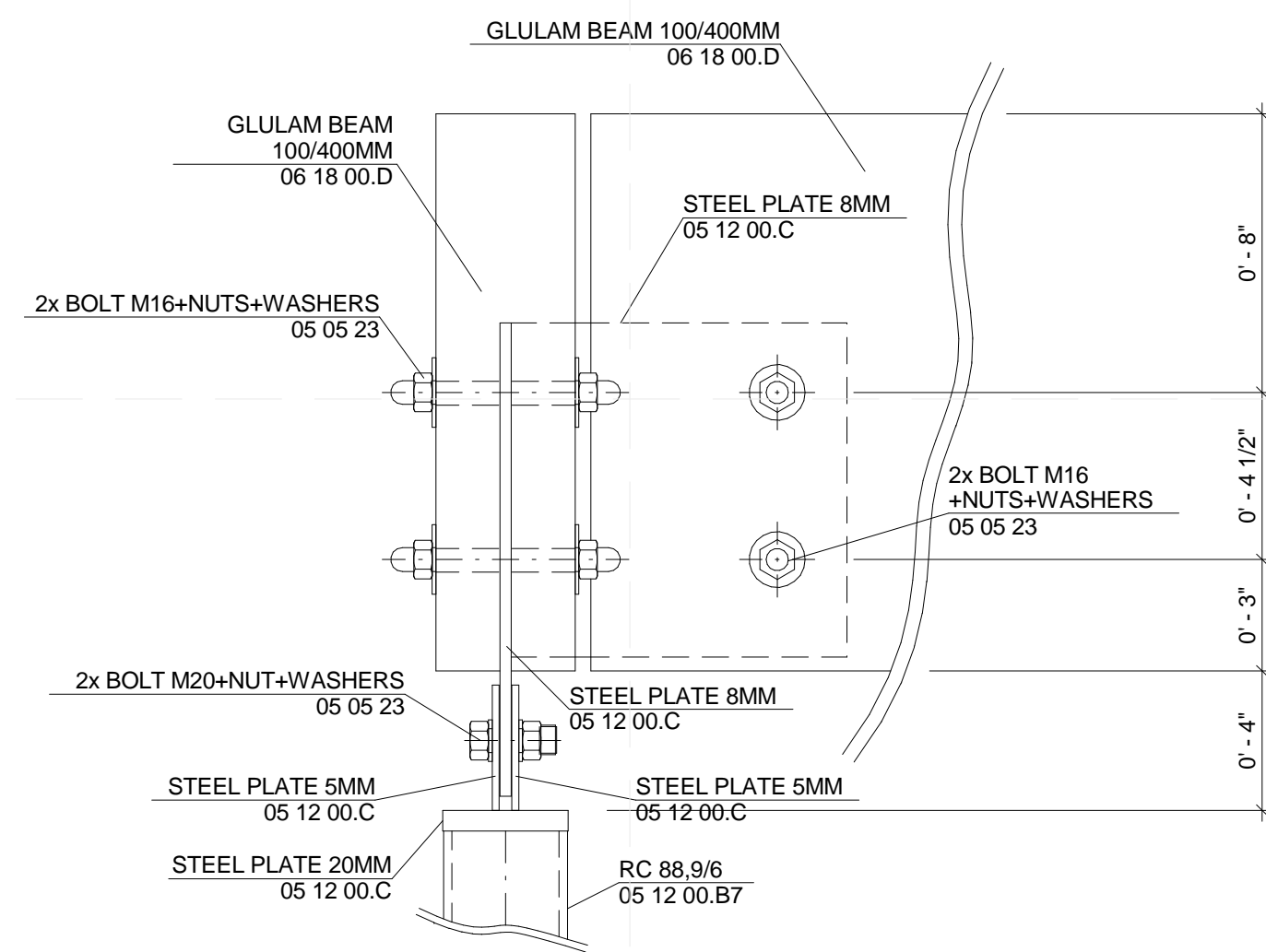



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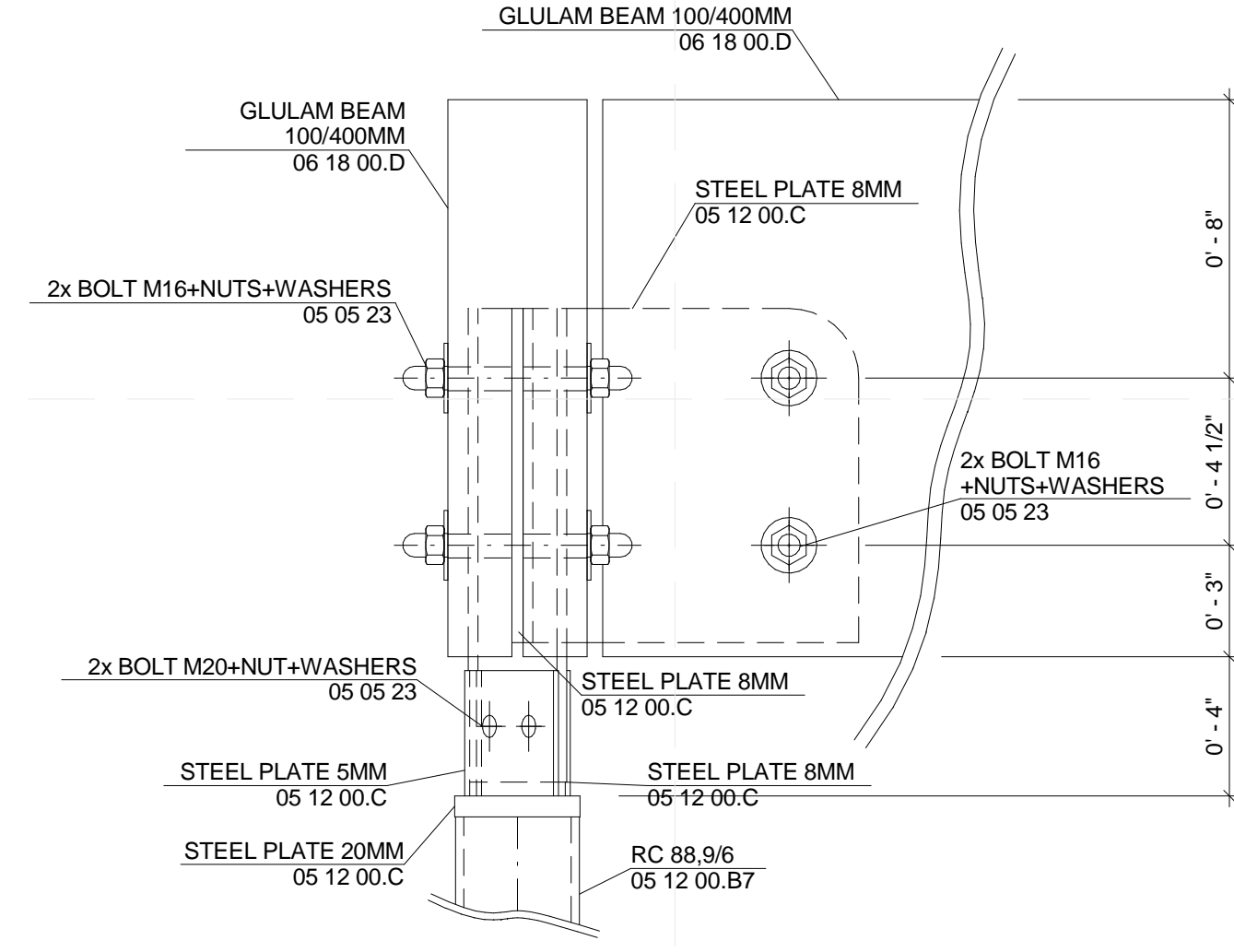
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SHEET TITLE  
**STRUCTURAL DETAILS**  
**- CANOPY TOP GRID**

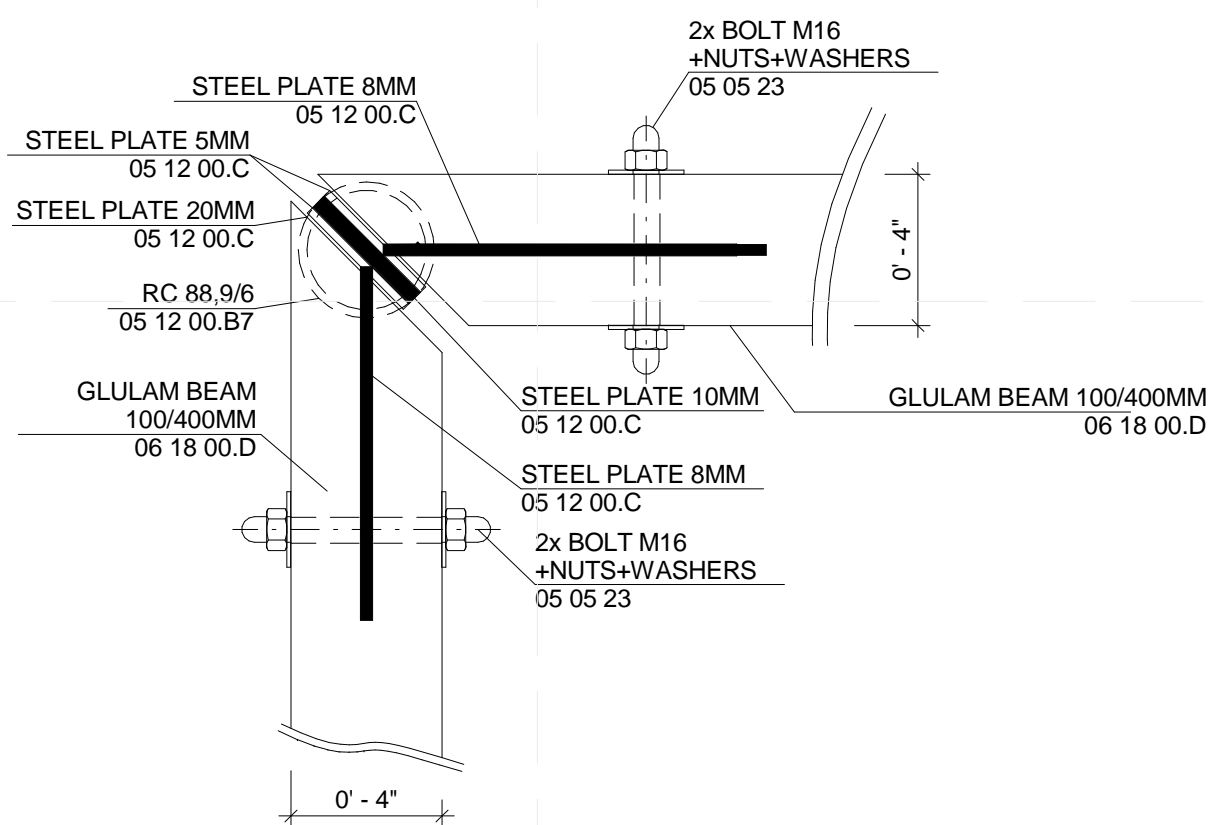
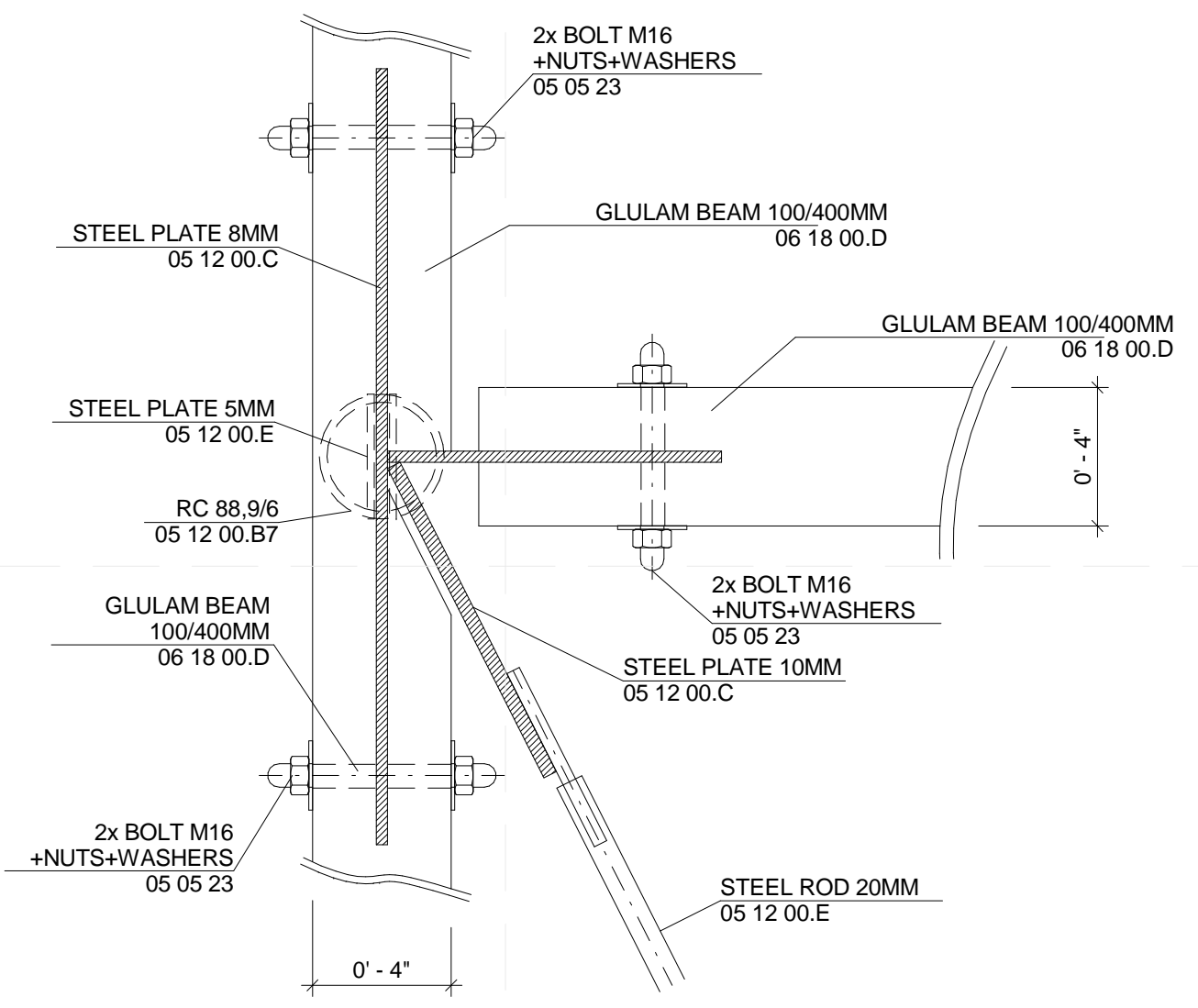
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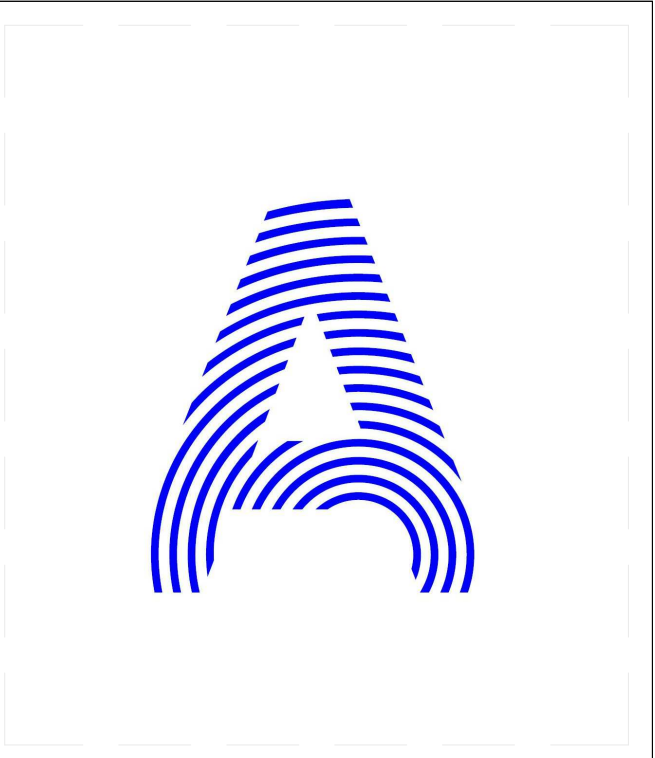
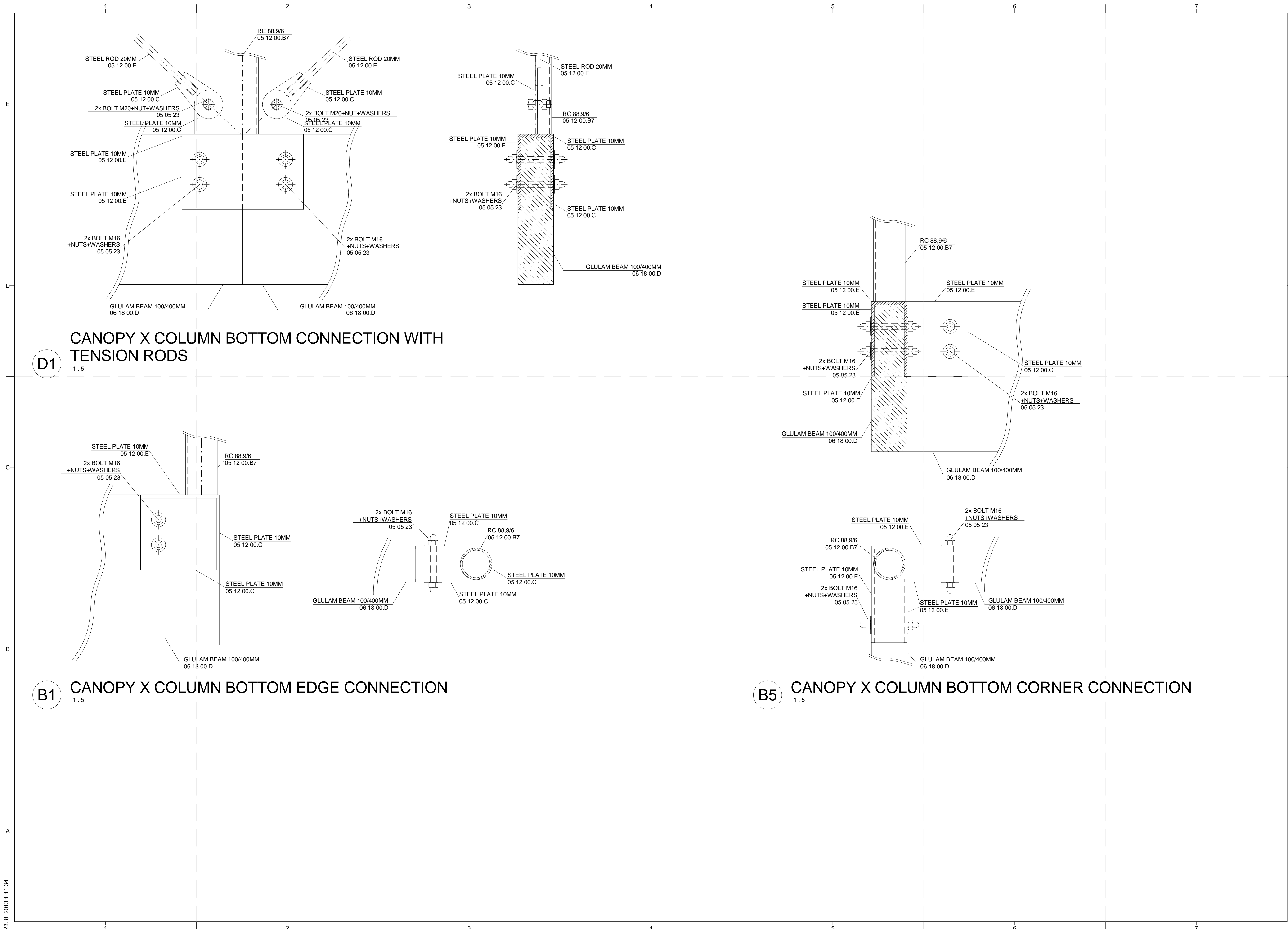


**B2 CANOPY X MIDDLE COLUMN DETAIL**  
 1:5



**B5 CANOPY TOP CORNER CONNECTION**  
 1:5





PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

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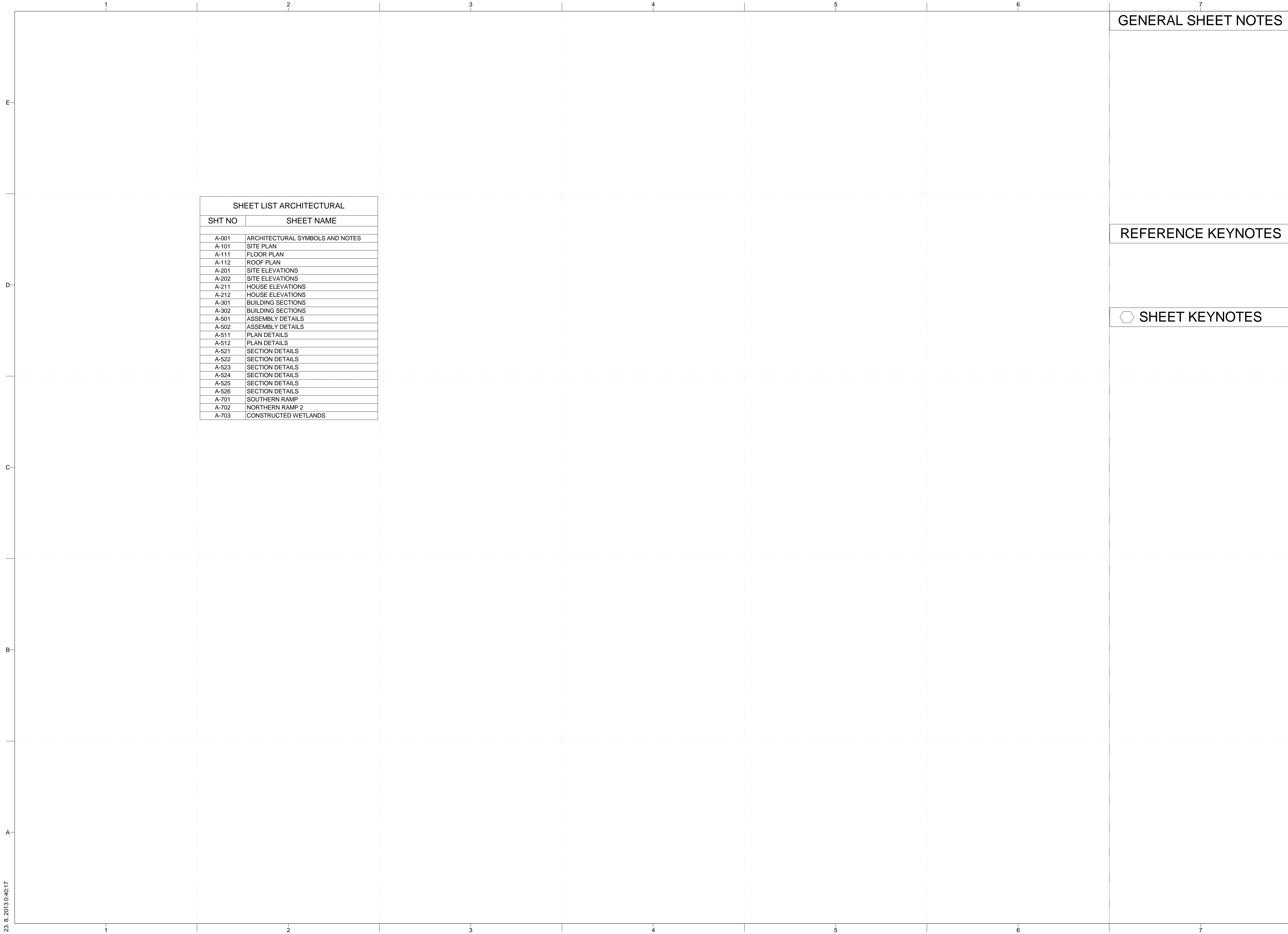


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SHEET TITLE  
**STRUCTURAL DETAILS**  
**- CANOPY BOTTOM**  
**GRID**

**S-504**

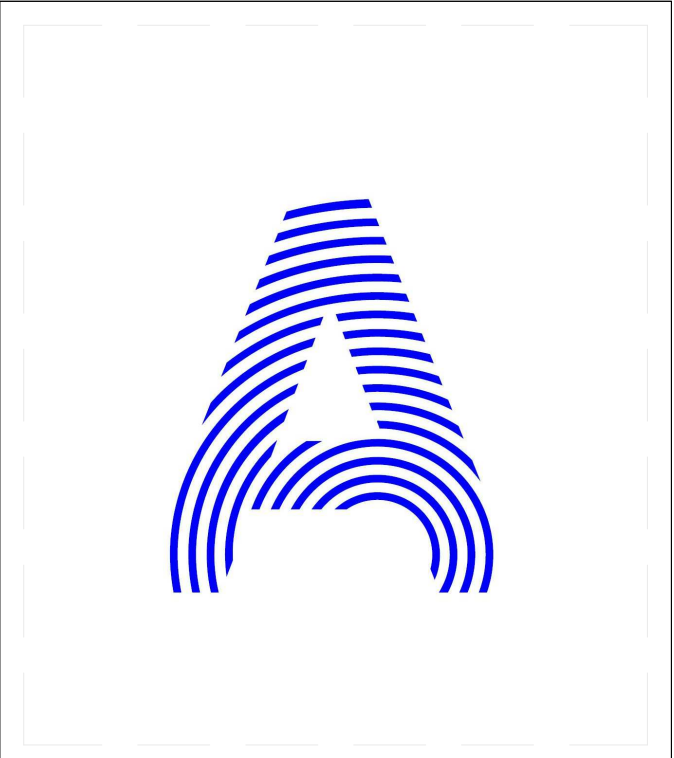


SHEET LIST ARCHITECTURAL	
SHT NO	SHEET NAME
A-001	ARCHITECTURAL SYMBOLS AND NOTES
A-101	SITE PLAN
A-111	FLOOR PLAN
A-112	ROOF PLAN
A-201	SITE ELEVATIONS
A-202	SITE ELEVATIONS
A-211	HOUSE ELEVATIONS
A-212	HOUSE ELEVATIONS
A-301	BUILDING SECTIONS
A-302	BUILDING SECTIONS
A-501	ASSEMBLY DETAILS
A-502	ASSEMBLY DETAILS
A-511	PLAN DETAILS
A-512	PLAN DETAILS
A-521	SECTION DETAILS
A-522	SECTION DETAILS
A-523	SECTION DETAILS
A-524	SECTION DETAILS
A-525	SECTION DETAILS
A-526	SECTION DETAILS
A-701	SOUTHERN RAMP
A-702	NORTHERN RAMP 2
A-703	CONSTRUCTED WETLANDS

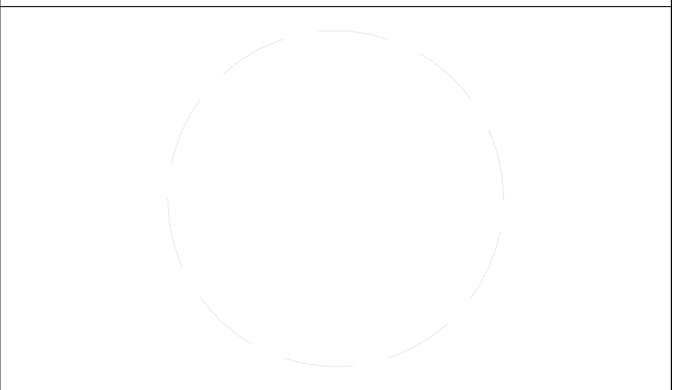
GENERAL SHEET NOTES

REFERENCE KEYNOTES

⬡ SHEET KEYNOTES



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

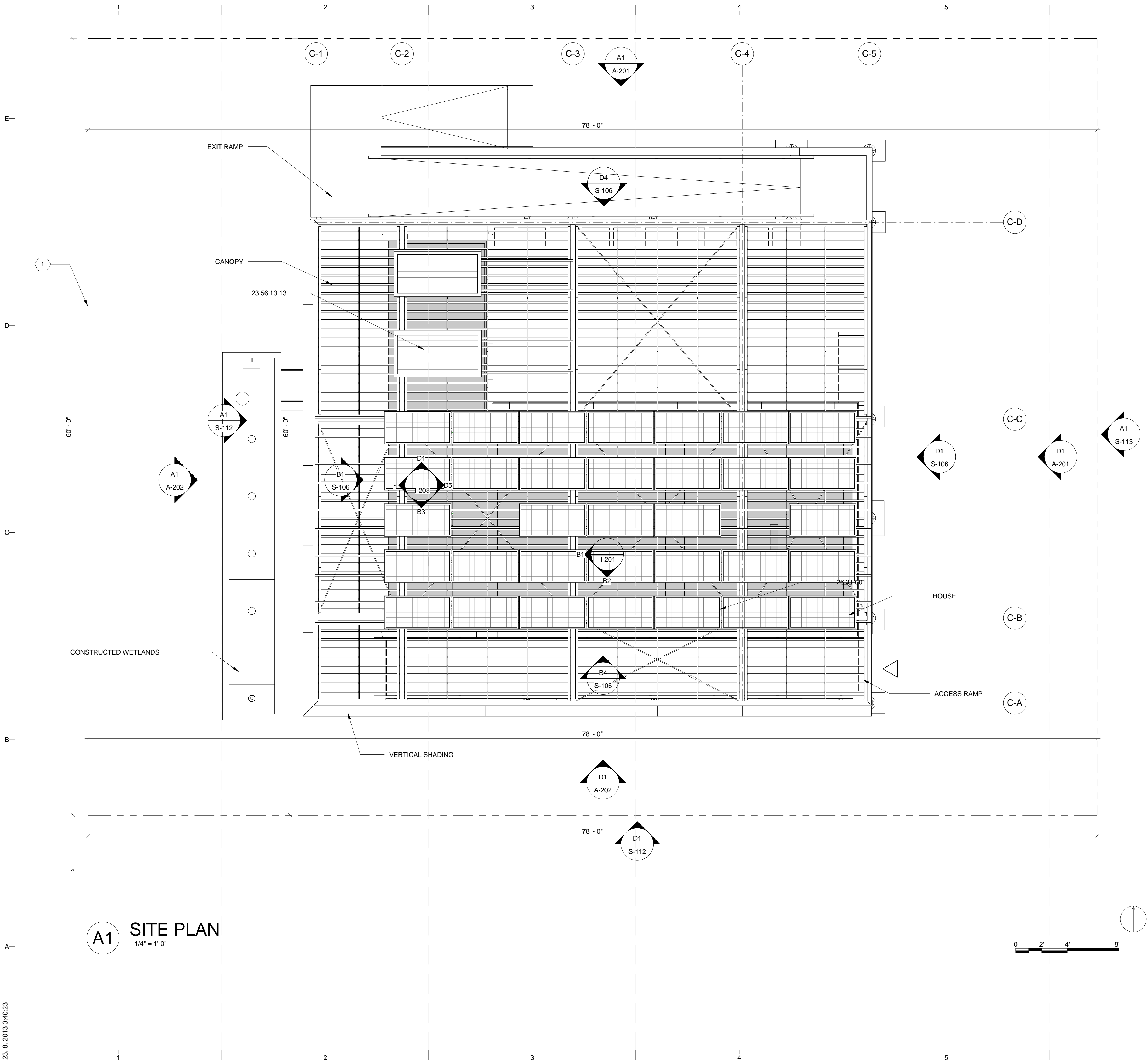
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2	02/14/2013	CD SUBMISSION

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SHEET TITLE  
 ARCHITECTURAL SYMBOLS AND NOTES

A-001





### GENERAL SHEET NOTES

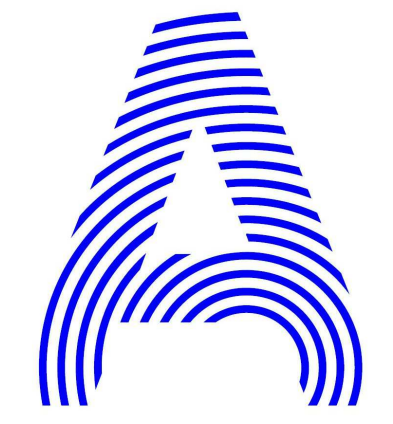
1. ARCHITECTURAL NOTES
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION.
  - B. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
  - C. ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
  - D. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND CONSTRUCTION TRADE PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
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  - C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

### REFERENCE KEYNOTES

23 56 13.13 HEATING SOLAR FLAT-PLATE COLLECTORS  
26 31 00 PHOTOVOLTAIC COLLECTORS

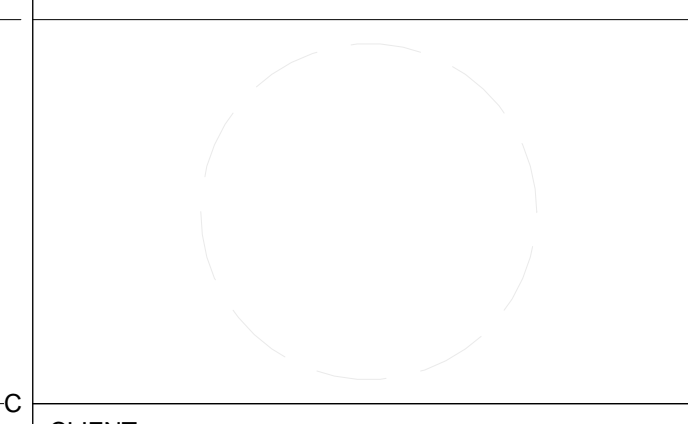
### SHEET KEYNOTES

1 SITE BOUNDARY



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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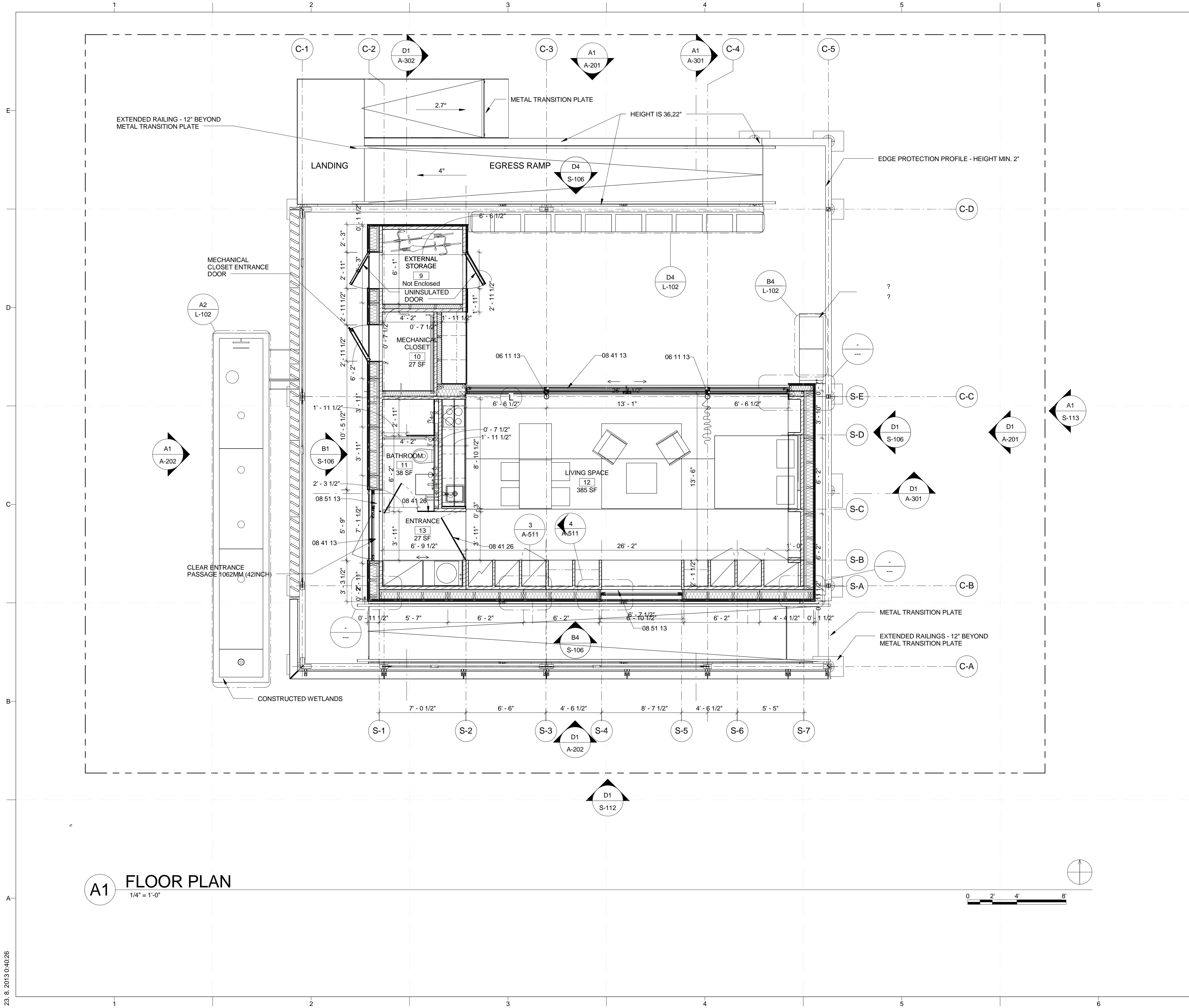

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SHEET TITLE

SITE PLAN

A-101



**A1 FLOOR PLAN**  
1/4" = 1'-0"

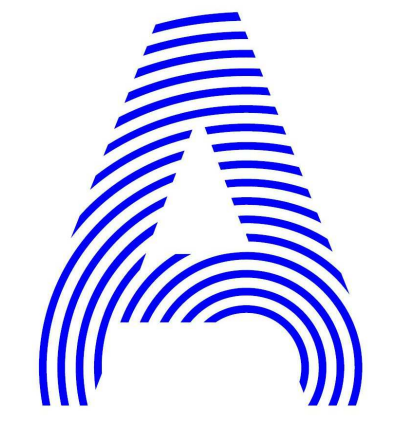
**GENERAL SHEET NOTES**

- 1. ARCHITECTURAL NOTES**
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
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**REFERENCE KEYNOTES**

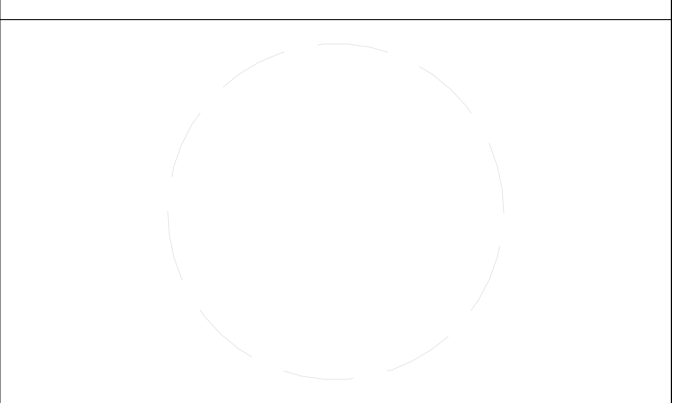
- 06 11 13 ENGINEERED WOOD PRODUCTS
- 08 41 13 ALLUMINIUM - FRAMED ENTRANCES AND STOREFRONTS
- 08 41 26 ALL-GLASS ENTRANCES
- 08 51 13 ALUMINUM WINDOWS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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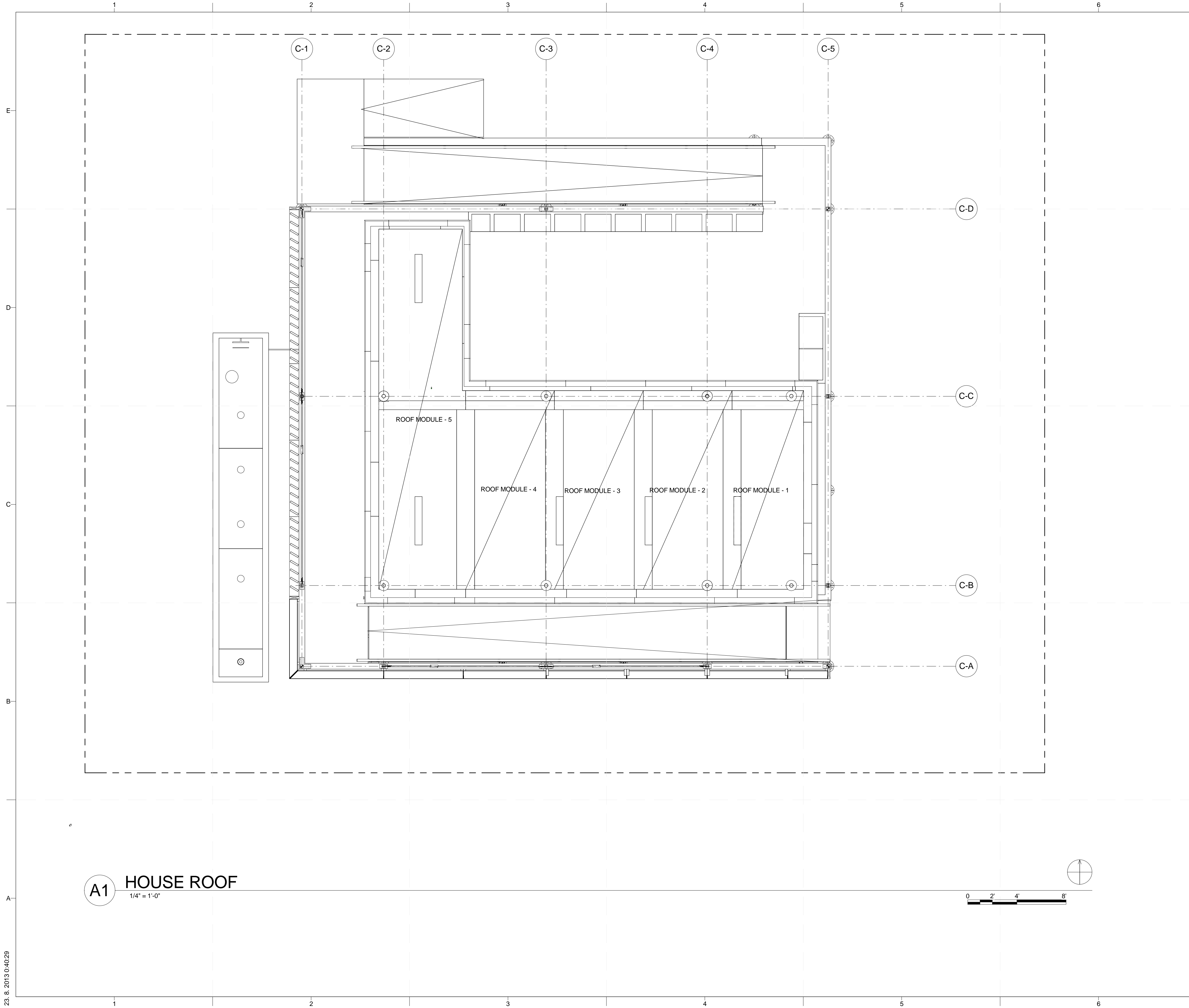
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SHEET TITLE  
**FLOOR PLAN**

**A-111**



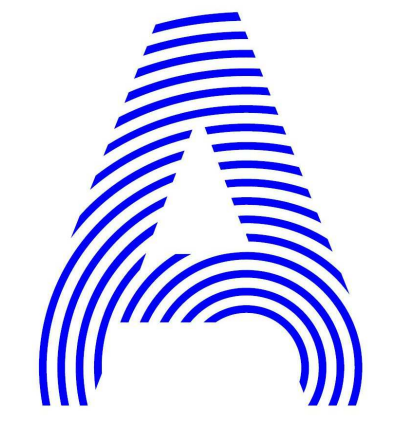
**A1 HOUSE ROOF**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

1. ARCHITECTURAL NOTES
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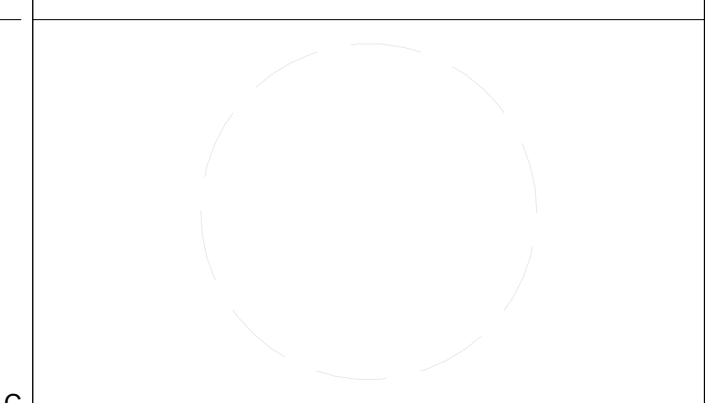
**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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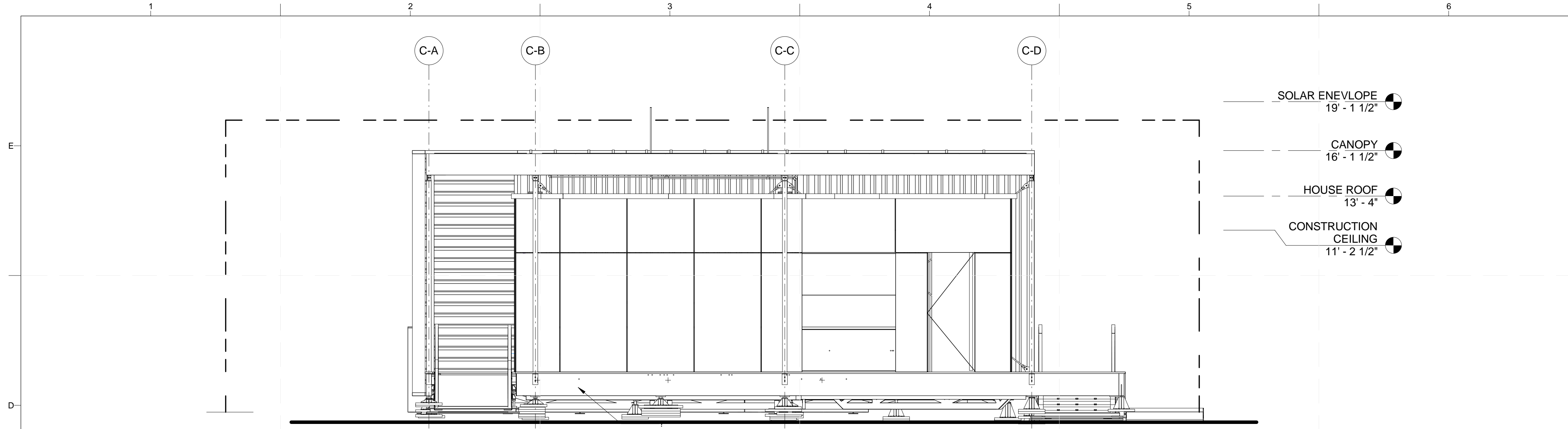


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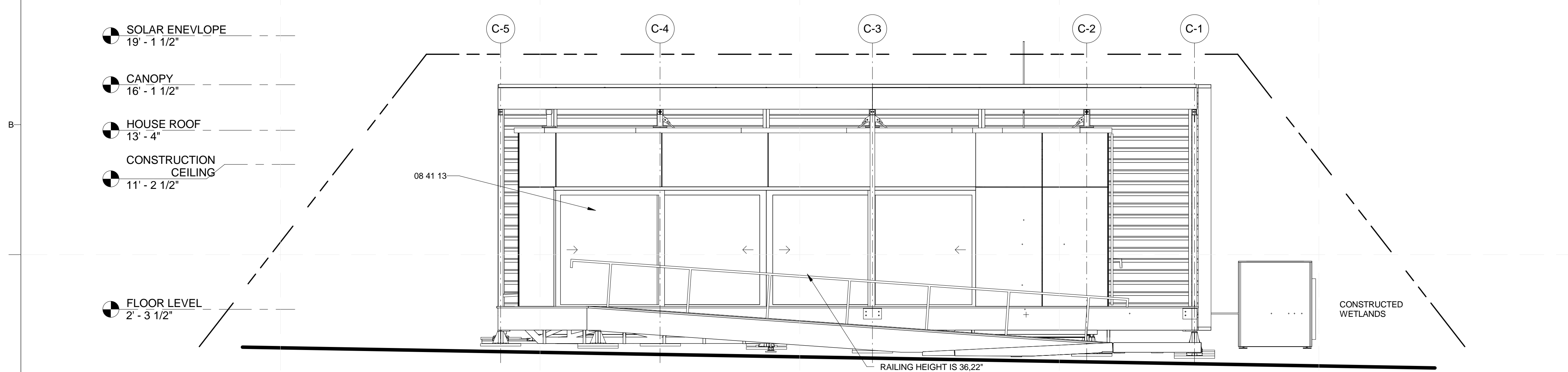
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SHEET TITLE  
**ROOF PLAN**

**A-112**



**D1 SITE ELEVATION EAST**  
1/4" = 1'-0"



**A1 SITE ELEVATION NORTH**  
1/4" = 1'-0"

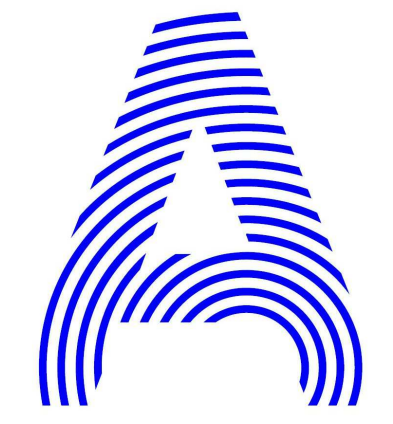
**GENERAL SHEET NOTES**

1. ARCHITECTURAL NOTES
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION.
  - B. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
  - C. ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
  - D. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND CONSTRUCTION TRADE PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
2. DIMENSIONING NOTES
- A. UNLESS NOTED OTHERWISE, PARTITIONS ARE DIMENSIONED TO THE FACE OF THE STRUCTURE.
  - B. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK. THE ARCHITECT WILL BE NOTIFIED OF ANY DISCREPANCIES.
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**REFERENCE KEYNOTES**

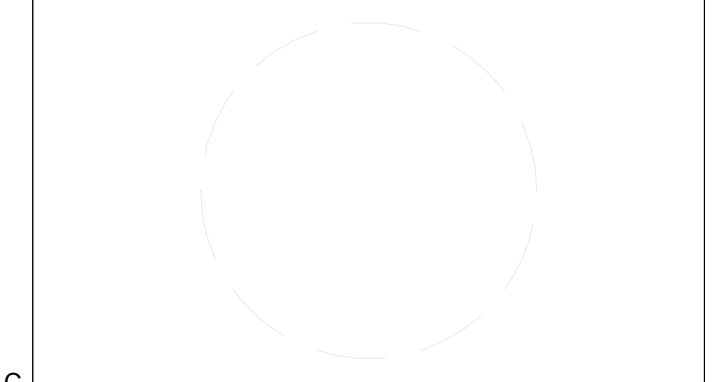
08 41 13 ALLUMINIUM - FRAMED ENTRANCES AND STOREFRONTS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
 WWW.AIRHOUSE.CZ

CONSULTANTS



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 SOLAR DECATHLON 2013  
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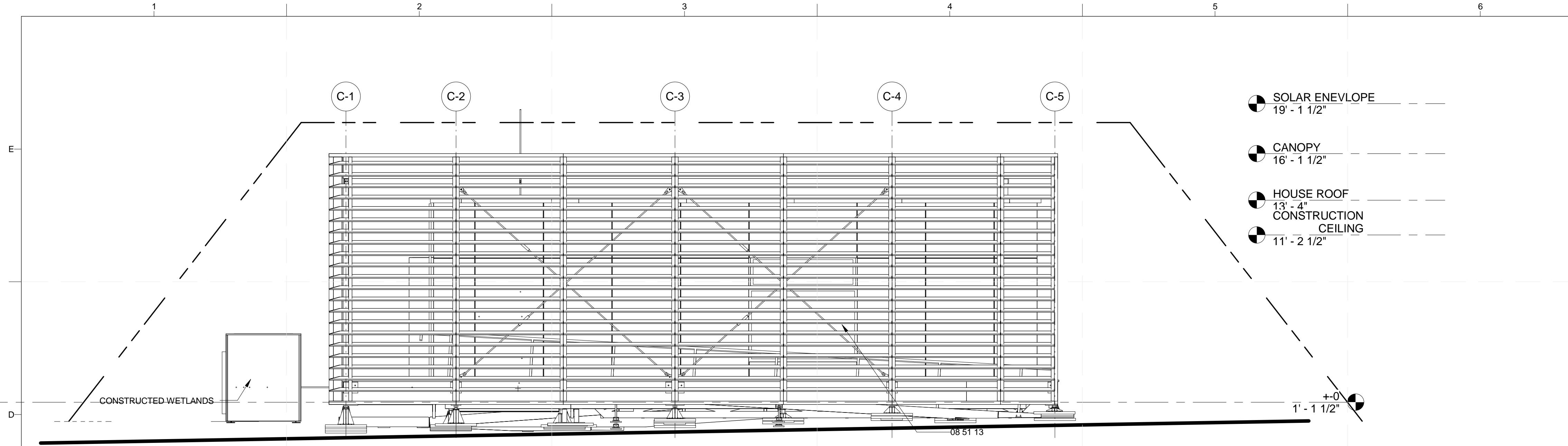


MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**SITE ELEVATIONS**

**A-201**



**D1 SITE ELEVATION SOUTH**  
1/4" = 1'-0"

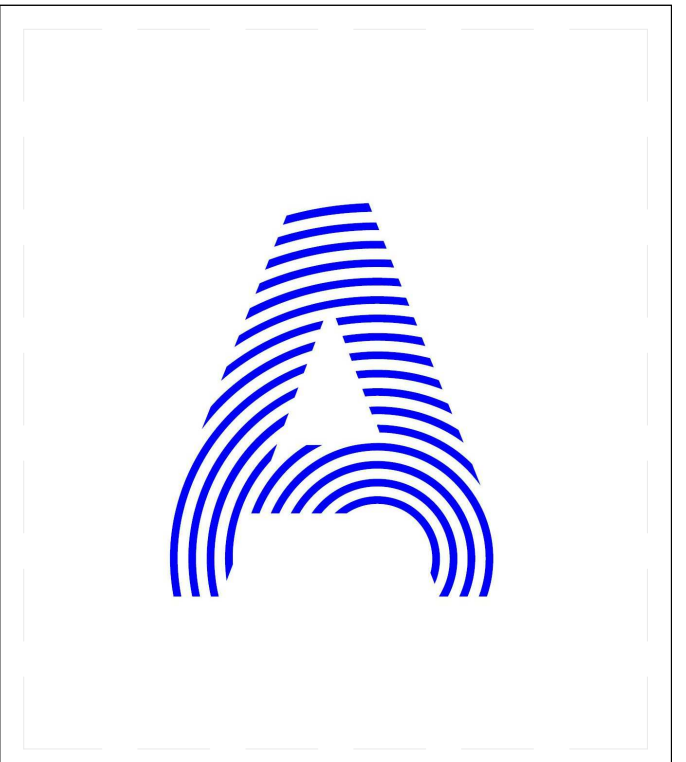
**GENERAL SHEET NOTES**

1. ARCHITECTURAL NOTES
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION.
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  - C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

**REFERENCE KEYNOTES**

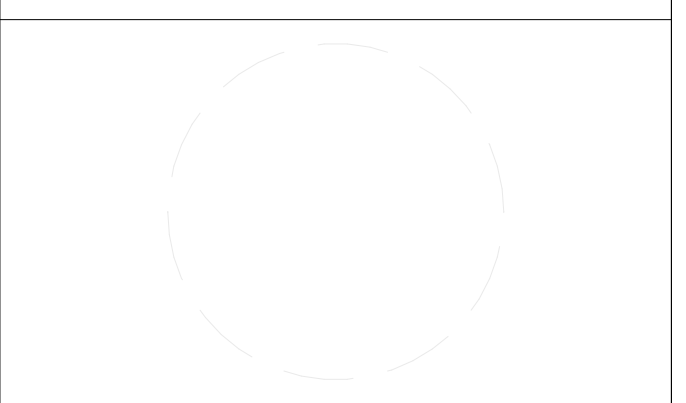
08 51 13 ALUMINUM WINDOWS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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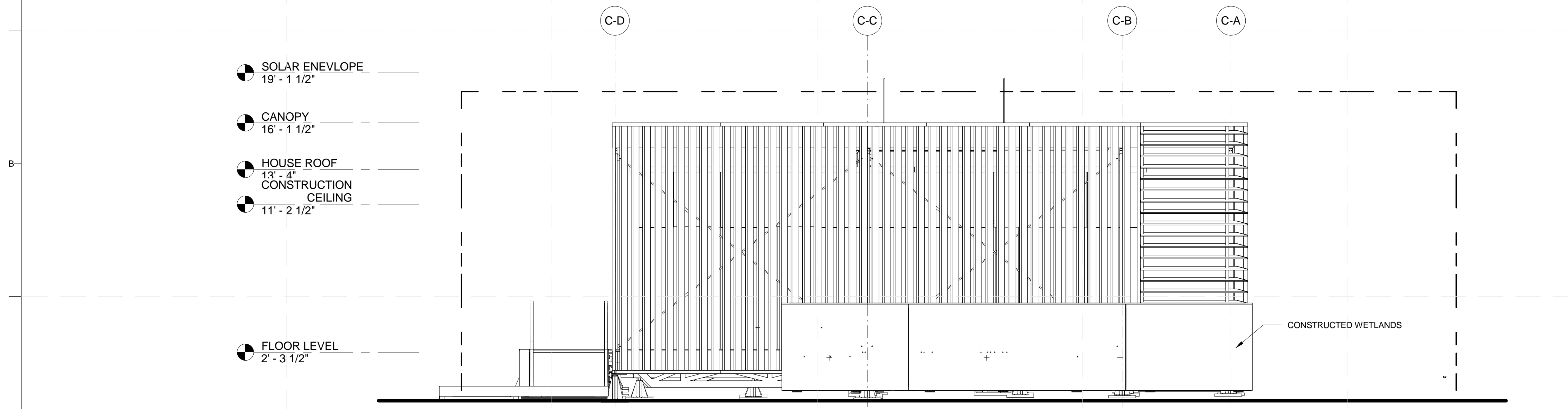


MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

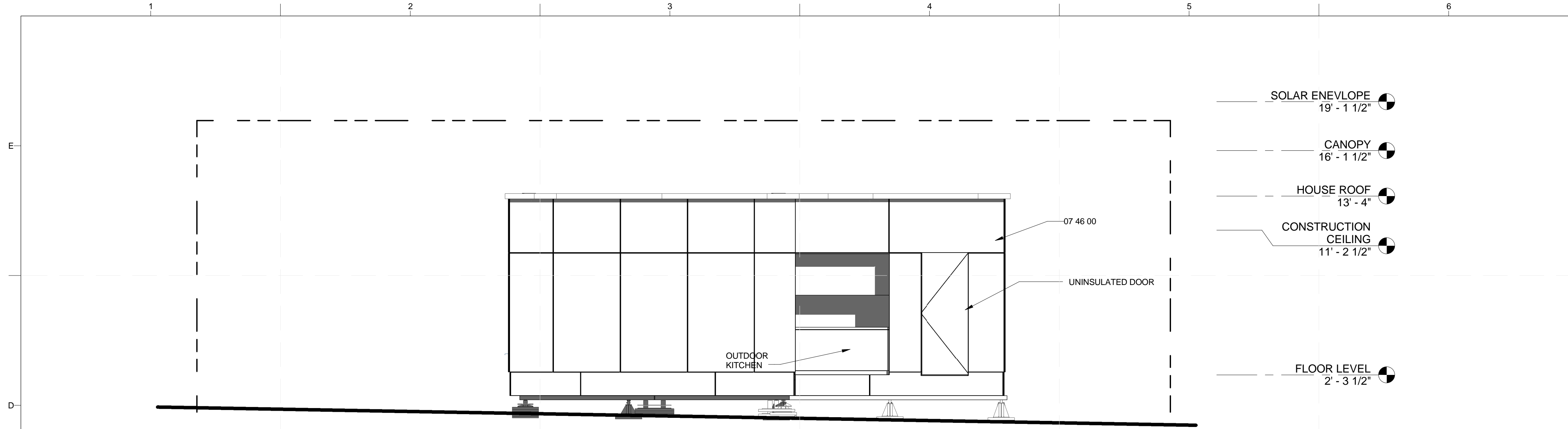
LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**SITE ELEVATIONS**

**A-202**

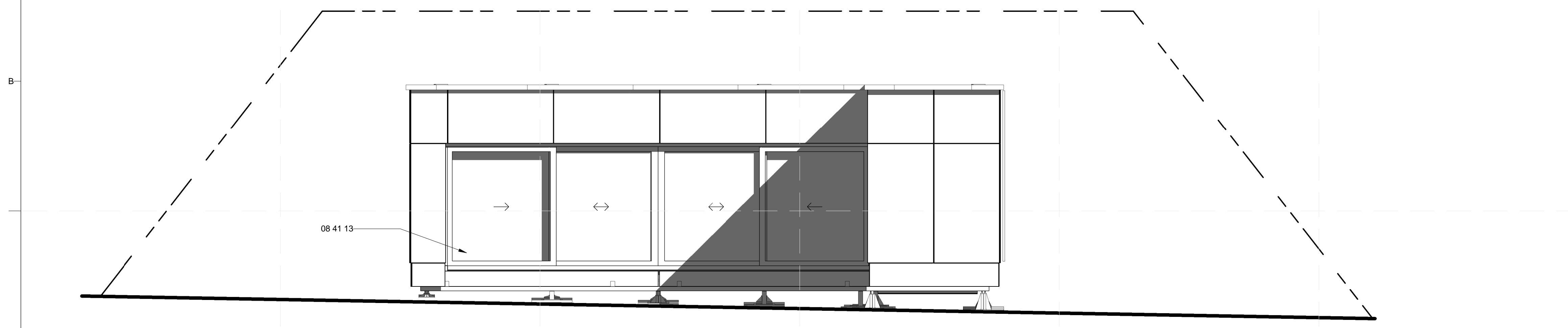
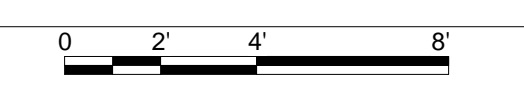


**A1 SITE ELEVATION WEST**  
1/4" = 1'-0"

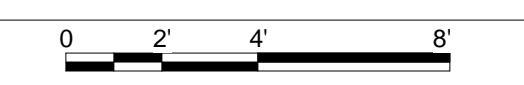


- SOLAR ENVELOPE  
19' - 1 1/2"
- CANOPY  
16' - 1 1/2"
- HOUSE ROOF  
13' - 4"
- CONSTRUCTION CEILING  
11' - 2 1/2"
- FLOOR LEVEL  
2' - 3 1/2"

**D1 HOUSE ELEVATION EAST**  
1/4" = 1'-0"



**A1 HOUSE ELEVATION NORTH**  
1/4" = 1'-0"



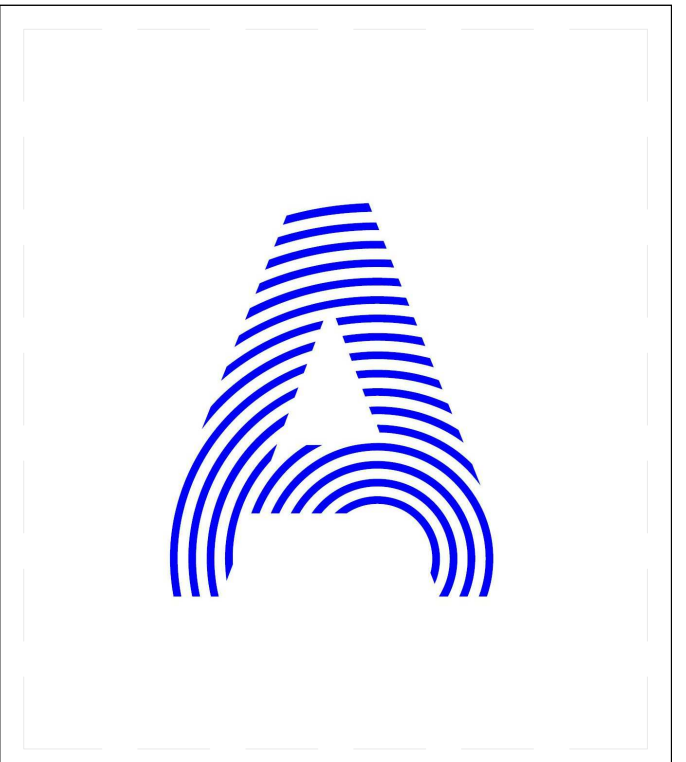
**GENERAL SHEET NOTES**

1. ARCHITECTURAL NOTES
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION.
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**REFERENCE KEYNOTES**

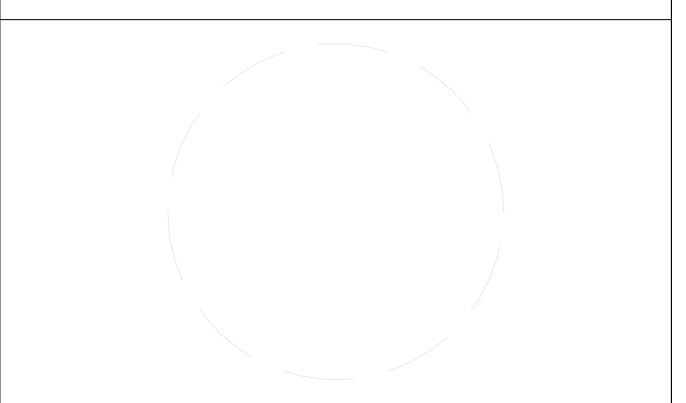
07 46 00 SIDING  
08 41 13 ALLUMINIUM - FRAMED ENTRANCES AND STOREFRONTS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC  
CONTACT: DHLAVACEK@FA.CVUT.CZ  
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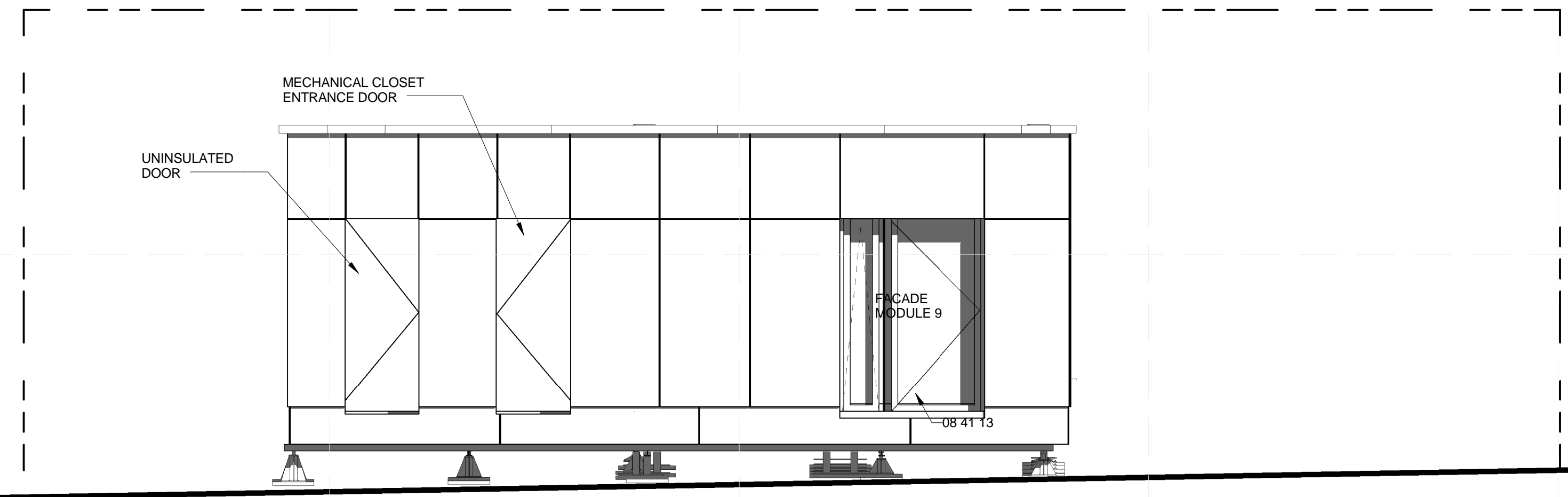
MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
DRAWN BY: MATÚŠ FICKO  
CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE: GRADE LEVEL  
**HOUSE ELEVATIONS**

**A-211**

- SOLAR ENEVELOPE  
19' - 1 1/2"
- CANOPY  
16' - 1 1/2"
- HOUSE ROOF  
13' - 4"  
CONSTRUCTION  
CEILING
- 11' - 2 1/2"
- FLOOR LEVEL  
2' - 3 1/2"



**D1 HOUSE ELEVATION WEST**  
1/4" = 1'-0"

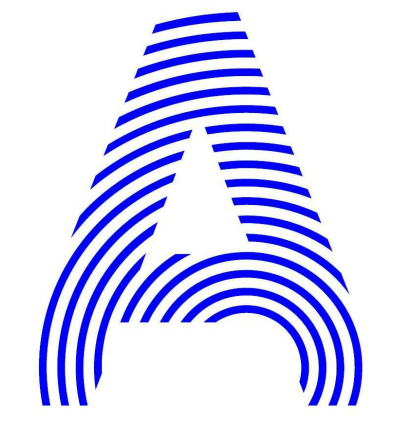
**GENERAL SHEET NOTES**

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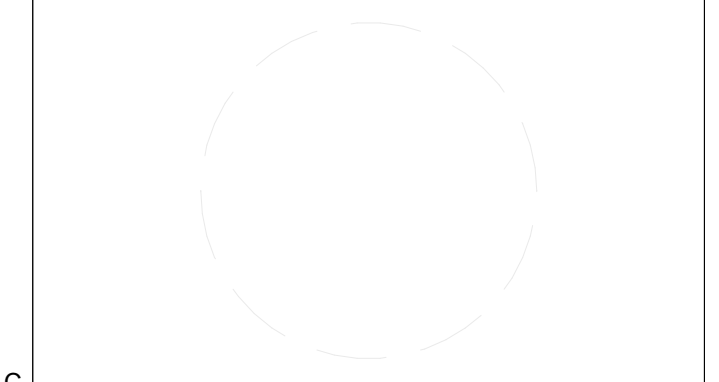
- 08 41 13 ALUMINIUM - FRAMED ENTRANCES AND STOREFRONTS
- 08 51 13 ALUMINUM WINDOWS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
 WWW.AIRHOUSE.CZ

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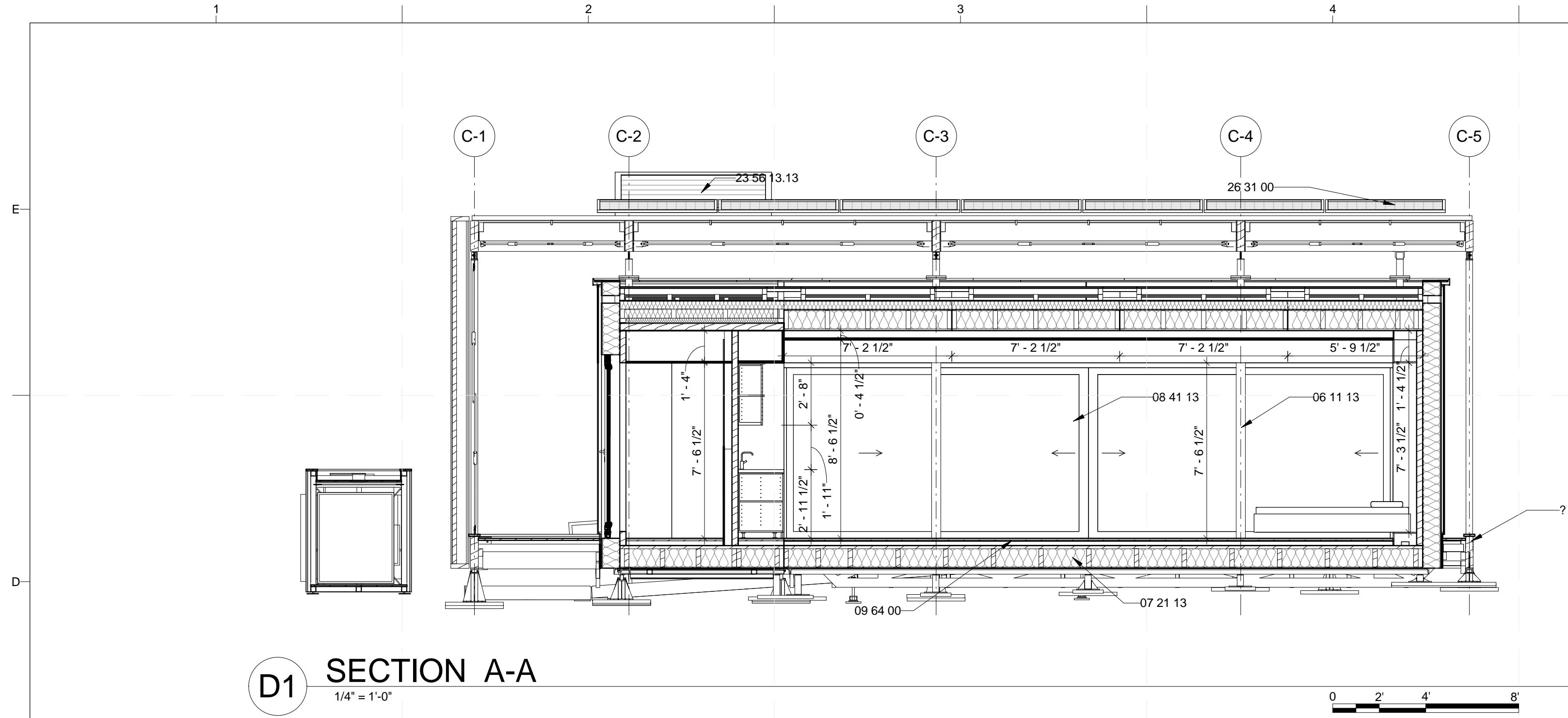


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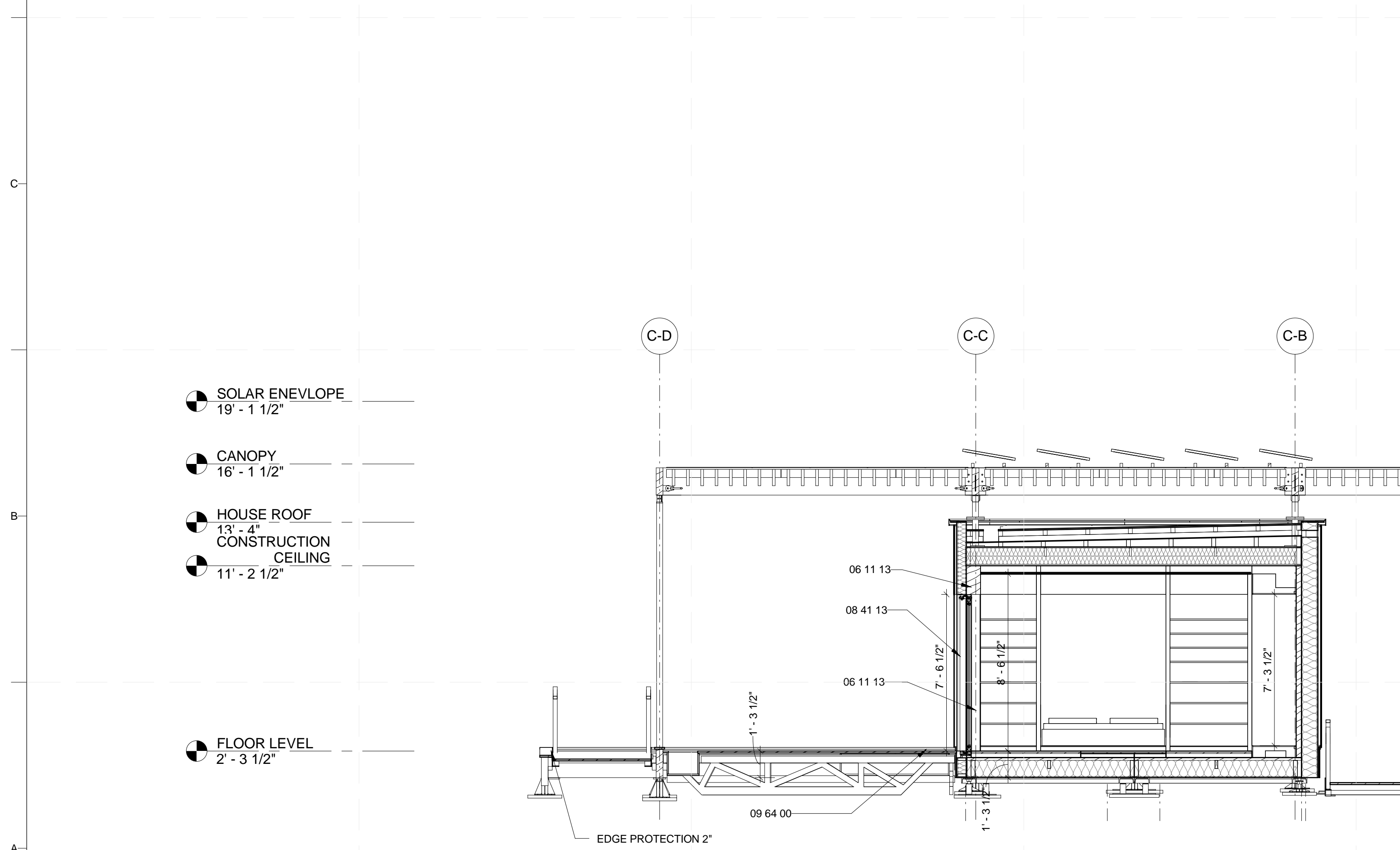
LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**HOUSE ELEVATIONS**

**A-212**



**D1 SECTION A-A**  
1/4" = 1'-0"



**A1 SECTION B-B**  
1/4" = 1'-0"

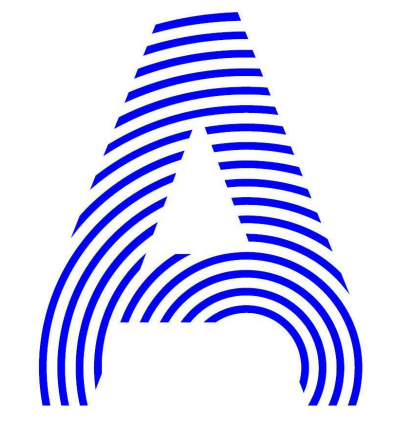
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**REFERENCE KEYNOTES**

06 11 13	ENGINEERED WOOD PRODUCTS
07 21 13	BOARD INSULATION
08 41 13	ALUMINIUM - FRAMED ENTRANCES AND STOREFRONTS
09 64 00	WOOD FLOORING
23 56 13.13	HEATING SOLAR FLAT-PLATE COLLECTORS
26 31 00	PHOTOVOLTAIC COLLECTORS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ

CONSULTANTS

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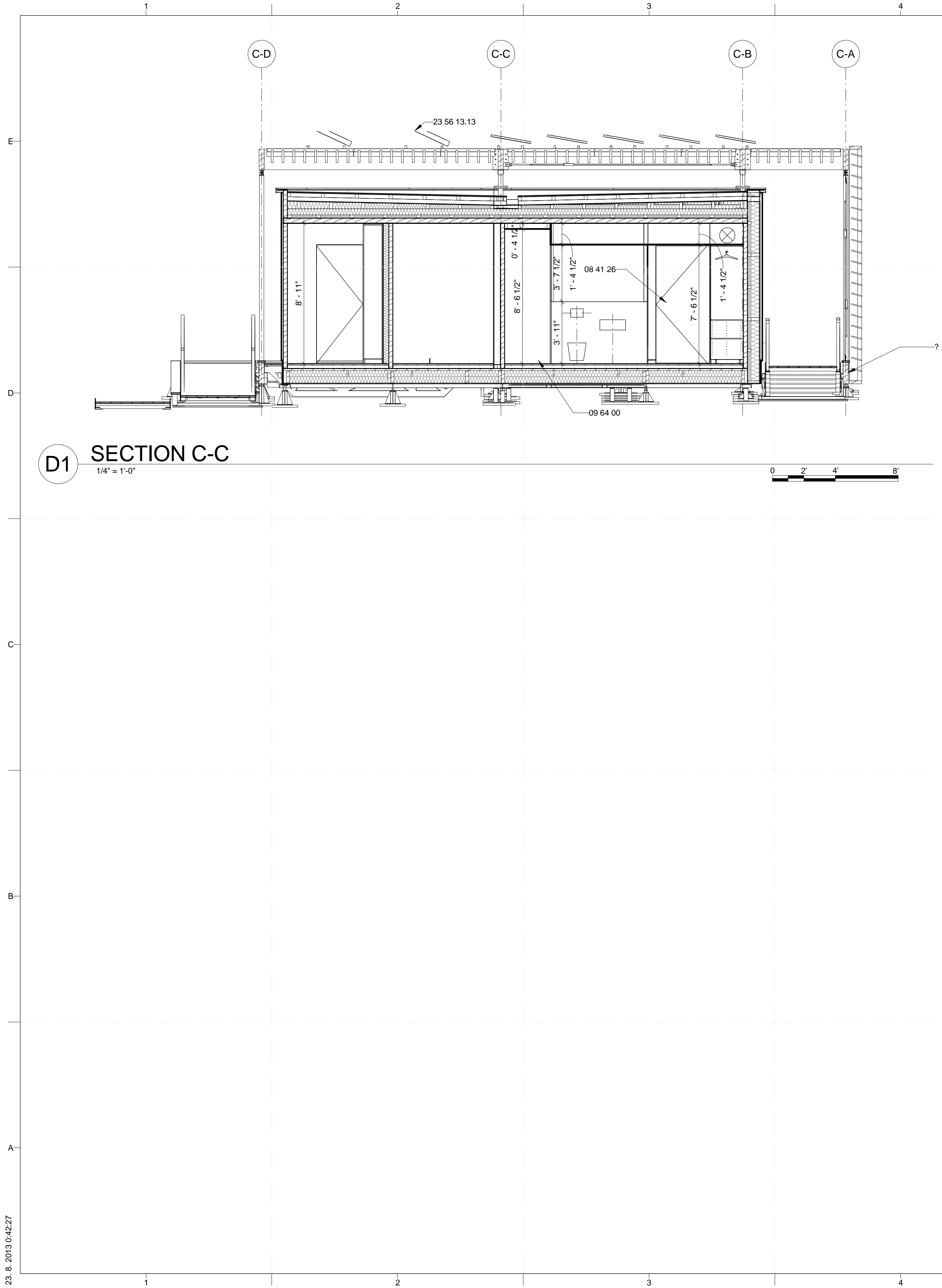
MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**BUILDING SECTIONS**

**A-301**





**D1 SECTION C-C**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

- 1. ARCHITECTURAL NOTES**
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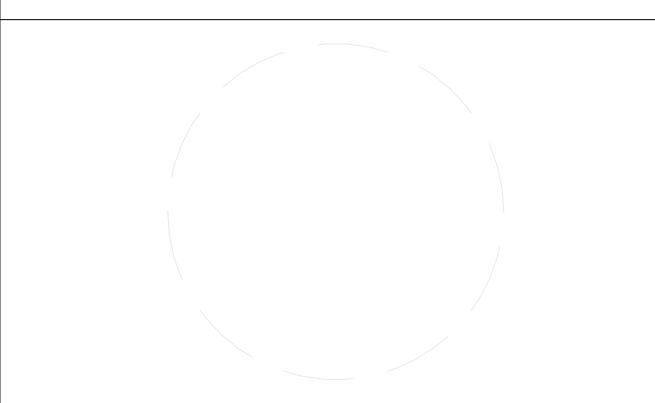
- 08 41 26 ALL-GLASS ENTRANCES
- 09 64 00 WOOD FLOORING
- 23 56 13.13 HEATING SOLAR FLAT-PLATE COLLECTORS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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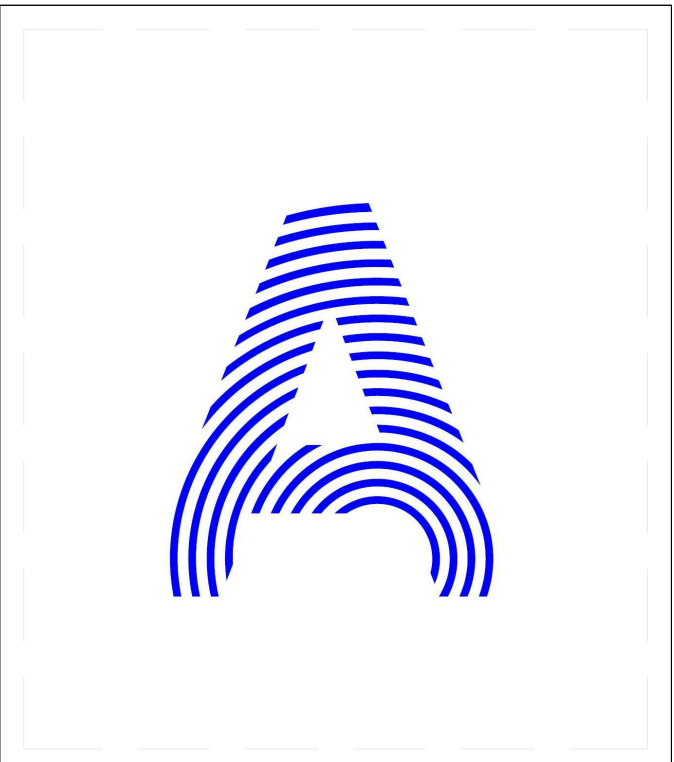
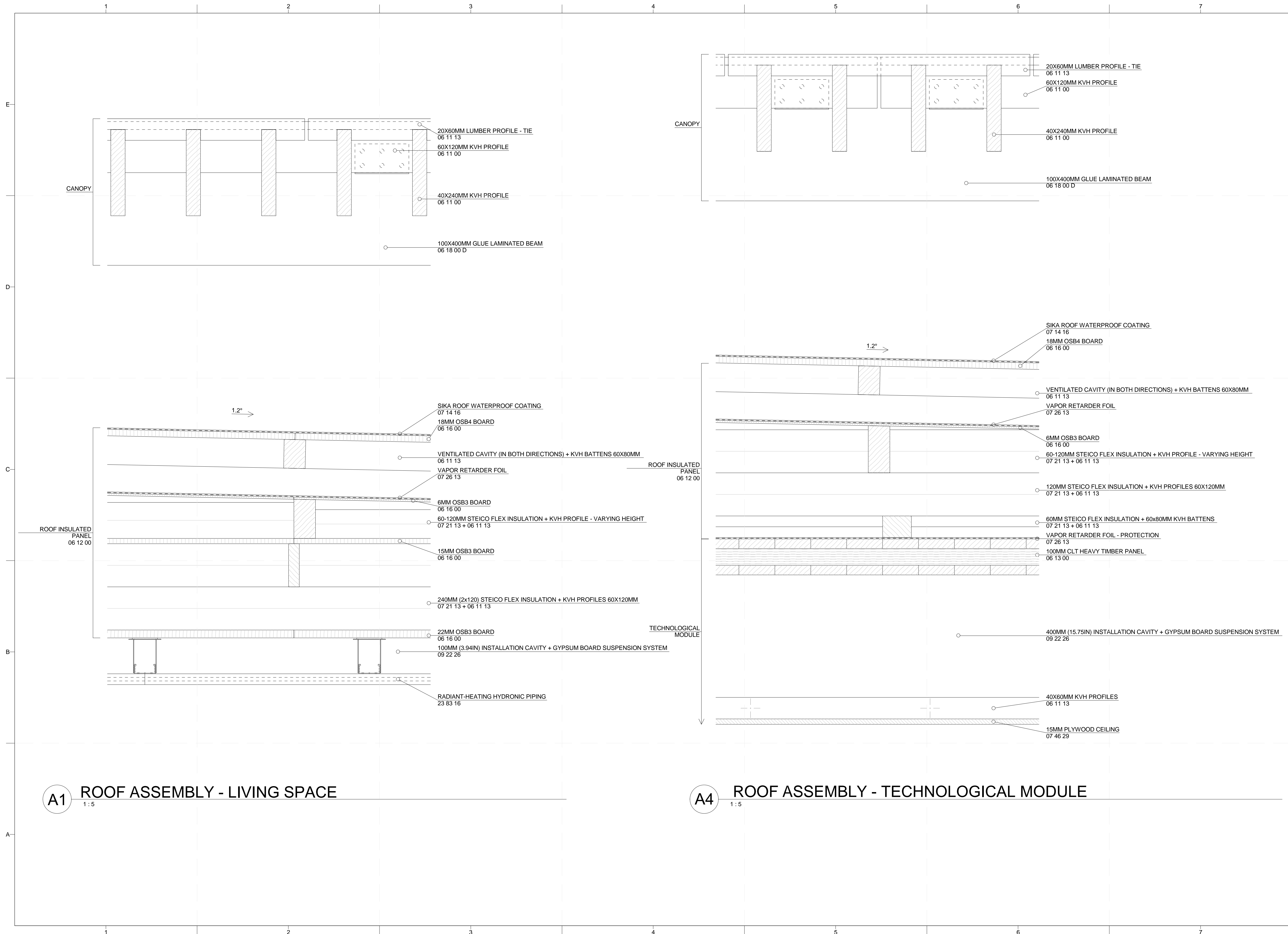
MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
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2	02/14/2013	CD SUBMISSION

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2	02/14/2013	CD SUBMISSION

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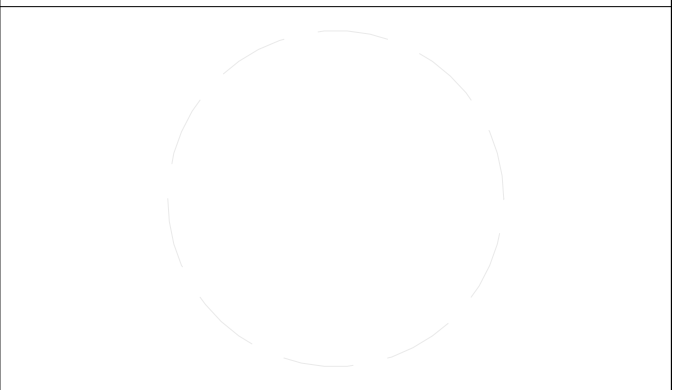
SHEET TITLE  
**BUILDING SECTIONS**

**A-302**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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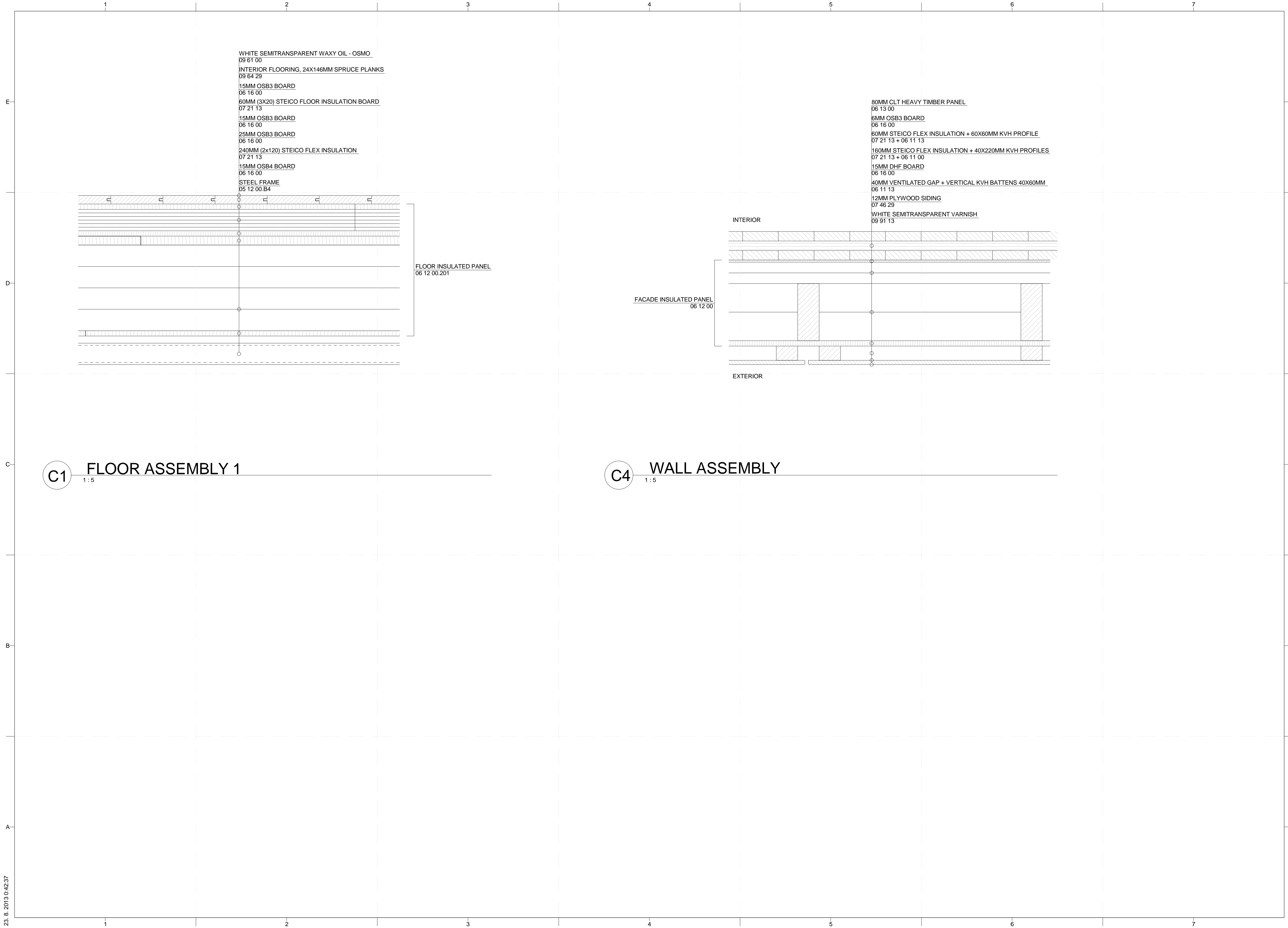


MARK	DATE	DESCRIPTION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**ASSEMBLY DETAILS**

**A-501**



WHITE SEMITRANSSPARENT WAXY OIL - OSMO  
09 81 00  
INTERIOR FLOORING, 24X146MM SPRUCE PLANKS  
09 64 29  
15MM OSB3 BOARD  
06 16 00  
60MM (3X20) STEICO FLOOR INSULATION BOARD  
07 21 13  
15MM OSB3 BOARD  
06 16 00  
25MM OSB3 BOARD  
06 16 00  
240MM (2x120) STEICO FLEX INSULATION  
07 21 13  
15MM OSB4 BOARD  
06 16 00  
STEEL FRAME  
05 12 00.B4

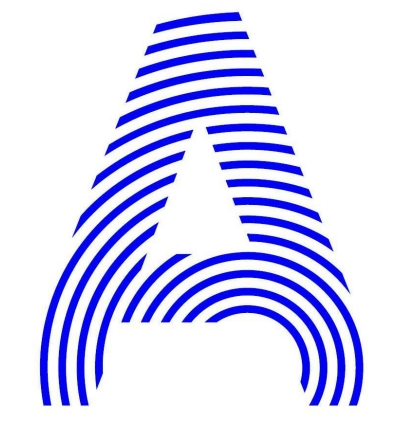
FLOOR INSULATED PANEL  
06 12 00.201

80MM CLT HEAVY TIMBER PANEL  
06 13 00  
6MM OSB3 BOARD  
06 16 00  
60MM STEICO FLEX INSULATION + 60X60MM KVH PROFILE  
07 21 13 + 06 11 13  
160MM STEICO FLEX INSULATION + 40X220MM KVH PROFILES  
07 21 13 + 06 11 00  
15MM DHF BOARD  
06 16 00  
40MM VENTILATED GAP + VERTICAL KVH BATTENS 40X60MM  
06 11 13  
12MM PLYWOOD SIDING  
07 46 29  
WHITE SEMITRANSSPARENT VARNISH  
09 91 13

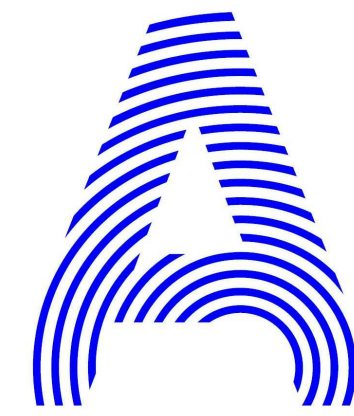
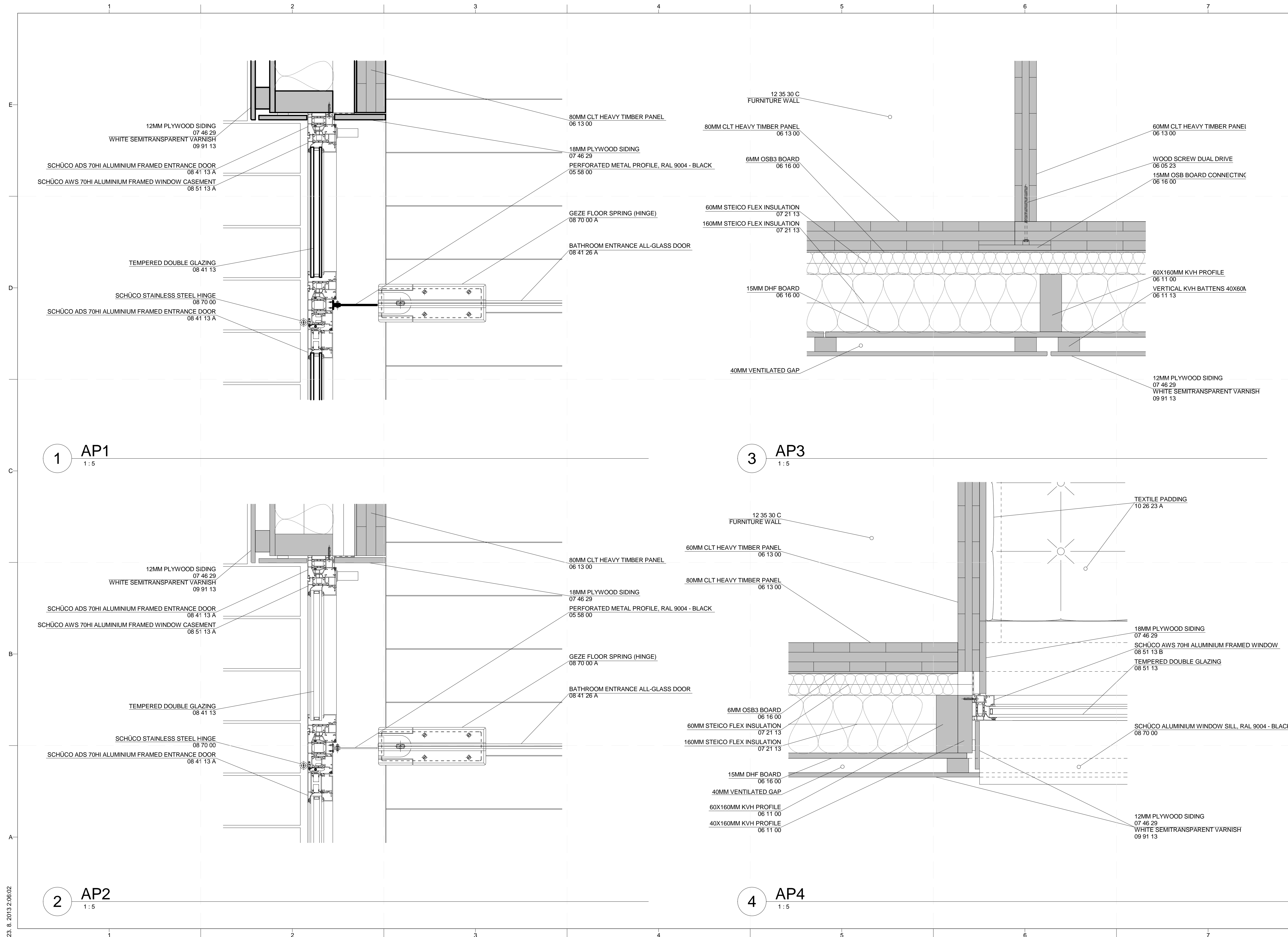
FACADE INSULATED PANEL  
06 12 00

**C1** FLOOR ASSEMBLY 1  
1:5

**C4** WALL ASSEMBLY  
1:5



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
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CONTACT: DHLAVACEK@FA.CVUT.CZ  
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U.S. DEPARTMENT OF ENERGY  
SOLAR DECATHLON  
MARK DATE DESCRIPTION  
LOT NUMBER: 103  
DRAWN BY: MATÚŠ FICKO  
CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE  
ASSEMBLY DETAILS  
A-502



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
WWW.AIRHOUSE.CZ

CONSULTANTS

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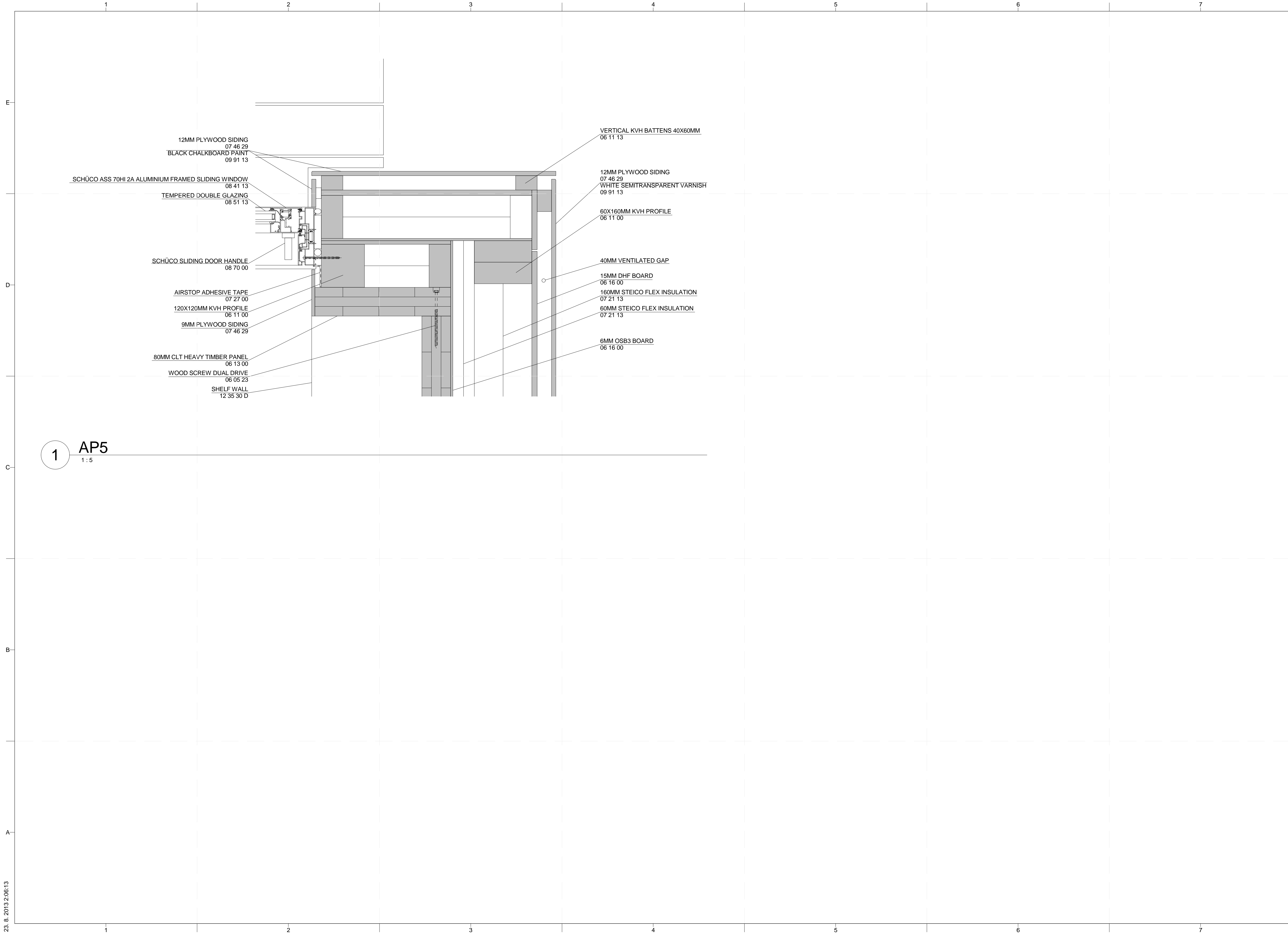
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4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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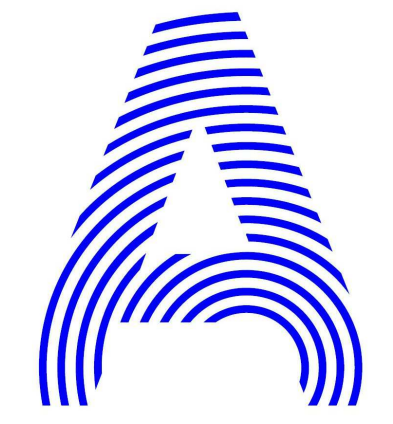
SHEET TITLE

PLAN DETAILS

A-511

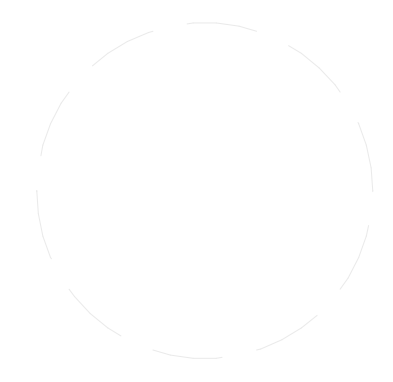


1 AP5  
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PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC  
CONTACT: DHLAVACEK@FA.CVUT.CZ  
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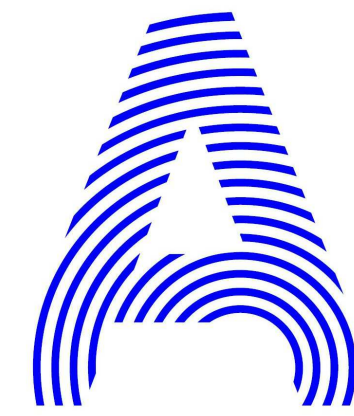


MARK	DATE	CD RE-SUBMISSION DESCRIPTION
1	04/01/2013	CD RE-SUBMISSION

LOT NUMBER: 103  
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SHEET TITLE  
PLAN DETAILS

A-512



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
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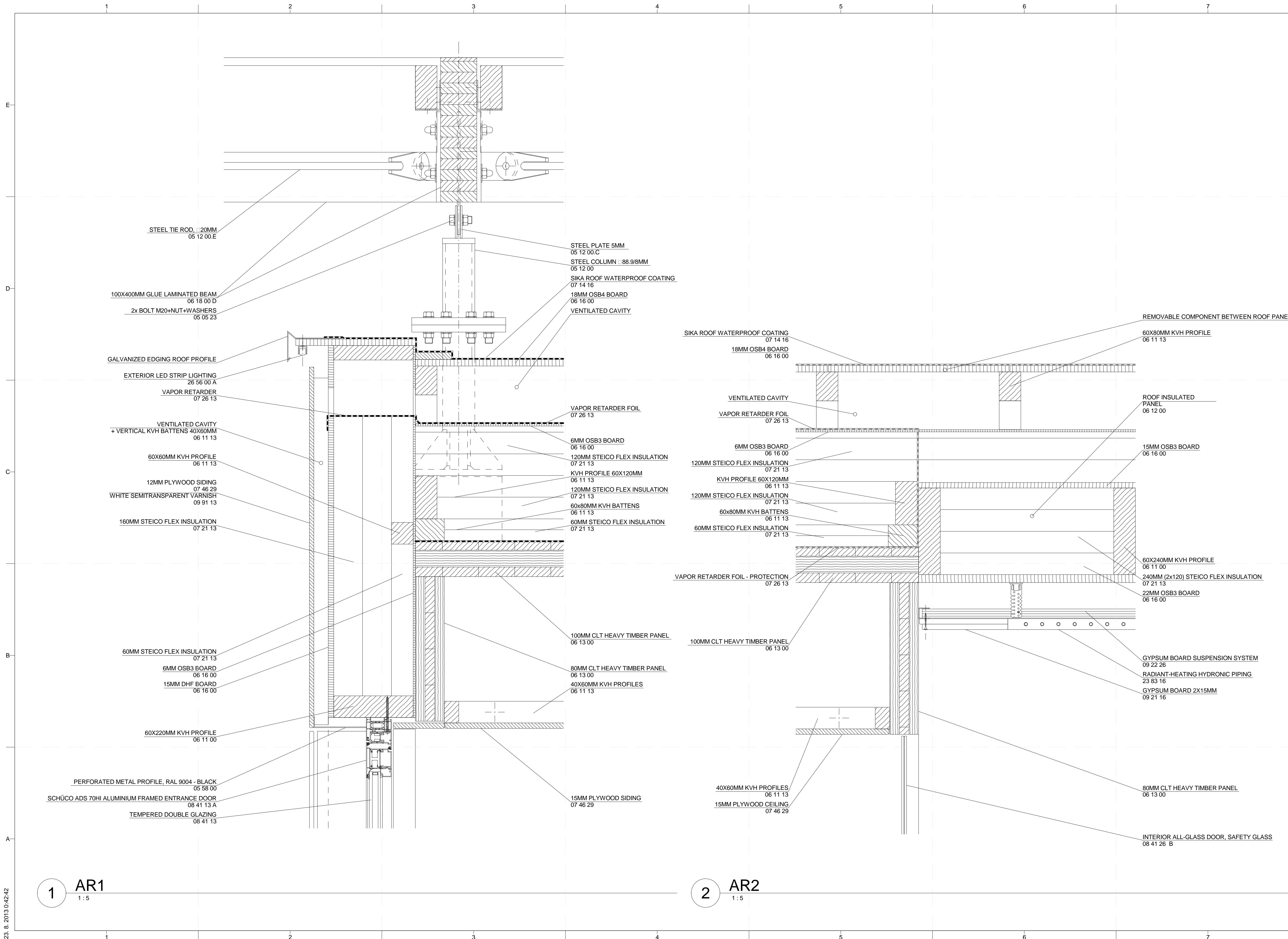


MARK	DATE	DESCRIPTION
3	11/20/2012	DD RE-SUBMISSION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

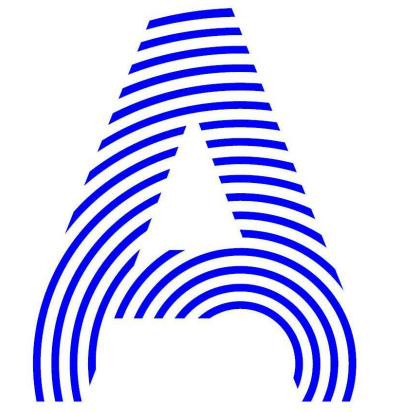
LOT NUMBER: 103  
DRAWN BY: MATUŠ FICKO  
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SHEET TITLE  
**SECTION DETAILS**

**A-521**







PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
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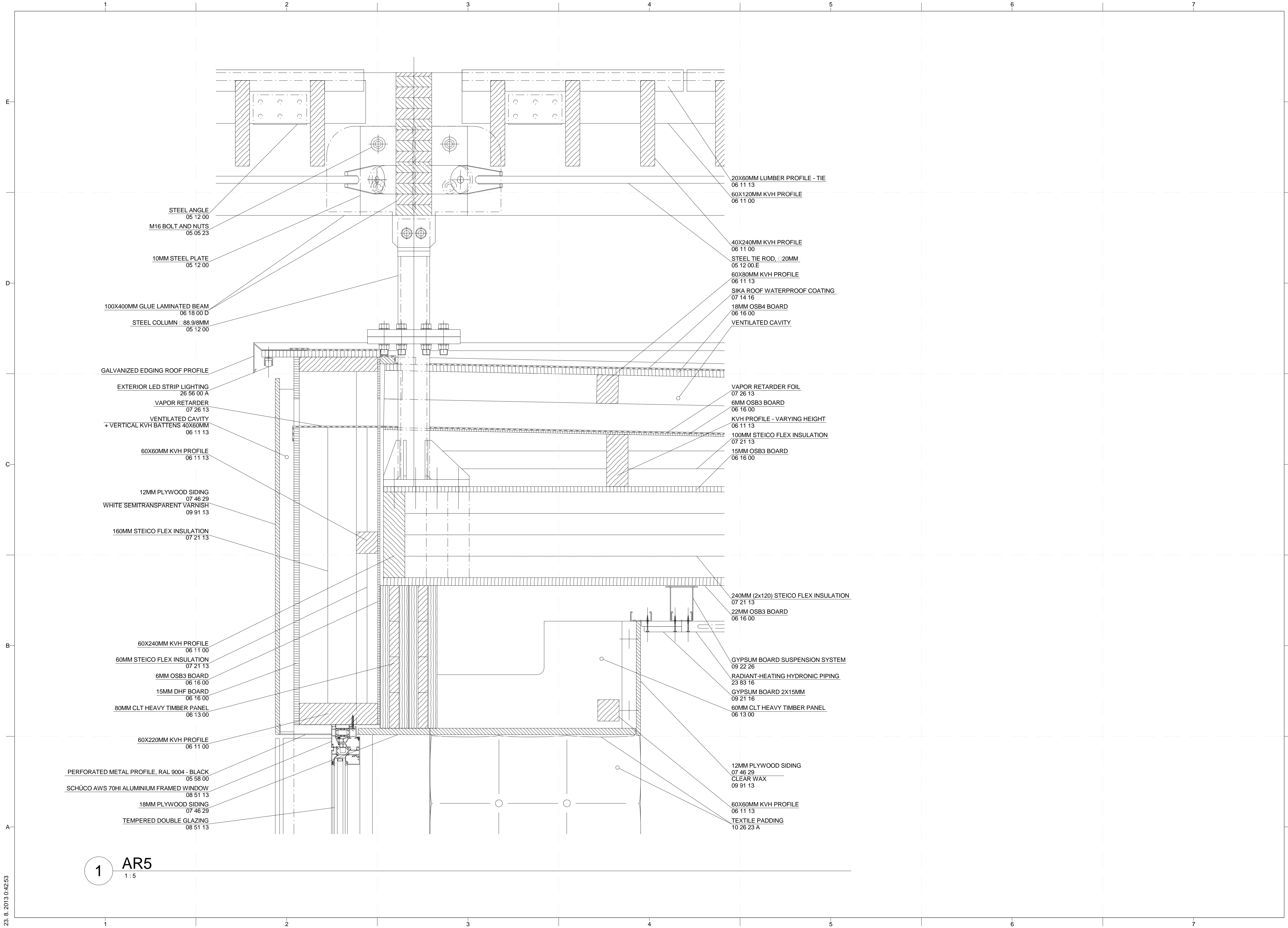
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LOT NUMBER:	103
DRAWN BY:	MATÚŠ FICKO
CHECKED BY:	MARTIN ČENĚK
COPYRIGHT:	NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE

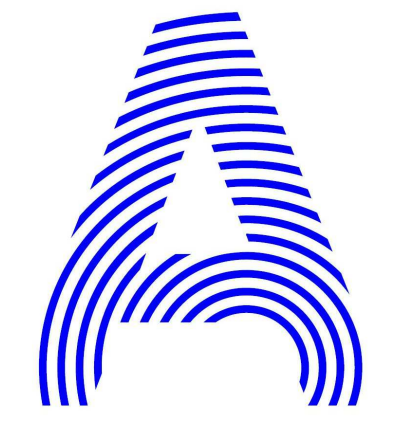
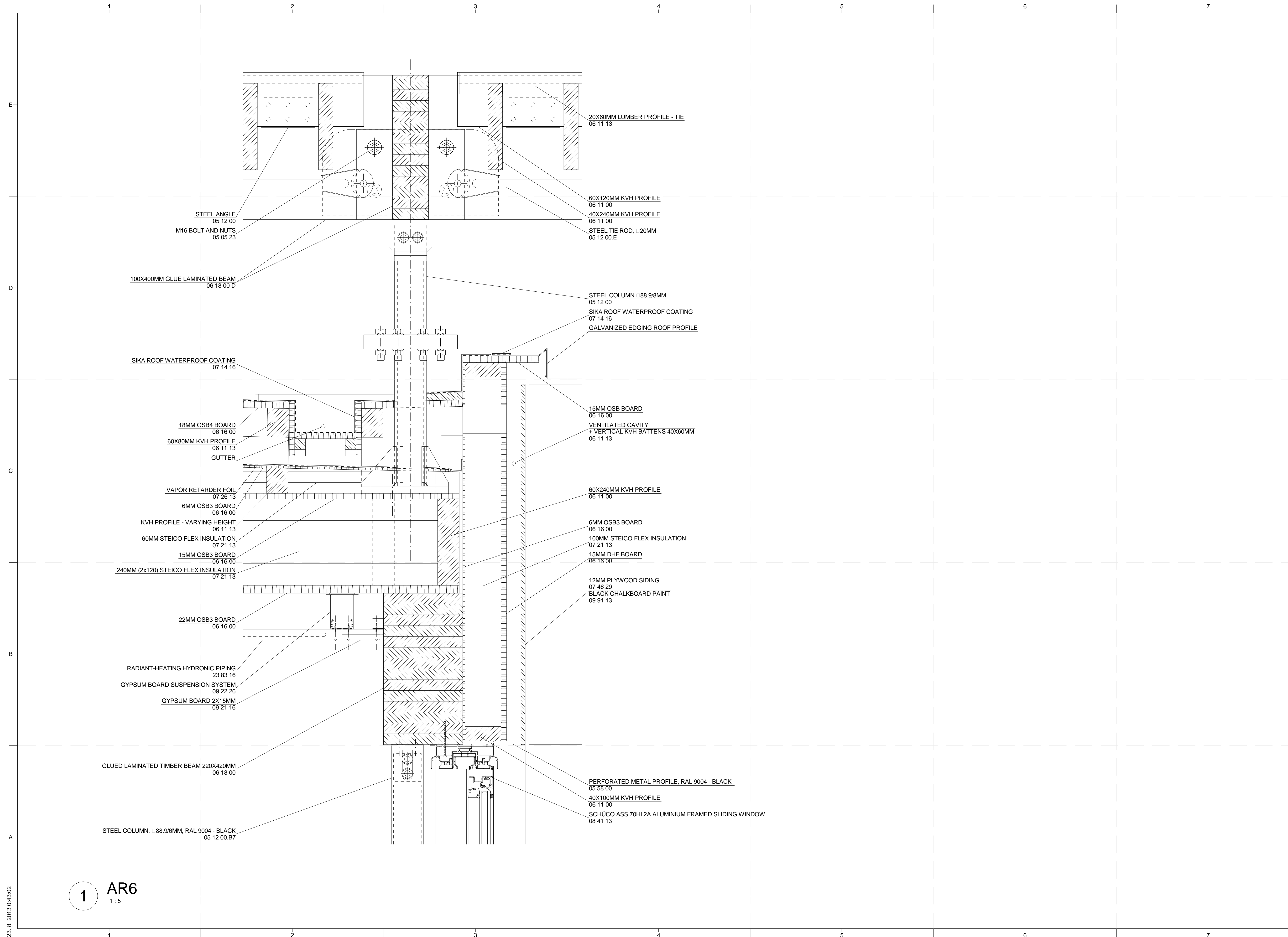
SECTION DETAILS

A-523



1 AR5  
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PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
 WWW.AIRHOUSE.CZ  
 CONSULTANTS

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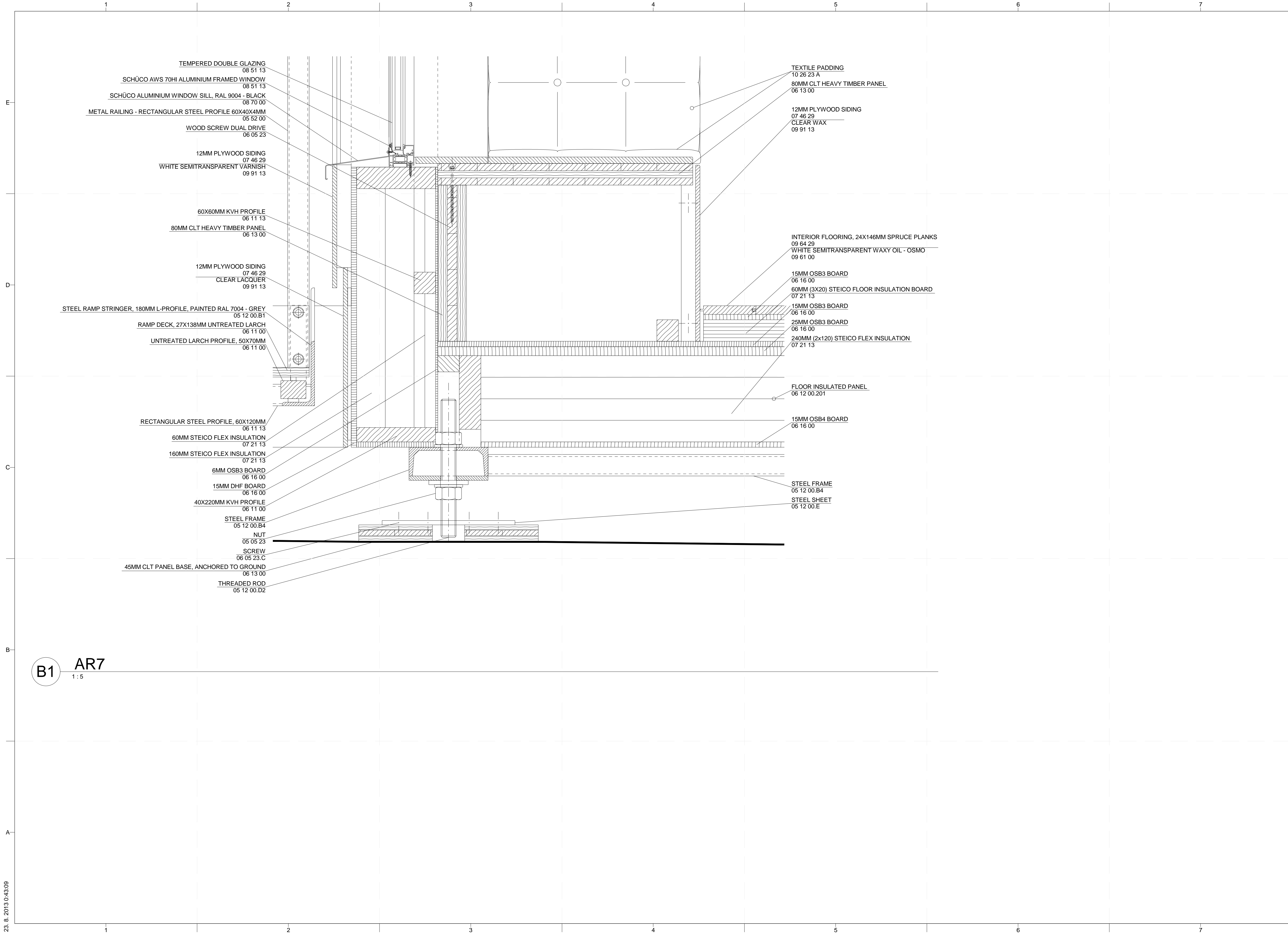
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SHEET TITLE

SECTION DETAILS

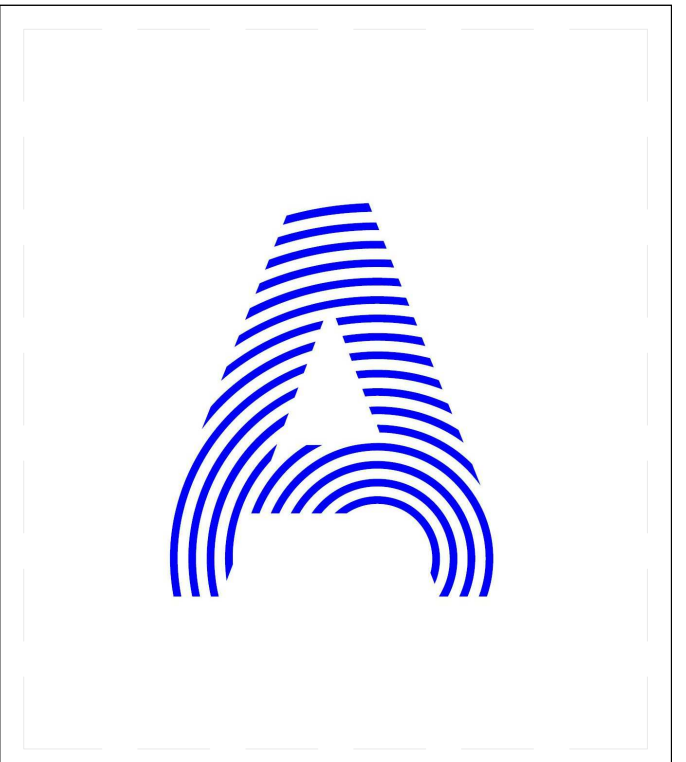
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1 AR6  
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**B1** AR7  
1:5

23. 8. 2013 0:43:09



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC  
CONTACT: DHLAVACEK@FA.CVUT.CZ  
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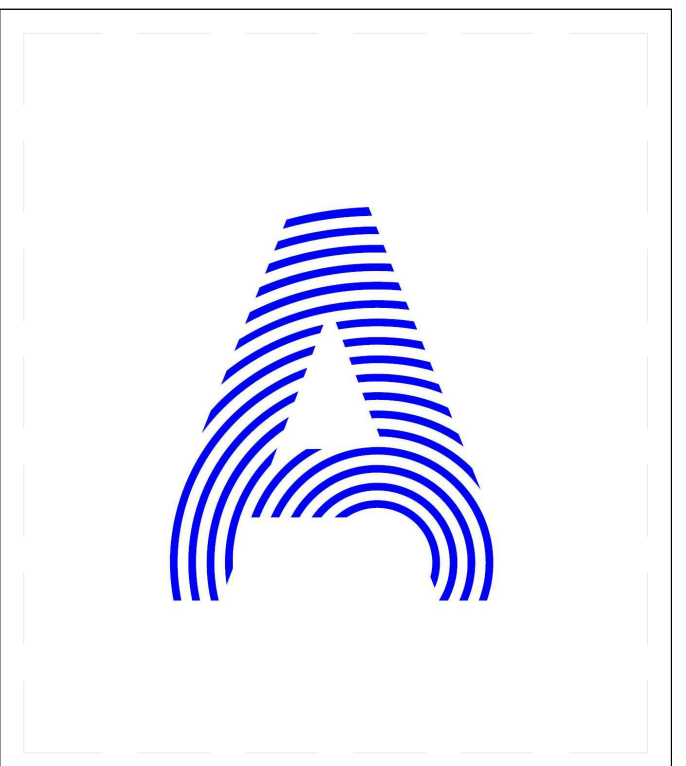
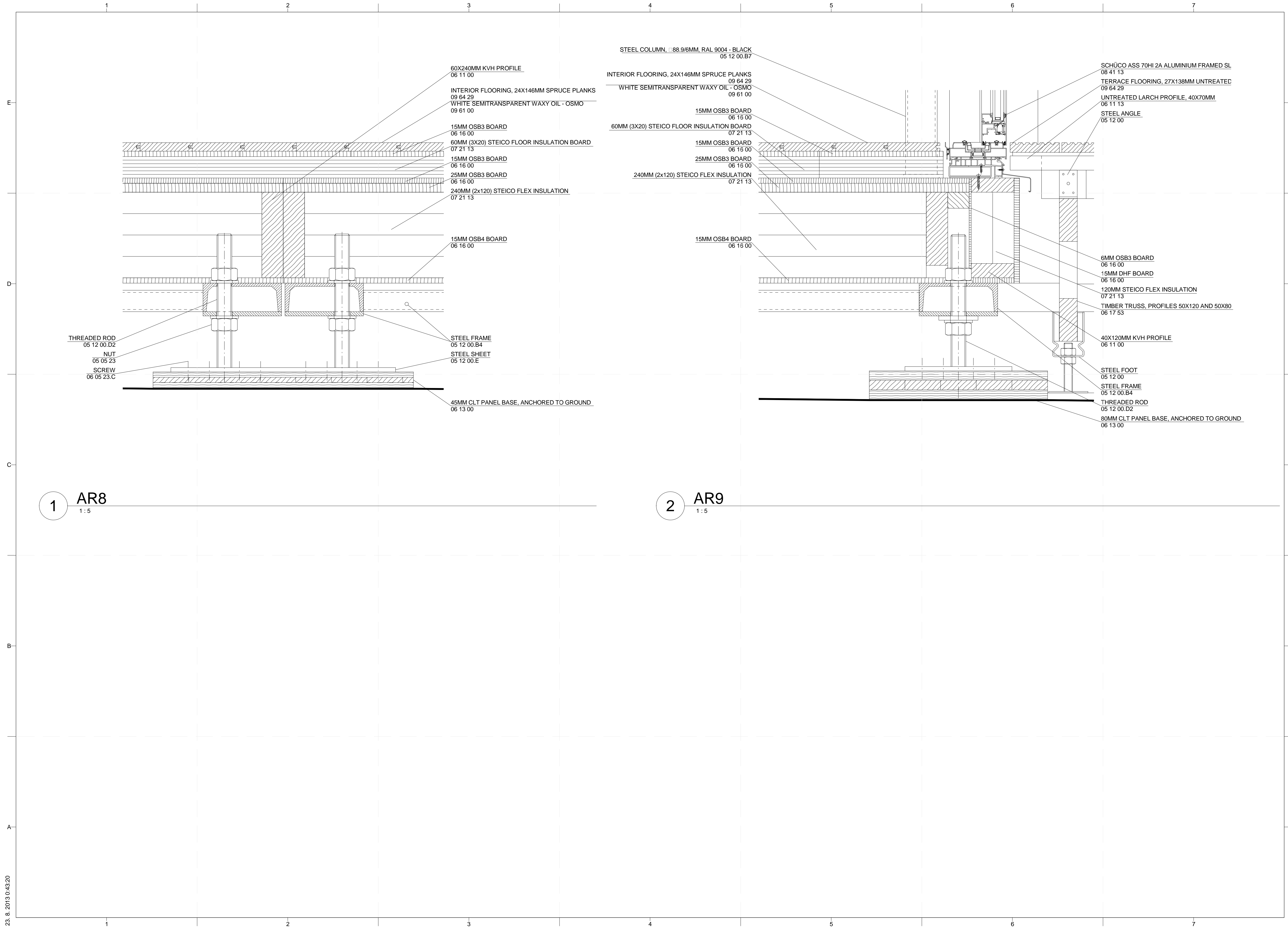


MARK	DATE	DESCRIPTION

LOT NUMBER: 103  
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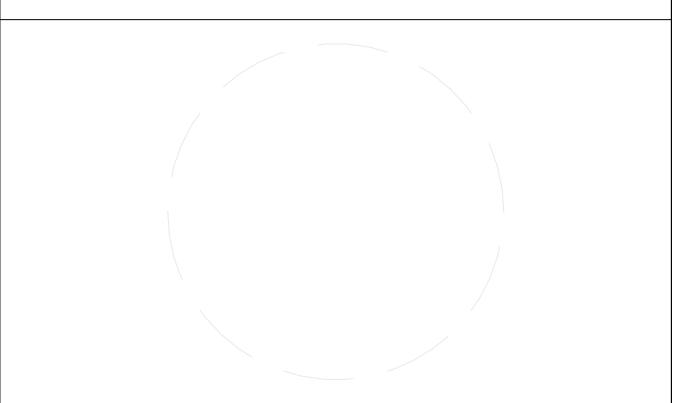
SHEET TITLE  
**SECTION DETAILS**

**A-525**



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC  
CONTACT: DHLAVACEK@FA.CVUT.CZ  
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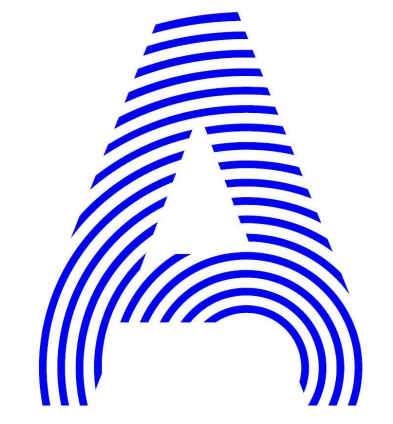
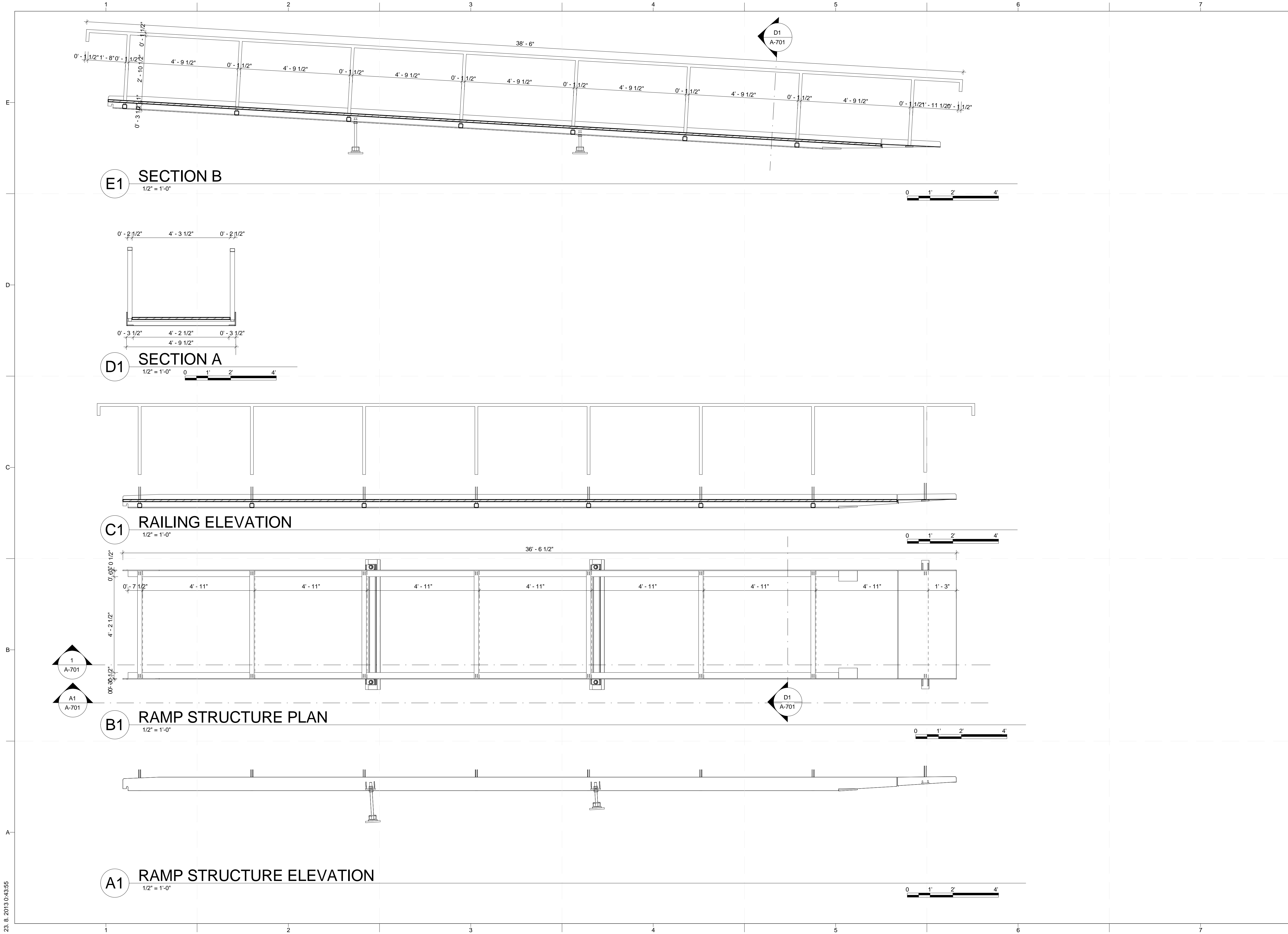
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SHEET TITLE  
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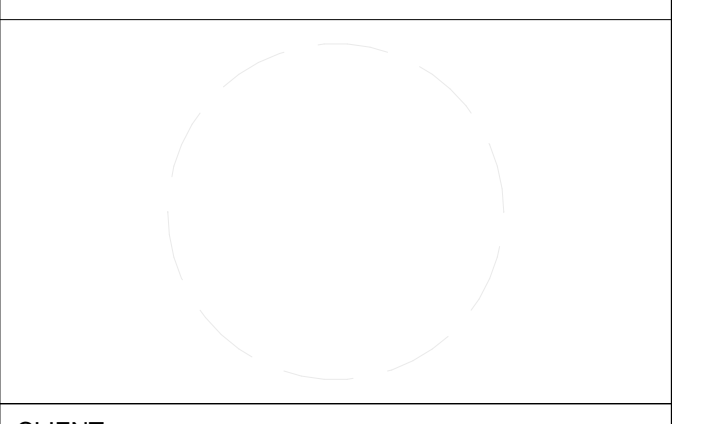
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23. 8. 2013 0.43:20



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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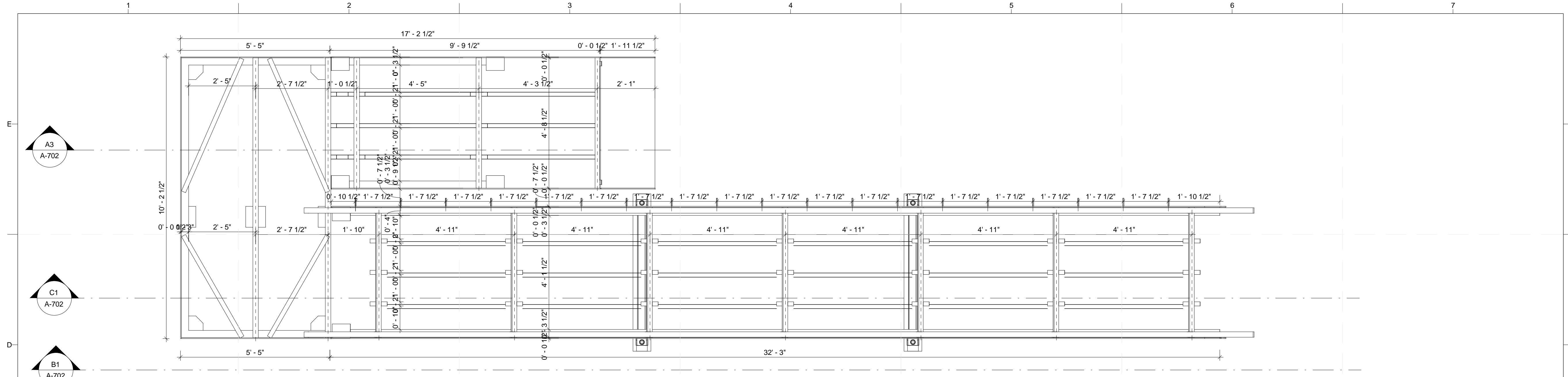


MARK	DATE	CD RE-SUBMISSION DESCRIPTION
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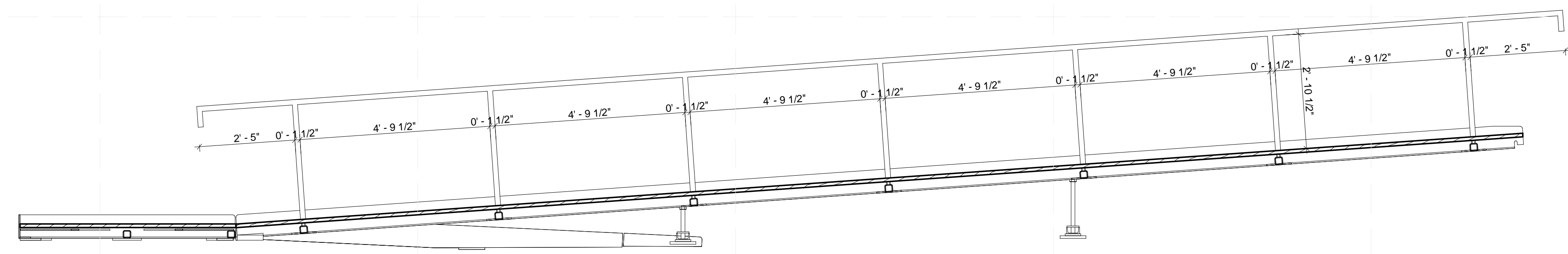
LOT NUMBER: 103  
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SHEET TITLE  
 SOUTHERN RAMP

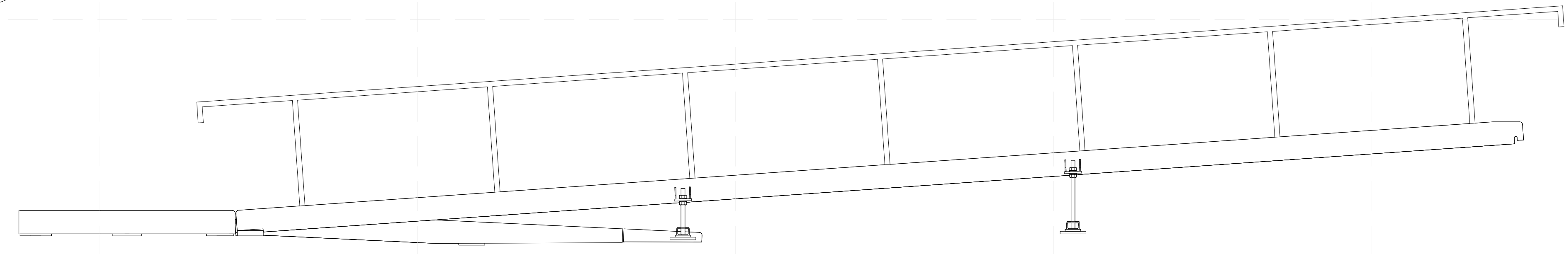
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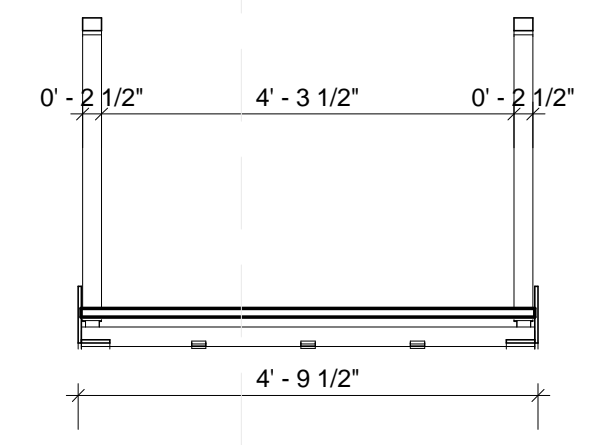
**D1 RAMP STEEL STRUCTURE**  
1/2" = 1'-0"



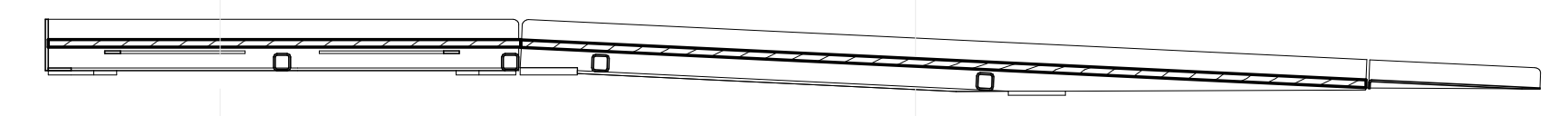
**C1 RAMP SECTION A**  
1/2" = 1'-0"



**B1 RAMP ELEVATION**  
1/2" = 1'-0"

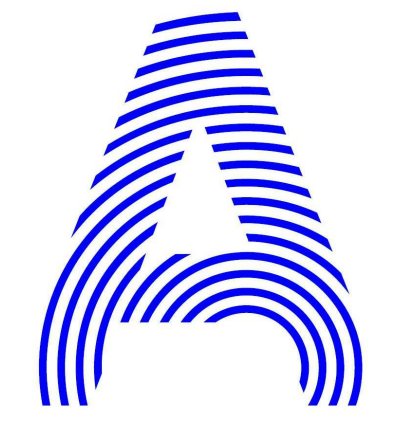


**A1 RAMP SECTION B**  
1/2" = 1'-0"



**A3 RAMP SECTION C**  
1/2" = 1'-0"

23. 8. 2013 0:44:09



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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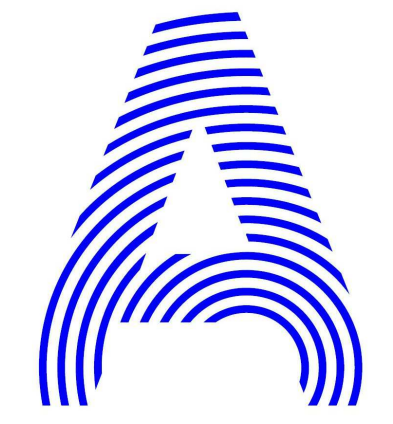
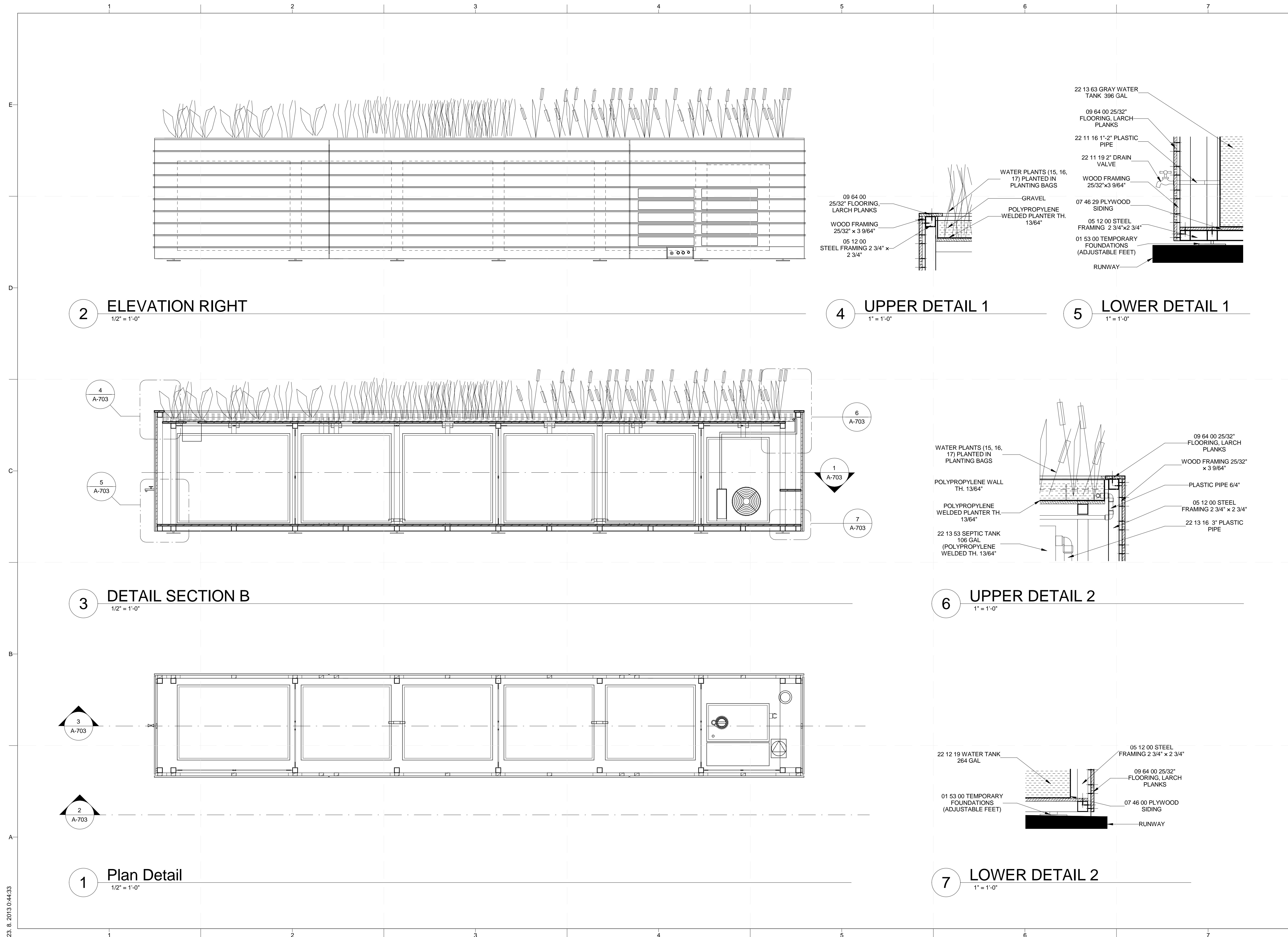


MARK	DATE	DESCRIPTION

LOT NUMBER: 103  
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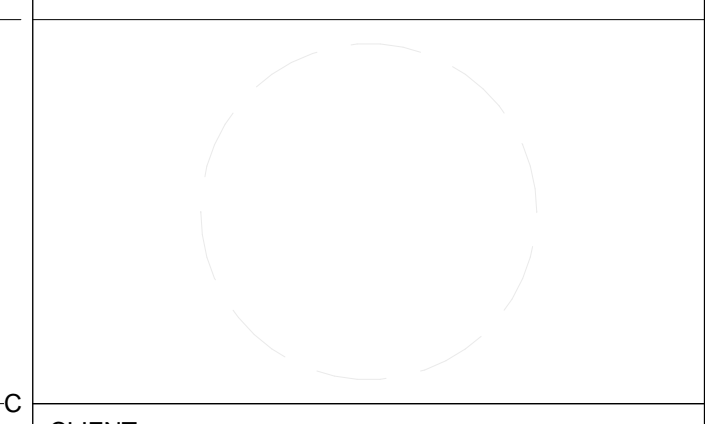
SHEET TITLE  
**NORTHERN RAMP 2**

**A-702**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ

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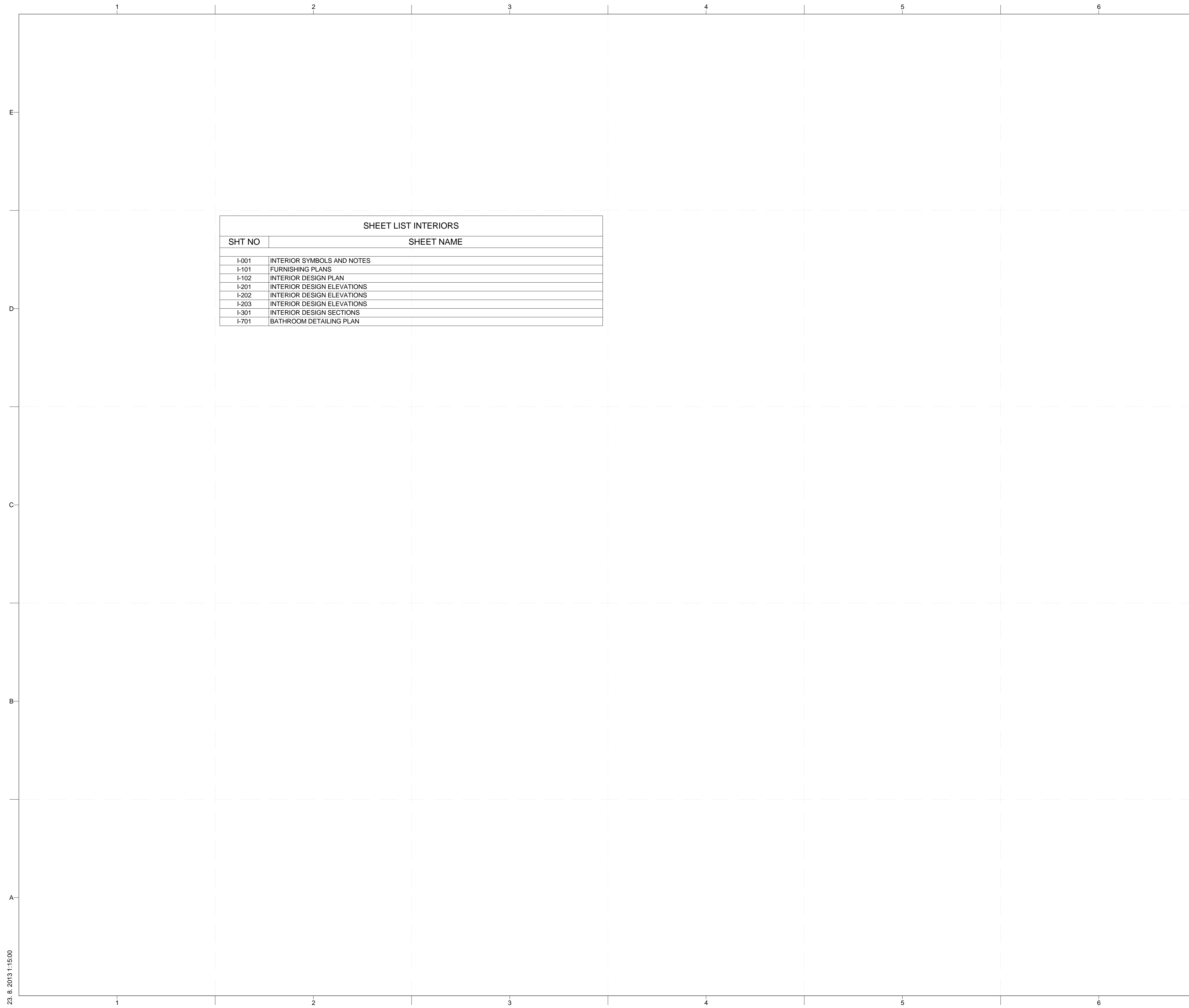
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LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
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SHEET TITLE

**CONSTRUCTED WETLANDS**

**A-703**



SHEET LIST INTERIORS	
SHT NO	SHEET NAME
I-001	INTERIOR SYMBOLS AND NOTES
I-101	FURNISHING PLANS
I-102	INTERIOR DESIGN PLAN
I-201	INTERIOR DESIGN ELEVATIONS
I-202	INTERIOR DESIGN ELEVATIONS
I-203	INTERIOR DESIGN ELEVATIONS
I-301	INTERIOR DESIGN SECTIONS
I-701	BATHROOM DETAILING PLAN

## GENERAL SHEET NOTES

### 1. ARCHITECTURAL NOTES

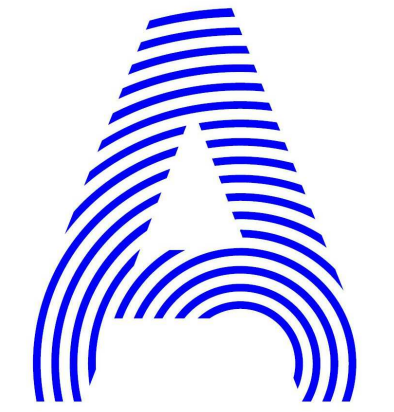
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS
- B. ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
- C. WHERE DISCREPANCIES EXIST BETWEEN PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.

### 2. DIMENSIONING NOTES

- A. UNLESS NOTED OTHERWISE, PARTITIONS ARE DIMENSIONED TO THE FACE OF THE STRUCTURE
- B. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK. THE ARCHITECT WILL BE NOTIFIED OF ANY DISCREPANCIES.
- C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

## REFERENCE KEYNOTES

## SHEET KEYNOTES



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
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MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103

DRAWN BY: MATÚŠ FICKO

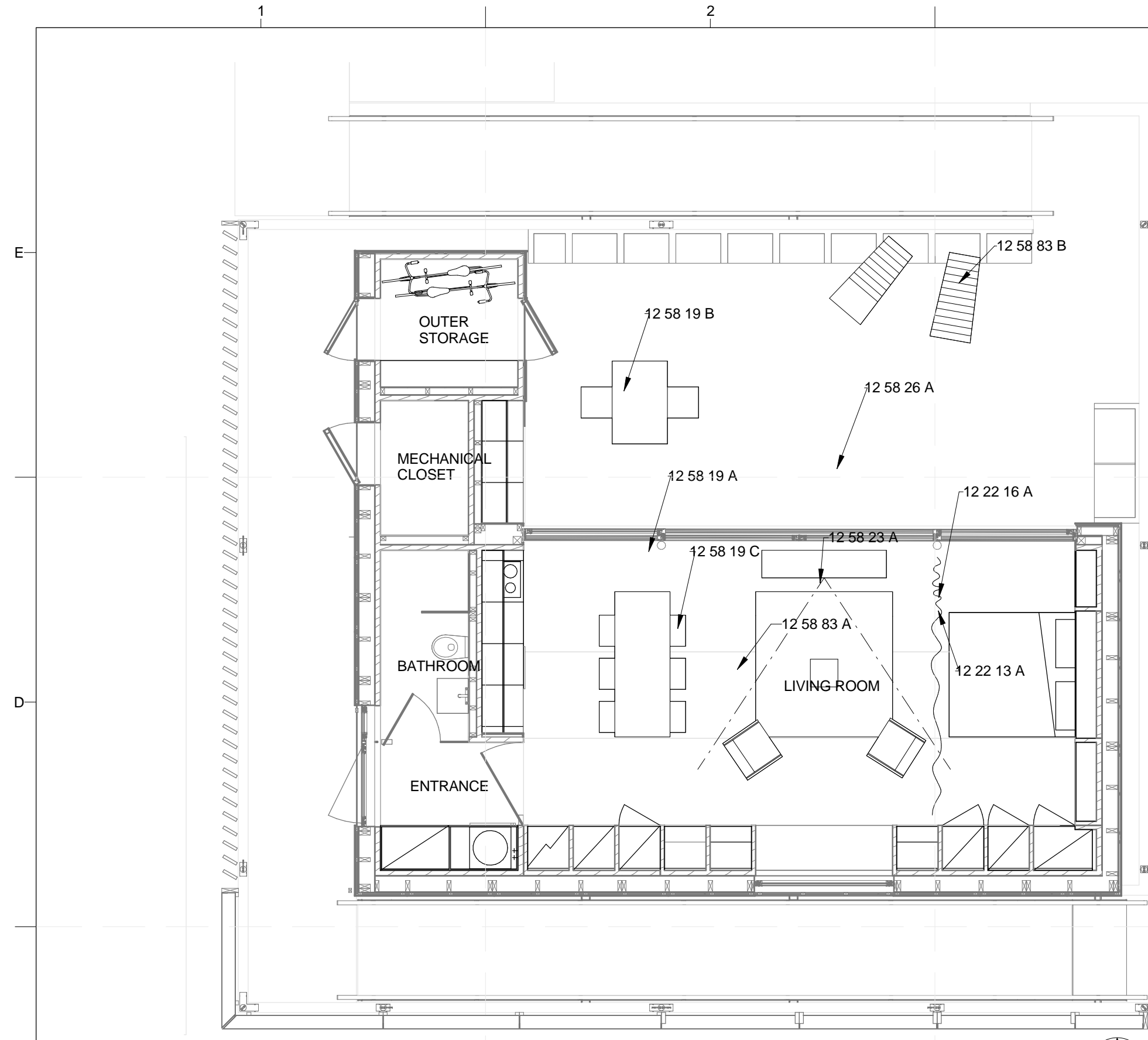
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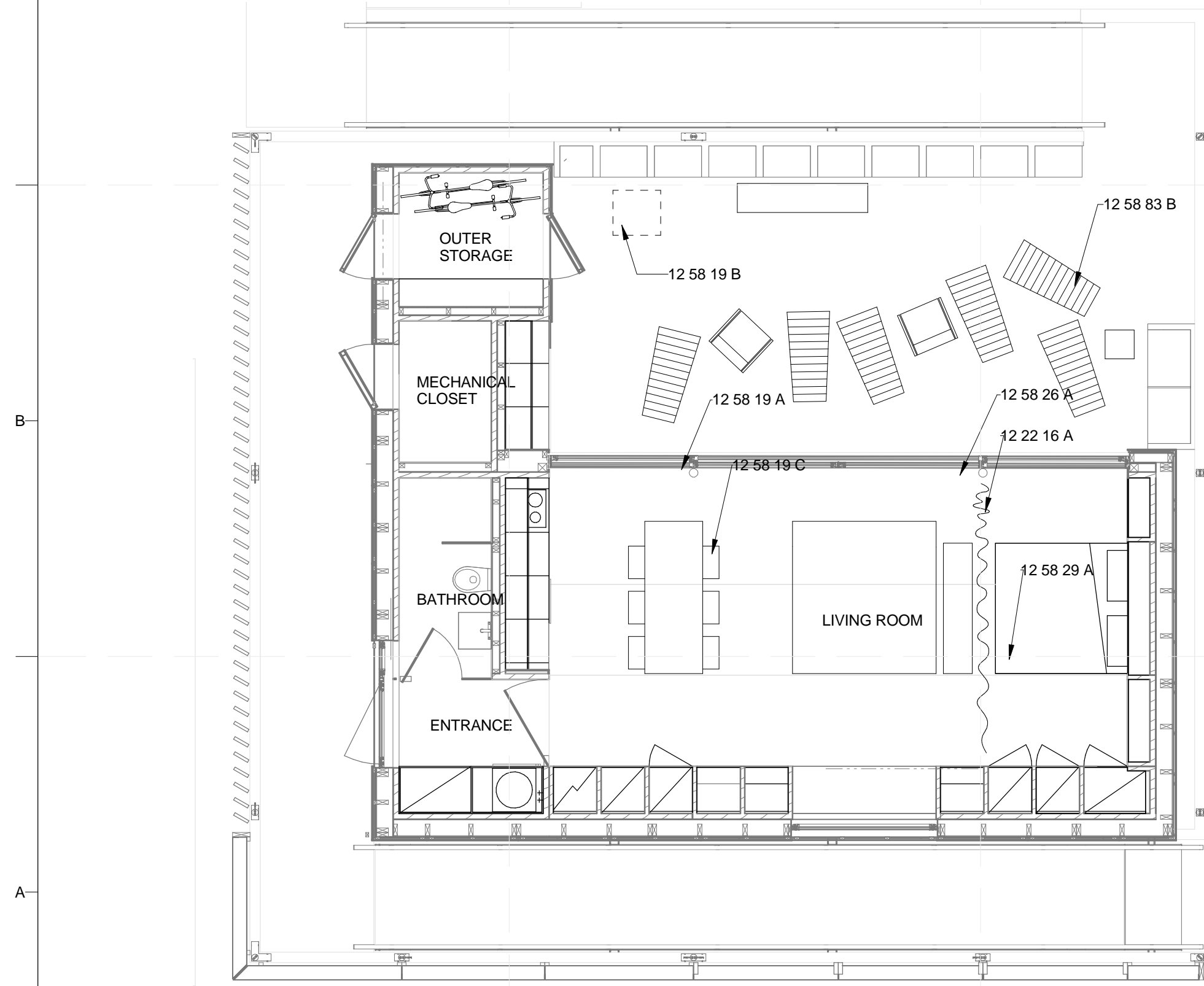
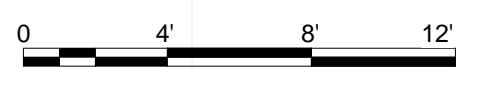
SHEET TITLE

INTERIOR SYMBOLS  
AND NOTES

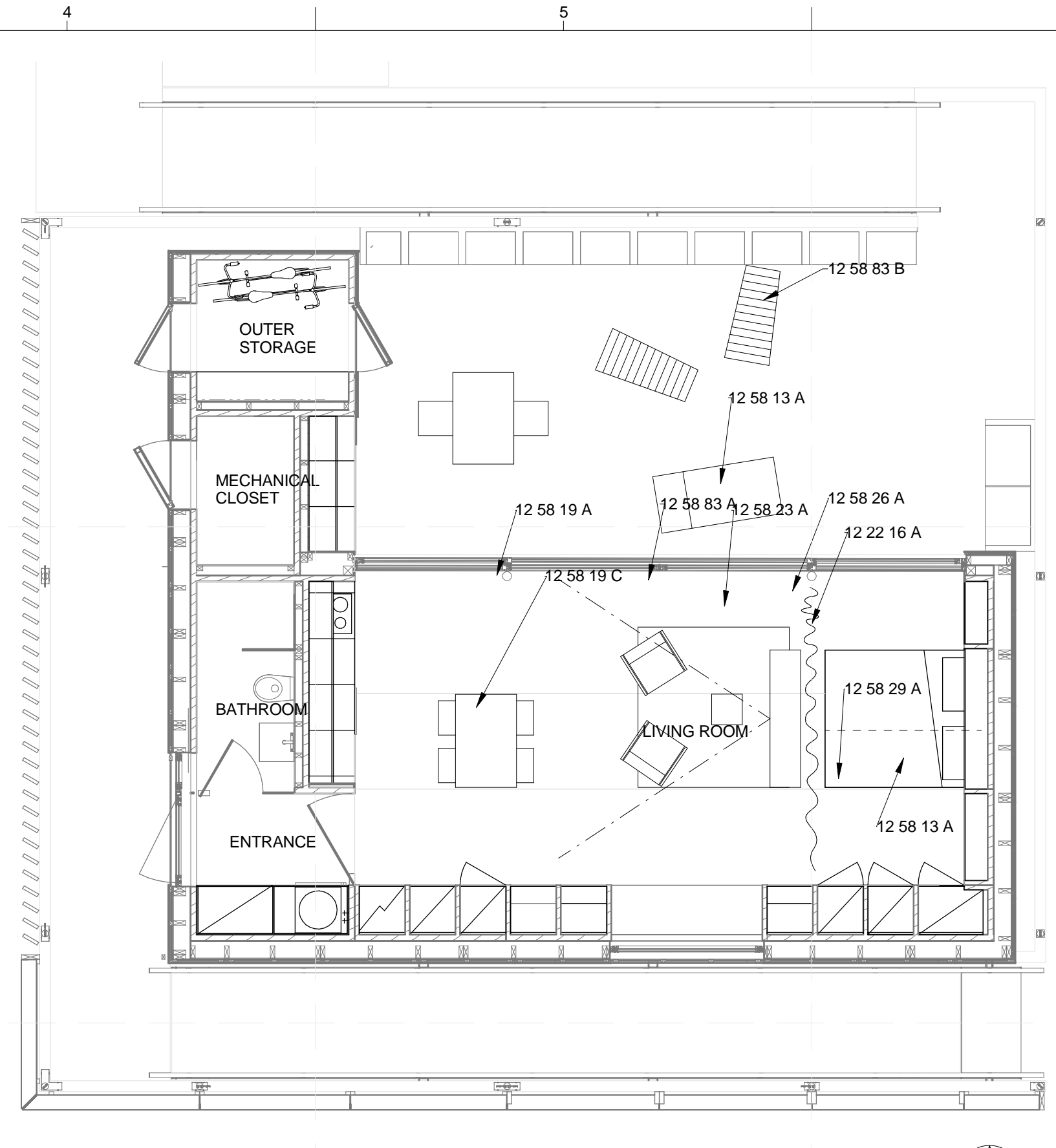
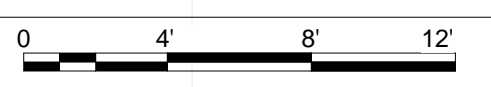
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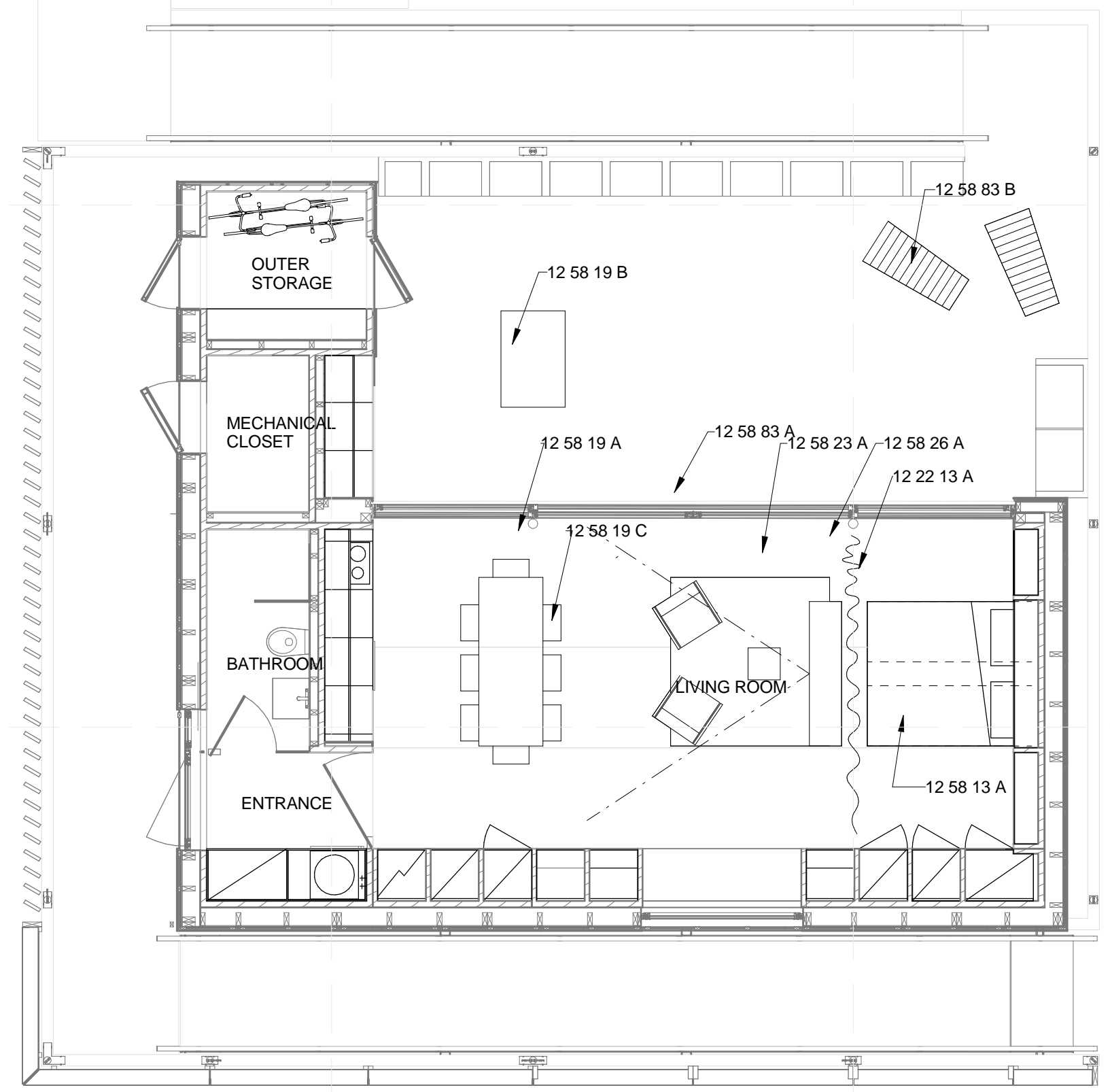
**C1 VISIT FURNISHING PLAN**  
3/16" = 1'-0"



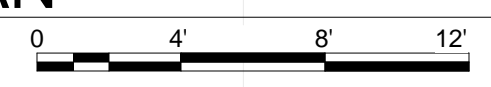
**A1 MOVIE NIGHT FURNISHING PLAN**  
3/16" = 1'-0"



**C4 PUBLIC EXHIBIT FURNISHING PLAN**  
3/16" = 1'-0"



**A4 DINNER PARTY FURNISHING PLAN**  
3/16" = 1'-0"



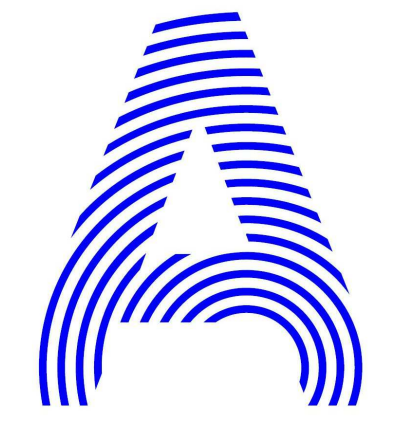
**GENERAL SHEET NOTES**

- 1. ARCHITECTURAL NOTES**
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
  - B. ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
  - C. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND CONSTRUCTION TRADE PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
- 2. DIMENSIONING NOTES**
- A. UNLESS NOTED OTHERWISE, PARTITIONS ARE DIMENSIONED TO THE FACE OF THE STRUCTURE.
  - B. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK. THE ARCHITECT WILL BE NOTIFIED OF ANY DISCREPANCIES.
  - C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

**REFERENCE KEYNOTES**

- 12 22 13 A INTERIOR DRAPES
- 12 22 16 A INTERIOR DRAPERY TRACK
- 12 58 13 A MODULAR SOFA KARTELL TRIX
- 12 58 19 A INTERIOR DINING TABLE
- 12 58 19 B EXTERIOR DINING TABLE
- 12 58 19 C INTERIOR AND EXTERIOR CHAIR
- 12 58 23 A INTERIOR COFFEE TABLE
- 12 58 26 A INTERIOR ENTERTAINMENT CENTER
- 12 58 29 A DOUBLE BED
- 12 58 83 A GARDEN LOUNGER

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ

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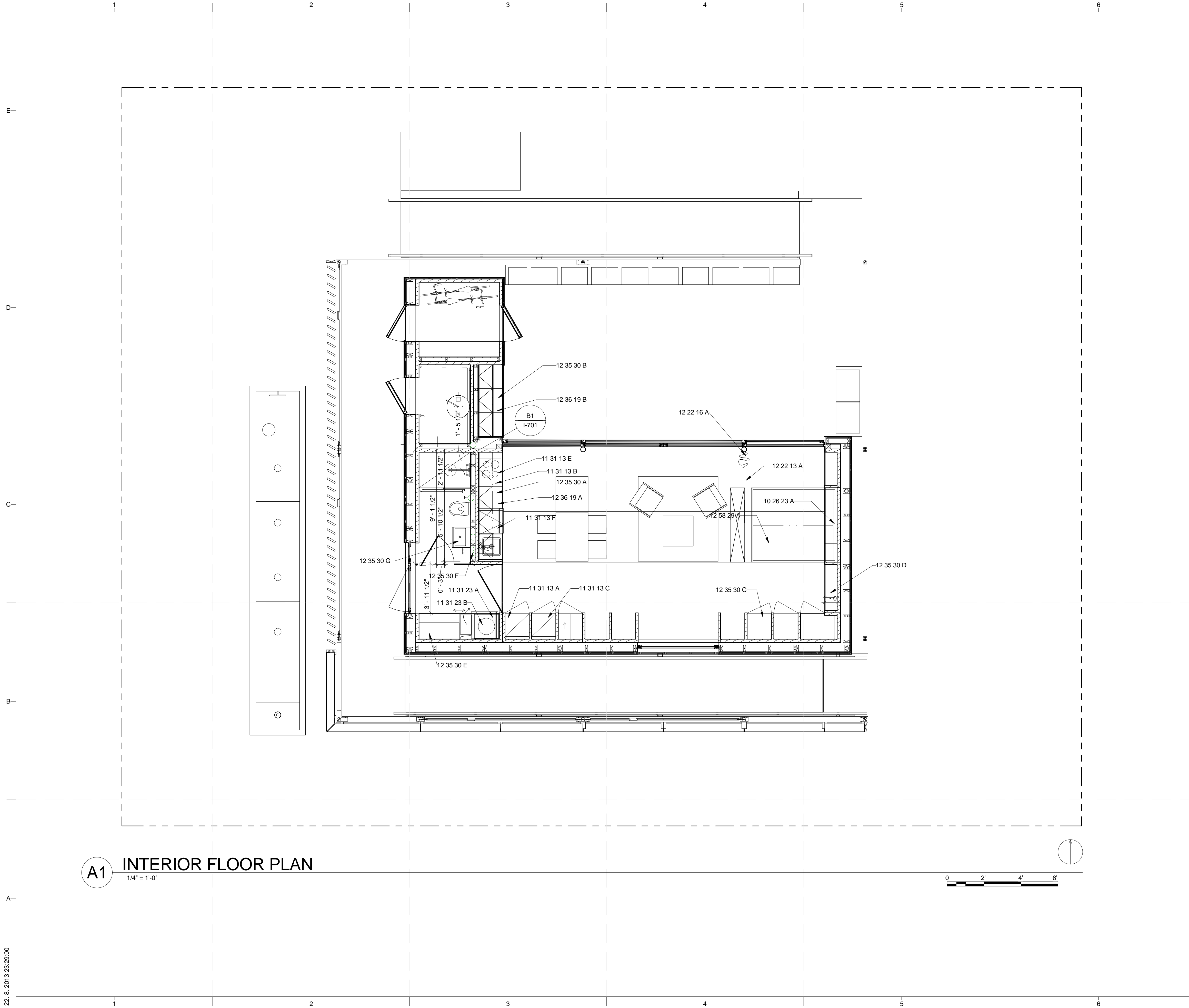
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4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
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SHEET TITLE  
**FURNISHING PLANS**

**I-101**





**A1 INTERIOR FLOOR PLAN**  
1/4" = 1'-0"

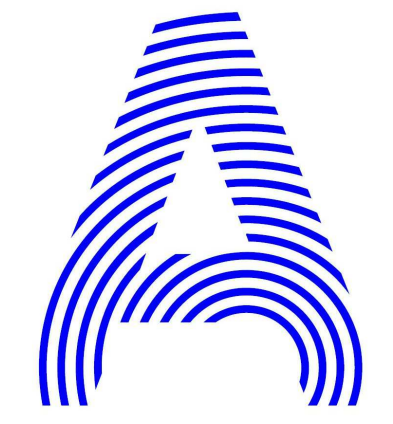
**GENERAL SHEET NOTES**

- 1. ARCHITECTURAL NOTES**
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  - C. WHERE DISCREPANCIES EXIST BETWEEN PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
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**REFERENCE KEYNOTES**

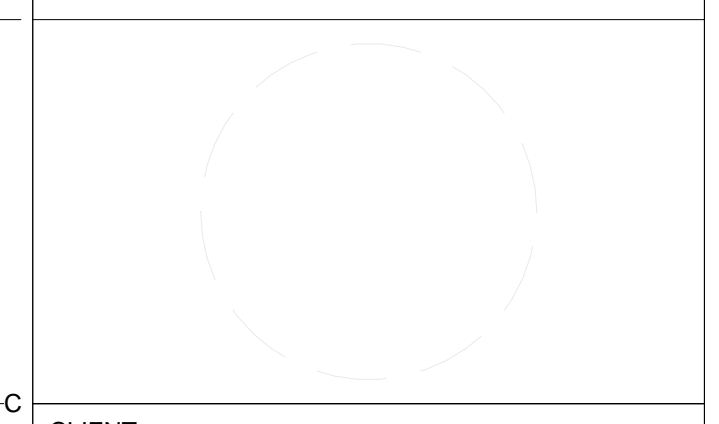
- 10 26 23 A WALL PADDING
- 11 31 13 A REFRIGERATOR/FREEZER
- 11 31 13 B COOKTOP
- 11 31 13 C OVEN
- 11 31 13 E EXHAUST HOOD
- 11 31 13 F DISHWASHER
- 11 31 23 A CLOTHES WASHER
- 11 31 23 B CLOTHES DRYER
- 12 22 13 A INTERIOR DRAPES
- 12 22 16 A INTERIOR DRAPERY TRACK
- 12 35 30 A INTERIOR KITCHEN UNIT
- 12 35 30 B EXTERIOR KITCHEN UNIT
- 12 35 30 C FURNITURE WALL
- 12 35 30 D SHELF WALL
- 12 35 30 E ENTRANCE WALL
- 12 35 30 F BATHROOM WALL
- 12 35 30 G BATHROOM CASEWORK
- 12 36 19 A WOOD COUNTERTOP INTERIOR KITCHEN
- 12 36 19 B WOOD COUNTERTOP EXTERIOR KITCHEN
- 12 58 29 A DOUBLE BED

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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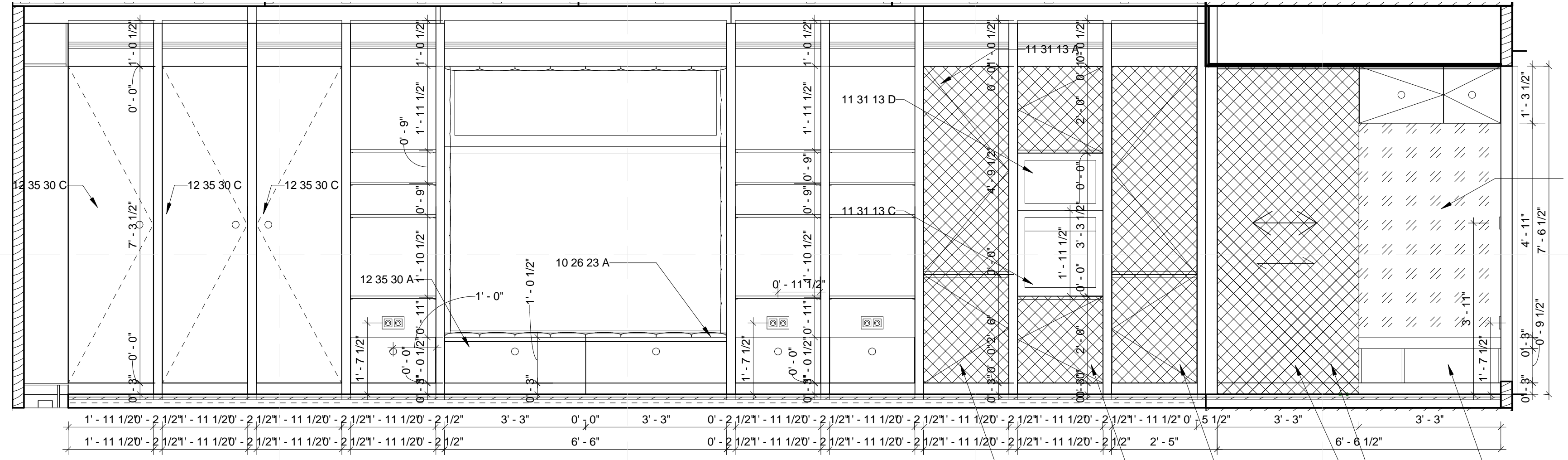


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1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

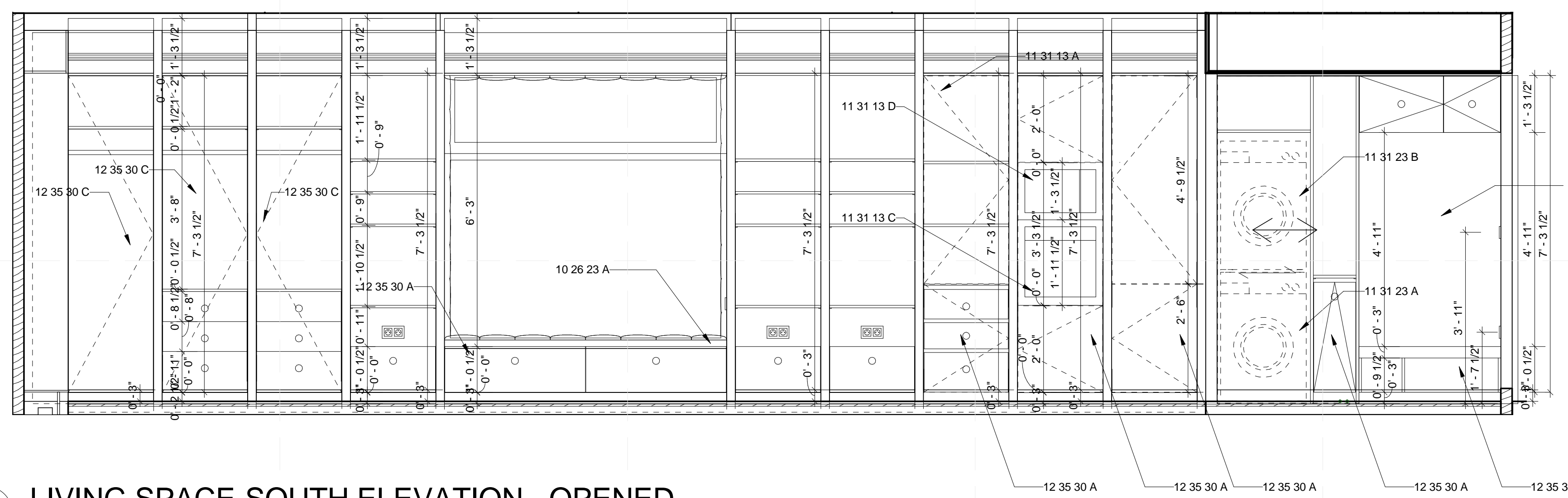
LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**INTERIOR DESIGN PLAN**

**I-102**



**D2** LIVING SPACE-SOUTH ELEVATION - CLOSED  
1/2" = 1'-0"



**B2** LIVING SPACE-SOUTH ELEVATION - OPENED  
1/2" = 1'-0"

**GENERAL SHEET NOTES**

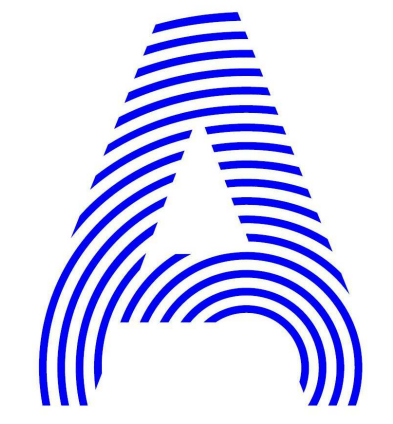
1. ARCHITECTURAL NOTES
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
  - B. ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
  - C. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND CONSTRUCTION TRADE PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
2. DIMENSIONING NOTES
- A. UNLESS NOTED OTHERWISE, PARTITIONS ARE DIMENSIONED TO THE FACE OF THE STRUCTURE.
  - B. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK. THE ARCHITECT WILL BE NOTIFIED OF ANY DISCREPANCIES.
  - C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

**REFERENCE KEYNOTES**

10 26 23 A	WALL PADDING
11 31 13 A	REFRIGERATOR/FREEZER
11 31 13 C	OVEN
11 31 13 D	MICROWAVE OVEN
11 31 23 A	CLOTHES WASHER
11 31 23 B	CLOTHES DRYER
12 35 30 A	INTERIOR KITCHEN UNIT
12 35 30 C	FURNITURE WALL

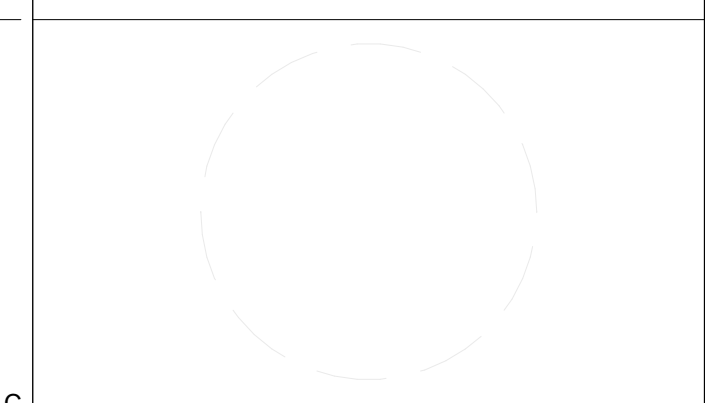
WHITE LACQUER  
 MIRROR

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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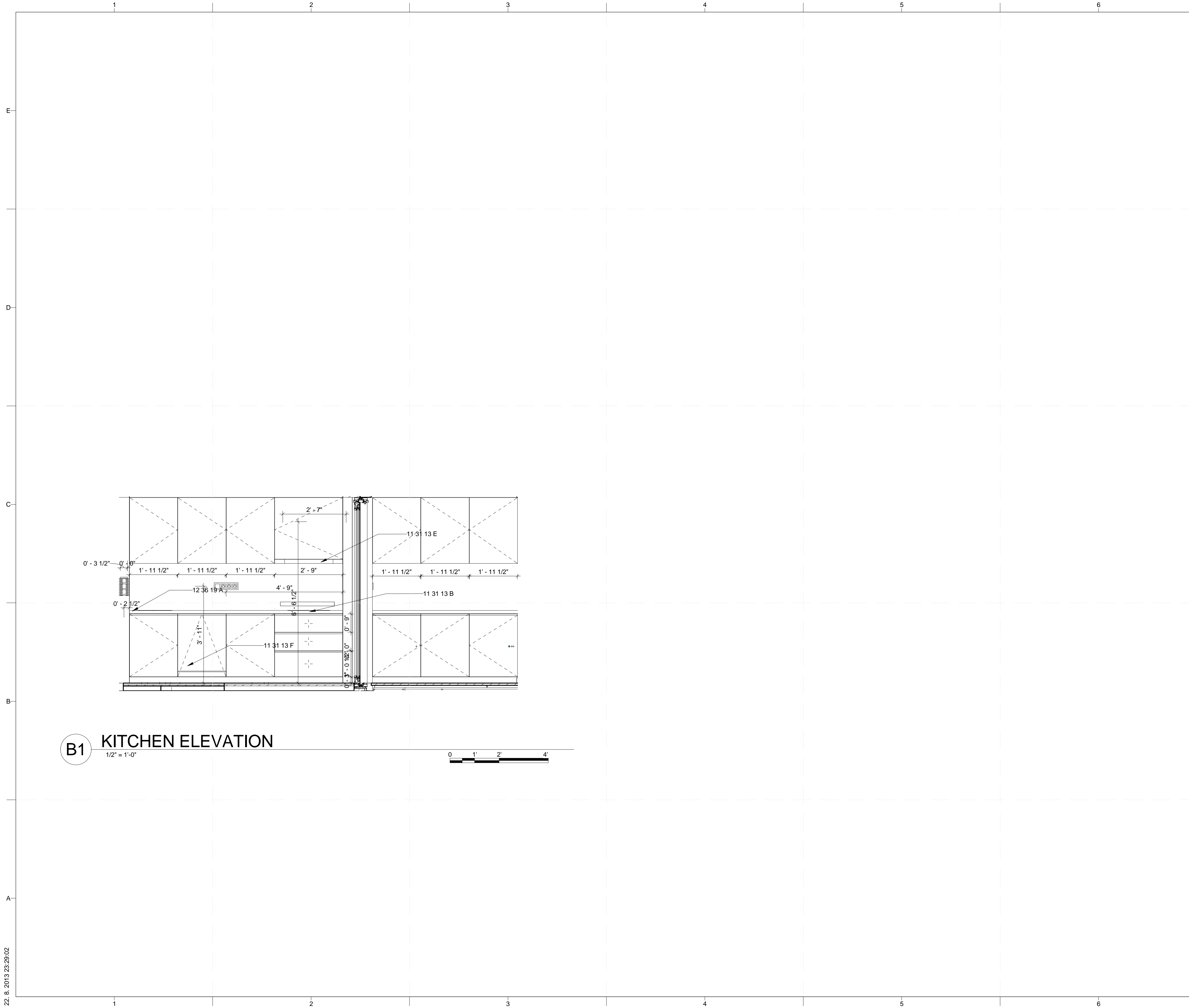
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1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

MARK	DATE	DESCRIPTION

LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE  
**INTERIOR DESIGN  
 ELEVATIONS**

**I-201**



**GENERAL SHEET NOTES**

- 1. ARCHITECTURAL NOTES**
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS
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  - C. WHERE DISCREPANCIES EXIST BETWEEN PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
- 2. DIMENSIONING NOTES**
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  - B. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK. THE ARCHITECT WILL BE NOTIFIED OF ANY DISCREPANCIES.
  - C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

**REFERENCE KEYNOTES**

- 11 31 13 B COOKTOP
- 11 31 13 E EXHAUST HOOD
- 11 31 13 F DISHWASHER
- 12 36 19 A WOOD COUNTERTOP INTERIOR KITCHEN

**SHEET KEYNOTES**

**PROJECT TITLE:** AIR HOUSE

**TEAM NAME:** CZECH REPUBLIC / CTU

**ADDRESS:** CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
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MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION
1	04/01/2013	CD RE-SUBMISSION
2	02/14/2013	CD SUBMISSION

**LOT NUMBER:** 103

**DRAWN BY:** MATÚŠ FICKO

**CHECKED BY:** MARTIN ČENĚK

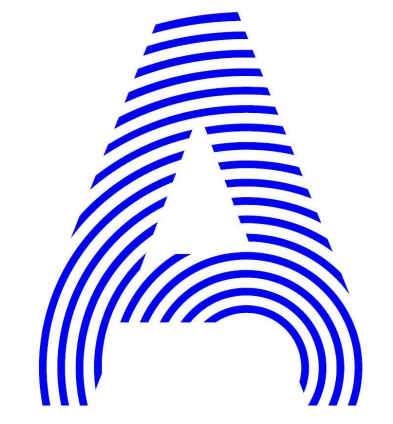
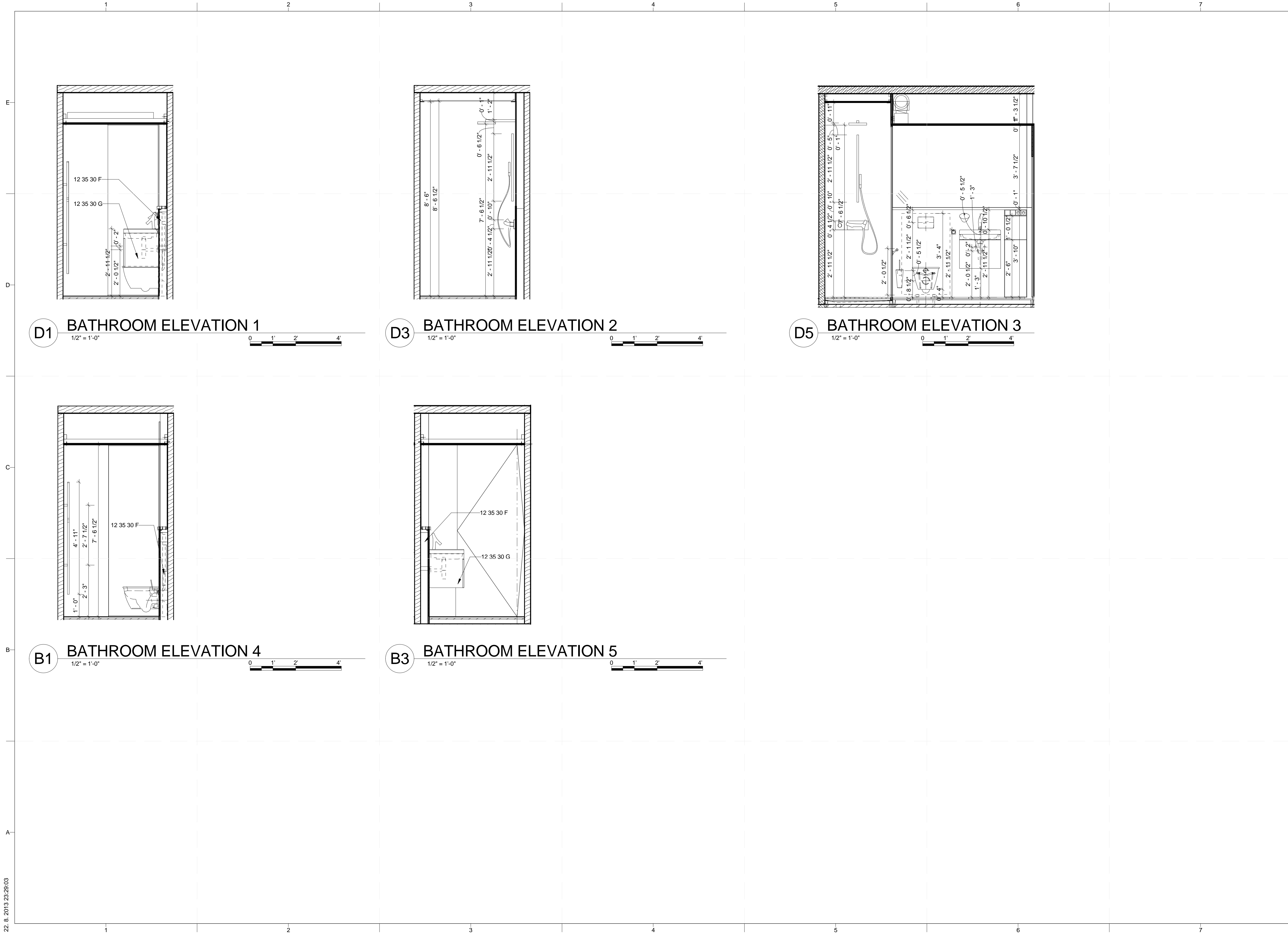
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---

**SHEET TITLE**

**INTERIOR DESIGN ELEVATIONS**

**I-202**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
 CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ  
 WWW.AIRHOUSE.CZ  
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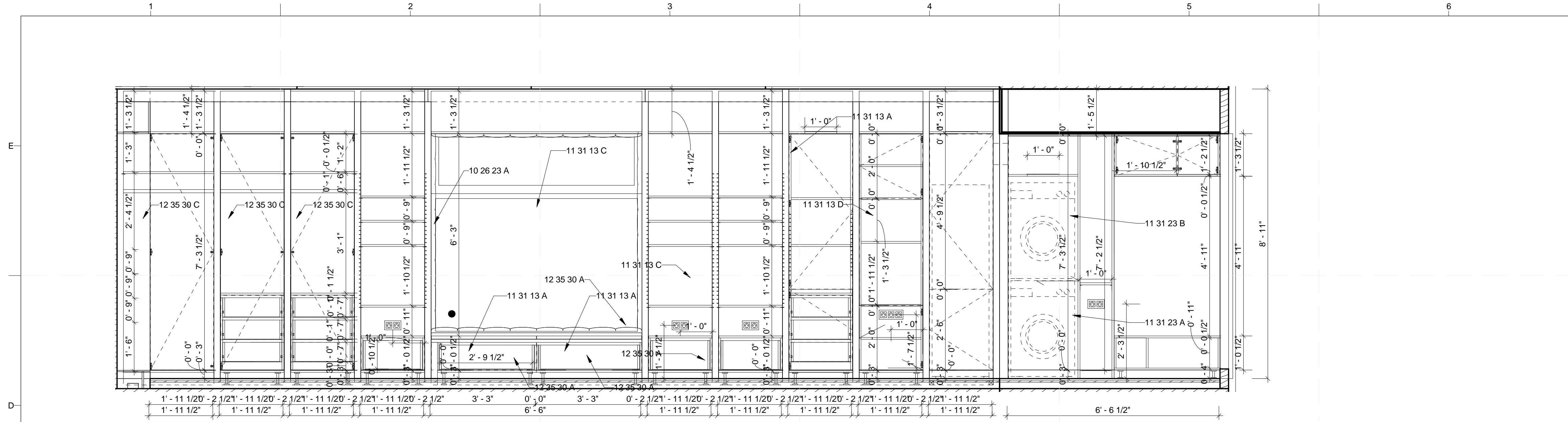


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2	02/14/2013	CD SUBMISSION

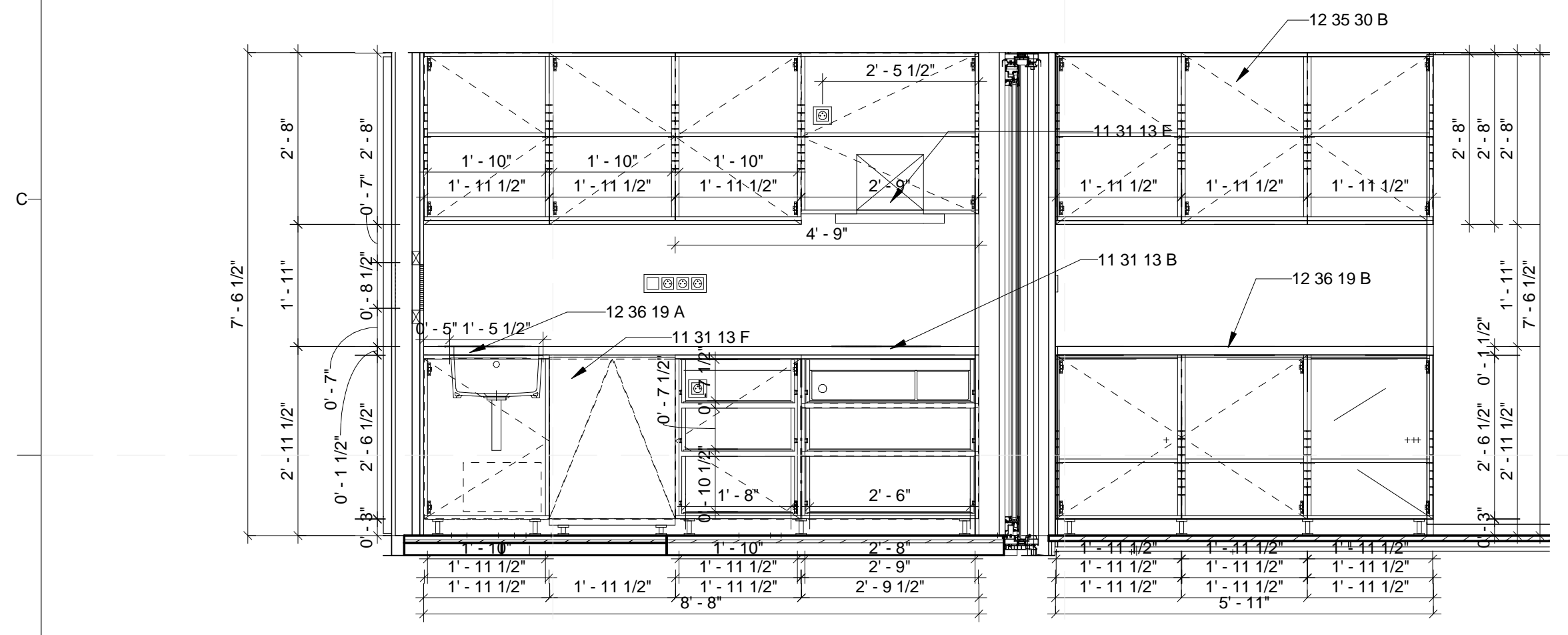
LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
 COPYRIGHT: NONE; PROJECT IS PUBLIC DOMAIN

SHEET TITLE  
**INTERIOR DESIGN ELEVATIONS**

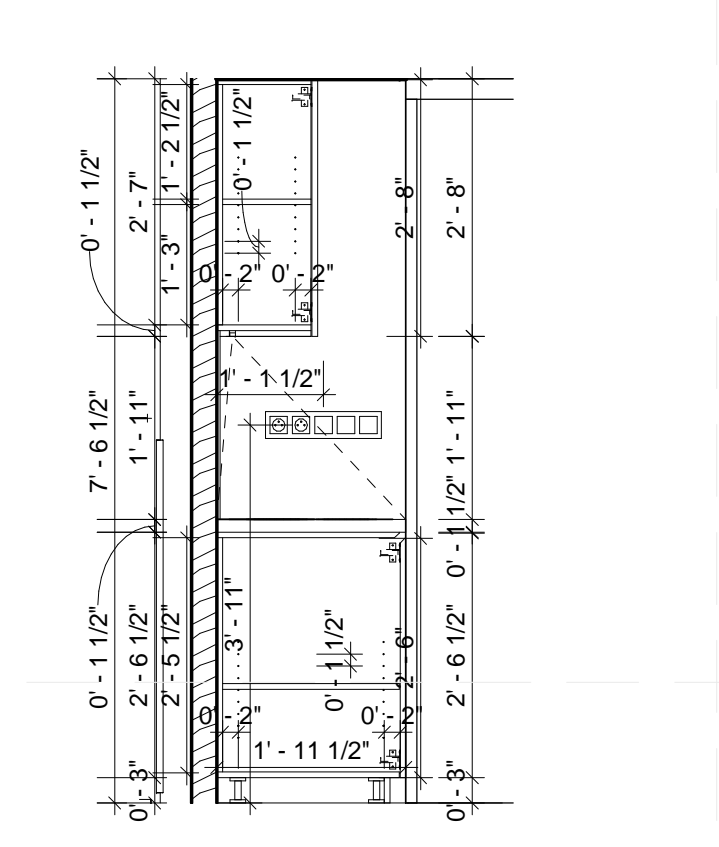
**I-203**



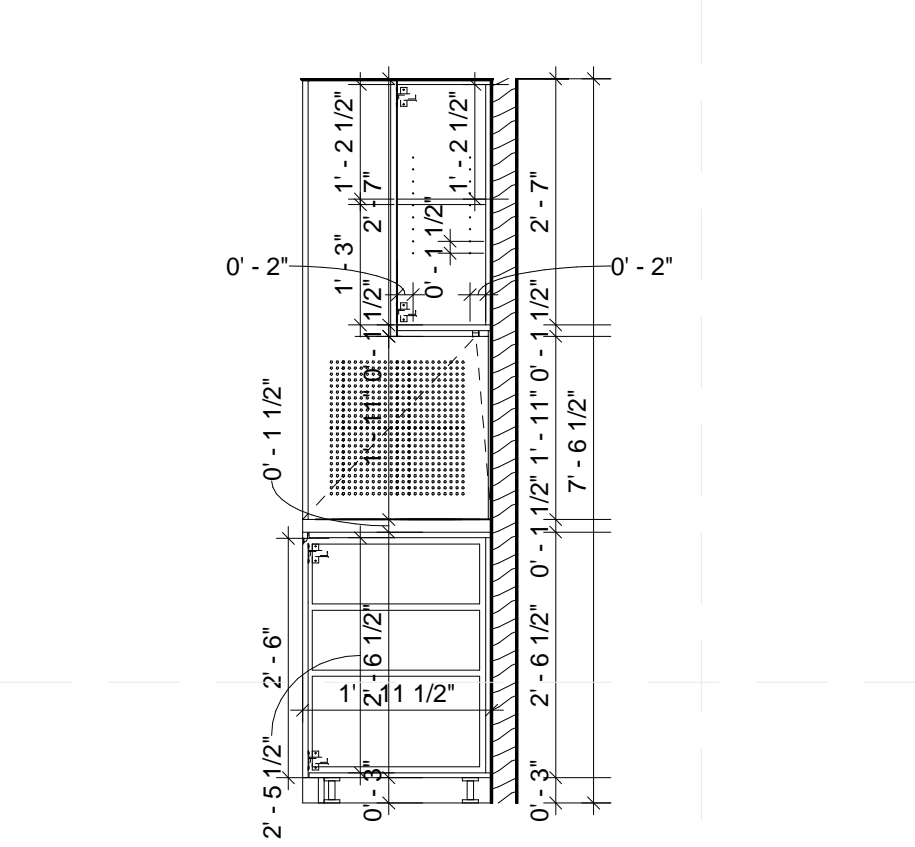
**D1** LIVING SPACE - SOUTH - SECTION  
1/2" = 1'-0"



**B1** LIVING SPACE - WEST - SECTION  
1/2" = 1'-0"



**B4** KITCHEN SECTION 1  
1/2" = 1'-0"



**B5** KITCHEN SECTION 2  
1/2" = 1'-0"

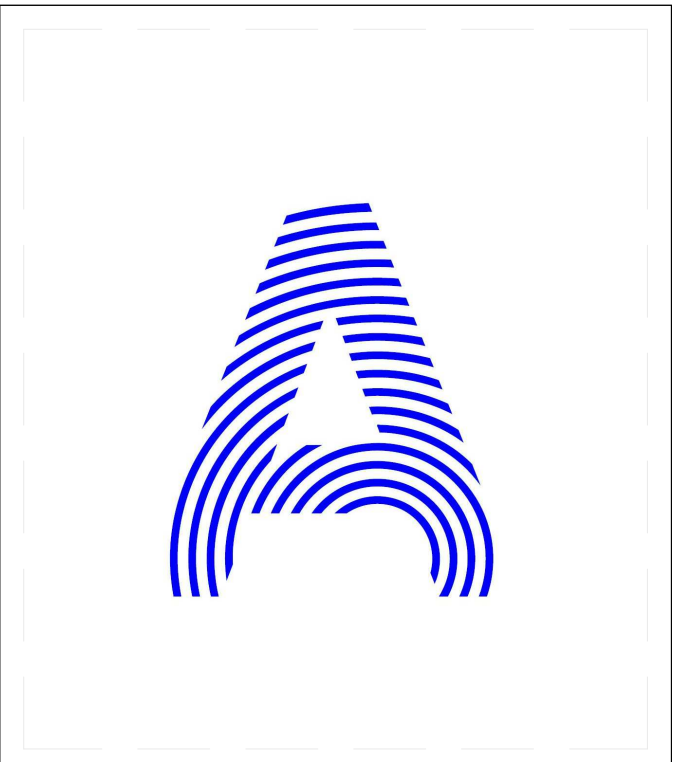
**GENERAL SHEET NOTES**

1. ARCHITECTURAL NOTES
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS
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**REFERENCE KEYNOTES**

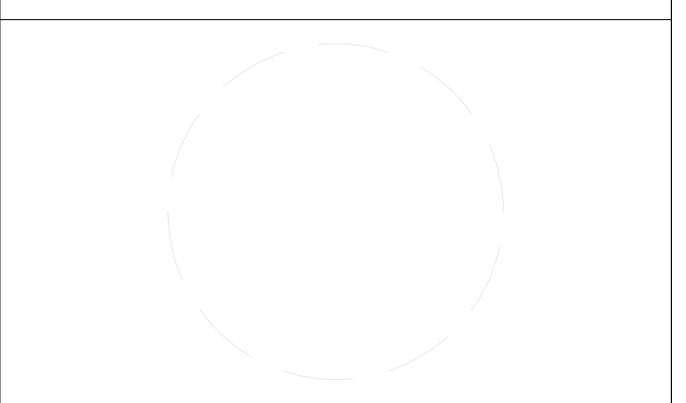
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11 31 13 A	REFRIGERATOR/FREEZER
11 31 13 B	COOKTOP
11 31 13 C	OVEN
11 31 13 D	MICROWAVE OVEN
11 31 13 E	EXHAUST HOOD
11 31 13 F	DISHWASHER
11 31 23 A	CLOTHES WASHER
11 31 23 B	CLOTHES DRYER
12 35 30 A	INTERIOR KITCHEN UNIT
12 35 30 B	EXTERIOR KITCHEN UNIT
12 35 30 C	FURNITURE WALL
12 36 19 A	WOOD COUNTERTOP INTERIOR KITCHEN
12 36 19 B	WOOD COUNTERTOP EXTERIOR KITCHEN

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THAKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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CONTACT: DHLAVACEK@FA.CVUT.CZ  
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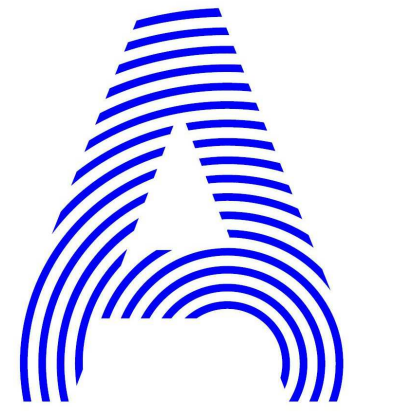
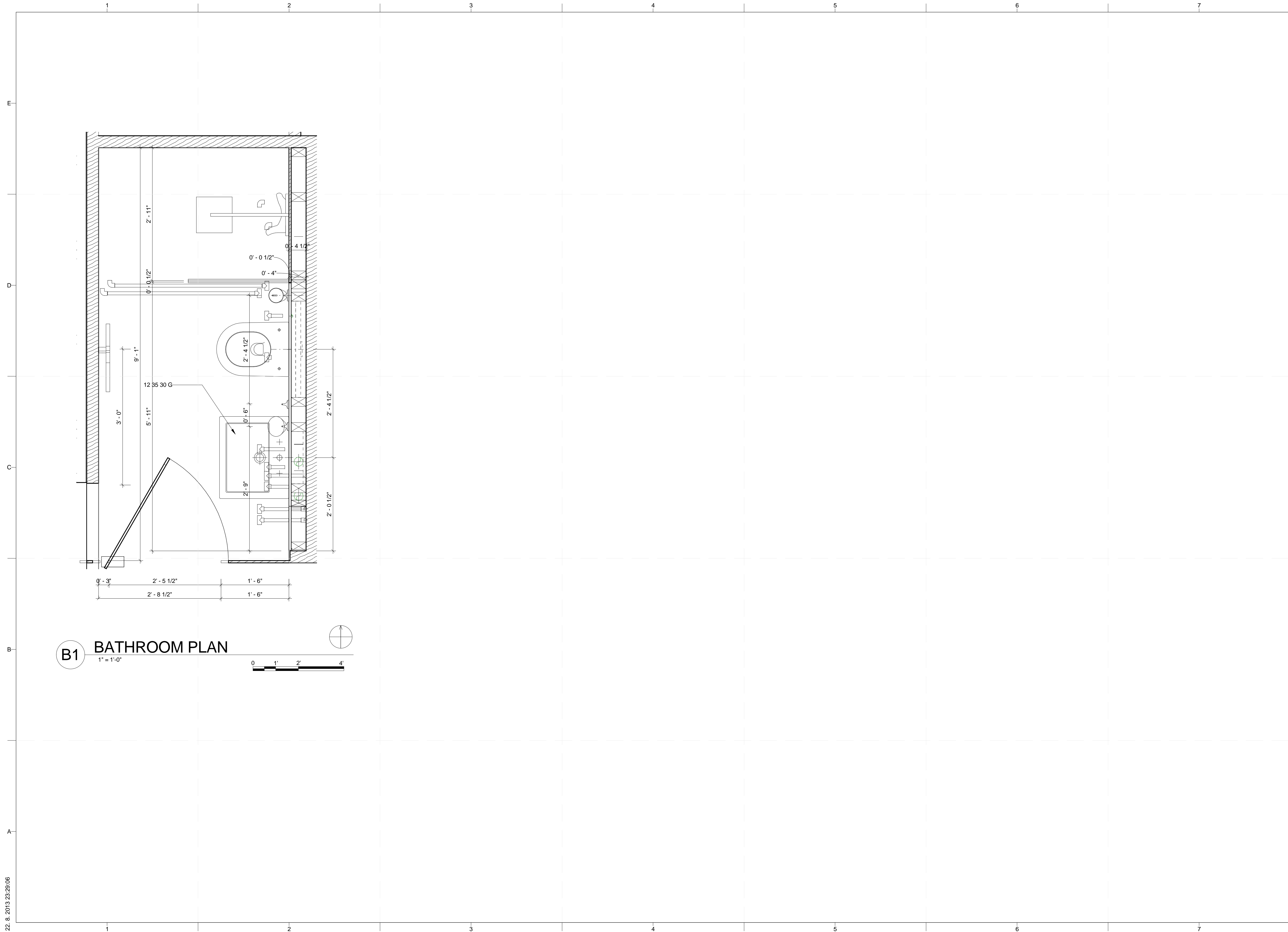


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2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE  
**INTERIOR DESIGN SECTIONS**

**I-301**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC

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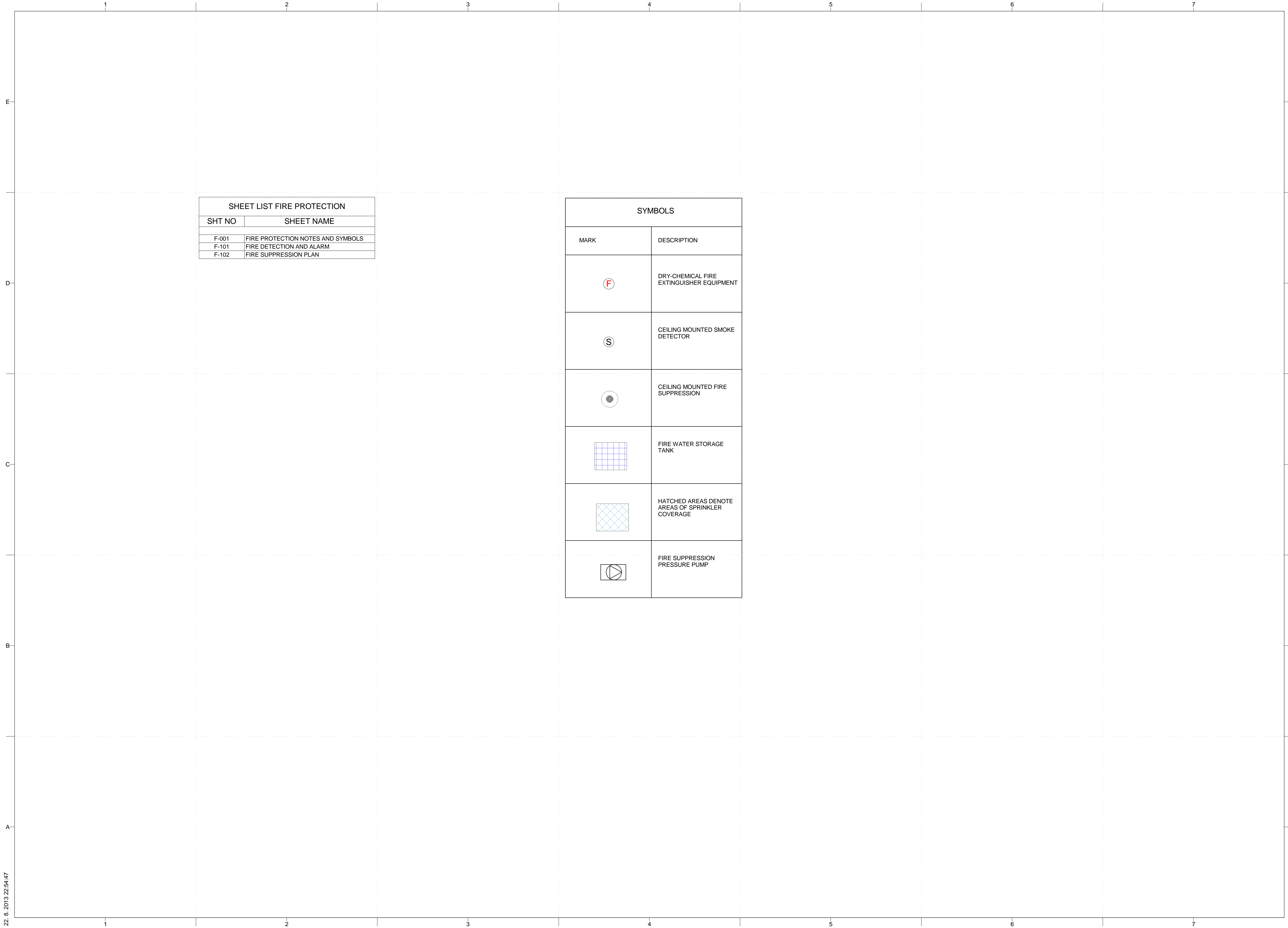
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2	02/14/2013	CD SUBMISSION

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DRAWN BY: MATÚŠ FICKO  
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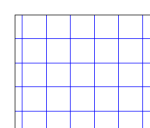
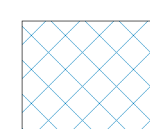

SHEET TITLE

**BATHROOM DETAILING PLAN**

**I-701**



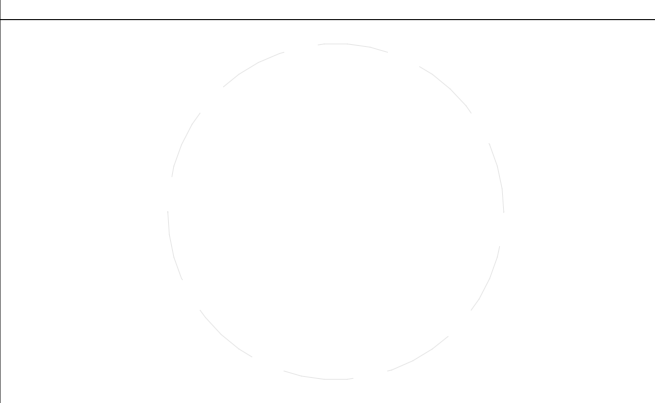
SHEET LIST FIRE PROTECTION	
SHT NO	SHEET NAME
F-001	FIRE PROTECTION NOTES AND SYMBOLS
F-101	FIRE DETECTION AND ALARM
F-102	FIRE SUPPRESSION PLAN

SYMBOLS	
MARK	DESCRIPTION
ⓕ	DRY-CHEMICAL FIRE EXTINGUISHER EQUIPMENT
Ⓢ	CEILING MOUNTED SMOKE DETECTOR
⊙	CEILING MOUNTED FIRE SUPPRESSION
	FIRE WATER STORAGE TANK
	HATCHED AREAS DENOTE AREAS OF SPRINKLER COVERAGE
	FIRE SUPPRESSION PRESSURE PUMP



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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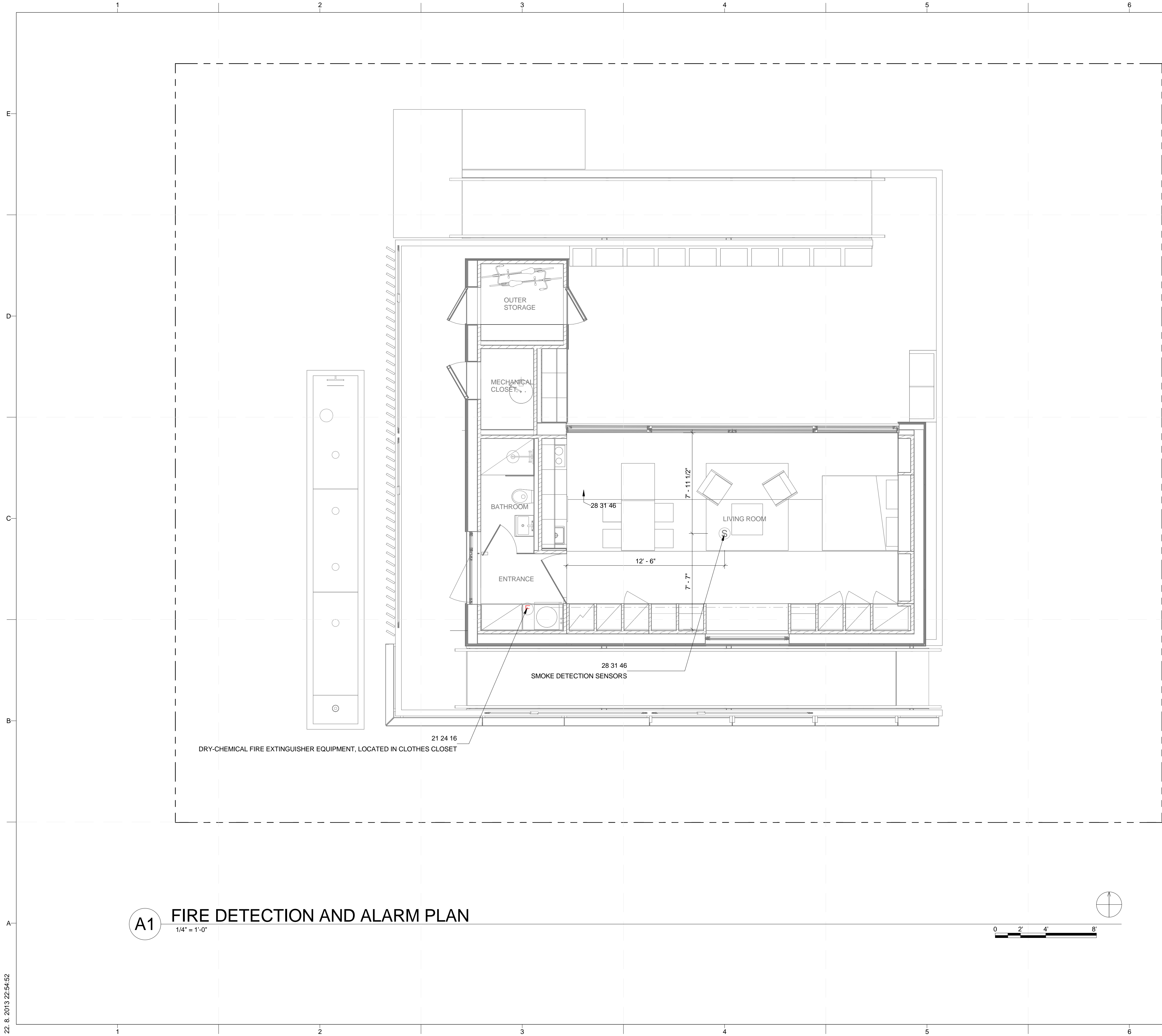



4	10/11/2012	DD SUBMISSION
MARK	DATE	DESCRIPTION

LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
 CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE  
**FIRE PROTECTION  
 NOTES AND SYMBOLS**

**F-001**



**A1 FIRE DETECTION AND ALARM PLAN**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

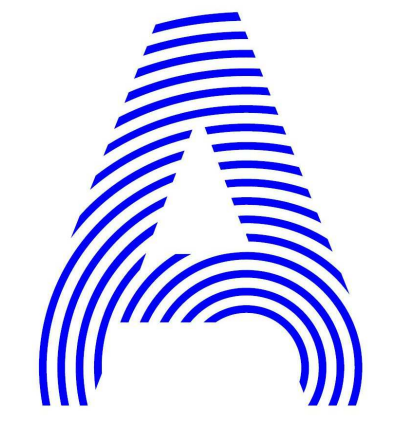
- ALL SMOKE DETECTORS TO BE HARDWIRED WITH BATTERY BACKUP.

**REFERENCE KEYNOTES**

- 21 24 16 DRY-CHEMICAL FIRE EXTINGUISHER EQUIPMENT, LOCATED IN CLOTHES CLOSET
- 28 31 46 SMOKE DETECTION SENSORS

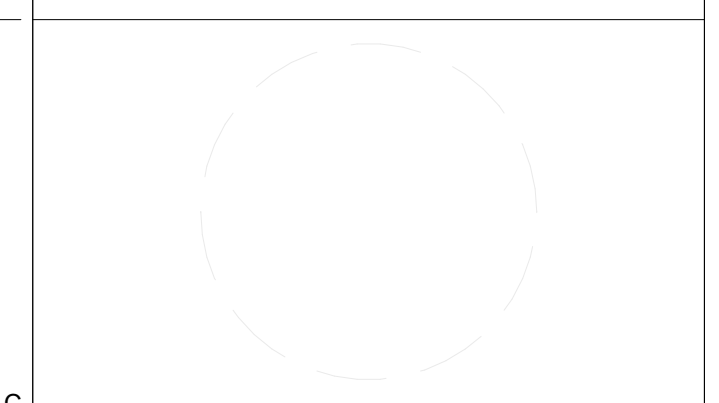
**SHEET KEYNOTES**

- FIRE DETECTION LEGEND:
- (S) CEILING MOUNTED SMOKE DETECTOR
  - (F) DRY-CHEMICAL FIRE EXTINGUISHER EQUIPMENT



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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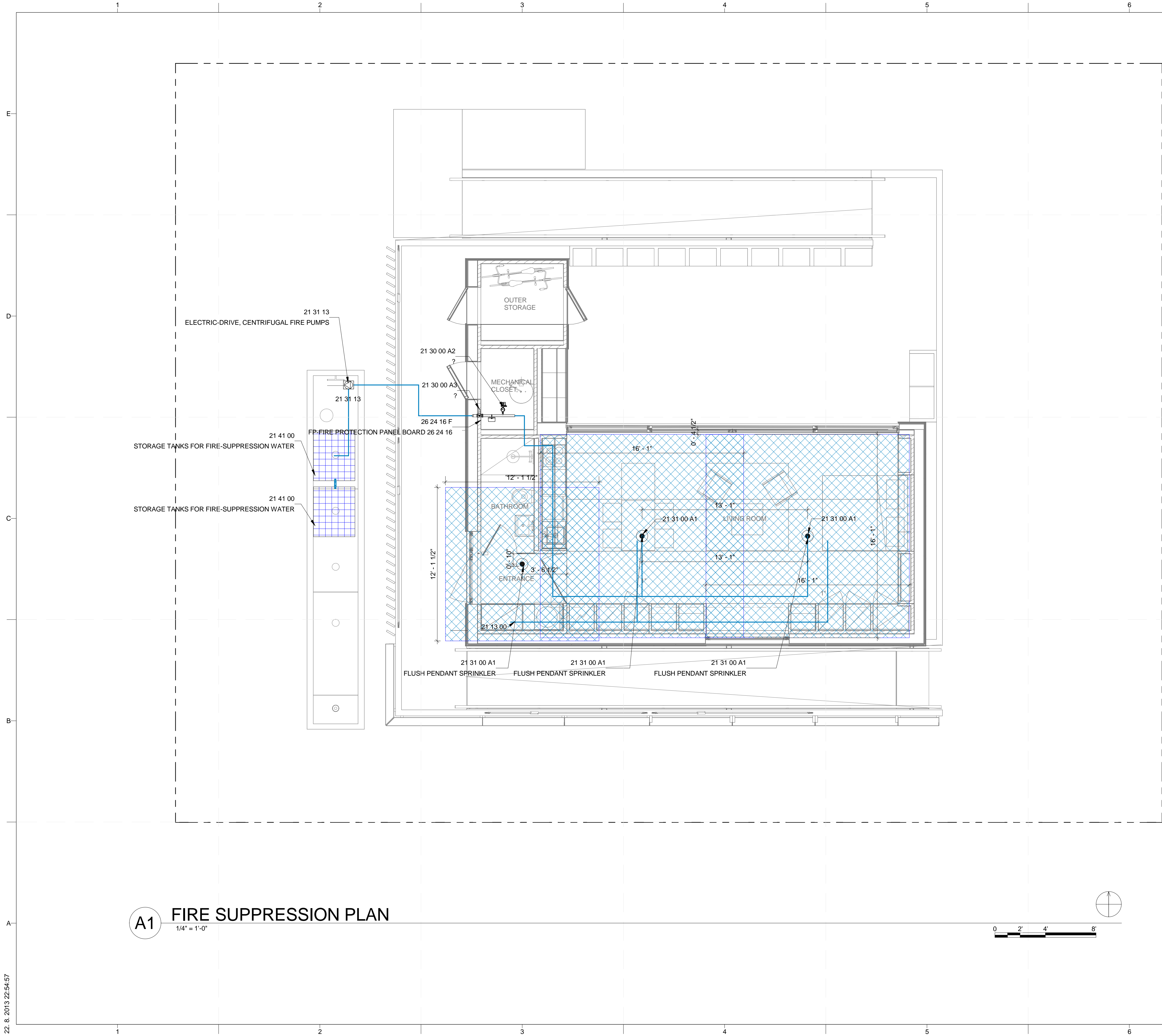
MARK	DATE	DD SUBMISSION	DESCRIPTION
4	10/11/2012	DD SUBMISSION	

LOT NUMBER: 103  
 DRAWN BY: MATÚŠ FICKO  
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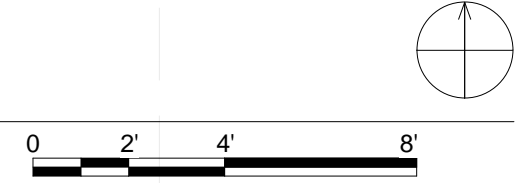
SHEET TITLE  
**FIRE DETECTION AND ALARM**

**F-101**





**A1 FIRE SUPPRESSION PLAN**  
1/4" = 1'-0"



**GENERAL SHEET NOTES**

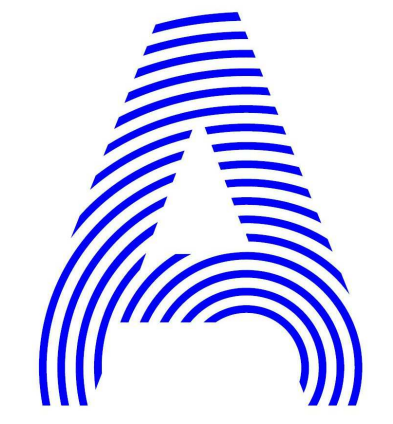
1 EMERGENCY FIRE SUPPRESSION WATER TO BE STORED IN FIRE STORAGE TANK.

**REFERENCE KEYNOTES**

- 21 13 00 FIRE-SUPPRESSION SPRINKLER SYSTEMS
- 21 31 00 A1 FLUSH PENDANT SPRINKLER
- 21 31 13 ELECTRIC-DRIVE, CENTRIFUGAL FIRE PUMPS
- 21 41 00 STORAGE TANKS FOR FIRE-SUPPRESSION WATER
- 26 24 16 F FP-FIRE PROTECTION PANEL BOARD 26 24 16

**SHEET KEYNOTES**

- FIRE SUPPRESSION LEGEND:
- CEILING MOUNTED FIRE SUPPRESSION
  - FIRE SUPPRESSION PRESSURE PUMP
  - FIRE WATER STORAGE TANK
  - HATCHED AREAS DENOTE AREAS OF SPRINKLER COVERAGE



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
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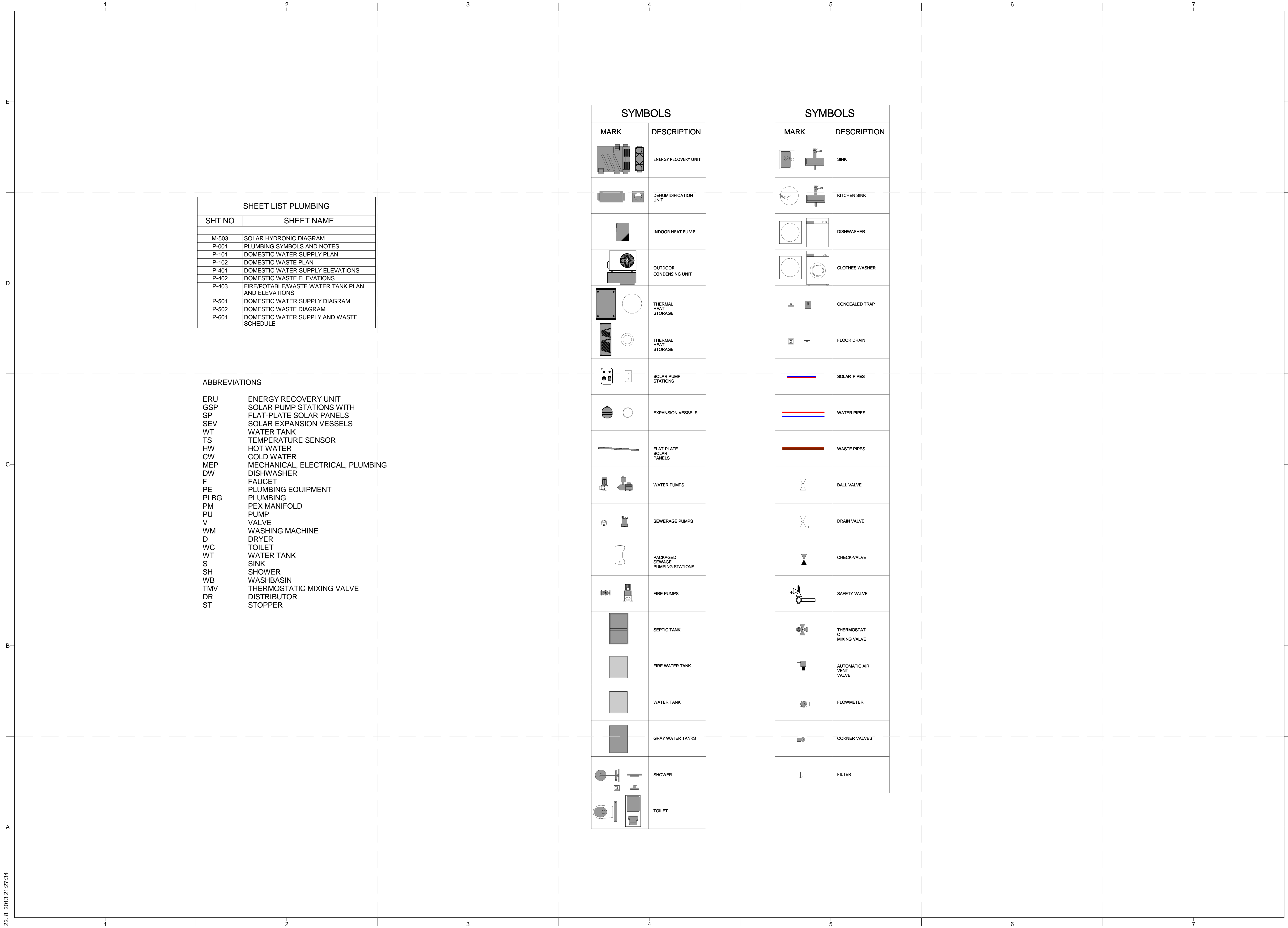


MARK	DATE	DESCRIPTION
4	10/11/2012	DD SUBMISSION

LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
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**SHEET TITLE**  
**FIRE SUPPRESSION PLAN**

**F-102**



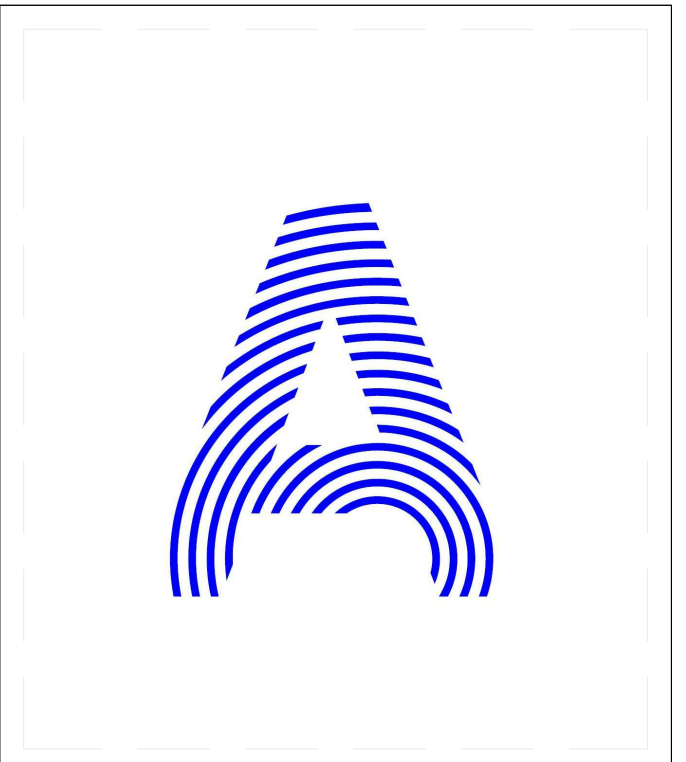
SHEET LIST PLUMBING	
SHT NO	SHEET NAME
M-503	SOLAR HYDRONIC DIAGRAM
P-001	PLUMBING SYMBOLS AND NOTES
P-101	DOMESTIC WATER SUPPLY PLAN
P-102	DOMESTIC WASTE PLAN
P-401	DOMESTIC WATER SUPPLY ELEVATIONS
P-402	DOMESTIC WASTE ELEVATIONS
P-403	FIRE/POTABLE/WASTE WATER TANK PLAN AND ELEVATIONS
P-501	DOMESTIC WATER SUPPLY DIAGRAM
P-502	DOMESTIC WASTE DIAGRAM
P-601	DOMESTIC WATER SUPPLY AND WASTE SCHEDULE

**ABBREVIATIONS**

ERU	ENERGY RECOVERY UNIT
GSP	SOLAR PUMP STATIONS WITH
SP	FLAT-PLATE SOLAR PANELS
SEV	SOLAR EXPANSION VESSELS
WT	WATER TANK
TS	TEMPERATURE SENSOR
HW	HOT WATER
CW	COLD WATER
MEP	MECHANICAL, ELECTRICAL, PLUMBING
DW	DISHWASHER
F	FAUCET
PE	PLUMBING EQUIPMENT
PLBG	PLUMBING
PM	PEX MANIFOLD
PU	PUMP
V	VALVE
WM	WASHING MACHINE
D	DRYER
WC	TOILET
WT	WATER TANK
S	SINK
SH	SHOWER
WB	WASHBASIN
TMV	THERMOSTATIC MIXING VALVE
DR	DISTRIBUTOR
ST	STOPPER

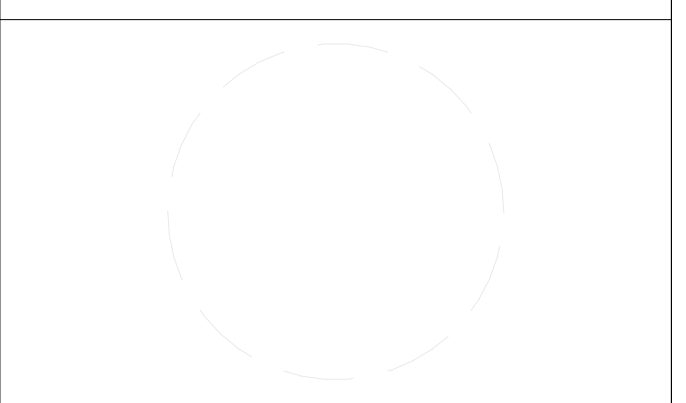
SYMBOLS	
MARK	DESCRIPTION
	ENERGY RECOVERY UNIT
	DEHUMIDIFICATION UNIT
	INDOOR HEAT PUMP
	OUTDOOR CONDENSING UNIT
	THERMAL HEAT STORAGE
	THERMAL HEAT STORAGE
	SOLAR PUMP STATIONS
	EXPANSION VESSELS
	FLAT-PLATE SOLAR PANELS
	WATER PUMPS
	SEWERAGE PUMPS
	PACKAGED SEWAGE PUMPING STATIONS
	FIRE PUMPS
	SEPTIC TANK
	FIRE WATER TANK
	WATER TANK
	GRAY WATER TANKS
	SHOWER
	TOILET

SYMBOLS	
MARK	DESCRIPTION
	SINK
	KITCHEN SINK
	DISHWASHER
	CLOTHES WASHER
	CONCEALED TRAP
	FLOOR DRAIN
	SOLAR PIPES
	WATER PIPES
	WASTE PIPES
	BALL VALVE
	DRAIN VALVE
	CHECK-VALVE
	SAFETY VALVE
	THERMOSTATIC MIXING VALVE
	AUTOMATIC AIR VENT VALVE
	FLOWMETER
	CORNER VALVES
	FILTER



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
 166 34 PRAHA 6 – DEJVICE  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ  
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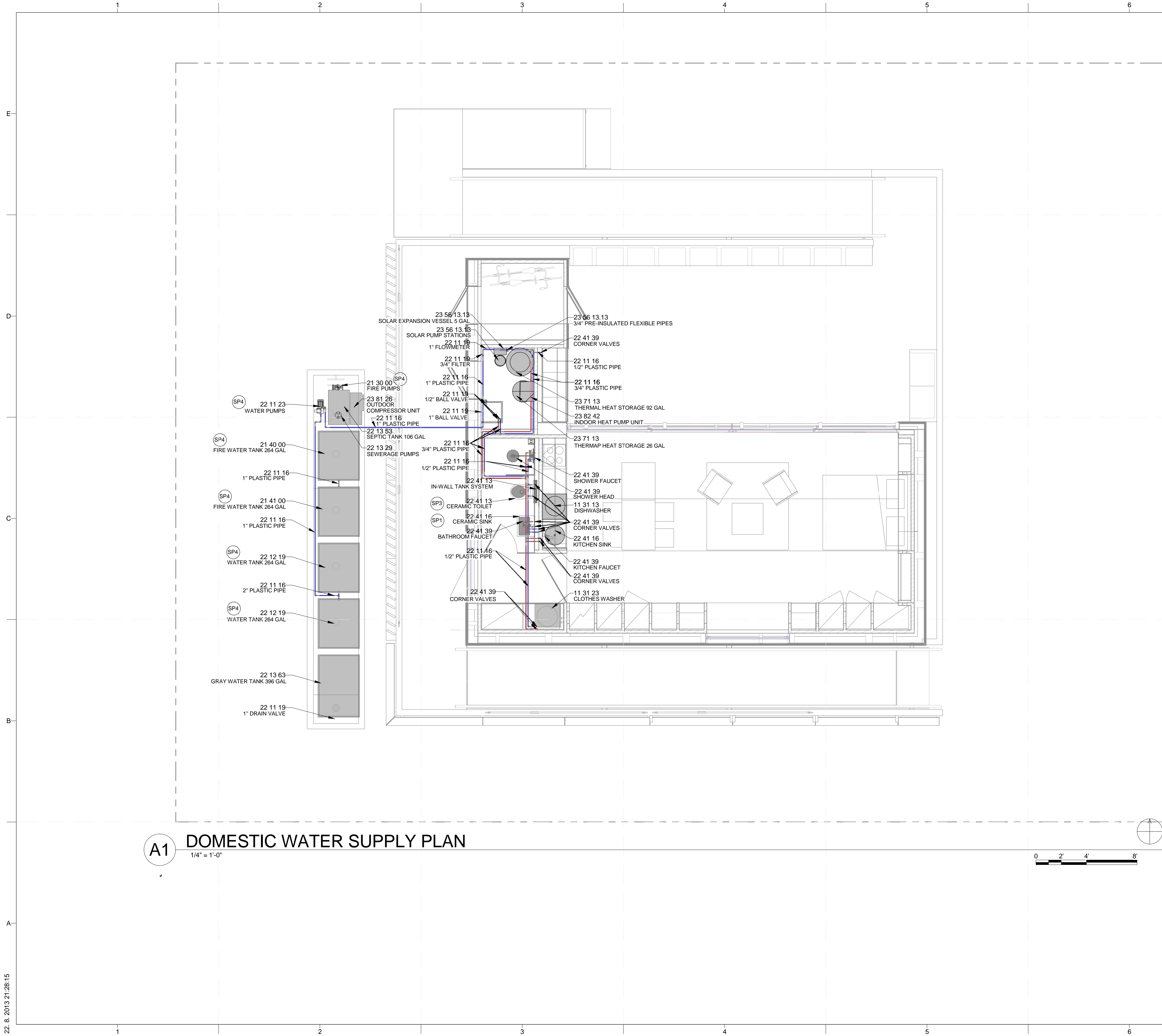


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2	02/14/2013	CD SUBMISSION

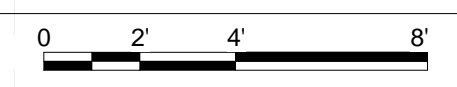
LOT NUMBER: 103  
 DRAWN BY: MATUŠ FICKO  
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SHEET TITLE  
**PLUMBING SYMBOLS AND NOTES**

**P-001**



**A1 DOMESTIC WATER SUPPLY PLAN**  
1/4" = 1'-0"



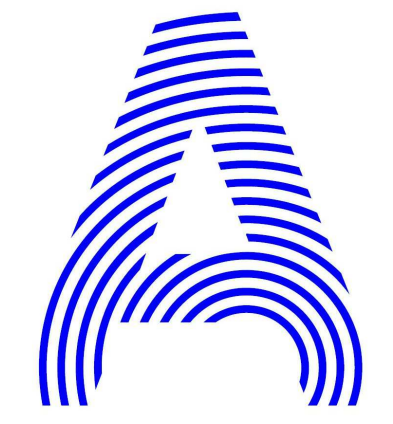
**GENERAL SHEET NOTES**

1. ARCHITECTURAL NOTES
  - A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODE AS WELL AS THE SOLAR DECATHLON RULES AND BUILDING CODE. THE DESIGN SHALL CONFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION.
  - B. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
  - C. ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE.
  - D. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND CONSTRUCTION TRADE PRACTICES, CONSULT ARCHITECT BEFORE PROCEEDING WITH WORK.
2. DIMENSIONING NOTES
  - A. UNLESS NOTED OTHERWISE, PARTITIONS ARE DIMENSIONED TO THE FACE OF THE STRUCTURE.
  - B. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK. THE ARCHITECT WILL BE NOTIFIED OF ANY DISCREPANCIES.
  - C. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH THE WORK OF ALL TRADES.

**REFERENCE KEYNOTES**

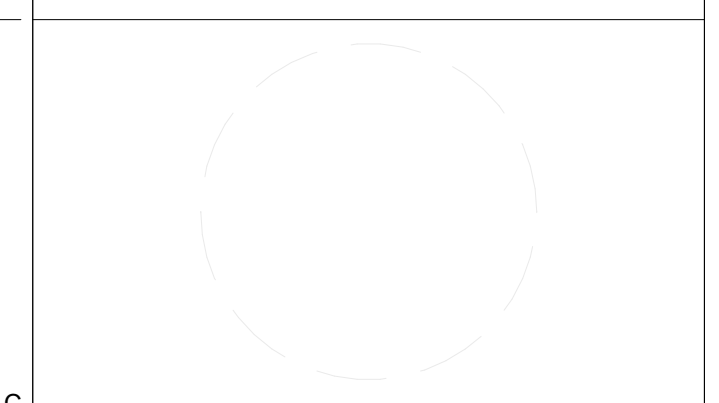
11 31 13	RESIDENTIAL KITCHEN APPLIANCES
11 31 23	RESIDENTIAL LAUNDRY APPLIANCES
21 30 00	FIRE PUMPS
21 40 00	FIRE-SUPPRESSION WATER STORAGE STORAGE TANKS FOR FIRE-SUPPRESSION WATER
21 41 00	STORAGE TANKS FOR FIRE-SUPPRESSION WATER
22 11 16	DOMESTIC WATER PIPING
22 11 19	DOMESTIC WATER PIPING SPECIALTIES
22 11 23	DOMESTIC WATER PUMPS
22 12 19	FACILITY GROUND-MOUNTED, POTABLE WATER STORAGE TANKS
22 13 29	SANITARY SEWERAGE PUMPS
22 13 53	FACILITY SEPTIC TANKS
22 13 63	FACILITY GRAY WATER TANKS
22 41 13	WATER CLOSETS
22 41 16	RESIDENTIAL LAVATORIES AND SINKS
22 41 39	RESIDENTIAL FAUCETS, SUPPLIES AND TRIM
23 56 13.13	HEATING SOLAR FLAT-PLATE COLLECTORS
23 71 13	THERMAL HEAT STORAGE
23 81 26	SPLIT SYSTEM AIR CONDITIONERS

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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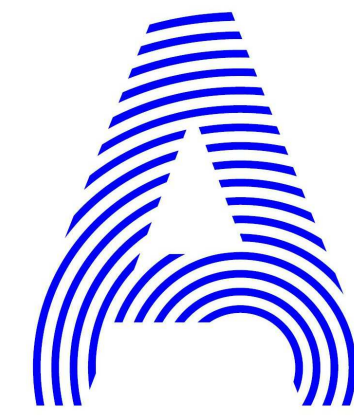


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2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
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SHEET TITLE  
**DOMESTIC WATER SUPPLY PLAN**

**P-101**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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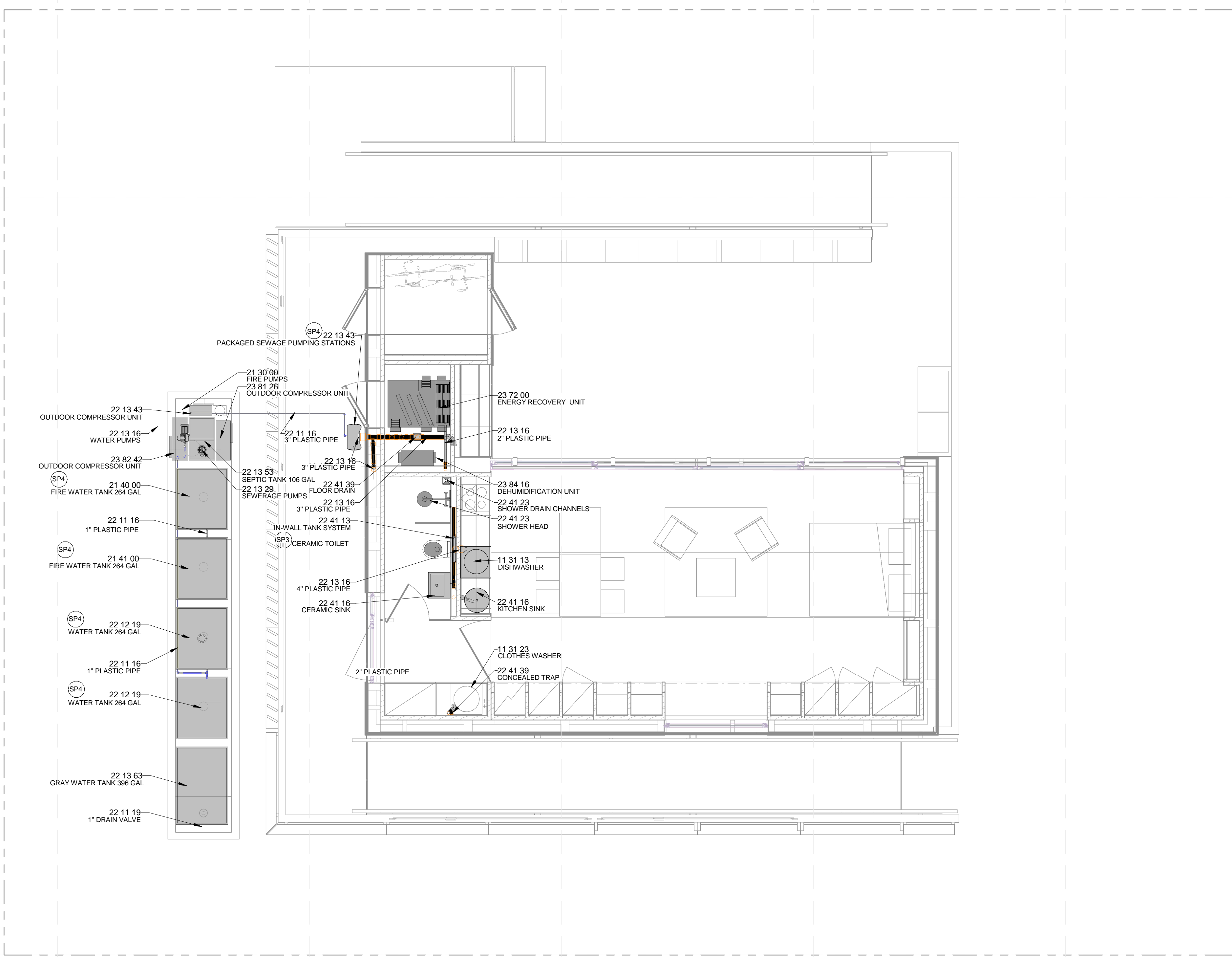


MARK	DATE	DESCRIPTION
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2	02/14/2013	CD SUBMISSION

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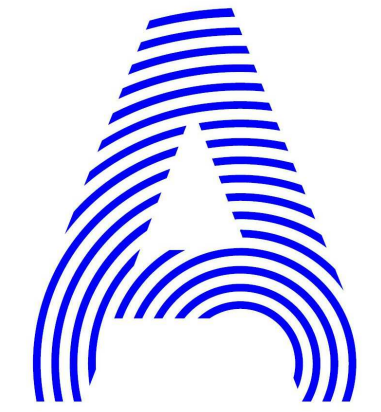
SHEET TITLE  
**DOMESTIC WASTE PLAN**

**P-102**



**A1** DOMESTIC WASTE PLAN  
1/4" = 1'-0"





PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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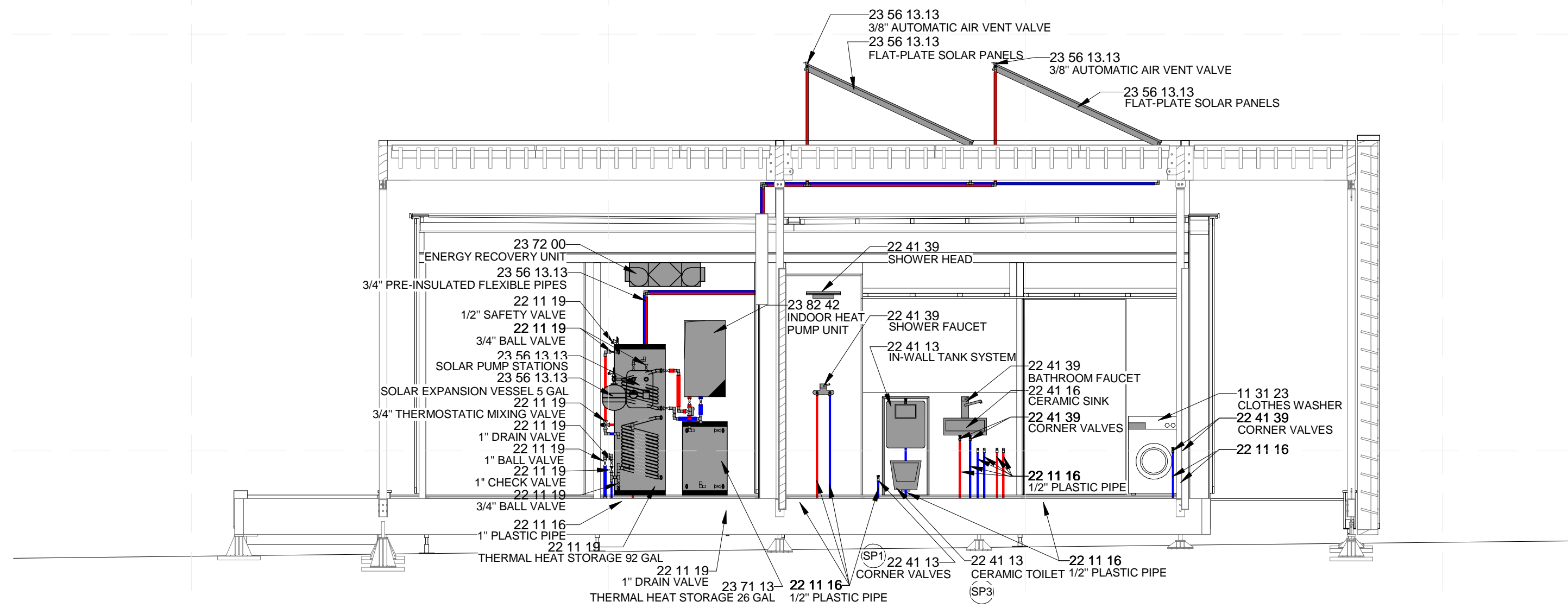
MARK	DATE	DESCRIPTION
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SHEET TITLE

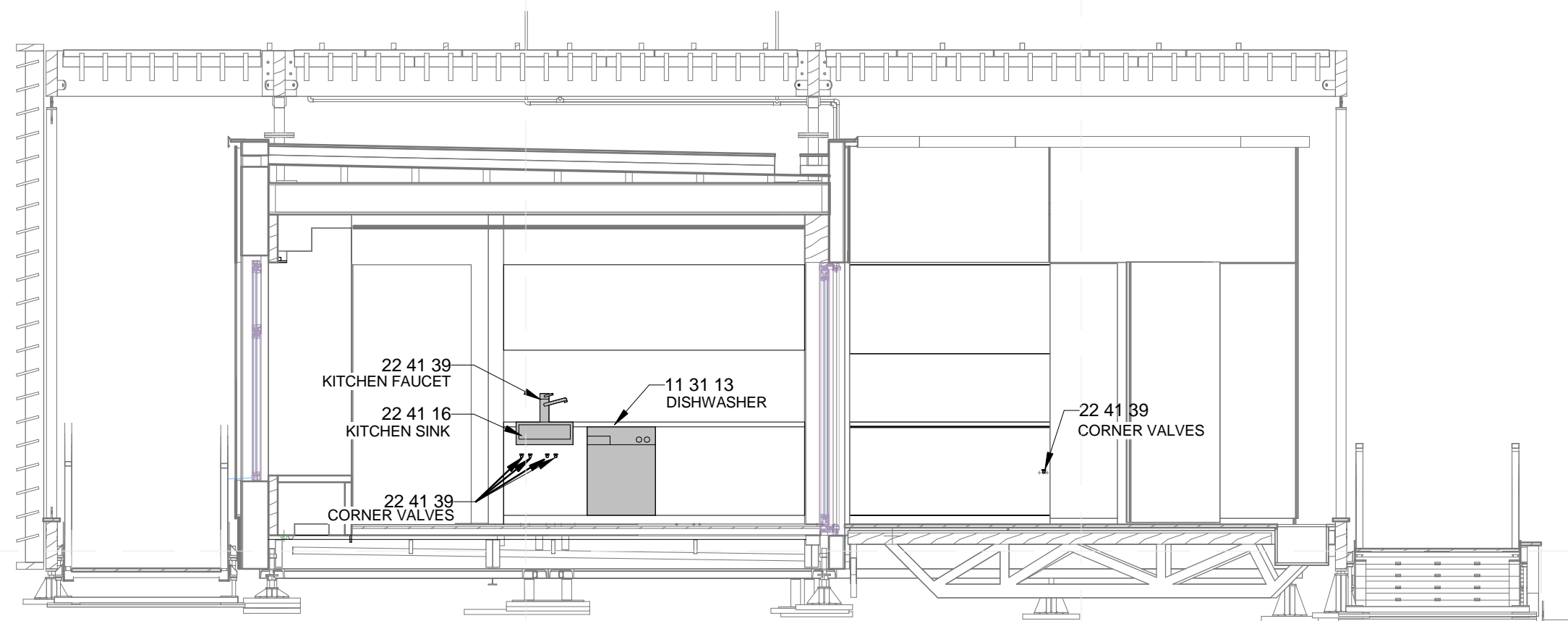
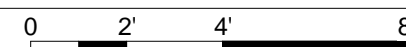
DOMESTIC WATER  
SUPPLY ELEVATIONS

P-401



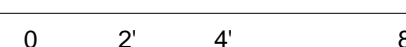
**C2** DOMESTIC WATER SUPPLY ELEVATIONS A-A

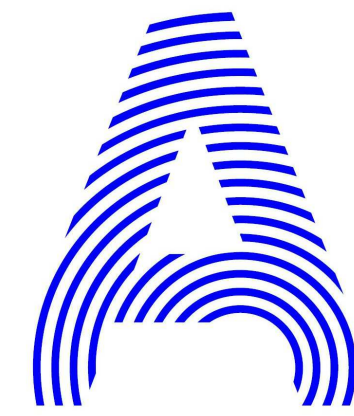
1/4" = 1'-0"



**A2** DOMESTIC WATER SUPPLY ELEVATIONS B-B

1/4" = 1'-0"





PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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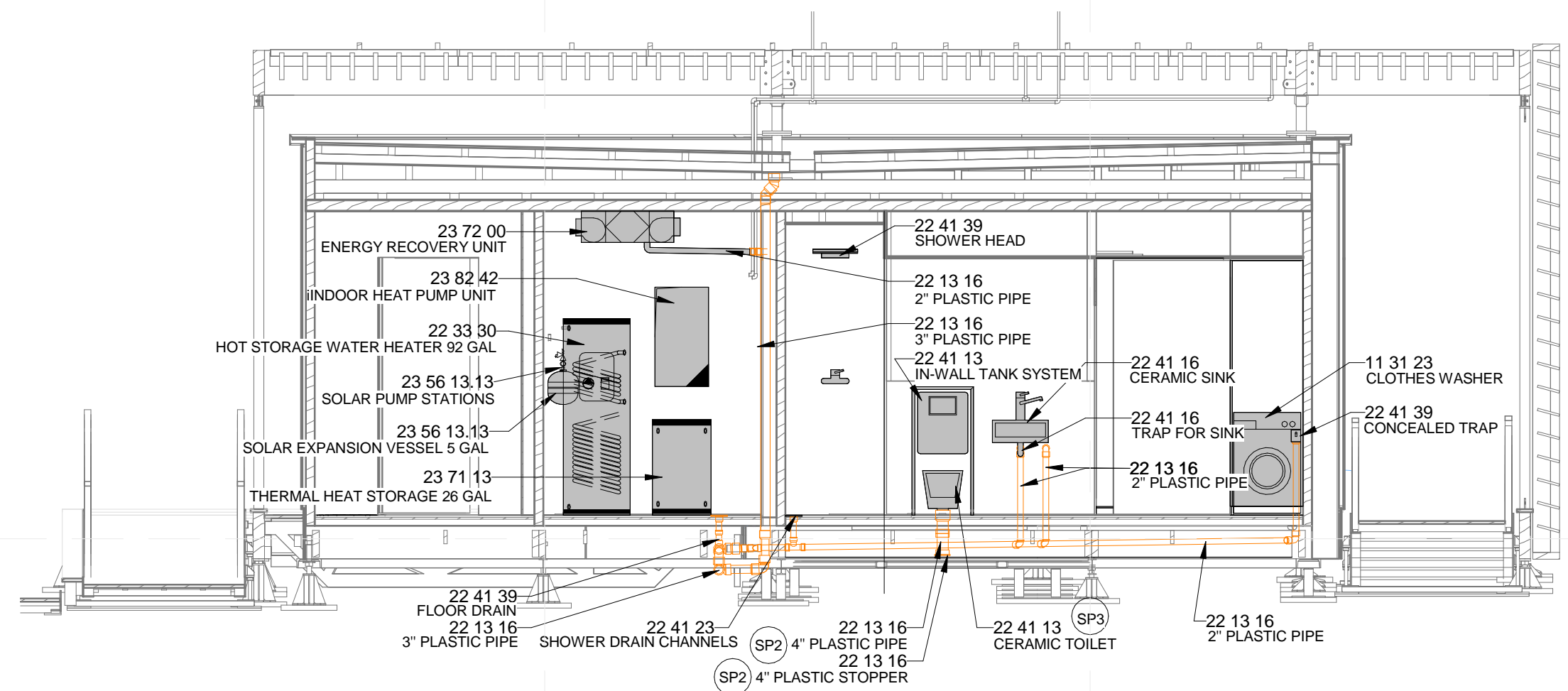
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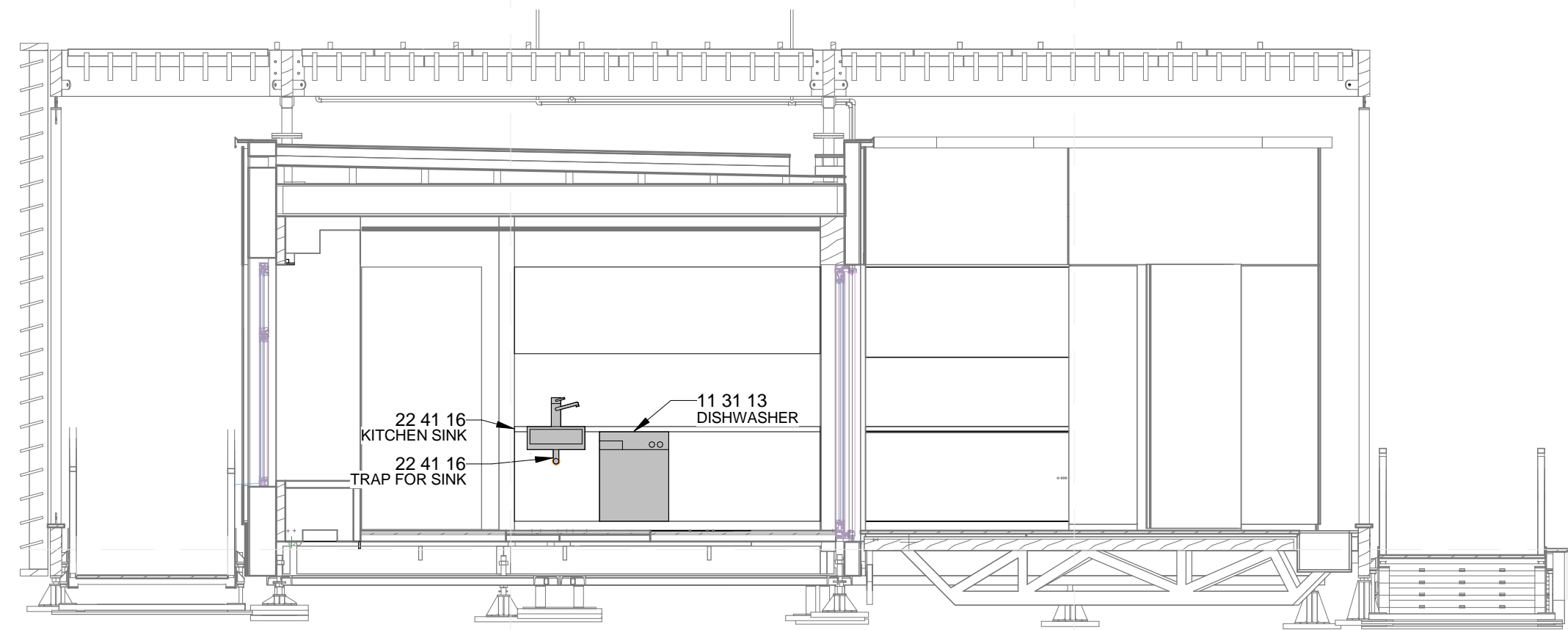
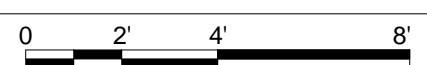
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DOMESTIC WASTE ELEVATIONS

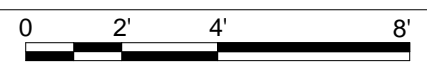
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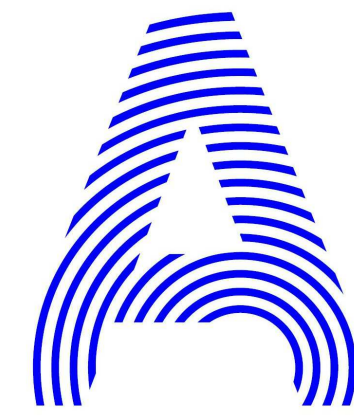


**C2** DOMESTIC WASTE ELEVATIONS A-A  
1/4" = 1'-0"



**A2** DOMESTIC WASTE ELEVATIONS B-B  
1/4" = 1'-0"





PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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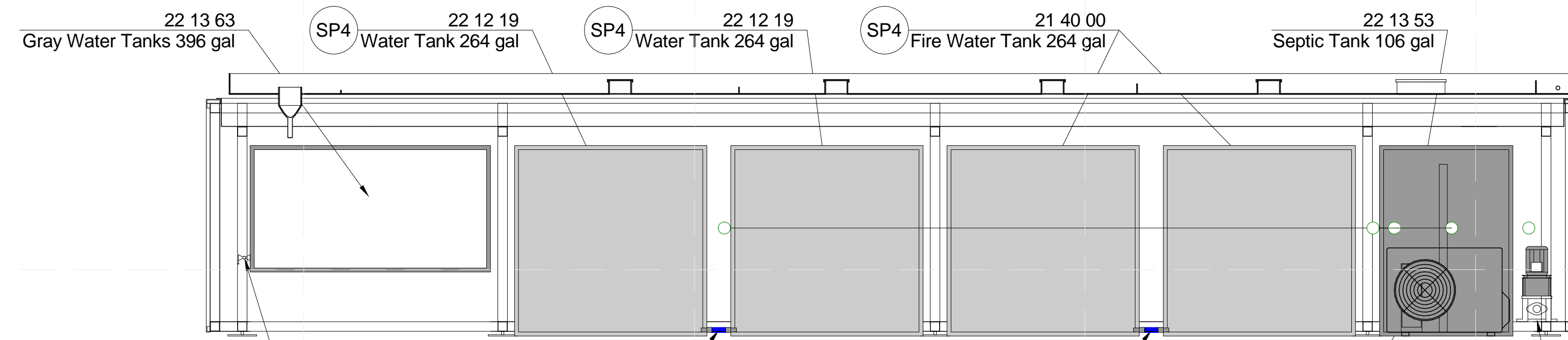


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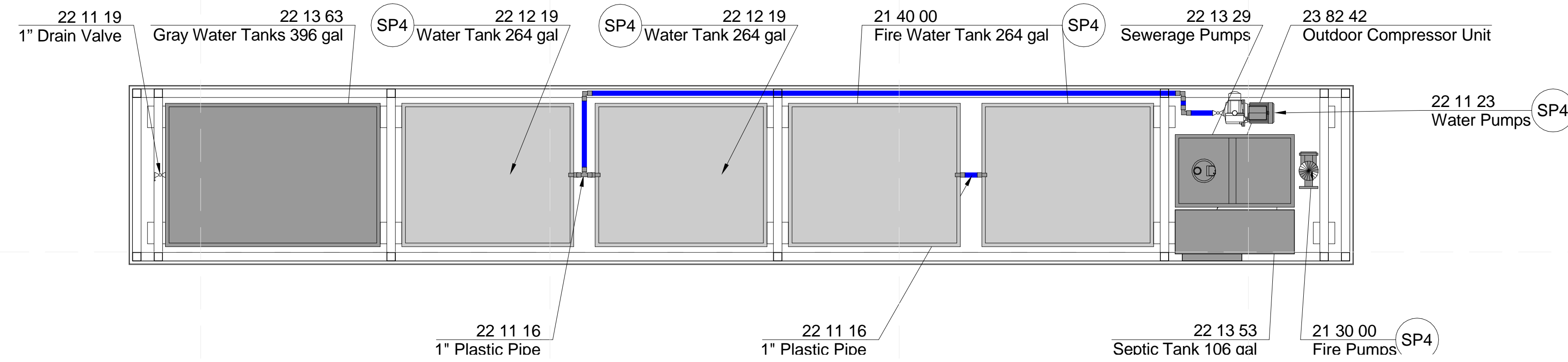
LOT NUMBER: 103  
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SHEET TITLE  
**FIRE/POTABLE/WASTE WATER TANK PLAN AND ELEVATIONS**

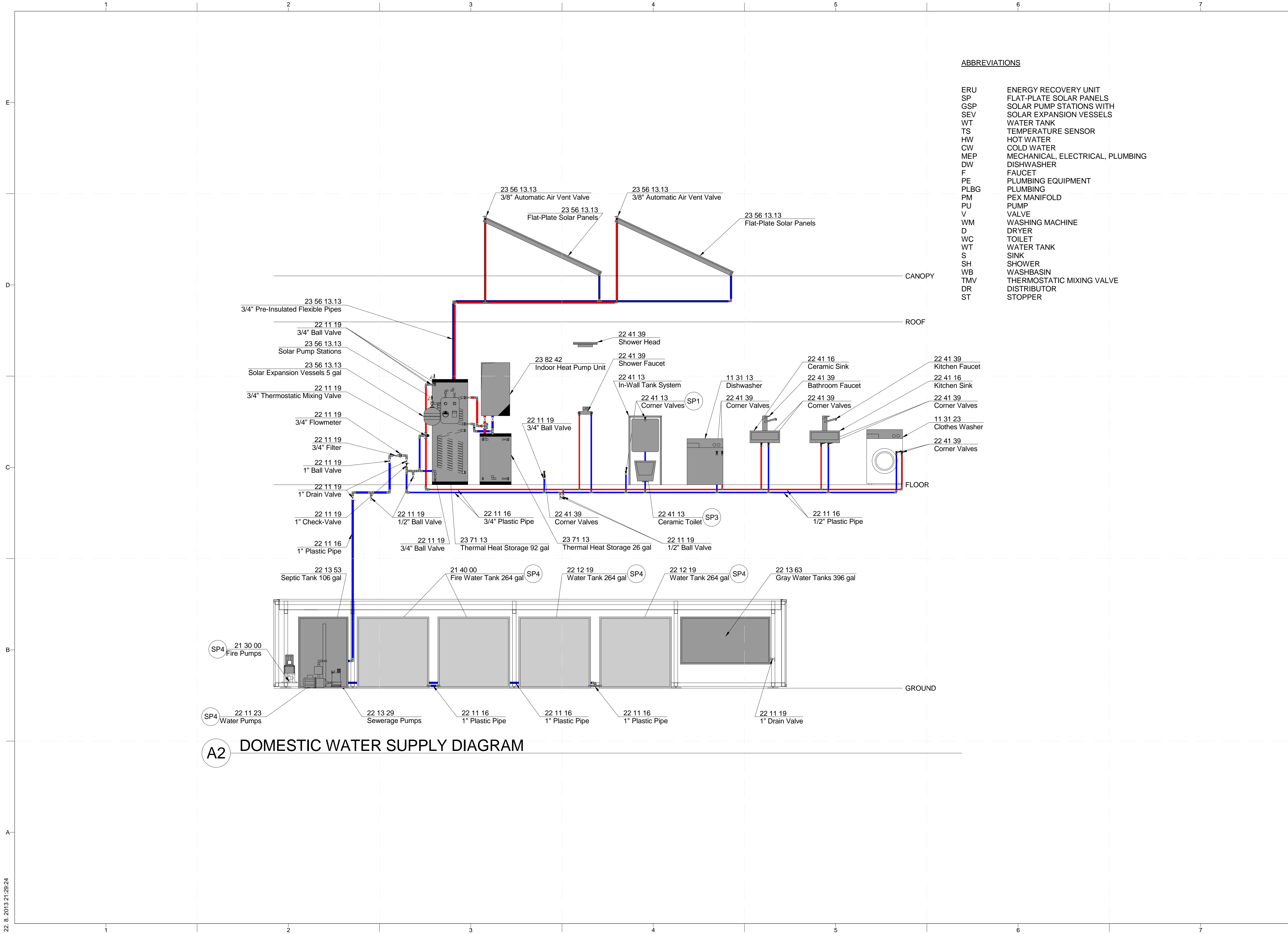
**P-403**



**C2 FIRE/POTABLE/WASTE WATER TANK ELEVATION**  
 1/2" = 1'-0"



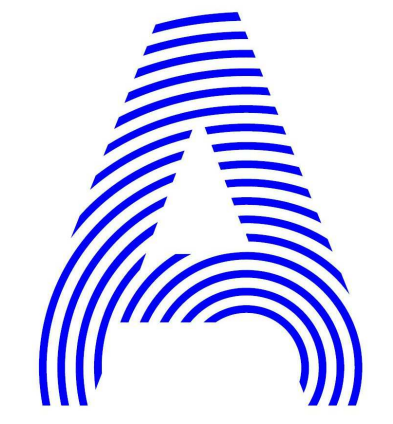
**A2 FIRE/POTABLE/WASTE WATER TANK PLAN**  
 1/2" = 1'-0"



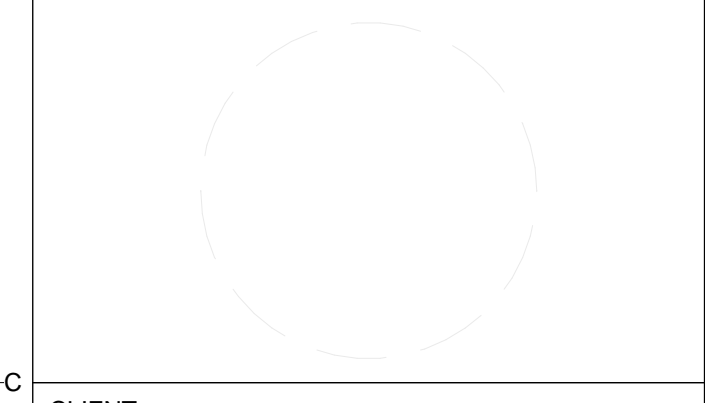
**ABBREVIATIONS**

ERU	ENERGY RECOVERY UNIT
SP	FLAT-PLATE SOLAR PANELS
GSP	SOLAR PUMP STATIONS WITH
SEV	SOLAR EXPANSION VESSELS
WT	WATER TANK
TS	TEMPERATURE SENSOR
HW	HOT WATER
CW	COLD WATER
MEP	MECHANICAL, ELECTRICAL, PLUMBING
DW	DISHWASHER
F	FAUCET
PE	PLUMBING EQUIPMENT
PLBG	PLUMBING
PM	PEX MANIFOLD
PU	PUMP
V	VALVE
WM	WASHING MACHINE
D	DRYER
WC	TOILET
WT	WATER TANK
S	SINK
SH	SHOWER
WB	WASHBASIN
TMV	THERMOSTATIC MIXING VALVE
DR	DISTRIBUTOR
ST	STOPPER

**A2 DOMESTIC WATER SUPPLY DIAGRAM**



PROJECT TITLE:	AIR HOUSE
TEAM NAME:	CZECH REPUBLIC / CTU
ADDRESS:	CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC
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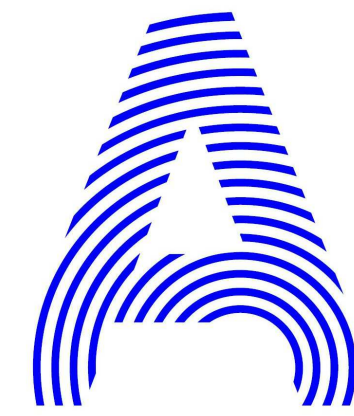
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4	10/11/2012	DD SUBMISSION
2	02/14/2013	CD SUBMISSION

LOT NUMBER:	103
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SHEET TITLE  
**DOMESTIC WATER SUPPLY DIAGRAM**

**P-501**





PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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3	11/20/2012	DD RE-SUBMISSION
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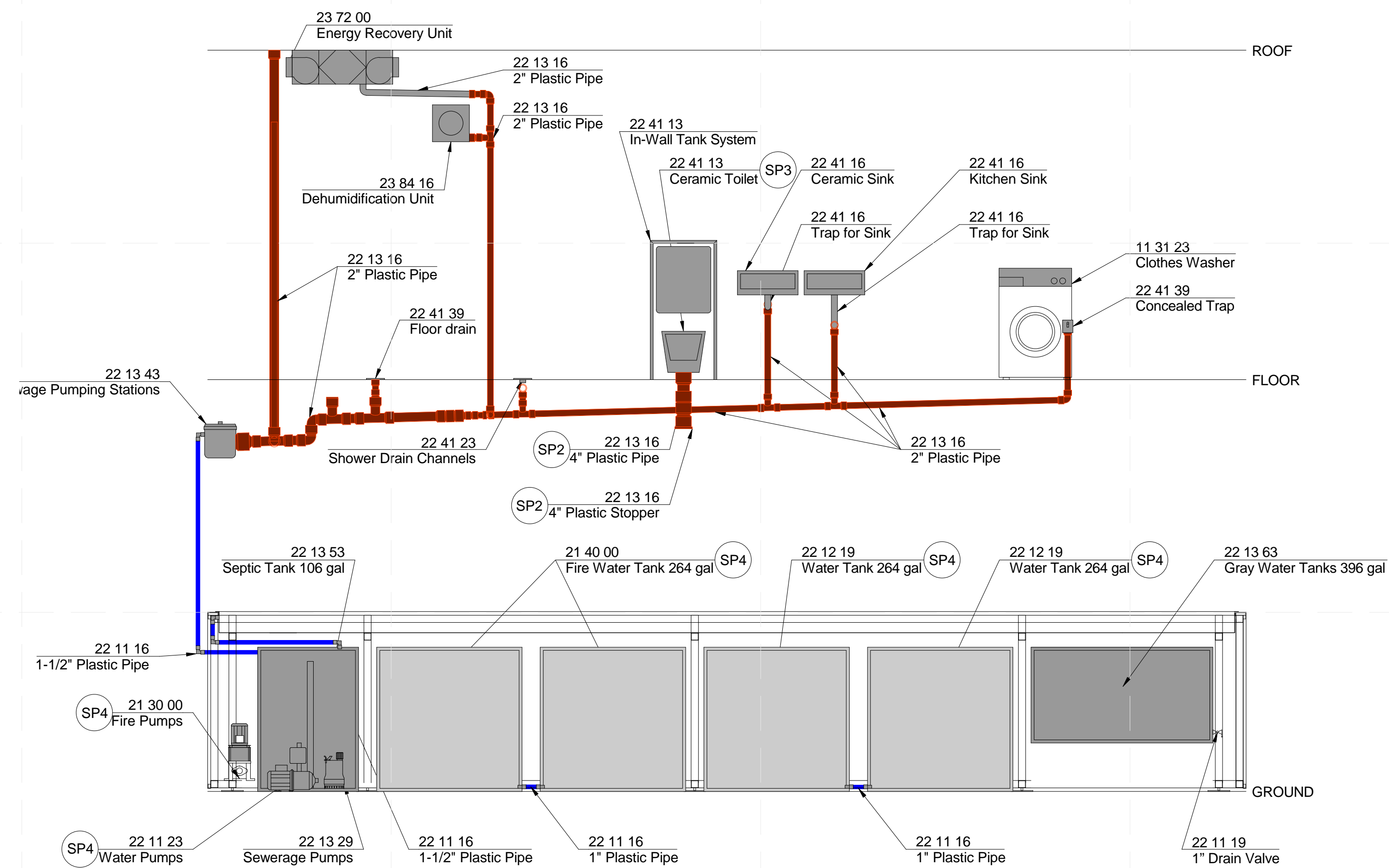
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DOMESTIC WASTE DIAGRAM

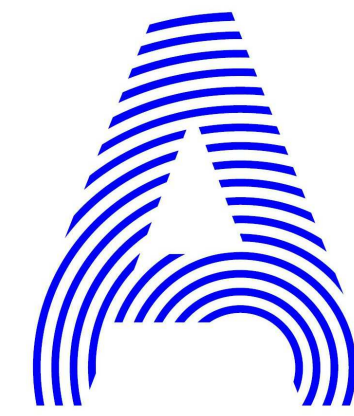
P-502

ABBREVIATIONS

ERU	ENERGY RECOVERY UNIT
SP	FLAT-PLATE SOLAR PANELS
SEV	SOLAR EXPANSION VESSELS
WT	WATER TANK
TS	TEMPERATURE SENSOR
HW	HOT WATER
CW	COLD WATER
MEP	MECHANICAL, ELECTRICAL, PLUMBING
DW	DISHWASHER
F	FAUCET
PE	PLUMBING EQUIPMENT
PLBG	PLUMBING
PM	PEX MANIFOLD
PU	PUMP
V	VALVE
WM	WASHING MACHINE
D	DRYER
WC	TOILET
WT	WATER TANK
S	SINK
SH	SHOWER
WB	WASHBASIN
TMV	THERMOSTATIC MIXING VALVE
DR	DISTRIBUTOR
ST	STOPPER



A2 DOMESTIC WASTE DIAGRAM



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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MARK	DATE	DESCRIPTION

LOT NUMBER: 103  
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SHEET TITLE

DOMESTIC WATER  
SUPPLY AND WASTE  
SCHEDULE

P-601

PLUMBING PIPES SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 07 19	INSULATION COLD WATER PIPES	193 FEET	MIRELON	PRO	
22 07 19	INSULATION HOT WATER PIPES	193 FEET	MIRELON	PRO	
22 11 16	1-1/2" PLASTIC PIPE	5 FEET	REHAU	RAUTTAN FLEX	
22 11 16	1" PLASTIC PIPE	50 FEET	REHAU	RAUTTAN FLEX	
22 11 16	3/4" PLASTIC PIPE	30 FEET	REHAU	RAUTTAN FLEX	
22 11 16	1/2" PLASTIC PIPE	300 FEET	REHAU	RAUTTAN FLEX	
22 13 16	4" PLASTIC PIPE	10 FEET	REHAU	RAUPIANO PLUS	
22 13 16	3" PLASTIC PIPE	70 FEET	REHAU	RAUPIANO PLUS	
22 13 16	2" PLASTIC PIPE	60 FEET	REHAU	RAUPIANO PLUS	
PLUMBING PIPES SPECIALTIES SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 11 19	1" BALL VALVE	4	GIACOMINI	R251X055	
22 11 19	3/4" BALL VALVE	4	GIACOMINI	G2551Y004	
22 11 19	1/2" BALL VALVE	4	GIACOMINI	G2551Y003	
22 11 19	1" DRAIN VALVE	1	GIACOMINI	R621X004	
22 11 19	1/2" DRAIN VALVE	2	GIACOMINI	R251X005	
22 11 19	1" CHECK-VALVE	1	GIACOMINI	R623Y005	
22 11 19	3/4" THERMOSTATIC MIXING VALVE	1	REGULUS	WMIX-K S20	
22 11 19	1/2" SAFETY VALVE	1	GIACOMINI	R140RY102	
22 11 19	1/2" FLOWMETER	1	SENSUS	RESIDAJET	
22 11 19	3/4" FILTER	1	HONEYWELL	FF66-AM	
22 11 19	EXPANSION VESSELS	1	REGULUS	HYB 5	
PUMPS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 11 23	DOMESTIC WATER PUMPS	1	WILO	COR-1 WJ 401 EM	"Temporary for Competition Purposes"
22 13 29	SANITARY SEWERAGE PUMPS	1	WILO	TMW 32/8	
22 13 43	PACKAGED SEWAGE PUMPING STATIONS	1	WILO	KH 32-0,4 EM	"Temporary for Competition Purposes"
TANKS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 12 19	POTABLE-WATER SUPPLY TANK 264 GALLON	2	OBAL CENTRUM	STANDARD BC CONTAINERS 1000, UN CODE	"Temporary for Competition Purposes"
22 13 53	SEPTIC TANK 106 GALLON	1	REALPLAST	POLYPROPYLENE WELDED TANK	
22 13 63	GRAY WATER TANK 396 GALLON	1	REALPLAST	POLYPROPYLENE WELDED TANK	
RESIDENTIAL WATER CLOSETS, URINALS, AND BIDETS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 41 13	WALL MOUNTED CERAMIC TOILET	1	DURAVIT	DARLING NEW TOILETS 254909	
22 41 13	IN-WALL TANK SYSTEM	1	ALCA PLAST	A1101/1200	
22 41 13	CORNER VALVES	1	HANSGROHE	13903000	
RESIDENTIAL LAVATORIES AND SINKS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 41 16	WALL MOUNTED CERAMIC SINK	1	DURAVIT	VANITY BASINS WASHBASINS 031555	
22 41 16	KITCHEN SINK	1	DURAVIT	VERO KITCHEN SINKS 751445	
22 41 16	INTERCEPTING TRAP	1	ALCA PLAST	A434	
22 41 16	INTERCEPTING TRAP	1	ALCA PLAST	A447P Ø50/40	
RESIDENTIAL SHOWER SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 41 23	SHOWER DRAIN CHANNELS	1	ALCA PLAST	A471CR	
RESIDENTIAL FAUCETS, SUPPLIES, AND TRIM SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
22 41 39	BATHROOM FAUCET	1	HANSGROHE	AXOR STARCK ORGANIC 2-HANDLE BASIN MIXER 280	
22 41 39	KITCHEN FAUCET	1	HANSGROHE	AXOR SINGLE LEVER KITCHEN MIXER WITH PULL-OUT SPRAY	
22 41 39	SHOWER FAUCET	1	HANSGROHE	AXOR THERMOSTATIC SHOWER MIXER FOR EXPOSED FITTING	
22 41 39	SHOWER SET	1	HANSGROHE	AXOR SHOWER SET	
22 41 39	CORNER VALVES	4	HANSGROHE	13903000	
22 41 39	CORNER VALVES WITH CHECK-VALVE	4	IVAR	08101013	
22 41 39	CONCEALED TRAP	1	ALCA PLAST	APS3	
22 41 39	FLOOR DRAIN	1	ALCA PLAST	APV2324	

SHEET LIST MECHANICAL	
SHT NO	SHEET NAME
M-001	MECHANICAL SYMBOLS AND NOTES
M-101	HYDRONIC PLAN
M-102	HVAC PLAN
M-103	MECHANICAL ROOM HVAC SYSTEM
M-401	HYDRONIC ELEVATIONS
M-402	HVAC ELEVATIONS
M-501	HYDRONIC DIAGRAM
M-502	HVAC DIAGRAM
M-601	HVAC SCHEDULES

SYMBOLS	
MARK	DESCRIPTION
	ENERGY RECOVERY UNIT
	DEHUMIDIFICATION UNIT
	INDOOR HEAT PUMP
	OUTDOOR CONDENSING UNIT
	THERMAL HEAT STORAGE
	HOT STORAGE WATER HEATER
	SOLAR PUMP STATIONS
	EXPANSION VESSELS
	CHILLED CEILING
	EXHAUST HOOD
	WATER PUMPS
	SEWERAGE PUMPS
	FIRE PUMPS
	SEPTIC TANK
	FIRE WATER TANK
	WATER TANK
	GRAY WATER TANKS
	FLOWMETER
	THERMOSTATIC MIXING VALVE

SYMBOLS	
MARK	DESCRIPTION
	DIFFUSERS
	GRILLES
	HYDRONIC PIPES
	REFRIGERANT LINE (FLEX PIPE)
	ROUND SPIRAL DUCT
	RECTANGULAR PLASTIC DUCTS
	WATER PIPES
	SOLAR PIPES
	HVAC FANS
	BALL VALVE
	DRAIN VALVE
	CHECK VALVE
	FILTER
	THERMOMANOMETER
	SAFETY VALVE
	HYDRONIC PUMPS
	MIXING (T) VALVE
	AUTOMATIC AIR VENT VALVE
	FLAT-PLATE SOLAR PANELS

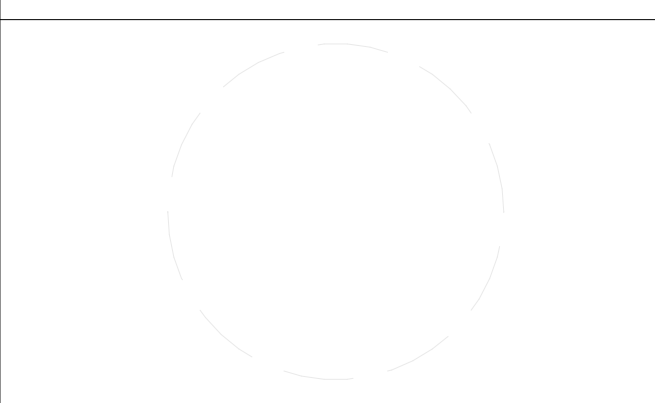
**ABBREVIATIONS**

A/C	AIR CONDITIONING
CU	CONDENSING UNIT
EQ	EQUAL
ERU	ENERGY RECOVERY UNIT
G	GRILLE
H	HEIGHT
HP	HEAT PUMP
HVAC	HEATING, VENTILATION, AIR CONDITIONING
MEP	MECHANICAL, ELECTRICAL, PLUMBING
PSF	POUNDS PER SQUARE FOOT
R/A	RETURN AIR
RET	RETURN
S/A	SUPPLY AIR



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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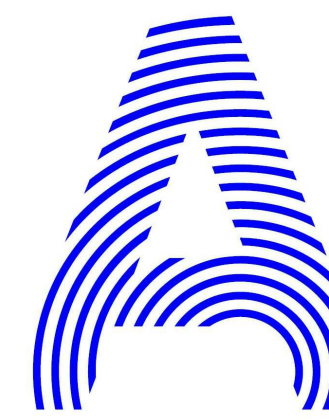
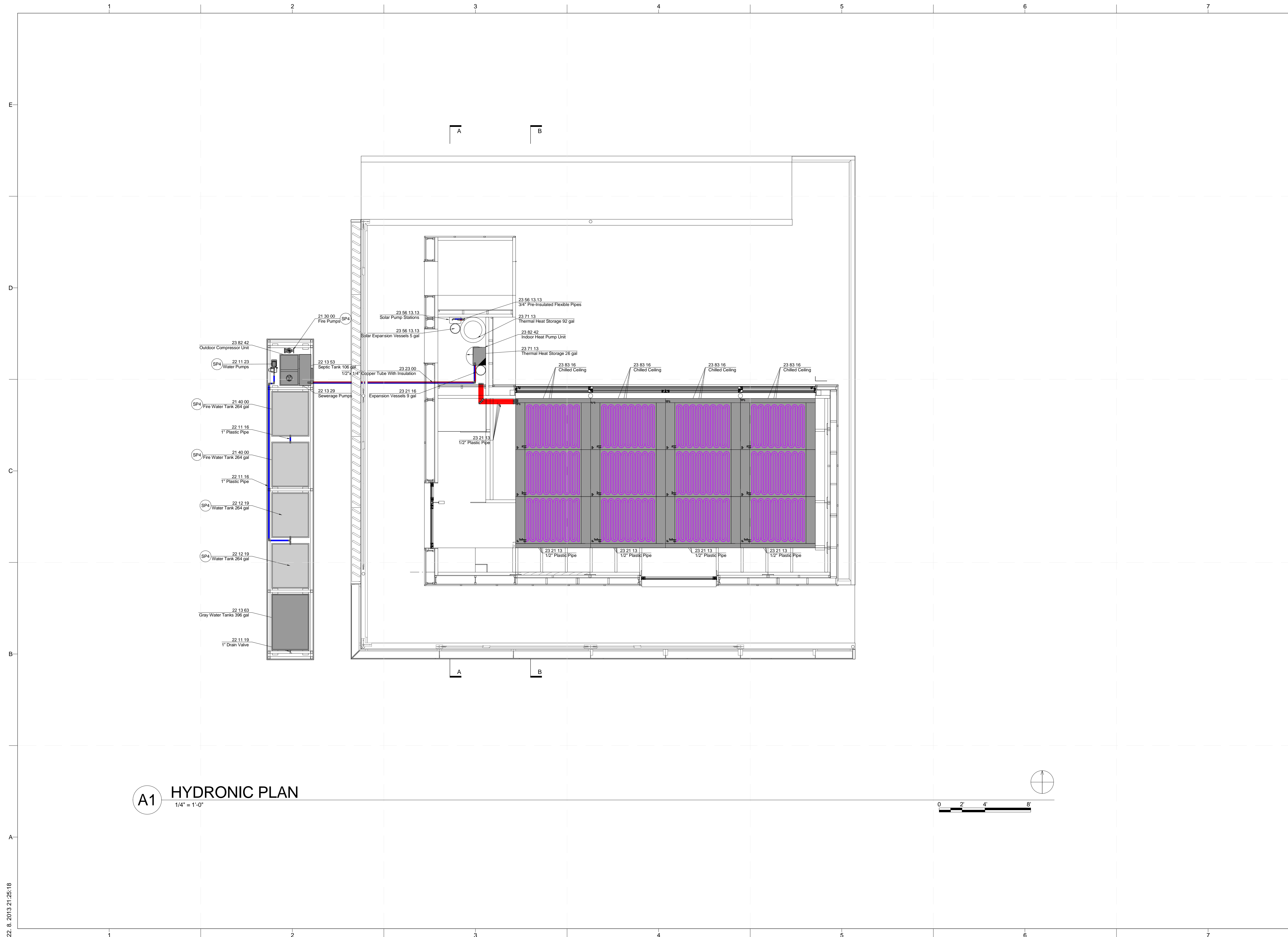
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2	02/14/2013	CD SUBMISSION

LOT NUMBER: 103  
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SHEET TITLE

**MECHANICAL SYMBOLS AND NOTES**

**M-001**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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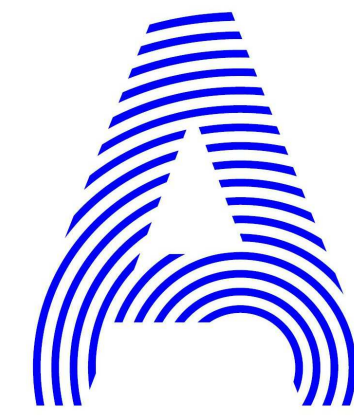
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SHEET TITLE

HYDRONIC PLAN

M-101



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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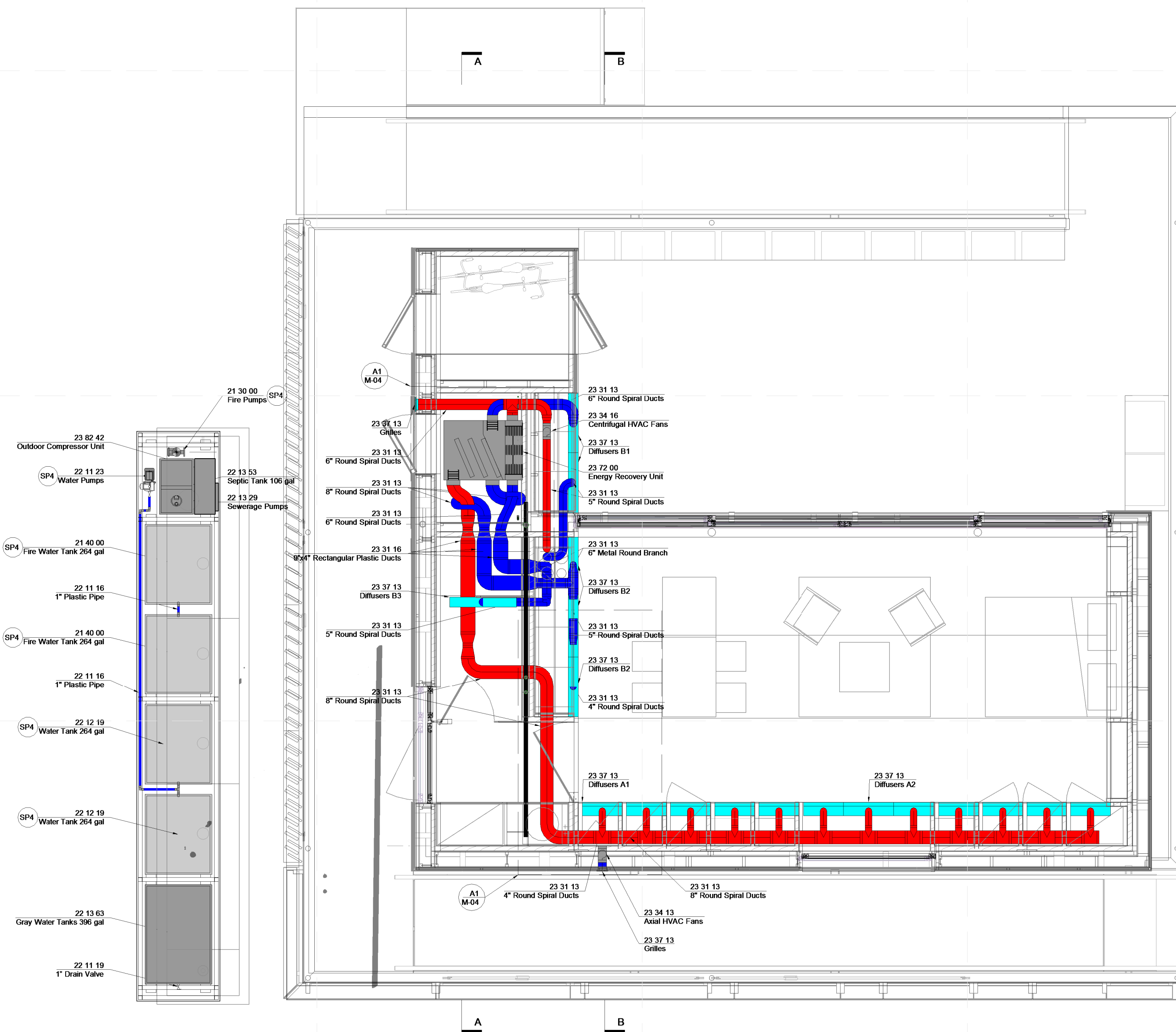
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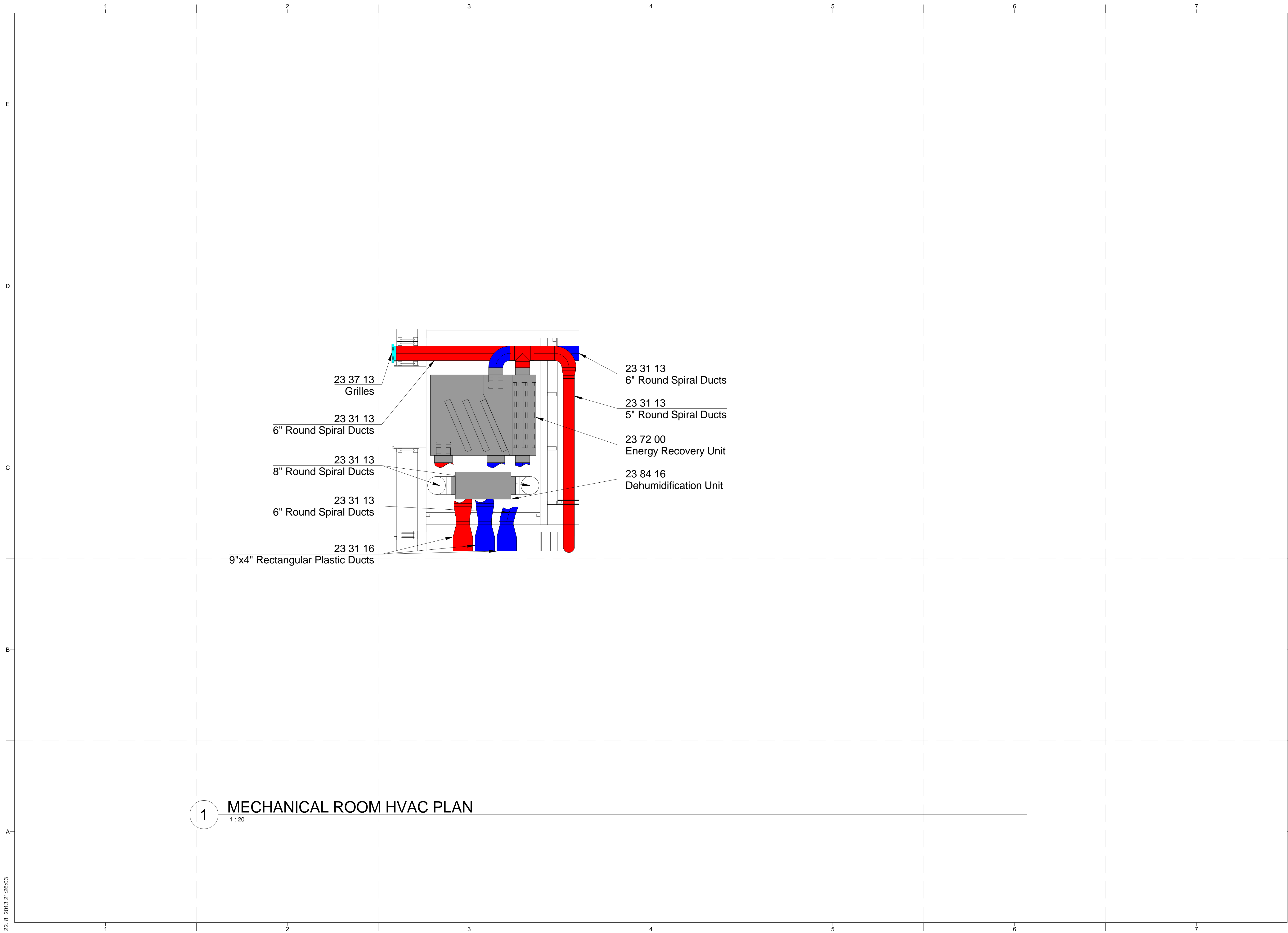
HVAC PLAN

M-102

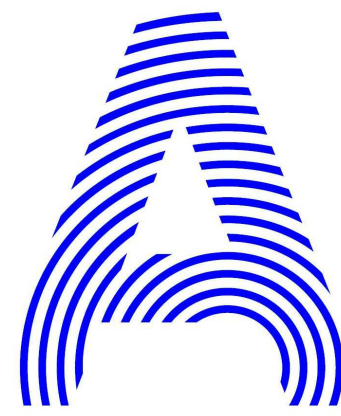


**A1 HVAC PLAN**  
1/4" = 1'-0"





**1** MECHANICAL ROOM HVAC PLAN  
1:20



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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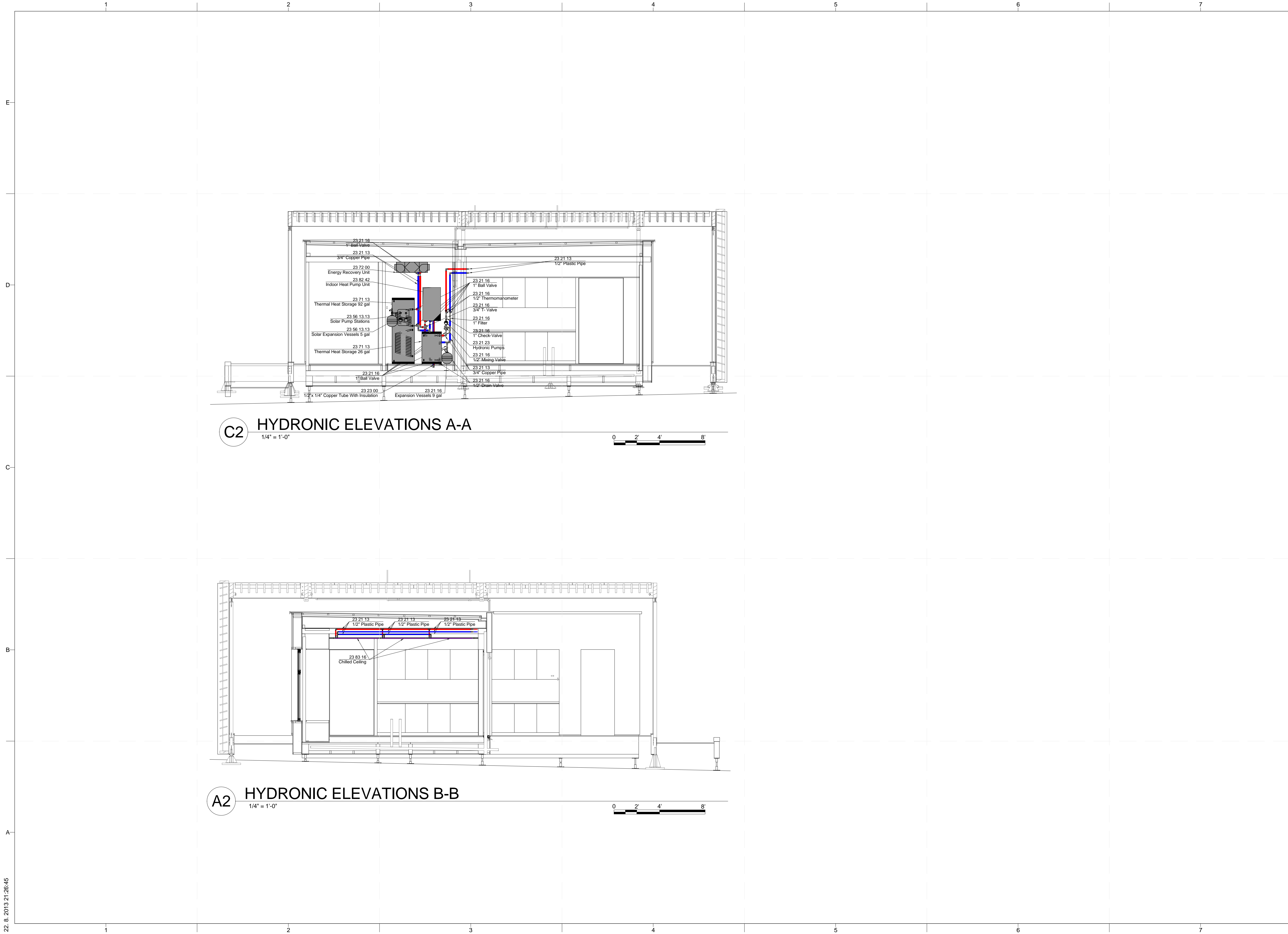


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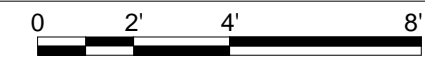
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SHEET TITLE  
**MECHANICAL ROOM  
 HVAC SYSTEM**

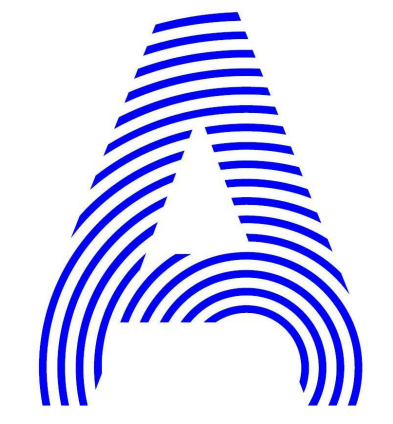
**M-103**



**C2** HYDRONIC ELEVATIONS A-A  
1/4" = 1'-0"

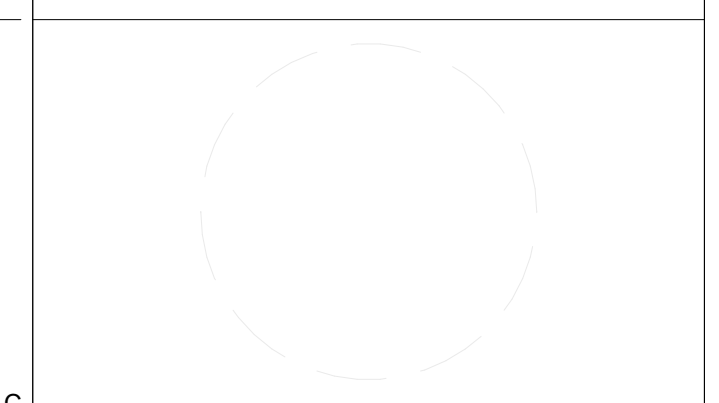


**A2** HYDRONIC ELEVATIONS B-B  
1/4" = 1'-0"



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
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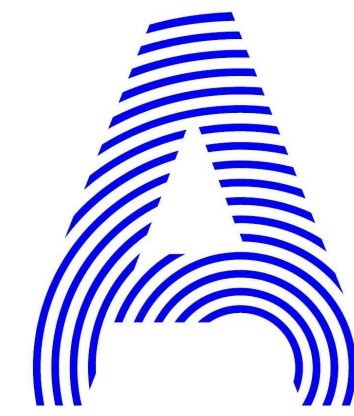


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SHEET TITLE  
 HYDRONIC ELEVATIONS

**M-401**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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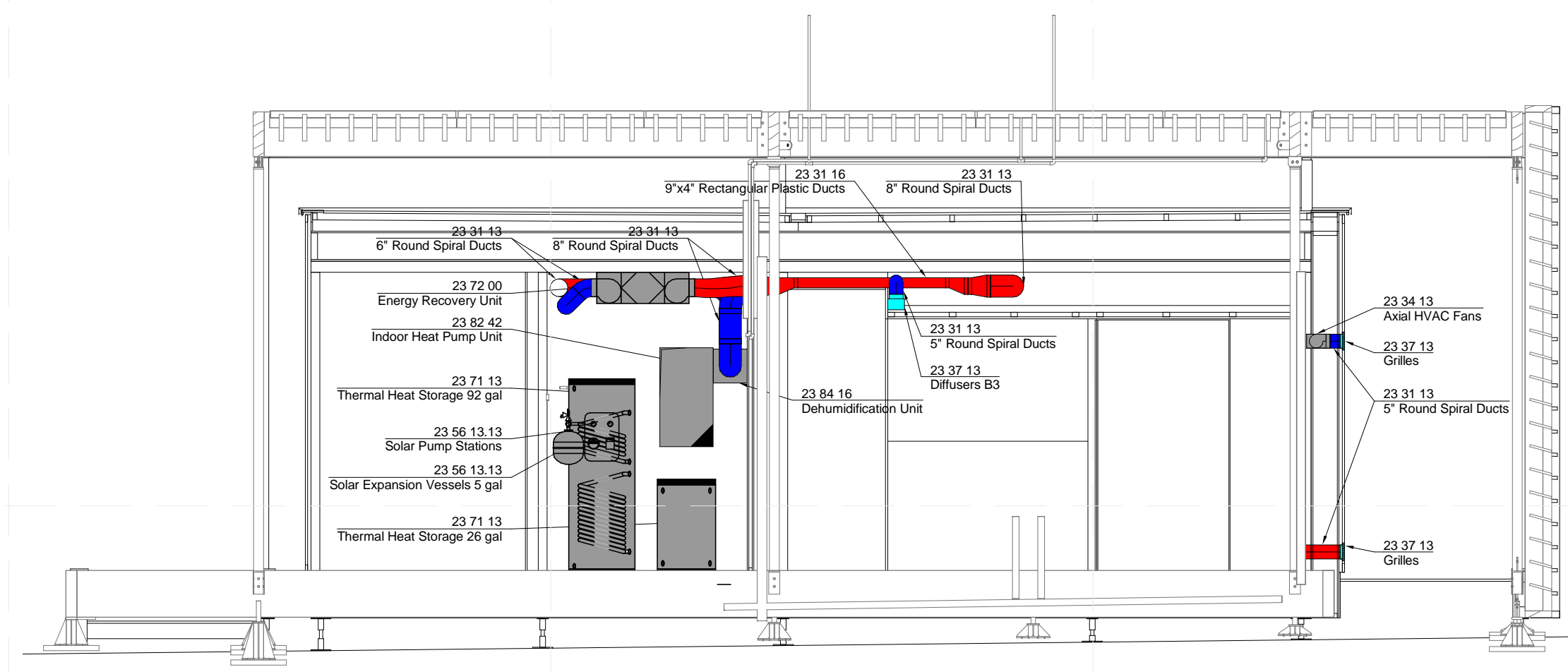


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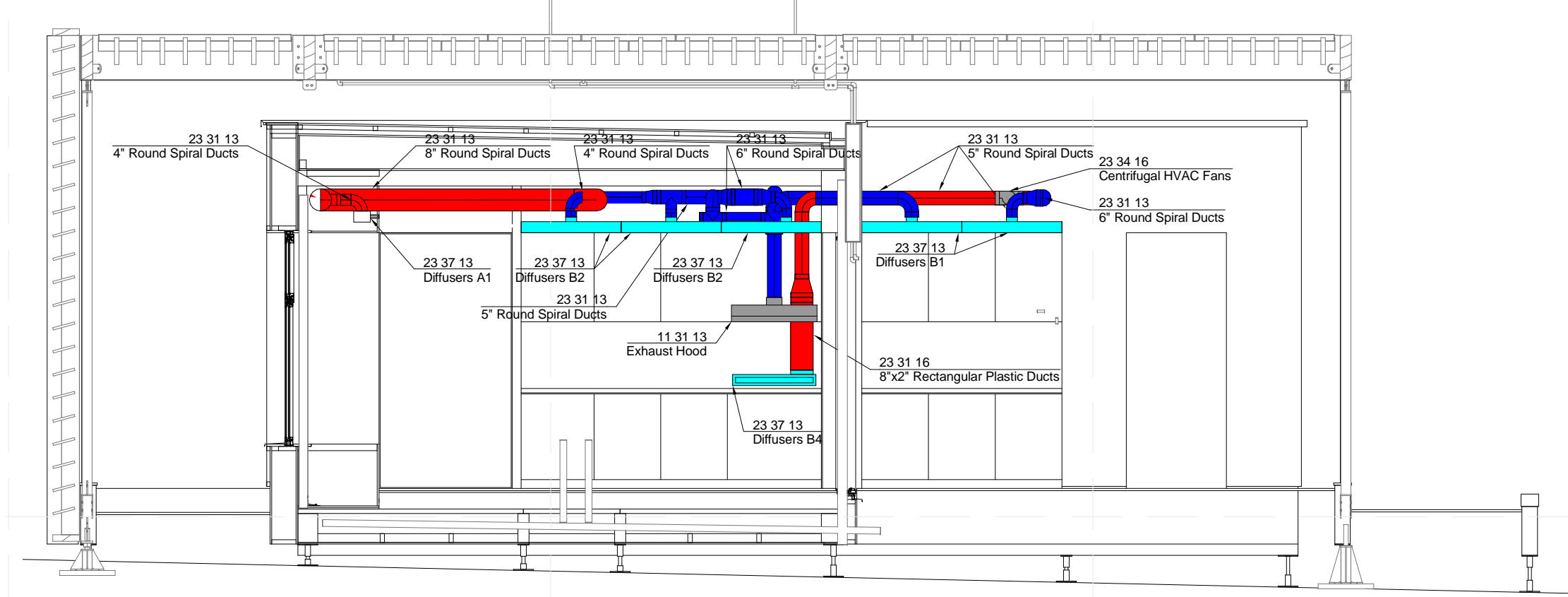
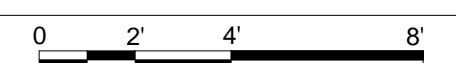
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SHEET TITLE  
HVAC ELEVATIONS

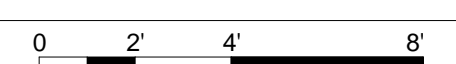
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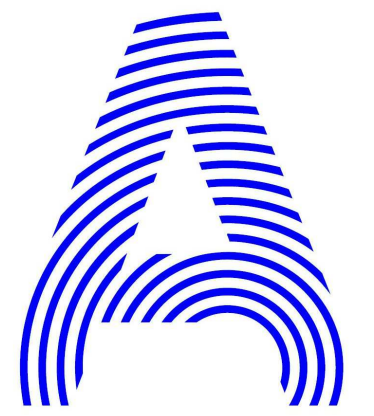
**C2** HVAC ELEVATIONS A-A  
1/4" = 1'-0"



**A2** HVAC ELEVATIONS B-B  
1/4" = 1'-0"







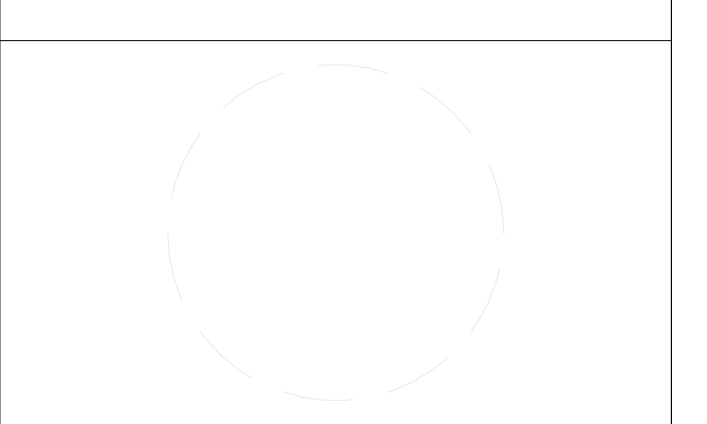
PROJECT TITLE: AIR HOUSE

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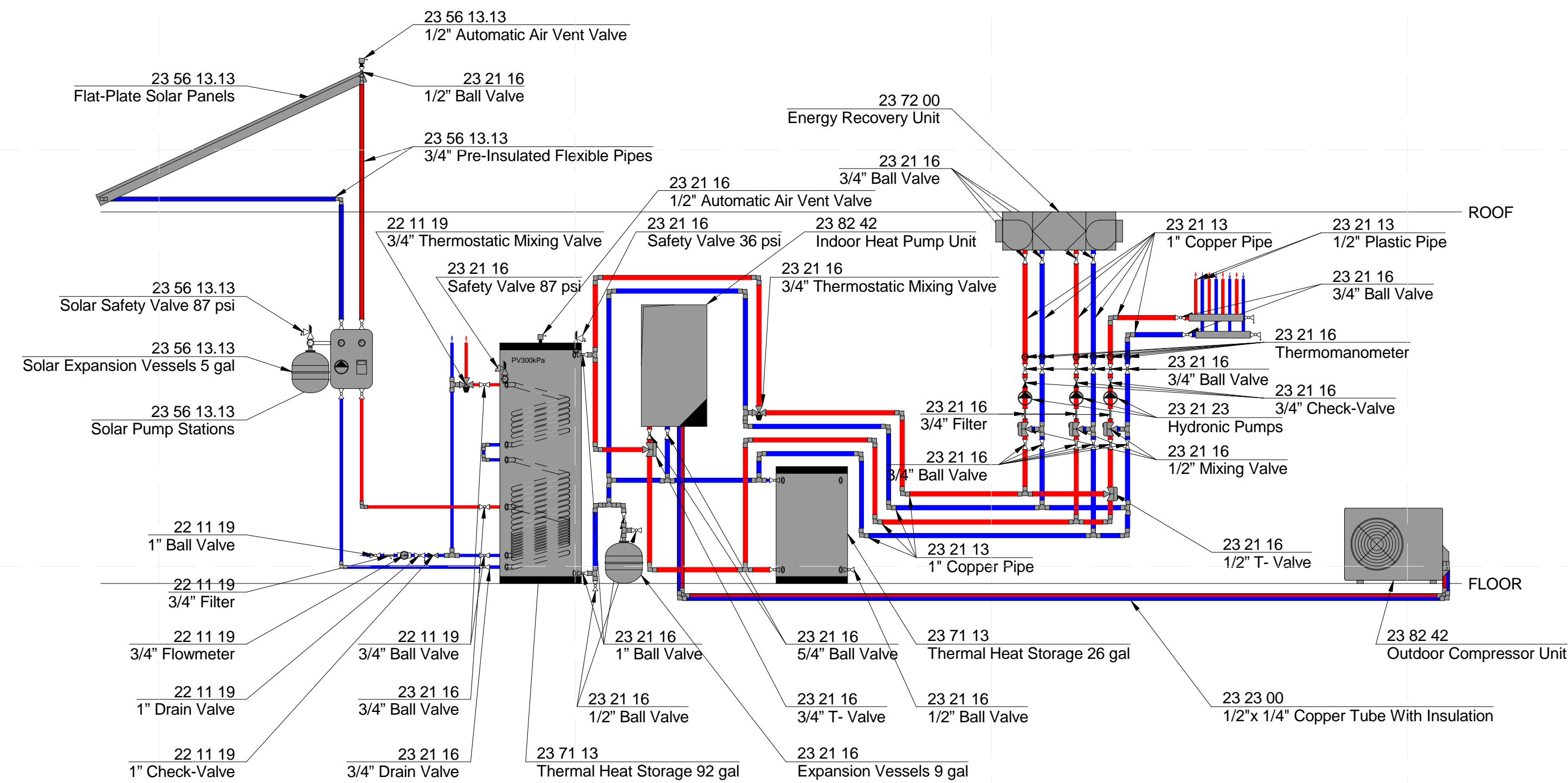
SHEET TITLE

HYDRONIC DIAGRAM

M-501

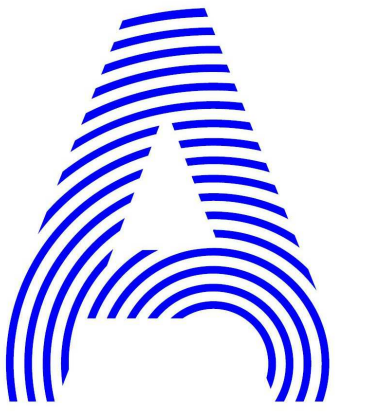
ABBREVIATIONS

ERU	ENERGY RECOVERY UNIT
SP	FLAT-PLATE SOLAR PANELS
SEV	SOLAR EXPANSION VESSELS
WT	WATER TANK
TS	TEMPERATURE SENSOR
HW	HOT WATER
CW	COLD WATER
MEP	MECHANICAL, ELECTRICAL, PLUMBING
DW	DISHWASHER
F	FAUCET
PE	PLUMBING EQUIPMENT
PLBG	PLUMBING
PM	PEX MANIFOLD
PU	PUMP
V	VALVE
WM	WASHING MACHINE
D	DRYER
WC	TOILET
WT	WATER TANK
S	SINK
SH	SHOWER
WB	WASHBASIN
TMV	THERMOSTATIC MIXING VALVE
DR	DISTRIBUTOR
ST	STOPPER



**B1** HYDRONIC DIAGRAM

1:30



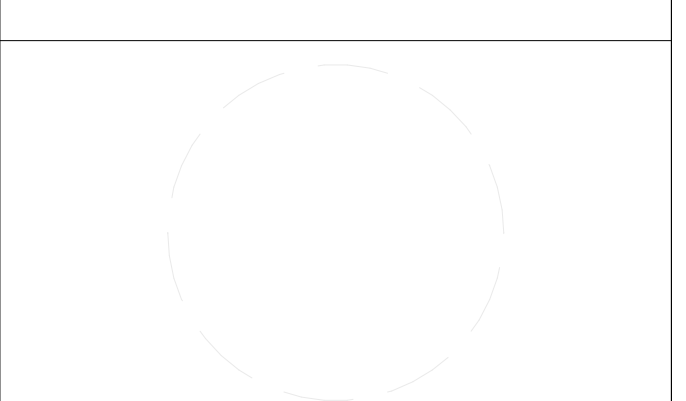
PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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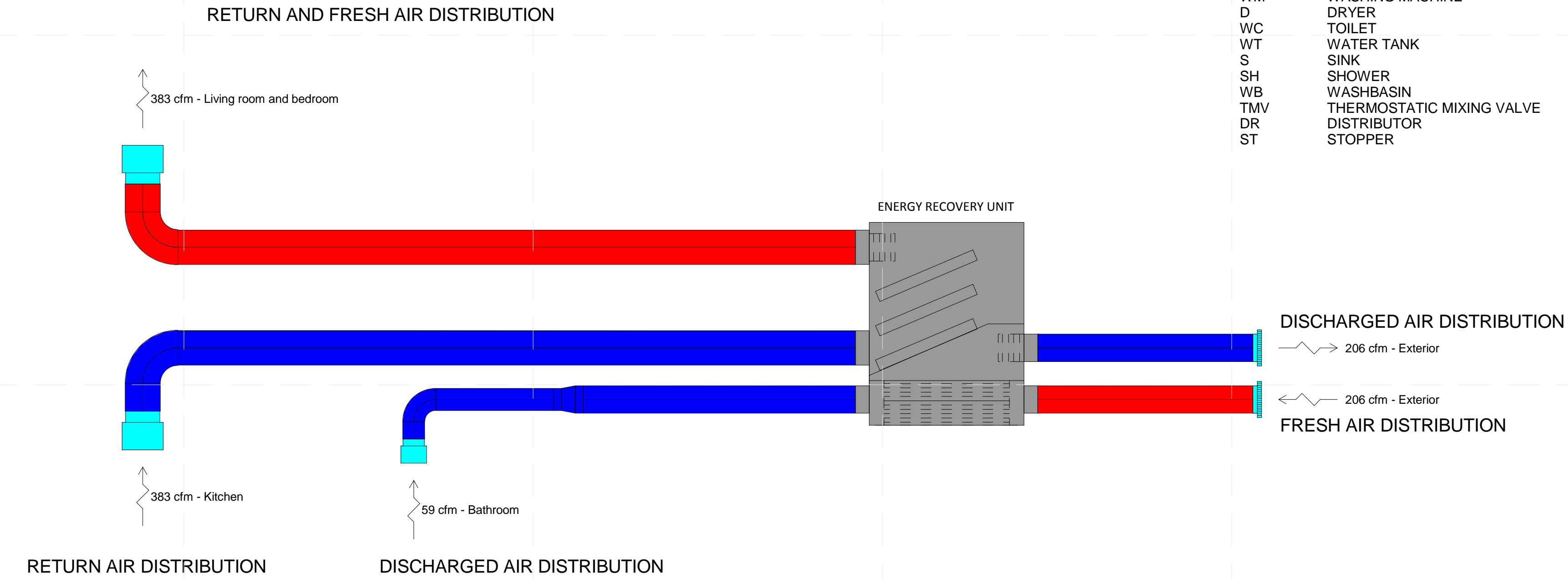
SHEET TITLE

HVAC DIAGRAM

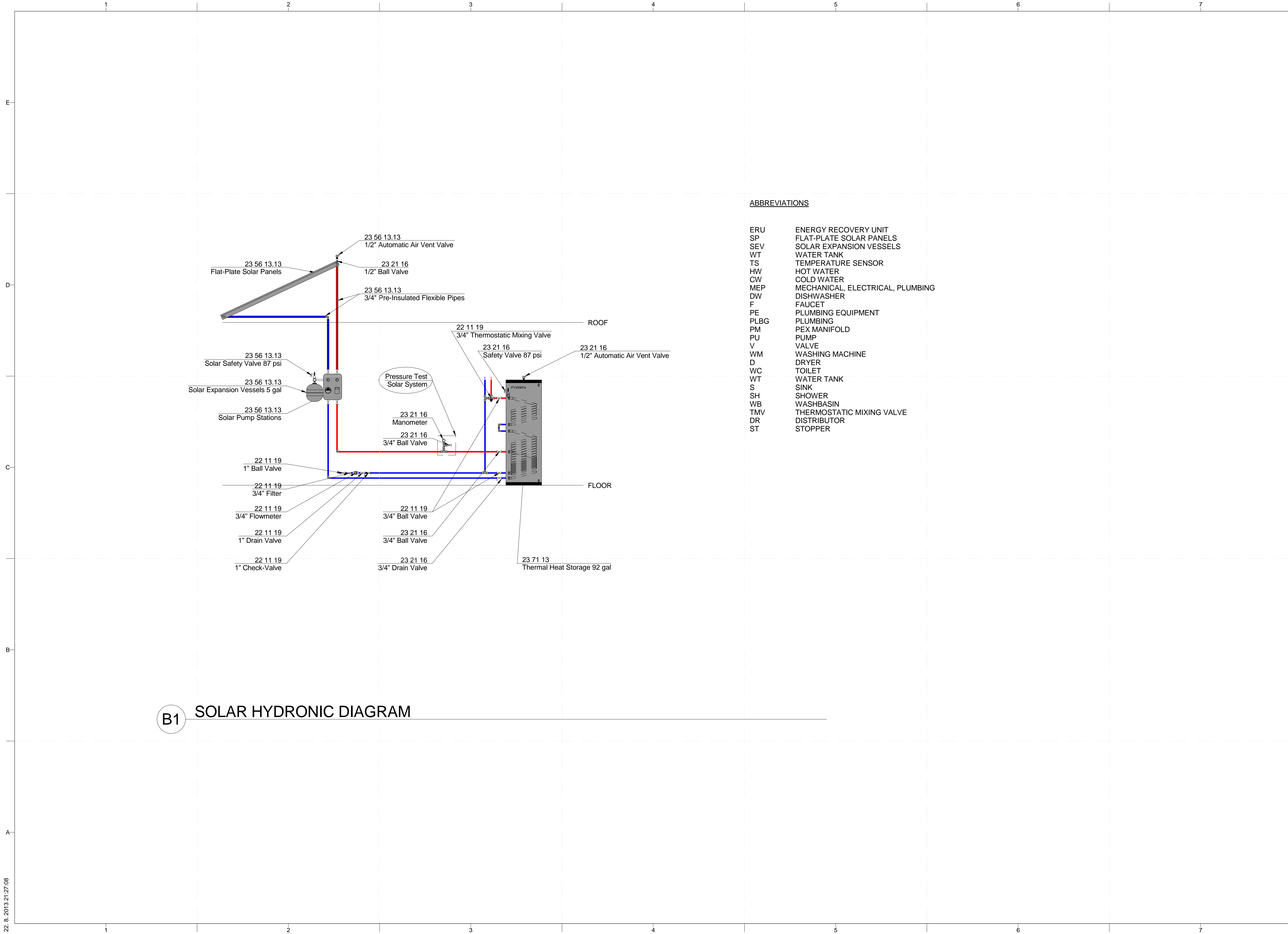
M-502

**ABBREVIATIONS**

ERU	ENERGY RECOVERY UNIT
SP	FLAT-PLATE SOLAR PANELS
SEV	SOLAR EXPANSION VESSELS
WT	WATER TANK
TS	TEMPERATURE SENSOR
HW	HOT WATER
CW	COLD WATER
MEP	MECHANICAL, ELECTRICAL, PLUMBING
DW	DISHWASHER
F	FAUCET
PE	PLUMBING EQUIPMENT
PLBG	PLUMBING
PM	PEX MANIFOLD
PU	PUMP
V	VALVE
WM	WASHING MACHINE
D	DRYER
WC	TOILET
WT	WATER TANK
S	SINK
SH	SHOWER
WB	WASHBASIN
TMV	THERMOSTATIC MIXING VALVE
DR	DISTRIBUTOR
ST	STOPPER



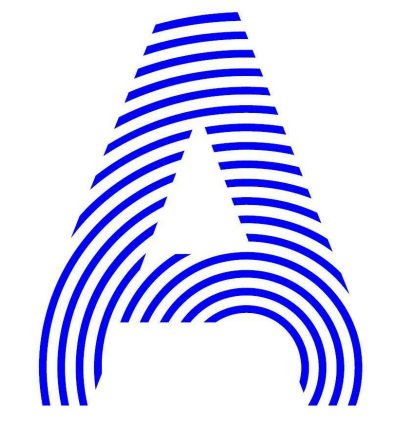
**B1** HVAC DIAGRAM  
1:30



**ABBREVIATIONS**

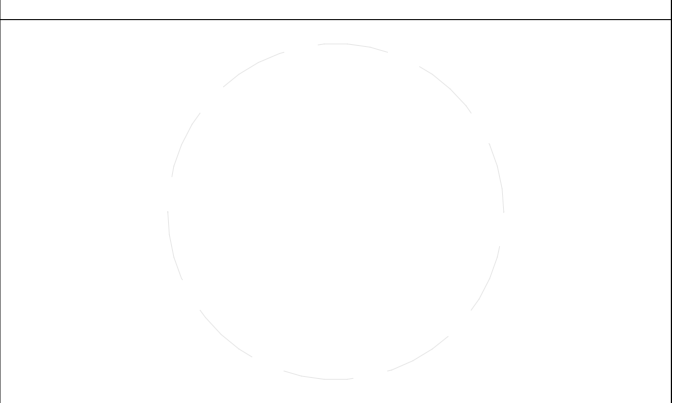
- ERU ENERGY RECOVERY UNIT
- SP FLAT-PLATE SOLAR PANELS
- SEV SOLAR EXPANSION VESSELS
- WT WATER TANK
- TS TEMPERATURE SENSOR
- HW HOT WATER
- CW COLD WATER
- MEP MECHANICAL, ELECTRICAL, PLUMBING
- DW DISHWASHER
- F FAUCET
- PE PLUMBING EQUIPMENT
- PLBG PLUMBING
- PM PEX MANIFOLD
- PU PUMP
- V VALVE
- WM WASHING MACHINE
- D DRYER
- WC TOILET
- WT WATER TANK
- S SINK
- SH SHOWER
- WB WASHBASIN
- TMV THERMOSTATIC MIXING VALVE
- DR DISTRIBUTOR
- ST STOPPER

**B1 SOLAR HYDRONIC DIAGRAM**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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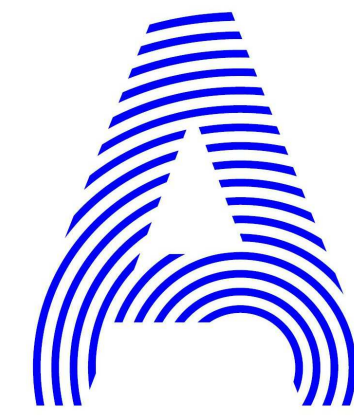


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4	10/11/2012	DD SUBMISSION
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SHEET TITLE  
**SOLAR HYDRONIC DIAGRAM**

**M-503**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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SHEET TITLE

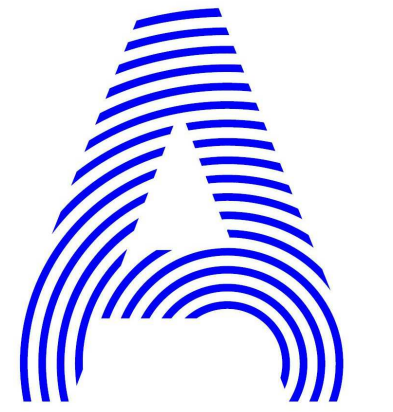
HVAC SCHEDULES

M-601

MECHANICAL EQUIPMENT SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 34 13	AXIAL HVAC FANS	1	MULTIVAC	2MU7296	
23 34 16	CENTRIFUGAL HVAC FANS	1	MULTIVAC	MV17105010C	
23 71 13	THERMAL HEAT STORAGE 26 GALLON	1	DRAZICE	UKV 102	
23 71 13	THERMAL HEAT STORAGE 92 GALLON	1	ATREA	I2T-U-TTS 350	
23 72 00	ENERGY RECOVERY UNIT	1	ATREA	DUIFLEX R84 EC	
23 83 16	OUTDOOR CONDENSING UNIT	1	DAIKIN	ERLQ04CV2	
23 83 16	HEAT PUMP INDOOR UNIT	1	DAIKIN	EH804C3V	
23 84 16	DEHUMIDIFICATION UNIT	1	HONEYWELL	TRUEDRY DR65	
HYDRONIC PIPES SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 07 19	INSULATION WATER INLET PIPES	230 FEET	ARMACELL	AC/ARMAFLEX	
23 07 19	INSULATION WATER RETURN PIPES	230 FEET	ARMACELL	AC/ARMAFLEX	
23 21 13	1" COPPER PIPE	50 FEET	VIEGA	A1 PROFIPRESS SC-CONTUR	
23 21 13	3/4" COPPER PIPE	100 FEET	VIEGA	A1 PROFIPRESS SC-CONTUR	
23 21 13	1/2" PLASTIC PIPE	300 FEET	REHAU	RAUTHERM S	
23 23 00	1/2"x 1/4" COPPER REFRIGERANT LINE WITH INSULATION	30 FEET	MICROWELL	2010	
23 83 16	CHILLED CEILING DESK 60" X 50"	12	REHAU	60" X 50"	
METAL DUCTS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 31 13	8" ROUND SPIRAL DUCTS	70 FEET	MULTIVAC	SONOVAC 25 DS	
23 31 13	6" ROUND SPIRAL DUCTS	20 FEET	MULTIVAC	SONOVAC 25 DS	
23 31 13	5" ROUND SPIRAL DUCTS	20 FEET	MULTIVAC	SONOVAC 25 DS	
23 31 13	4" ROUND SPIRAL DUCTS	30 FEET	MULTIVAC	SONOVAC 25 DS	
NONMETAL DUCTS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 31 16	9"x4" RECTANGULAR PLASTIC DUCTS	20 FEET	MULTIVAC	MULTI-PLAST	
23 31 16	8"x2" RECTANGULAR PLASTIC DUCTS	10 FEET	MULTIVAC	MULTI-PLAST	
HYDRONIC PIPING SPECIALTIES SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 21 16	1" BALL VALVE	6	GIACOMINI	G26S1Y005	
23 21 16	3/4" BALL VALVE	12	GIACOMINI	G26S1Y004	
23 21 16	1/2" DRAIN VALVE	4	GIACOMINI	R248Y004	
23 21 16	3/4" CHECK VALVE	3	GIACOMINI	R69Y005	
23 21 16	3/4" T- VALVE	2	ESBE	VR6 231	
23 21 16	1/2" MIXING VALVE	3	SALTER	BUN015	
23 21 16	3/4" FILTER	3	GIACOMINI	R74AY005	
23 21 16	1/2" AUTOMATIC AIR VENT VALVE	2	GIACOMINI	R99Y003	
23 21 16	THERMOMANOMETER	6	GIACOMINI	R226Y002	
23 21 16	EXPANSION VESSELS 9 GALLON	1	REFLEX	N 35/3	
23 21 16	1" THERMOSTATIC MIXING VALVE	1	ESBE	VTA552	
HYDRONIC PUMPS SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 21 23	HYDRONIC PUMPS	3	WILO	YONOS PICO 1-4	
DIFFUSERS AND GRILLES SCHEDULE					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 37 13	DIFFUSERS A1	11	TROX	VSD35	
23 37 13	DIFFUSERS A2	1	TROX	VSD35	
23 37 13	DIFFUSERS B1	2	MULTIVAC	RT350	
23 37 13	DIFFUSERS B2	3	MULTIVAC	RT350	
23 37 13	DIFFUSERS B3	1	MULTIVAC	RT350	
23 37 13	DIFFUSERS B4	1	MULTIVAC	RT350	
23 37 13	GRILLES	3	MULTIVAC	C-UM-S-S	
HEATING SOLAR FLAT-PLATE COLLECTORS					
REFERENCE NO.	SYSTEM NAME	COUNT	MANUFACTURER	MODEL	COMMENTS
23 56 13.13	FLAT-PLATE SOLAR PANELS	2	REGULUS	KPG1	
23 56 13.13	SOLAR PUMP STATIONS	1	REGULUS	S2 SOLAR 3	
23 56 13.13	SOLAR EXPANSION VESSELS 5 GALLON	1	REGULUS	R8 018 IN LINE	
23 56 13.13	MOUNT AND INTERCONNECTION KIT FOR KPG1 COLLECTORS	2	REGULUS	10539	
23 56 13.13	3/8" AUTOMATIC AIR VENT VALVE	2	REGULUS	OV-3/8 SS NP	
23 56 13.13	3/4" PRE-INSULATED FLEXIBLE PIPES	60 FEET	REGULUS	22.920.410	
23 56 13.13	CONNECTION KIT FOR 1 KPG1	2	REGULUS	REG-7710	

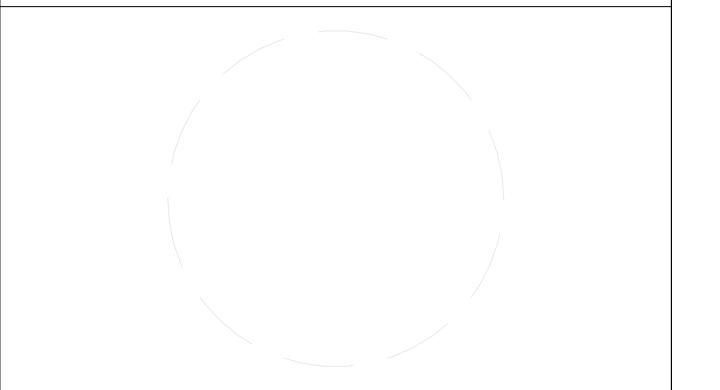


SHEET LIST ELECTRICAL	
SHT NO	SHEET NAME
E-001	ELECTRICAL SYMBOLS AND NOTES
E-101	PV ARRAY PLAN
E-102	ELECTRICAL DISTRIBUTION PLAN
E-103	LIGHTING PLAN - ELECTRICAL DISTRIBUTION
E-602	ONE-LINE DIAGRAM
E-603	THREE-LINE DIAGRAM



PROJECT TITLE: AIR HOUSE  
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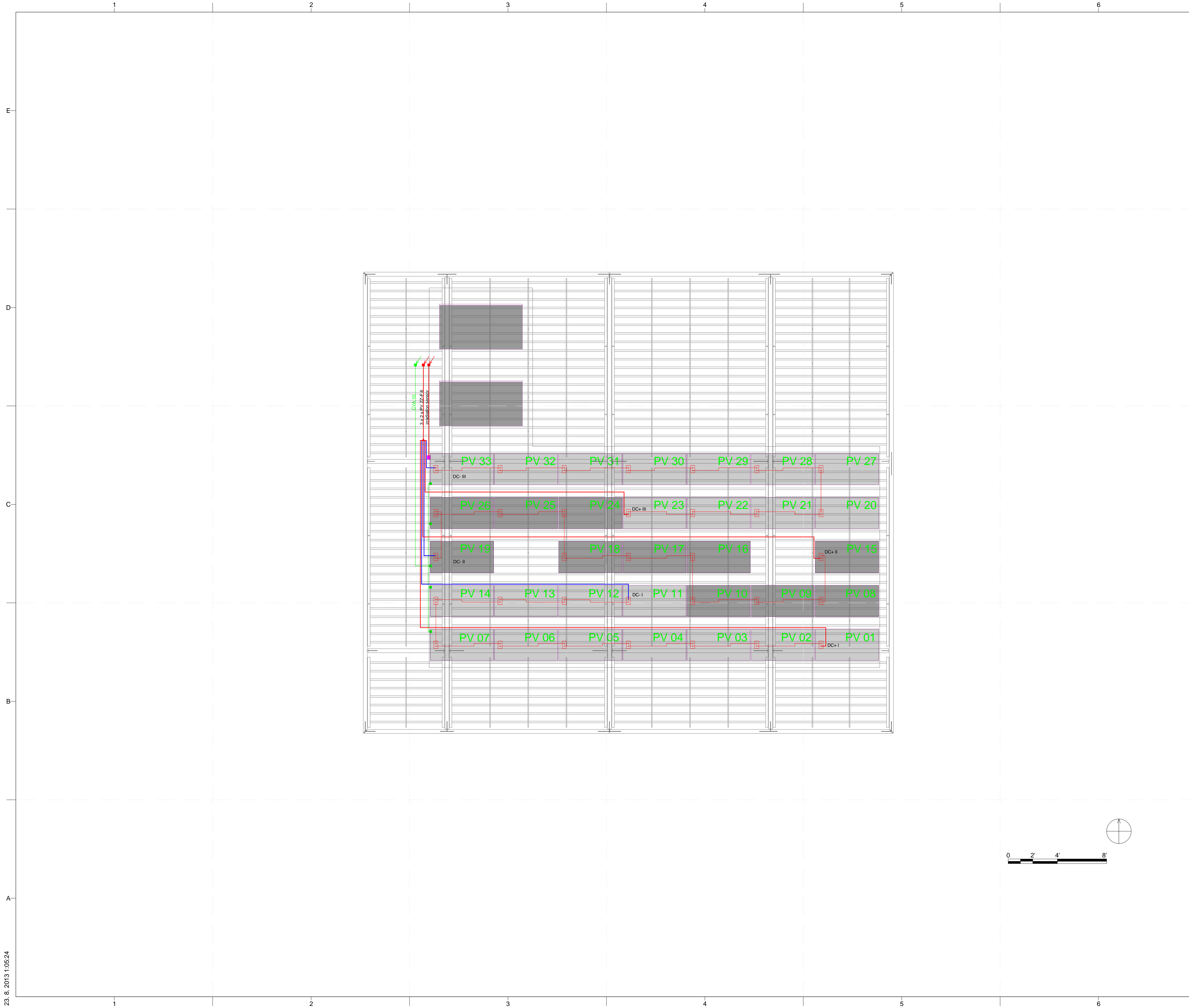


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LOT NUMBER: 103  
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 CHECKED BY: MARTIN ČENĚK  
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SHEET TITLE  
**ELECTRICAL SYMBOLS AND NOTES**

**E-001**



### GENERAL SHEET NOTES

CZECH TECHNICAL STANDARDS CSN USED WHEN INSTALLING PV

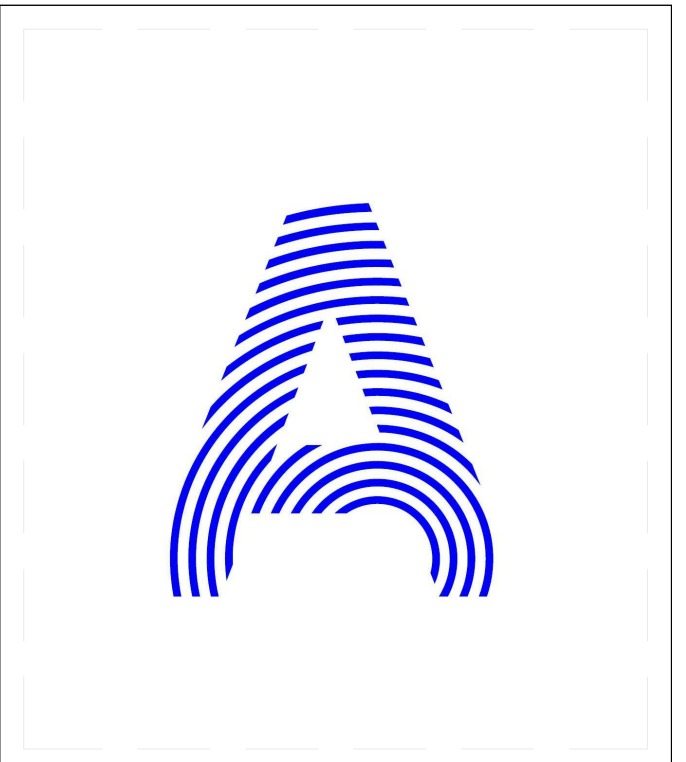
CSN 33 2000-7-712 ELECTRICAL INSTALLATIONS OF BUILDINGS - PART 7- 712: REQUIREMENTS FOR SPECIAL INSTALLATIONS OR LOCATIONS - SOLAR PHOTOVOLTAIC (PV) POWER SUPPLY SYSTEMS

CSN 33 2130 ED. 2 LOW-VOLTAGE ELECTRICAL INSTALLATIONS - INTERNAL ELECTRIC DISTRIBUTION LINES

IN ACCORDANCE TO CZECH CODE CSN 33 2130 ED.2 ALL SOCKET CIRCUITS 230V/50HZ WILL BE PROTECTED WITH RESIDUAL-CURRENT DEVICE RCD, TRIP ON A LEAKAGE CURRENT OF 30 MA .

SOCKET CIRCUITS: CIRCUIT BREAKER 16A/230V/50HZ/30MA, CABLE CYKY-J 3X2,5MM2

LIGHT CIRCUITS: CIRCUIT BREAKER 10A/230V/50HZ, CABLE CYKY-J 3X1,5MM2 WITH NO RCD



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

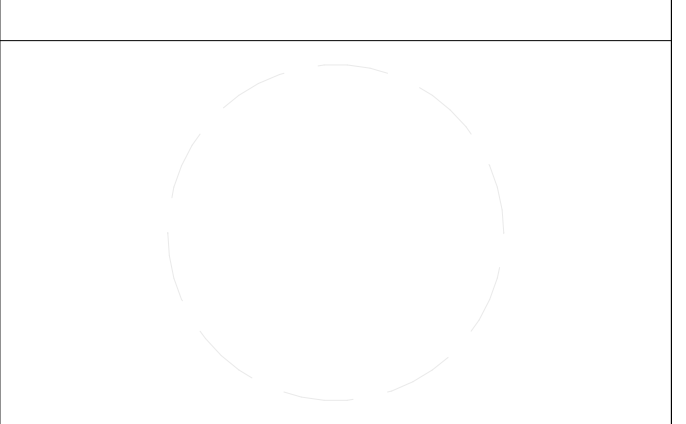
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
THÁKUROVA 9  
166 34 PRAHA 6 – DEJVICE  
CZECH REPUBLIC

CONTACT: DHLAVACEK@FA.CVUT.CZ  
WWW.AIRHOUSE.CZ

CONSULTANTS

### REFERENCE KEYNOTES

### SHEET KEYNOTES



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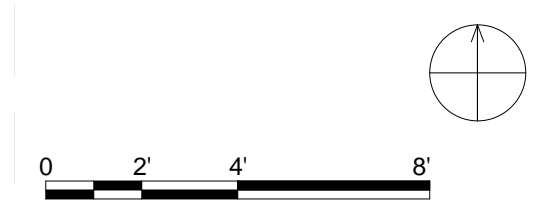


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4	10/11/2012	DD SUBMISSION

### LEGEND

### LEGEND

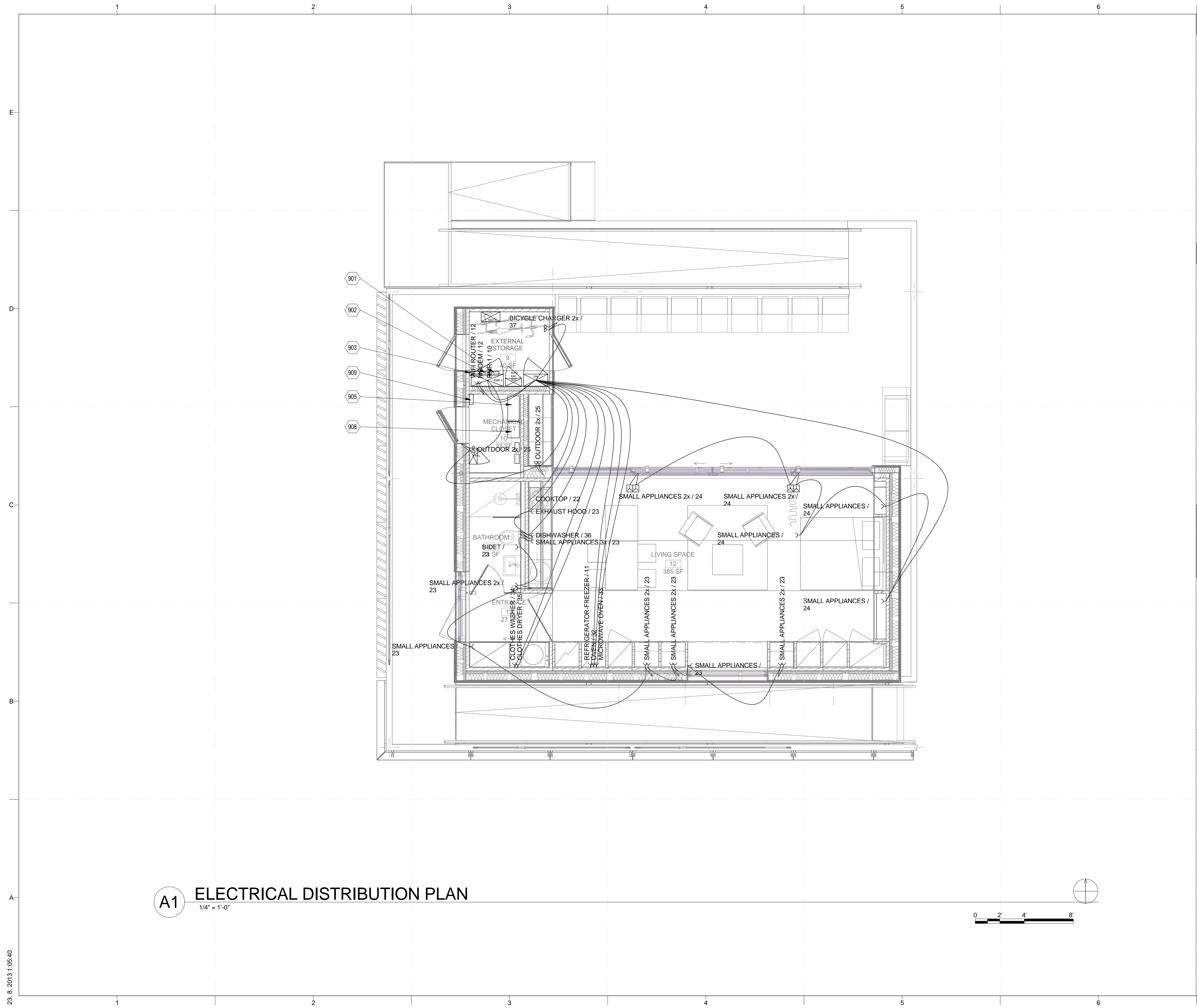
- TPB TEAM PANEL BOARD  
26 24 16 A
- RLED LED DRIVERS  
26 24 16 D
- LUMINAIRE



SHEET TITLE

**PV ARRAY PLAN**

**E-101**



**A1 ELECTRICAL DISTRIBUTION PLAN**  
1/4" = 1'-0"

**GENERAL SHEET NOTES**

CZECH TECHNICAL STANDARDS CSN USED WHEN INSTALLING PV  
 CSN 33 2000-7-712 ELECTRICAL INSTALLATIONS OF BUILDINGS - PART 7-712: REQUIREMENTS FOR SPECIAL INSTALLATIONS OR LOCATIONS - SOLAR PHOTOVOLTAIC (PV) POWER SUPPLY SYSTEMS  
 CSN 33 2130 ED. 2 LOW-VOLTAGE ELECTRICAL INSTALLATIONS - INTERNAL ELECTRIC DISTRIBUTION LINES  
 IN ACCORDANCE TO CZECH CODE CSN 33 2130 ED.2 ALL SOCKET CIRCUITS 230V/50HZ WILL BE PROTECTED WITH RESIDUAL-CURRENT DEVICE RCD, TRIP ON A LEAKAGE CURRENT OF 30 MA .  
 SOCKET CIRCUITS: CIRCUIT BREAKER 16A/230V/50HZ/30MA, CABLE CYKY-J 3X2.5MM2  
 LIGHT CIRCUITS: CIRCUIT BREAKER 10A/230V/50HZ, CABLE CYKY-J 3X1.5MM2 WITH NO RCD



**REFERENCE KEYNOTES**

PROJECT TITLE:	AIR HOUSE
TEAM NAME:	CZECH REPUBLIC / CTU
ADDRESS:	CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC
CONTACT:	DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ
CONSULTANTS	

**SHEET KEYNOTES**

901	UTILITY METER 1
902	UTILITY METER 2
903	PV MAIN SERVICE PANEL
905	INVERTER
908	TEAM PANEL BOARD
909	EQUIPOTENTIAL BONDING BAR

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**LEGEND**

TPB	TEAM PANEL BOARD
26 24 16 A	
RMR-1	MEASUREMENT AND CONTROL PANEL BOARD
26 24 16 E	
FP	FIRE PROTECTION PANEL BOARD
26 24 16 F	
SOCKET	26 27 26 C1 SCHUKO SOCKET OUTLET
SOCKET WITH LID	26 27 26 C2 SCHUKO SOCKET OUTLET WITH HINGED LID
SOCKET WITH LID IP44	26 27 26 C3 SCHUKO SOCKET OUTLET WITH HINGED LID IP44
FLOOR SOCKET	26 27 26 C4 DOUBLE FLOOR SOCKET

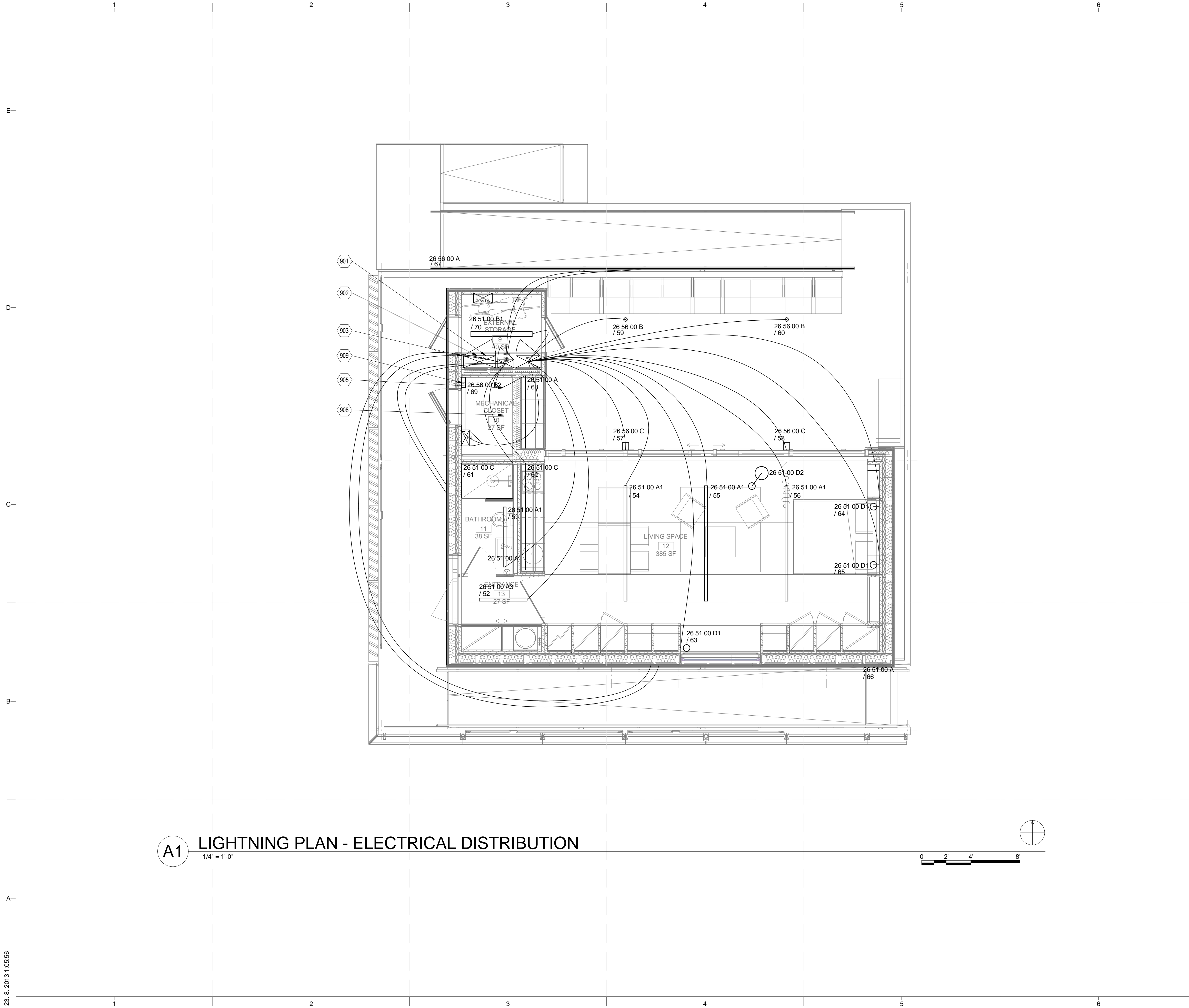
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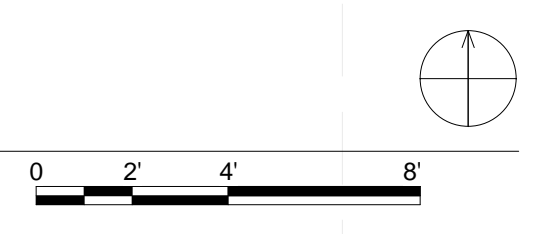
**ELECTRICAL DISTRIBUTION PLAN**

**E-102**

23. 8. 2013 1:05:40



**A1** LIGHTNING PLAN - ELECTRICAL DISTRIBUTION  
1/4" = 1'-0"



**GENERAL SHEET NOTES**

CZECH TECHNICAL STANDARDS CSN USED WHEN INSTALLING PV

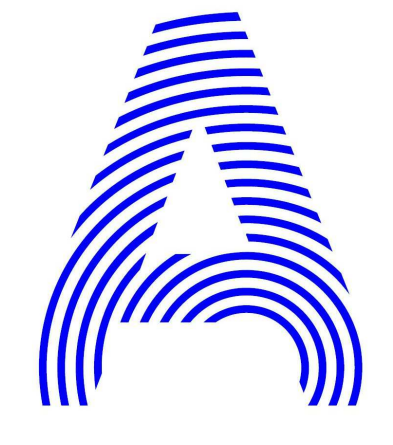
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CSN 33 2130 ED. 2 LOW-VOLTAGE ELECTRICAL INSTALLATIONS - INTERNAL ELECTRIC DISTRIBUTION LINES

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SOCKET CIRCUITS: CIRCUIT BREAKER 16A/230V/50HZ/30MA, CABLE CYKY-J 3X2,5MM2

LIGHT CIRCUITS: CIRCUIT BREAKER 10A/230V/50HZ, CABLE CYKY-J 3X1,5MM2 WITH NO RCD



**REFERENCE KEYNOTES**

- 26 51 00 A1 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 A3 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 B1 PERLUCE LUMINAIRE
- 26 51 00 C LED STRIP WW
- 26 51 00 D1 TOLOMEO PARETE ALUMINIUM
- 26 51 00 D2 TOLOMEO TERRA ALUMINIUM
- 26 56 00 A LED STRIP WW
- 26 56 00 B LEDOS III LUMINAIRE
- 26 56 00 C LED WALL LUMINAIRE

**SHEET KEYNOTES**

- 26 51 00 A1 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 A2 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 A3 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 B1 PERLUCE LUMINAIRE
- 26 51 00 B2 PERLUCE LUMINAIRE
- 26 51 00 C LED STRIP WW
- 26 51 00 D1 TOLOMEO PARETE ALUMINIUM
- 26 51 00 D2 TOLOMEO TERRA ALUMINIUM
- 26 56 00 A LED STRIP WW
- 26 56 00 B LEDOS III LUMINAIRE
- 26 56 00 C LED WALL LUMINAIRE

**LEGEND**

- TPB TEAM PANEL BOARD  
26 24 16 A
- RLED LED DRIVERS  
26 24 16 D
- LUMINAIRE

PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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CONSULTANTS

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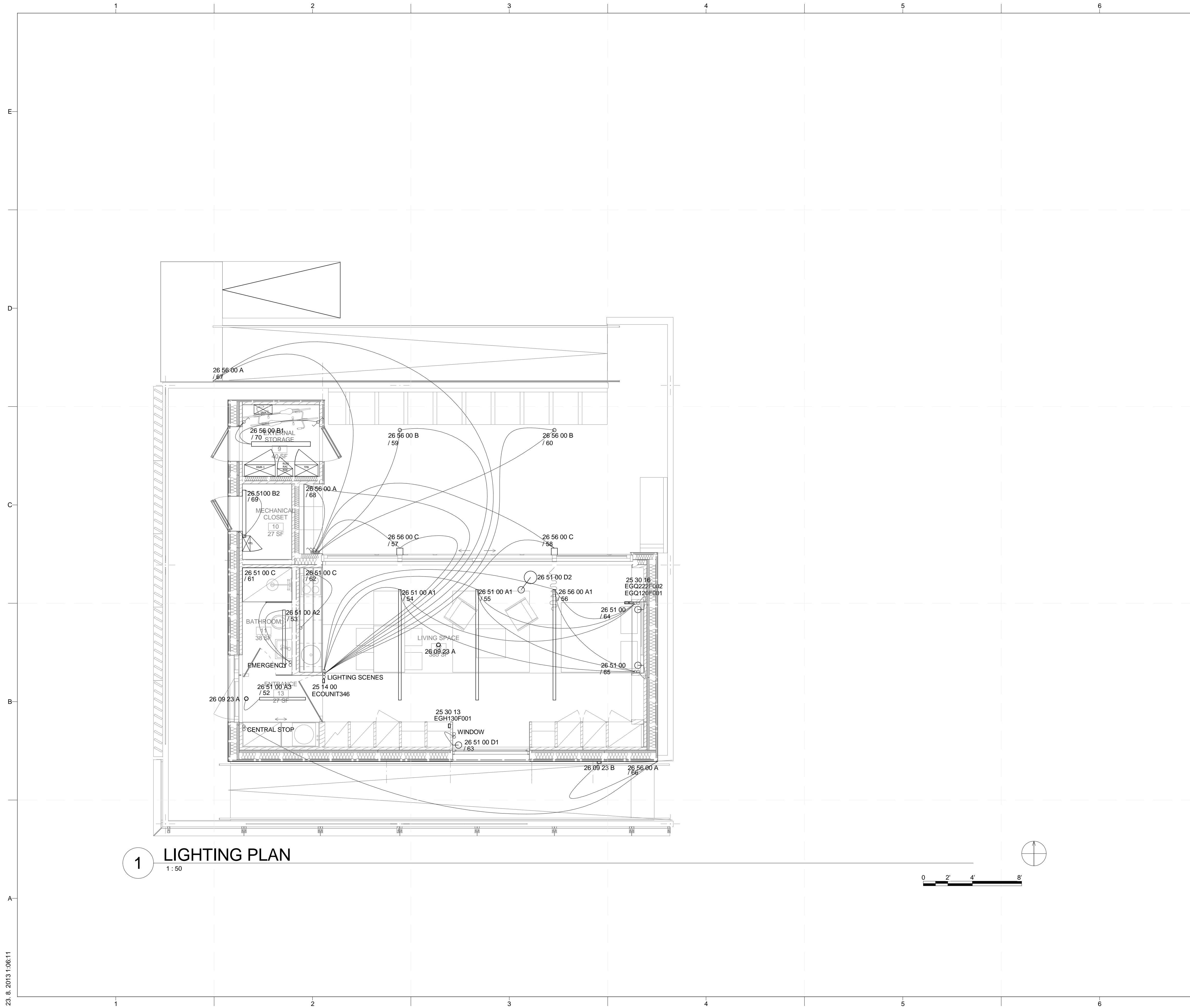
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SHEET TITLE

LIGHTING PLAN - ELECTRICAL DISTRIBUTION

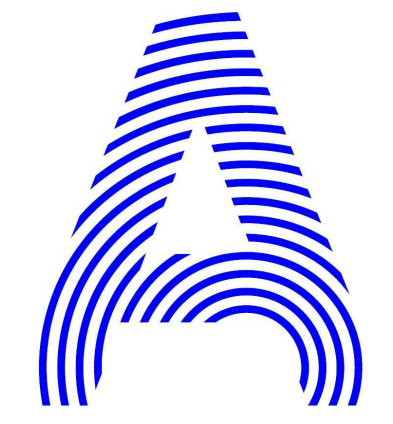
**E-103**





1 LIGHTING PLAN  
1:50

GENERAL SHEET NOTES



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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CZECH REPUBLIC  
CONTACT: DHLAVACEK@FA.CVUT.CZ  
WWW.AIRHOUSE.CZ

REFERENCE KEYNOTES

- 25 14 00 INTEGRATED AUTOMATION LOCAL CONTROL UNITS
- 25 30 16 INTEGRATED AUTOMATION SENSORS AND TRANSMITTERS
- 26 09 23 A KNX SENSOR ARGUS
- 26 09 23 B KNX SENSOR ARGUS 220
- 26 51 00 INTERIOR LIGHTING
- 26 51 00 A1 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 A2 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 A3 SLOTLIGHT II SINGLE LUMINAIRE
- 26 51 00 C LED STRIP VWV
- 26 51 00 D1 TOLOMEO PARETE ALUMINIUM
- 26 51 00 D2 TOLOMEO TERRA ALUMINIUM
- 26 56 00 A LED STRIP VWV
- 26 56 00 B LEDOS III LUMINAIRE
- 26 56 00 C LED WALL LUMINAIRE

SHEET KEYNOTES

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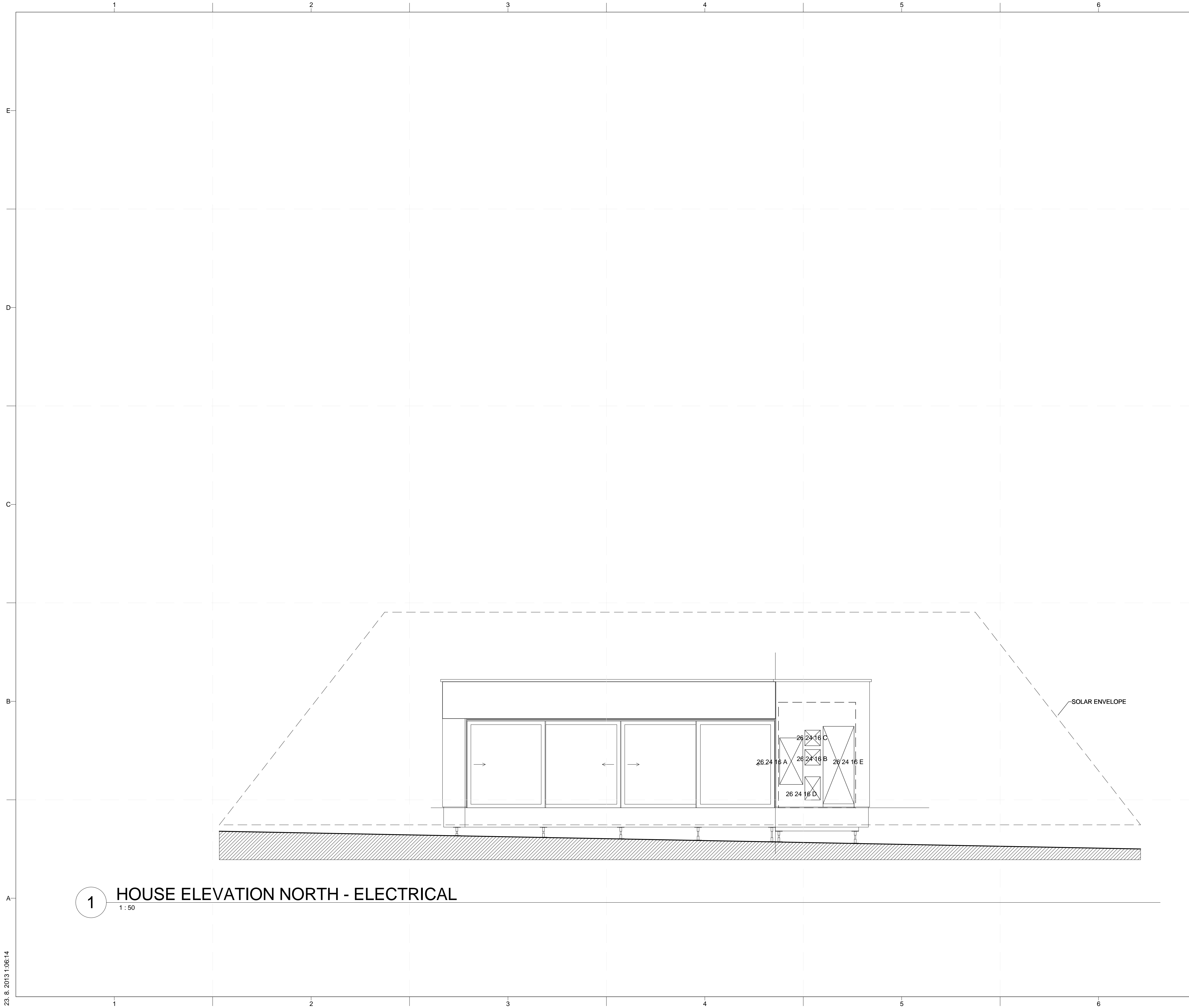
LEGEND

- LEGEND
- ECOUNT346 ROOM AUTOMATION STATION
  - EGH130F001 RELATIVE HUMIDITY AND TEMPERATURE SENSOR
  - EGQ222F002 CO2 AND TEMPERATURE SENSOR
  - EGQ120F001 VOC SENSOR
  - LUMINAIRE
  - KNX PUSCH-BUTTON (LIGHTING)
  - KNX PUSCH-BUTTON (SPECIAL FUNCTION)
  - SINGLE POLE SWITCH 1-GANG
  - SINGLE POLE SWITCH 1-GANG IP44
  - SERIAL SWITCH 1-GANG

MARK	DATE	DESCRIPTION
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SHEET TITLE  
LIGHTING PLAN

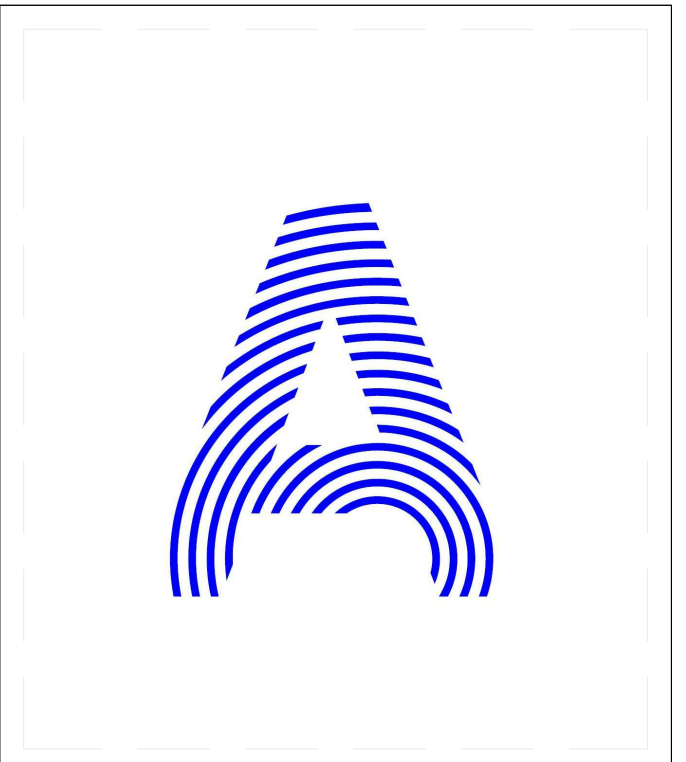


**GENERAL SHEET NOTES**

**REFERENCE KEYNOTES**

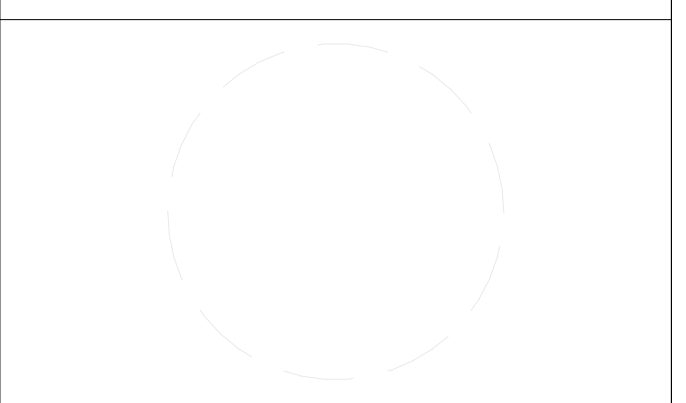
- 26 24 16 A TPB-TEAM PANEL BOARD
- 26 24 16 B RAC-AC PV PANEL BOARD
- 26 24 16 C RDC-DC PV PANEL BOARD
- 26 24 16 D RLED-LED DRIVERS 26 24 16
- 26 24 16 E RMR-1-MEASUREMENT AND CONTROL PANEL BOARD 26 24 16

**SHEET KEYNOTES**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9  
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MARK	DATE	DESCRIPTION

SHEET TITLE

HOUSE ELEVATION NORTH - ELECTRICAL

**E-201**

**1 HOUSE ELEVATION NORTH - ELECTRICAL**  
 1:50

**PHOTOVOLTAIC MODULE – AIDE SOLAR:**

TYPE	XZST-185W/24V
MAXIMUM POWER (PM) [W]	185
MAX. POWER VOLTAGE (VMP) [V]	36.8
OPEN CIRCUIT VOLTAGE (VOC) [V]	44.5
SHORT CIRCUIT CURRENT (ISC) [A]	5.50
MAXIMUM POWER CURRENT (IMP) [A]	5.10
NOCT [°C]	48±2
COEFF. CURRENT TK [°C]	0.10%
COEFF. VOLTAGE TK [°C]	-0.37%
COEF. POWER TK [°C]	-0.45%
WORKING TEMPERATURE [°C]	-40 TO 85
MAX. SYSTEM VOLTAGE [V]	1000 (DC)

**PHOTOVOLTAIC MODULE – AIDE SOLAR:**

TYPE	XZST-185W/24V
MAXIMUM POWER (PM) [W]	185
MAX. POWER VOLTAGE (VMP) [V]	36.8
OPEN CIRCUIT VOLTAGE (VOC) [V]	44.5
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COEFF. CURRENT TK [°C]	0.10%
COEFF. VOLTAGE TK [°C]	-0.37%
COEF. POWER TK [°C]	-0.45%
WORKING TEMPERATURE [°C]	-40 TO 85
MAX. SYSTEM VOLTAGE [V]	1000 (DC)

**PV CALCULATION:**

OUTPUT (W): 1 BRANCH – 11 PV PANELS      185 X 11 = 2 035 W => 3 BRANCHES TOTAL = 6 105 W

CURRENT (A): 1 PV PANEL = 5.1 A  
SERIAL CONNECTION => 11 PV PANELS (1 BRANCH) 5.1 A => 3 BRANCHES TOTAL = 15.3 A

VOLTAGE (V): 1 PV PANEL = 44.5 V  
SERIAL CONNECTION => 11 PANELS (1 BRANCH) 44.5 X 11 = 489.5 V 3 BRANCHES IN PARALLEL TOTAL = 489.5 V  
=> INVERTER INPUT IS SATISFACTORY

WIRE BETWEEN PV PANELS AND INVERTER, WITH REGARD TO ALLOWABLE AMPACITY (SEE PROJECT MANUAL, 26 05 19)

5.1 A (1 BRANCH) – CHOSEN PV1-F 6MM2, WITH REGARD TO TEMPERATURE

**INVERTER – SMA:**

TYPE	SUNNY BOY 5000-US
INPUT (DC):	
MAX. DC POWER (@ COS φ = 1)	5300 W
MAX. DC VOLTAGE	600 V
MPP VOLTAGE RANGE	250 V – 480 V
MIN. DC VOLTAGE / START VOLTAGE	250 V / 300 V
MAX. INPUT CURRENT / PER STRING	21 A / 20A
NUMBER OF MPP TRACKERS /	1 / 4
/STRINGS PER MPP TRACKER	
OUTPUT (AC):	
AC NOMINAL POWER	5000 W
MAX. AC APPARENT POWER	5000 VA
NOMINAL AC VOLTAGE / RANGE	208 V, 240 V, 277 V / 183-229 V, 211-264 V, 244 – 305 V
AC GRID FREQUENCY / RANGE	60 HZ / 59.3 – 60.5 HZ
MAX. OUTPUT CURRENT	24 A AT 208 V, 21 A AT 240 V, 18 A AT 277 V
POWER FACTOR (COS φ)	1

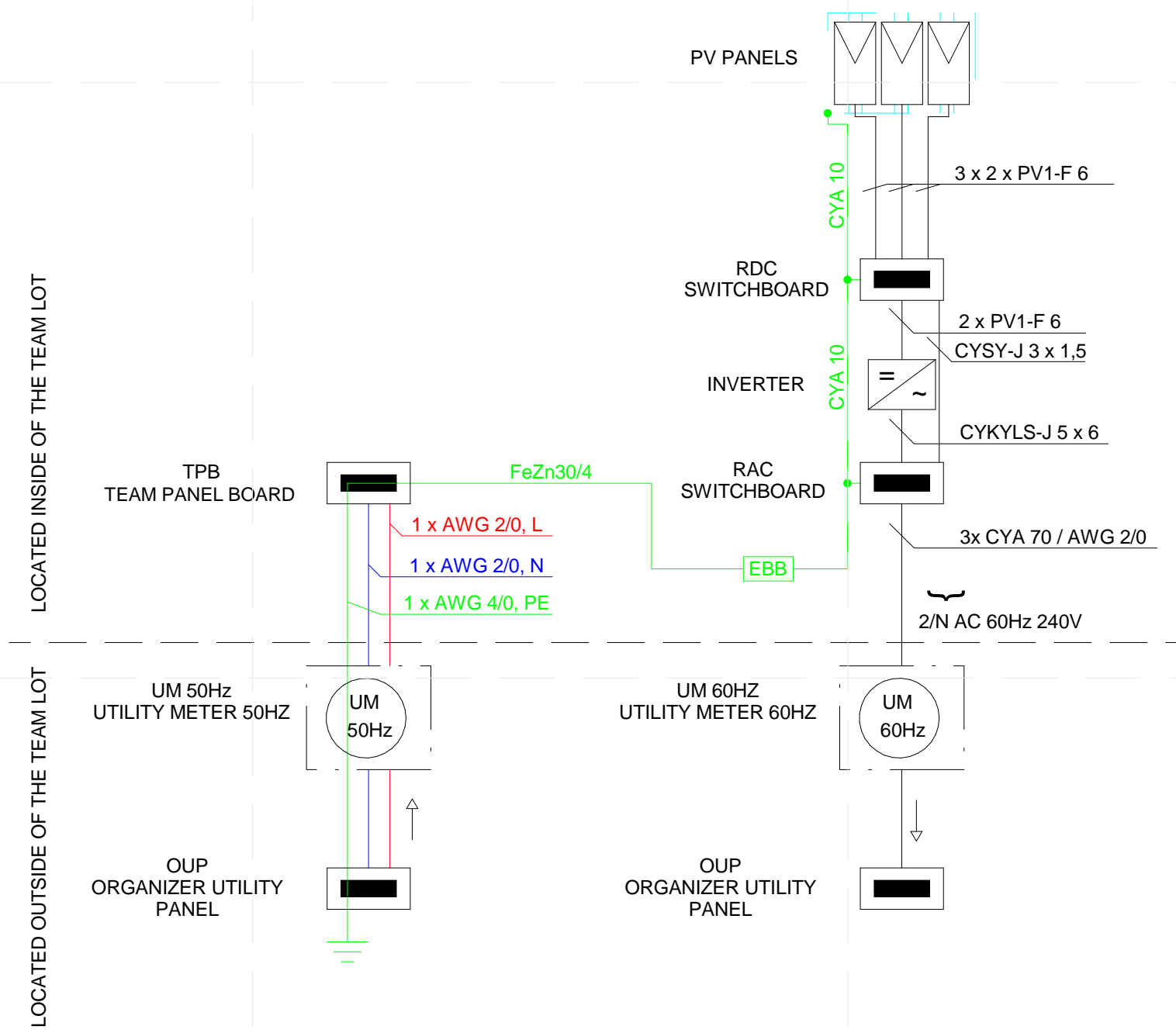
**INVERTER OUTPUT:**

INVERTER OUTPUT 6 000 W => 6 000 / 240 = 25 A

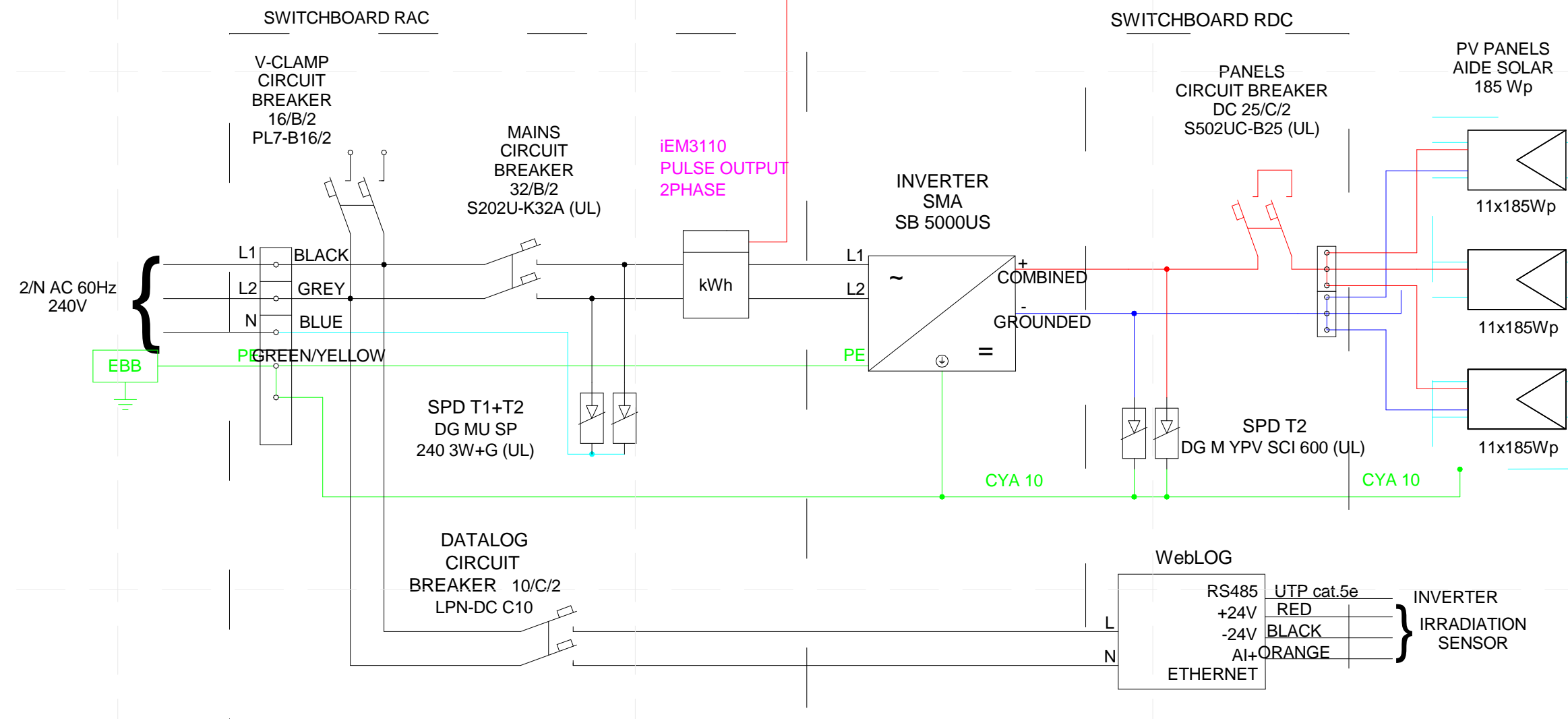
WIRE BETWEEN INVERTER AND MAIN SERVICE PANEL, WITH REGARD TO ALLOWABLE AMPACITY (SEE PROJECT MANUAL, 26 05 19)

25 A – CHOSEN CYKLS 5 X 6MM2, WITH REGARD TO TEMPERATURE

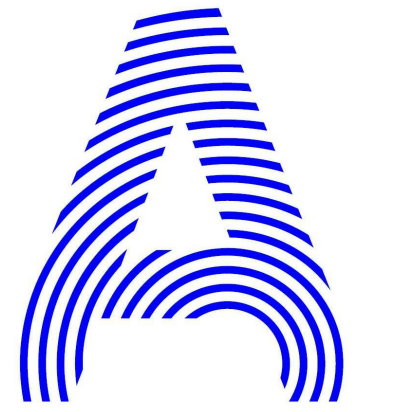
**C1 PV CALCULATIONS**



**A1 PV SCHEME 1**



**A4 PV SCHEME 2**



PROJECT TITLE:	AIR HOUSE
TEAM NAME:	CZECH REPUBLIC / CTU
ADDRESS:	CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC
CONTACT:	DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ
CONSULTANTS	

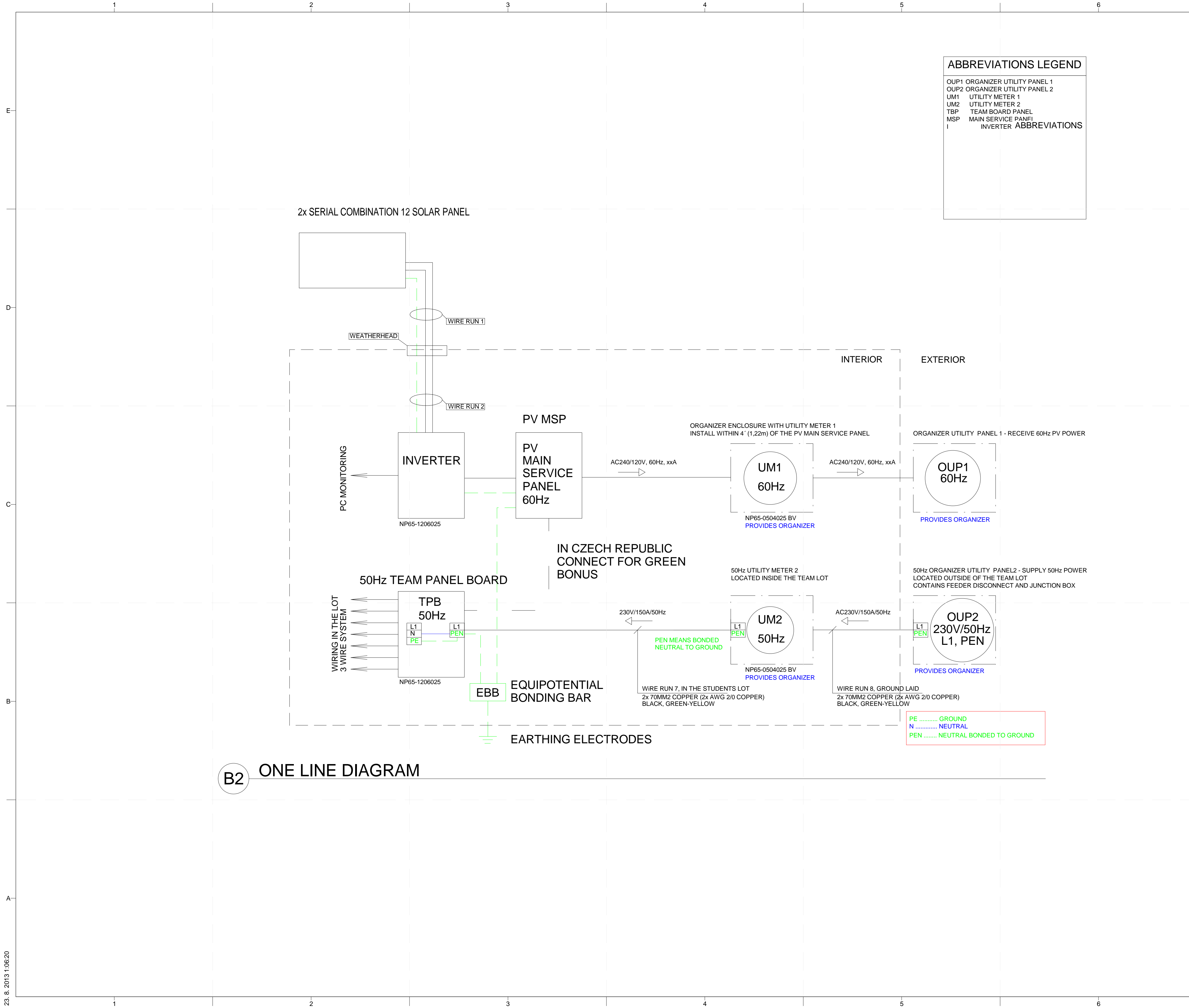
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**SHEET TITLE**  
**PV CALCULATIONS**

**E-601**



**ABBREVIATIONS LEGEND**

- OUP1 ORGANIZER UTILITY PANEL 1
- OUP2 ORGANIZER UTILITY PANEL 2
- UM1 UTILITY METER 1
- UM2 UTILITY METER 2
- TBP TEAM BOARD PANEL
- MSP MAIN SERVICE PANEL
- I INVERTER

**GENERAL SHEET NOTES**

CZECH TECHNICAL STANDARDS CSN USED WHEN INSTALLING PV

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LIGHT CIRCUITS: CIRCUIT BREAKER 10A/230V/50HZ, CABLE CYKY-J 3X1,5MM2 WITH NO RCD

**REFERENCE KEYNOTES**

**SHEET KEYNOTES**



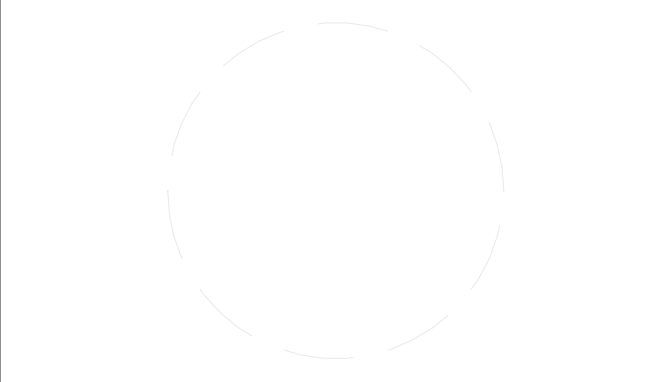
PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

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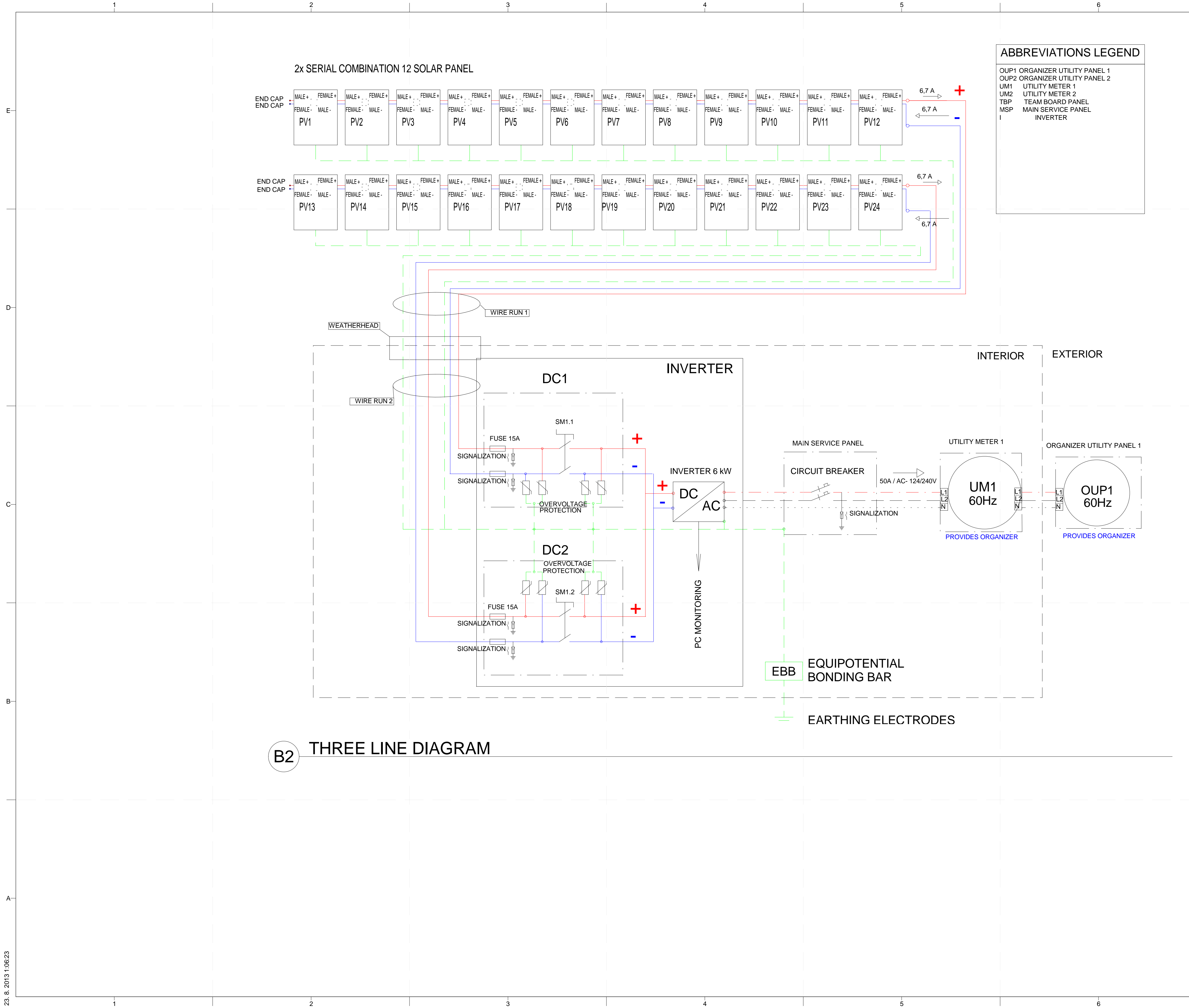
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SHEET TITLE

**ONE-LINE DIAGRAM**

**E-602**

**B2 ONE LINE DIAGRAM**



**ABBREVIATIONS LEGEND**

OUP1	ORGANIZER UTILITY PANEL 1
OUP2	ORGANIZER UTILITY PANEL 2
UM1	UTILITY METER 1
UM2	UTILITY METER 2
TBP	TEAM BOARD PANEL
MSP	MAIN SERVICE PANEL
I	INVERTER

**GENERAL SHEET NOTES**

CZECH TECHNICAL STANDARDS CSN USED WHEN INSTALLING PV

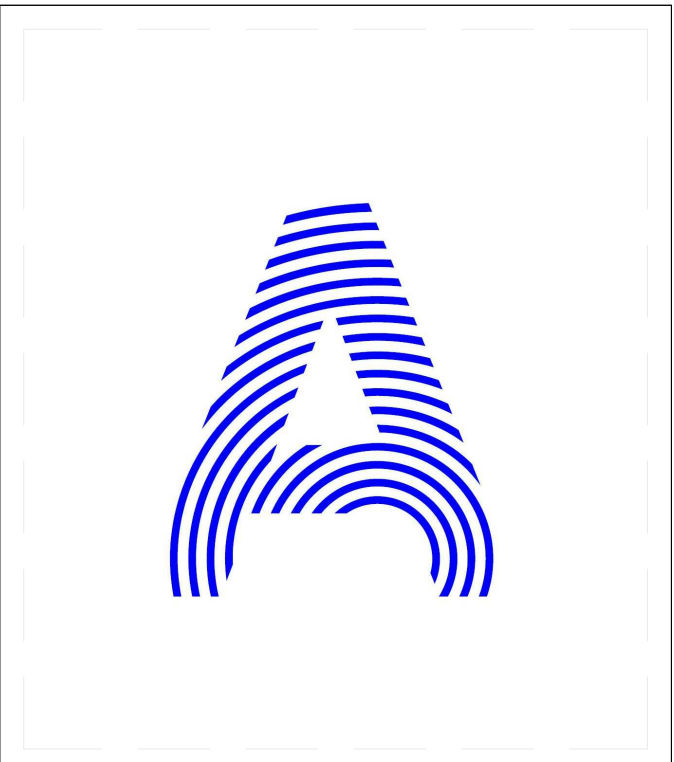
CSN 33 2000-7-712 ELECTRICAL INSTALLATIONS OF BUILDINGS - PART 7- 712: REQUIREMENTS FOR SPECIAL INSTALLATIONS OR LOCATIONS - SOLAR PHOTOVOLTAIC (PV) POWER SUPPLY SYSTEMS

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SOCKET CIRCUITS: CIRCUIT BREAKER 16A/230V/50HZ/30MA, CABLE CYKY-J 3X2,5MM2

LIGHT CIRCUITS: CIRCUIT BREAKER 10A/230V/50HZ, CABLE CYKY-J 3X1,5MM2 WITH NO RCD



**REFERENCE KEYNOTES**

**SHEET KEYNOTES**

**B2 THREE LINE DIAGRAM**

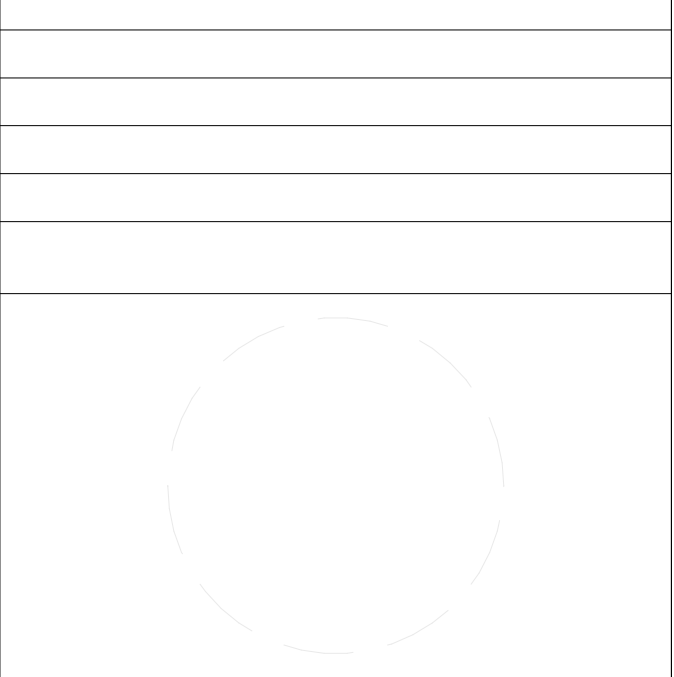
PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC

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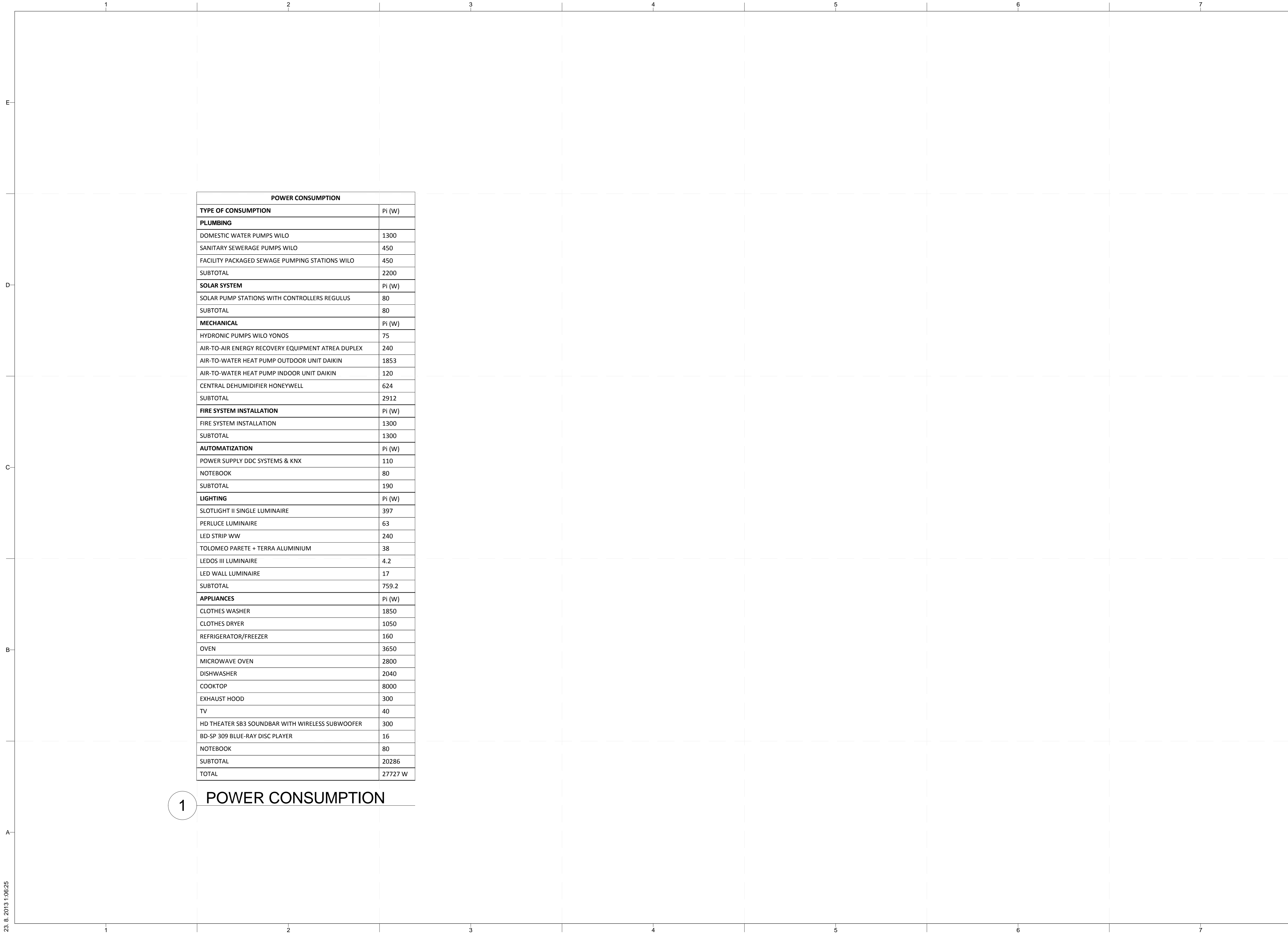
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**SHEET TITLE**

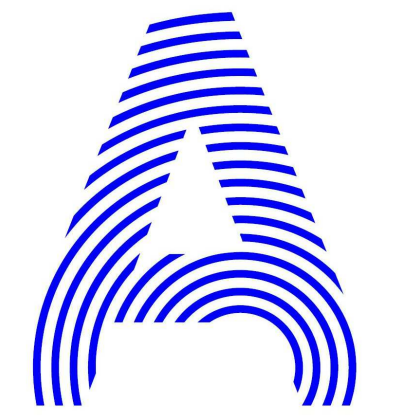
**THREE-LINE DIAGRAM**

**E-603**



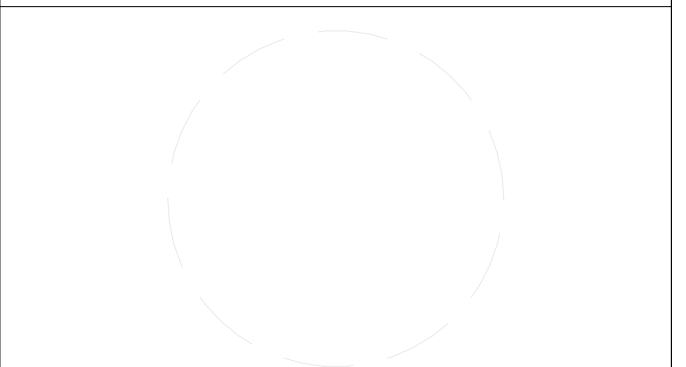
POWER CONSUMPTION	
TYPE OF CONSUMPTION	Pi (W)
<b>PLUMBING</b>	
DOMESTIC WATER PUMPS WILO	1300
SANITARY SEWERAGE PUMPS WILO	450
FACILITY PACKAGED SEWAGE PUMPING STATIONS WILO	450
SUBTOTAL	2200
<b>SOLAR SYSTEM</b>	
SOLAR PUMP STATIONS WITH CONTROLLERS REGULUS	80
SUBTOTAL	80
<b>MECHANICAL</b>	
HYDRONIC PUMPS WILO YONOS	75
AIR-TO-AIR ENERGY RECOVERY EQUIPMENT ATREA DUPLEX	240
AIR-TO-WATER HEAT PUMP OUTDOOR UNIT DAIKIN	1853
AIR-TO-WATER HEAT PUMP INDOOR UNIT DAIKIN	120
CENTRAL DEHUMIDIFIER HONEYWELL	624
SUBTOTAL	2912
<b>FIRE SYSTEM INSTALLATION</b>	
FIRE SYSTEM INSTALLATION	1300
SUBTOTAL	1300
<b>AUTOMATIZATION</b>	
POWER SUPPLY DDC SYSTEMS & KNX	110
NOTEBOOK	80
SUBTOTAL	190
<b>LIGHTING</b>	
SLOTLIGHT II SINGLE LUMINAIRE	397
PERLUCE LUMINAIRE	63
LED STRIP WW	240
TOLOMEO PARETE + TERRA ALUMINIUM	38
LEDOS III LUMINAIRE	4.2
LED WALL LUMINAIRE	17
SUBTOTAL	759.2
<b>APPLIANCES</b>	
CLOTHES WASHER	1850
CLOTHES DRYER	1050
REFRIGERATOR/FREEZER	160
OVEN	3650
MICROWAVE OVEN	2800
DISHWASHER	2040
COOKTOP	8000
EXHAUST HOOD	300
TV	40
HD THEATER SB3 SOUNDBAR WITH WIRELESS SUBWOOFER	300
BD-SP 309 BLUE-RAY DISC PLAYER	16
NOTEBOOK	80
SUBTOTAL	20286
TOTAL	27727 W

1 POWER CONSUMPTION



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9  
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 CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ

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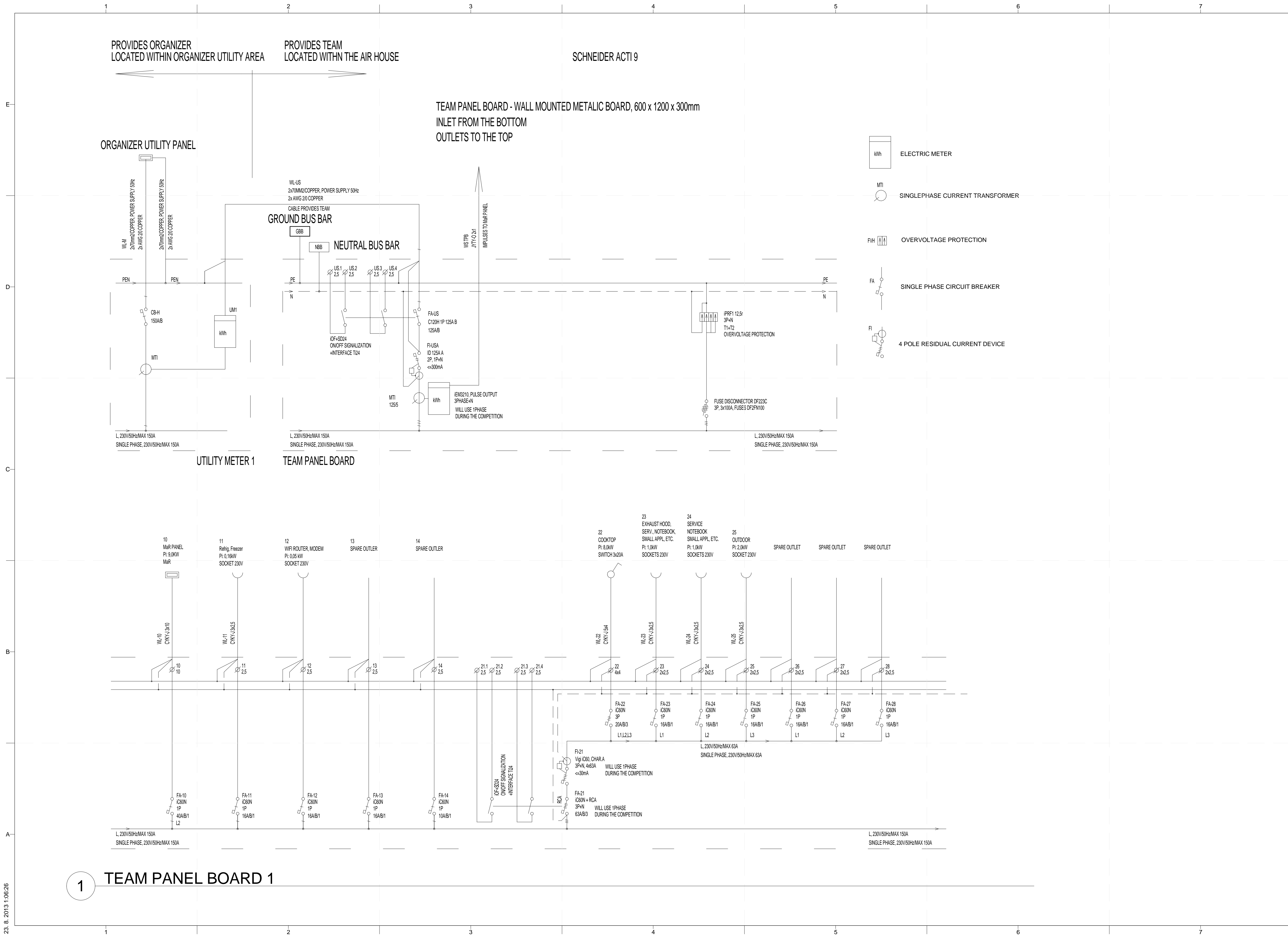


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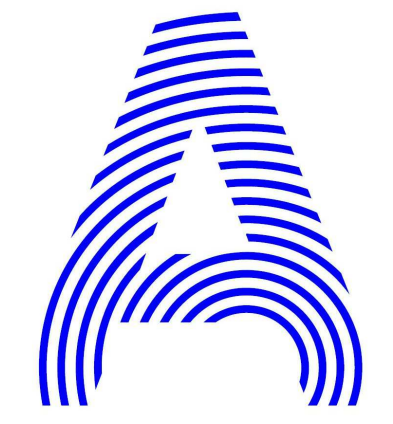
SHEET TITLE  
 POWER CONSUMPTION

E-604

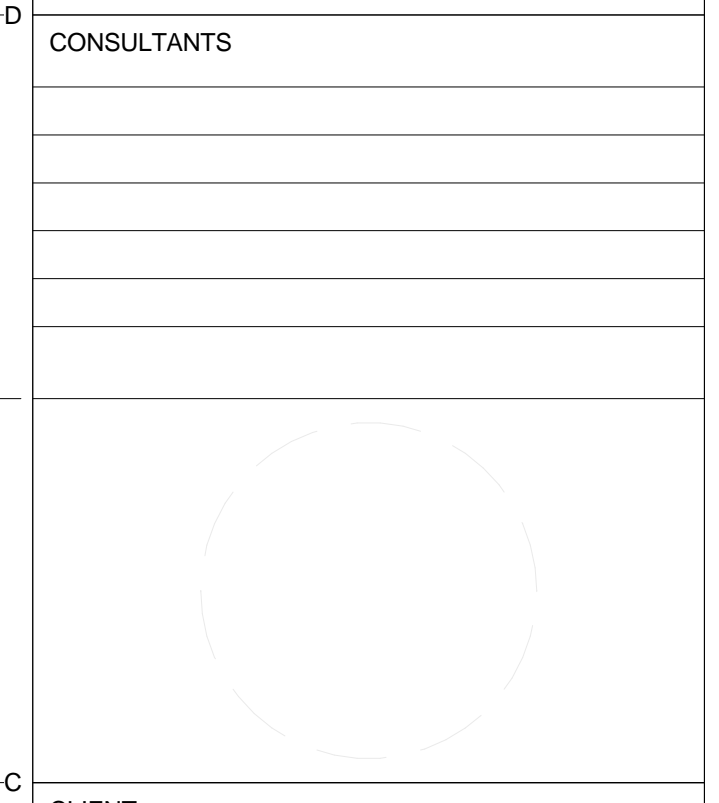


**1 TEAM PANEL BOARD 1**

23. 8. 2013 1:06:26



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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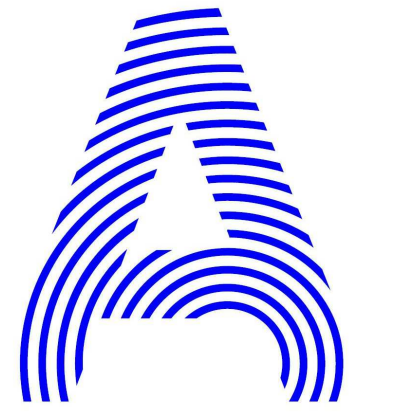
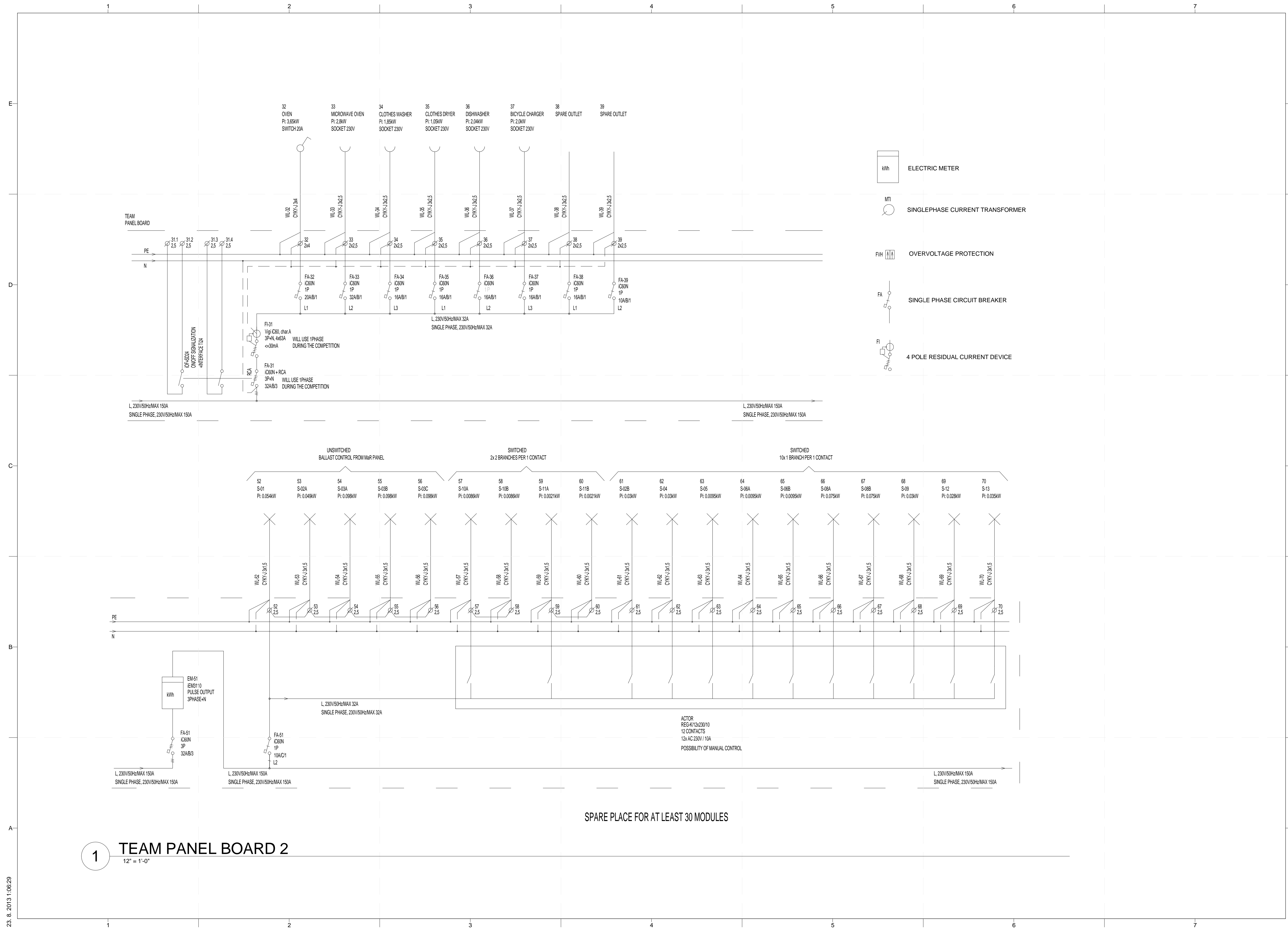


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**TEAM PANEL BOARD**  
**E-605**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
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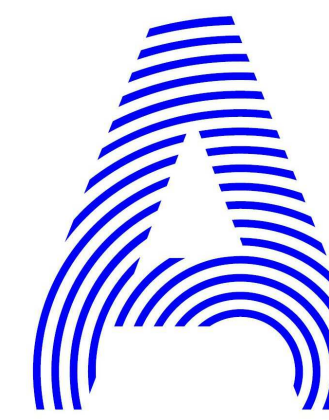
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SHEET TITLE  
**TEAM PANEL BOARD**

**E-606**

**1 TEAM PANEL BOARD 2**  
 12' = 1'-0"





PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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SHEET TITLE

**SIGNIFICANCE OF  
ABBREVIATIONS**

**E-611**

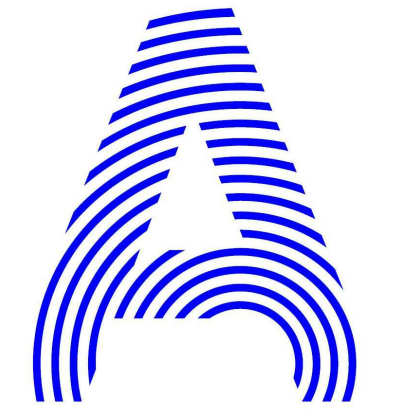
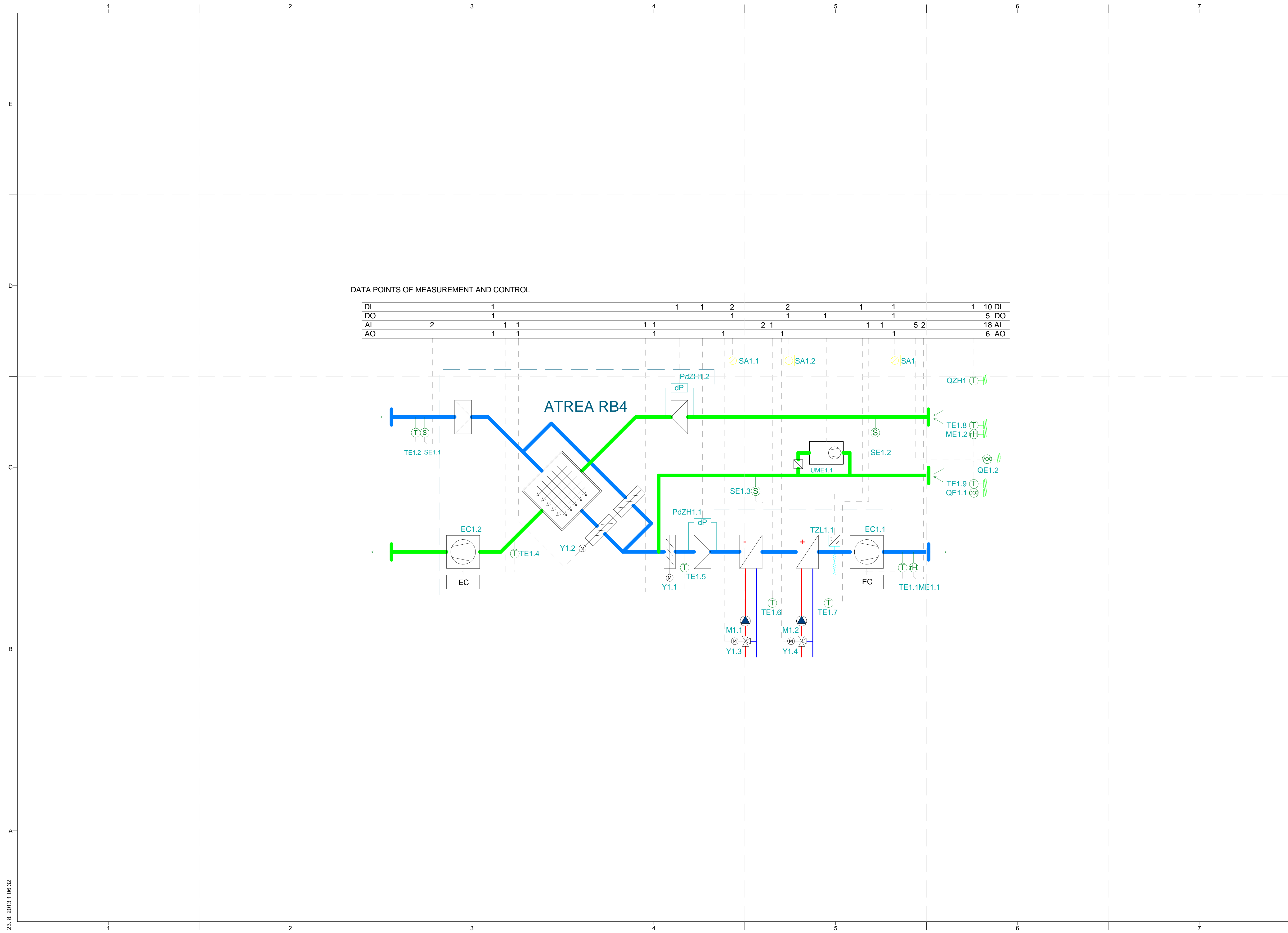
**SIGNIFICANCE OF ABBREVIATIONS**

DI - DIGITAL INPUT  
DO - DIGITAL OUTPUT  
AI - ANALOG INPUT  
AO - ANALOG OUTPUT

SA ... SWITCH  
SB ... BUTTON SWITCH  
HA ... ALARM LAMP OR HORN  
TE ... SENSOR TEMPERATURE  
ME ... SENSOR RELATIVE HUMIDITY  
SE ... SENSOR AIR VELOCITY  
QE ... SENSOR AIR QUALITY  
LE ... SENSOR WATER LEVEL  
GE ... SENSOR WINDOW POSITION  
PdAH ... DIFFERENTIAL PRESSURE  
TZL ... ANTIFREEZING THERMOSTAT  
PZL ... MINIMUM PRESSURE  
TZH ... MAXIMUM TEMPERATURE  
Y ... DAMPER ACTUATOR OR VALVE ACTUATOR  
M ... PUMP  
EC ... FAN  
UME ... DEHUMIDIFIER  
UE ... ELECTRIC HEATER  
UM ... HEAT PUMP

**SIGNIFICANCE OF ABBREVIATIONS OF MEASUREMENT  
AND CONTRO**

1



PROJECT TITLE: AIR HOUSE  
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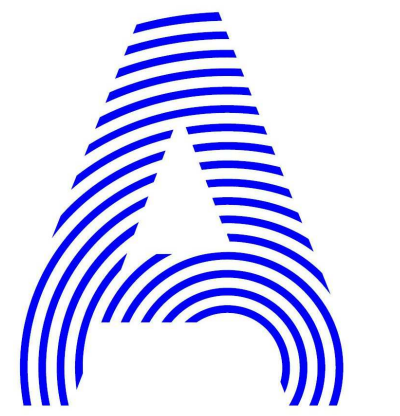


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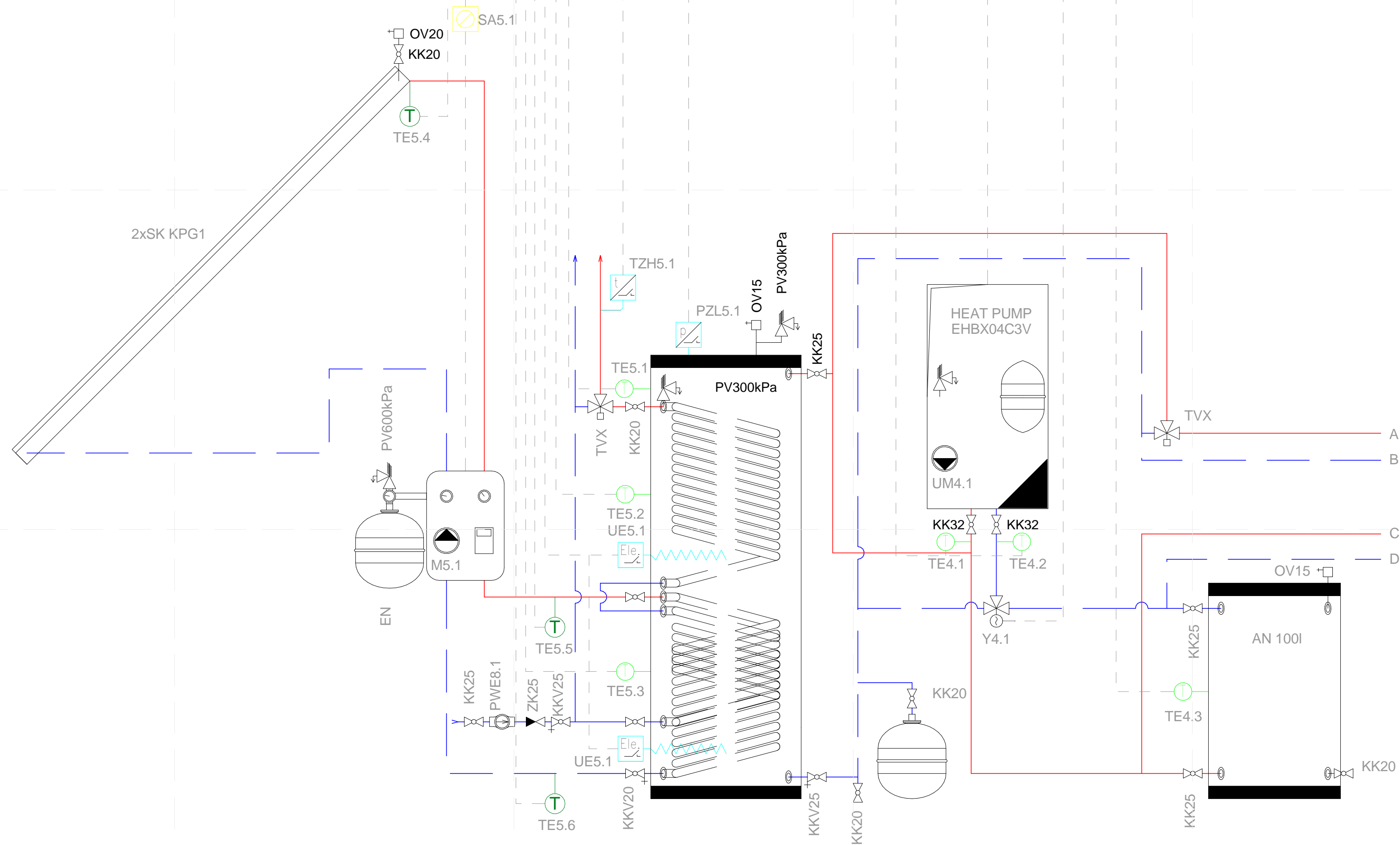
SHEET TITLE  
**MEASUREMENT AND CONTROL SCHEME**

**E-612**



DATA POINTS OF MEASUREMENT AND CONTROL

DI	2	2	1	1	2	8	DI		
DO	1	1			3	1	1	6	DO
AI	1	111	1	1	2			9	AI
AO								0	AO



PROJECT TITLE: AIR HOUSE  
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SHEET TITLE  
MEASUREMENT AND CONTROL SCHEME

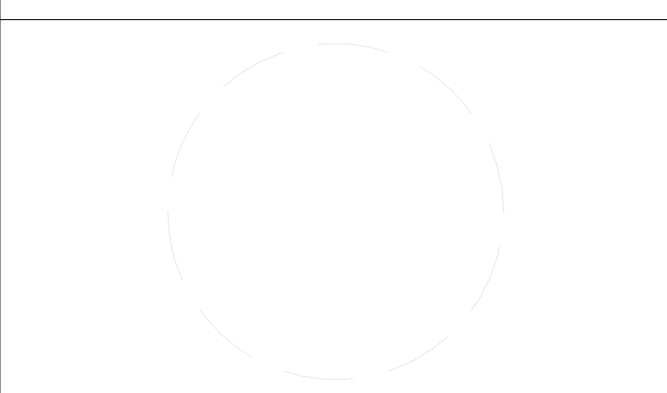
# E-613



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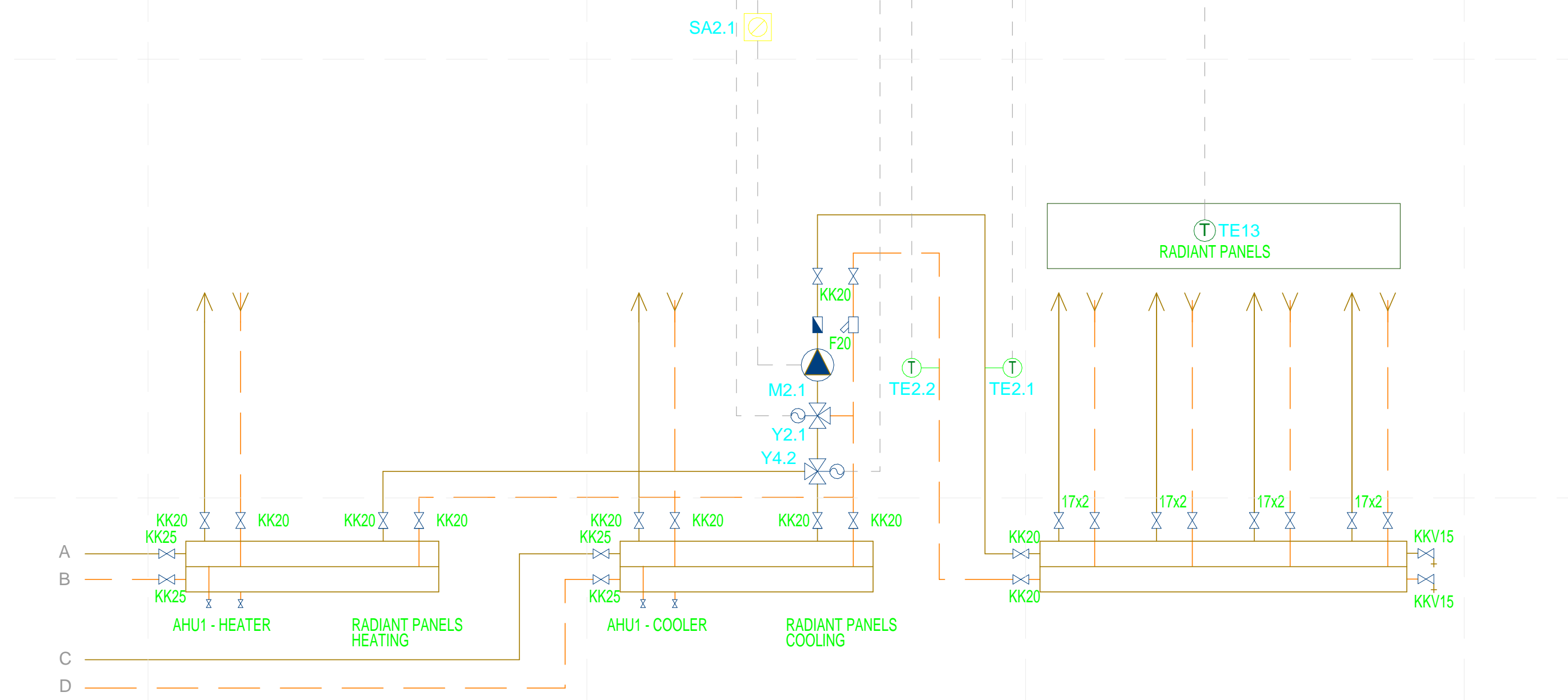
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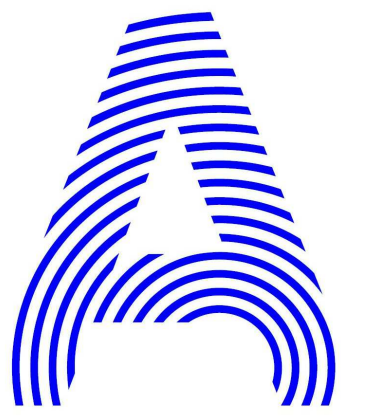
SHEET TITLE  
 MEASUREMENT AND CONTROL SCHEME

E-614

DATA POINTS OF MEASUREMENT AND CONTROL

DI	2	2 DI
DO	1 1	2 DO
AI	1 1 1 1	3 AI
AO	1	1 AO





PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
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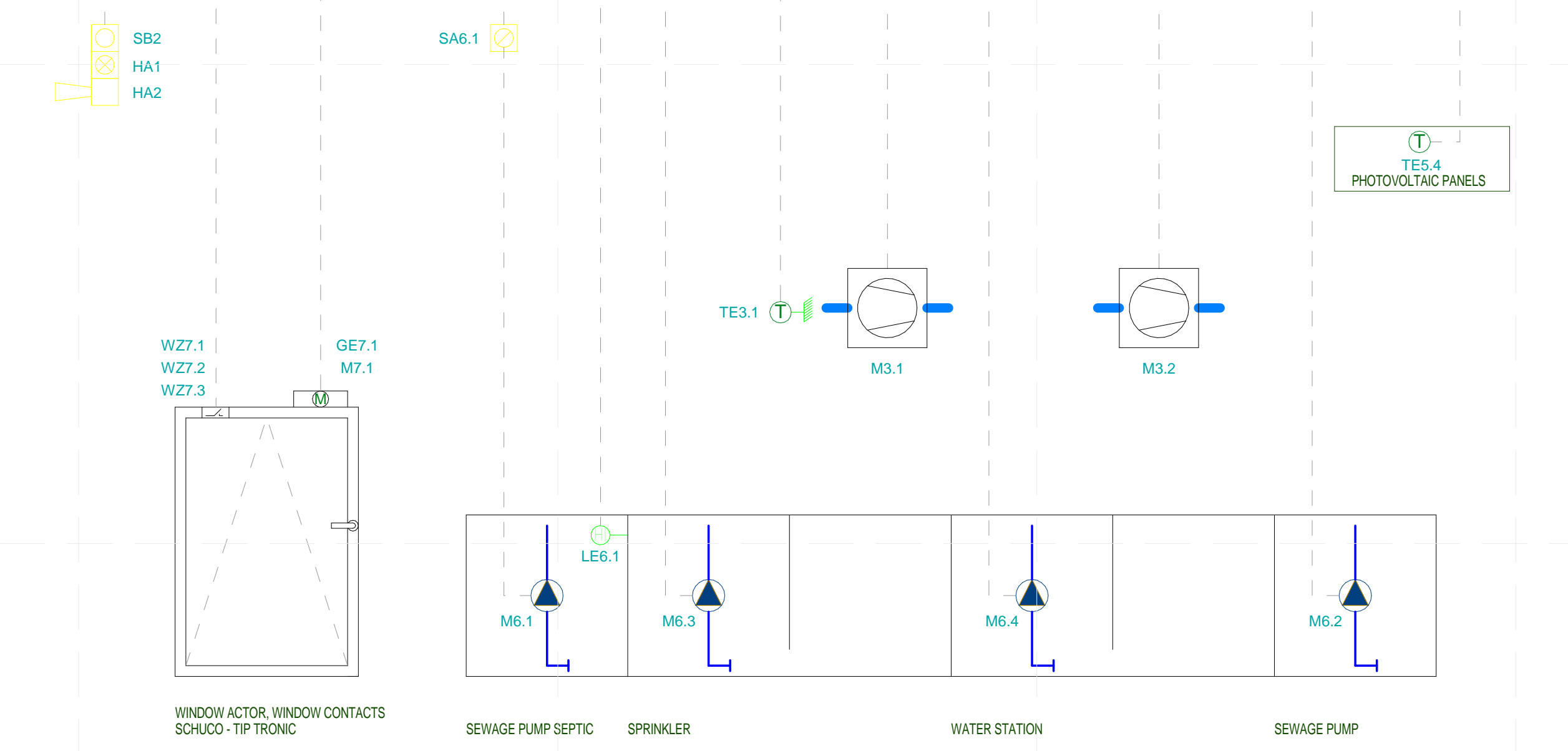
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SHEET TITLE  
**MEASUREMENT AND CONTROL SCHEME**

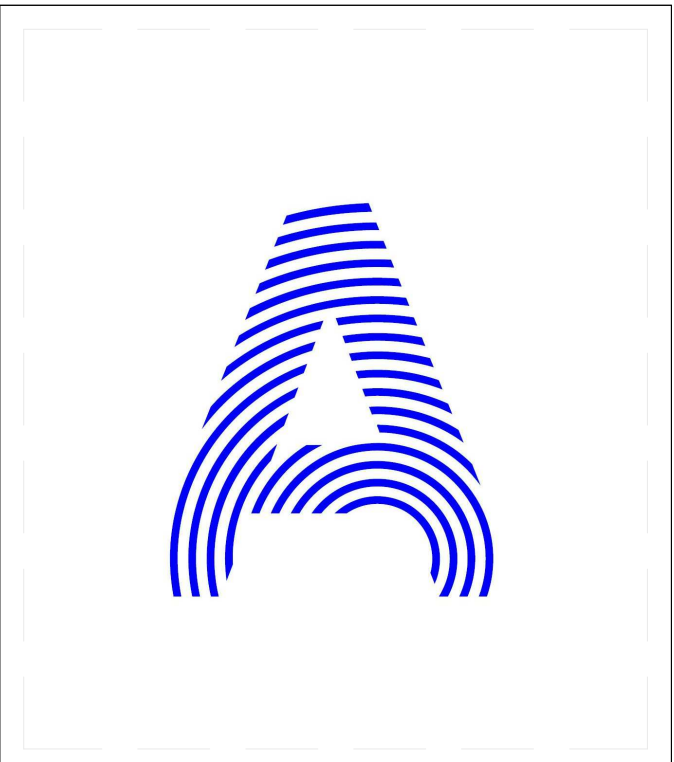
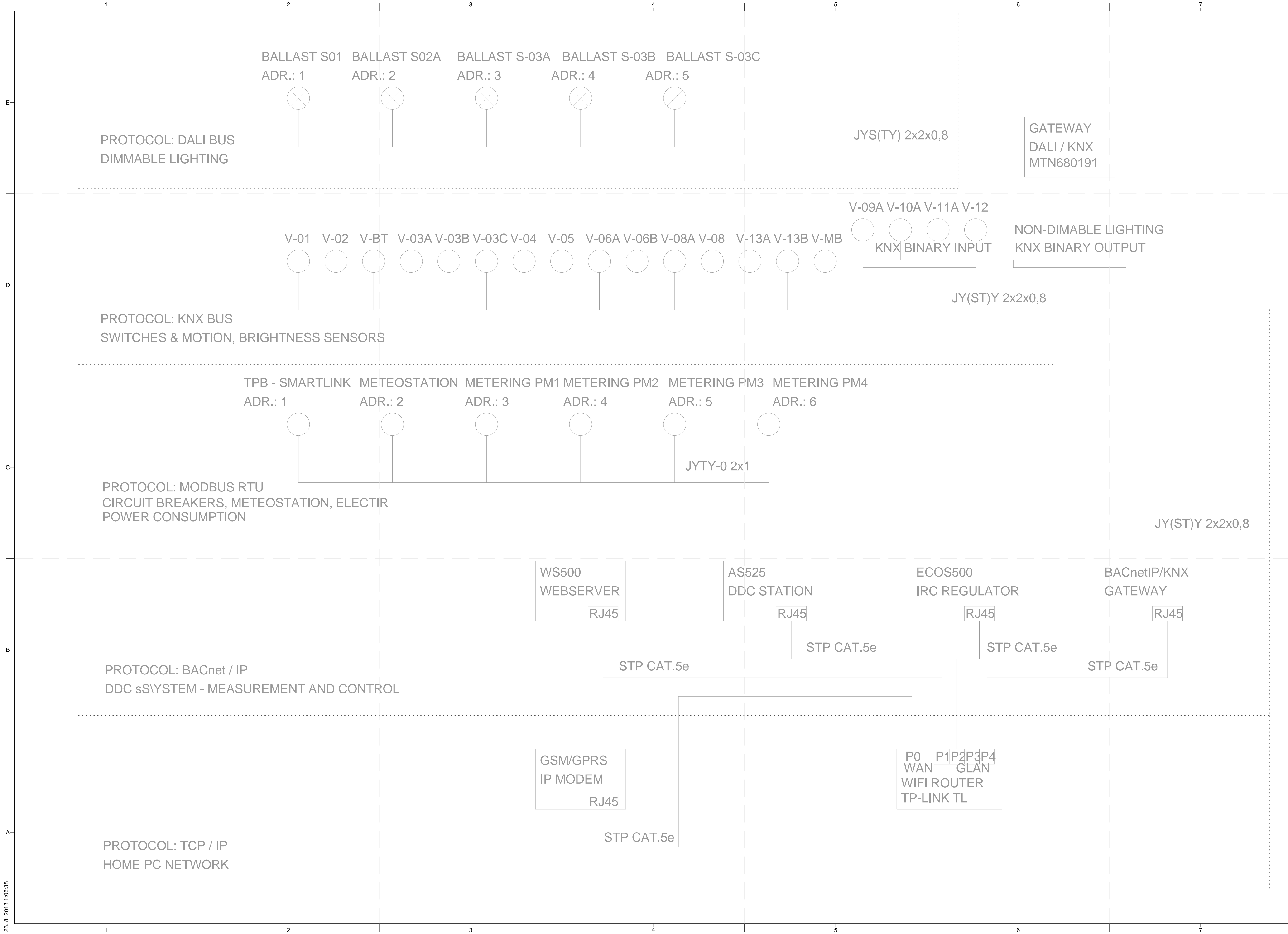
**E-615**

DATA POINTS OF MEASUREMENT AND CONTROL

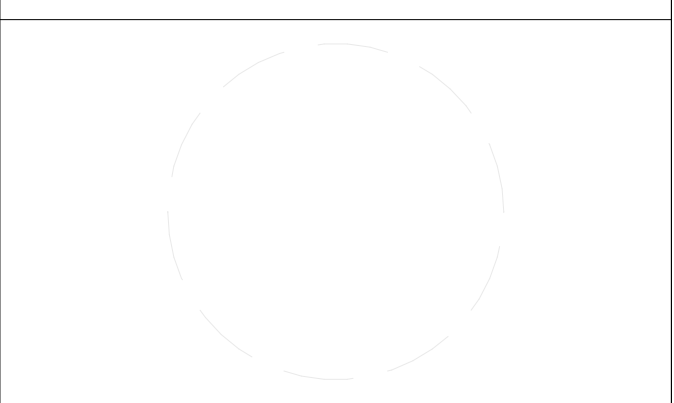
DI	2	3	1	2	1	1	1	1	2	2	15	DI
DO	1		2	1			1			1	6	DO
AI		1		1							4	AI
AO											0	AO



23. 8. 2013 1:06:37



**PROJECT TITLE:** AIR HOUSE  
**TEAM NAME:** CZECH REPUBLIC / CTU  
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**SHEET TITLE**  
 WIRING AND  
 COMMUNICATION  
 PROTOCOLS

# E-616

SWITCHBOARD

SIZE: WIDTH 800 MM  
HEIGHT 2000 MM  
DEPTH 300 MM

REQUIRED STANDARD:

COVER IP54 (AT OPENED DOOR IP20)  
CABLE GLANDS UPWARD  
DOOR SEAL  
POCKET FOR DOCUMENTATION  
CODES OF THE CABLE LABELS

DISTRIBUTION SYSTEM: TN-S 1+N+PE 230 V 50Hz  
SAFETY VOLTAGE: 24VAC 50Hz, PELV 24VDC, PELV

SWITCHGEAR MANUFACTURER SHALL COMPLY WITH THE PRINCIPLES OF PROPER GROUNDING OF ELECTRONIC DEVICES AND SHIELDED CABLING ACCORDING TO DESIGNER DOCUMENTATION.

THE TEMPERATURE AT THE INSTALLATION SITE DOES NOT EXCEED +40°C.

LEGEND:

- 1) SWITCHGEAR IS ENERGIZED HL1 (WHITE)
- 2) TOTAL STOP SB1 (RED MUSHROOM BUTTON)
- 3) PILOT LAMP OF GENERAL ALARMS HA1 (RED)
- 4) BUTTON TO UNBLOCKING ALARMS SB2 (BLACK)
- 5) LCD CONTROL PANEL OP840
- 6) SWITCH SA1 (ZAP/VYP/AUTO)
- 7) SWITCH SA1.1 (ZAP/VYP/AUTO) + PILOT LAMP HL1.1
- 8) SWITCH SA1.2 (ZAP/VYP/AUTO) + PILOT LAMP HL1.2
- 9) SWITCH SA2.1 (ZAP/VYP/AUTO) + PILOT LAMP HL2.1
- 10) SWITCH SA5.1 (ZAP/VYP/AUTO) + PILOT LAMP HL5.1
- 11) SWITCH SA6.1 (ZAP/VYP/AUTO) + PILOT LAMP HL6.1
- 12) PILOT LAMP HL5.2 (WHITE)
- 13) PILOT LAMP HL5.3 (WHITE)
- 14) PILOT LAMP HL1.3 (WHITE)
- 15) PILOT LAMP HL1.4 (WHITE)

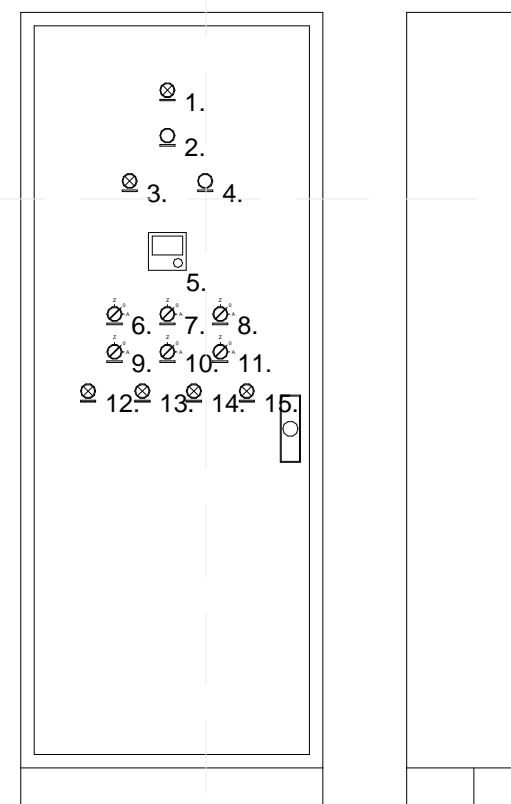
PROTECTION AGAINST ELECTRIC SHOCK BY THE NORM ČSN 33 2000-4-41  
A) LIVE PARTS: COVER AND INSULATION BY THE ARTICLE 412.1 AND 412.2  
B) NON-LIVE PARTS: AUTOMATIC DISCONNECTION OF POWER SUPPLY BY THE ARTICLE 413.1 AND BY THE NORM ČSN 611558-2-6 (351330)  
LOW VOLTAGE - USING A SAFETY ISOLATING TRANSFORMER

DETERMINATION OF ESSENTIAL CHARACTERISTICS OF SURROUNDINGS BY THE ČSN 33 2000-3 ACCORDING TO ČSN 33 2000-5-51 BY ARTICLE 512.2.4: BASIC, NORMAL

CAUTION

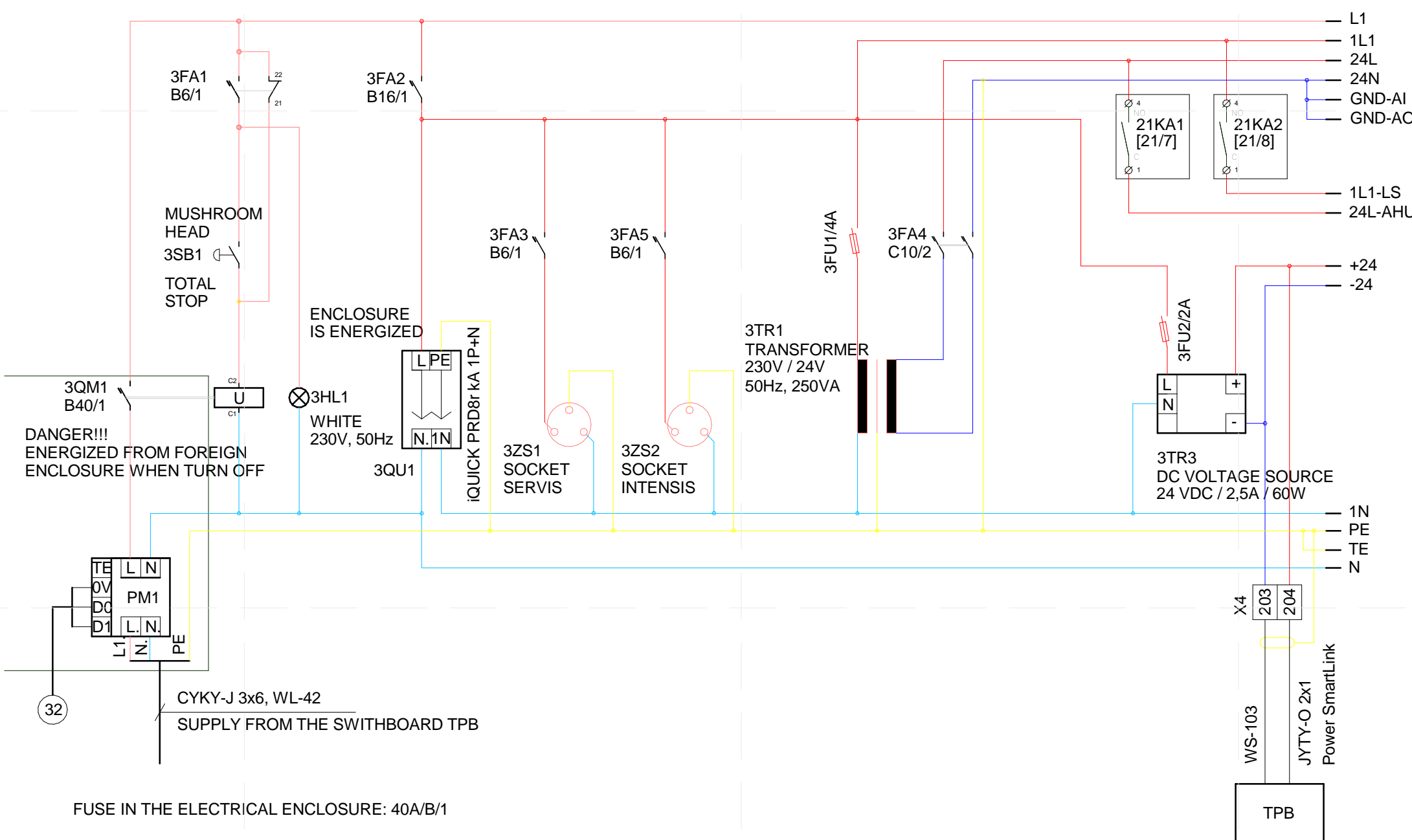
BEFORE CONNECTING THE MOTOR IS TO BE CHECKED INFORMATIONS AT THE MOTOR LABEL.  
WIRING TERMINALS ACTUATORS AND SENSORS BE BEFORE INSTALLING AND CHECK WITH THE SUPPLIED TYPES.  
IT IS NECESSARY TO FOLLOW THE GUIDES INSTALLATION AND MAINTENANCE EQUIPMENT.

IN THE SWITCHBOARD IS NECESSARY TO SEPARATE THE POWER SUPPLY FROM THE MEASUREMENT SIGNALS AND CONTROL SIGNALS.

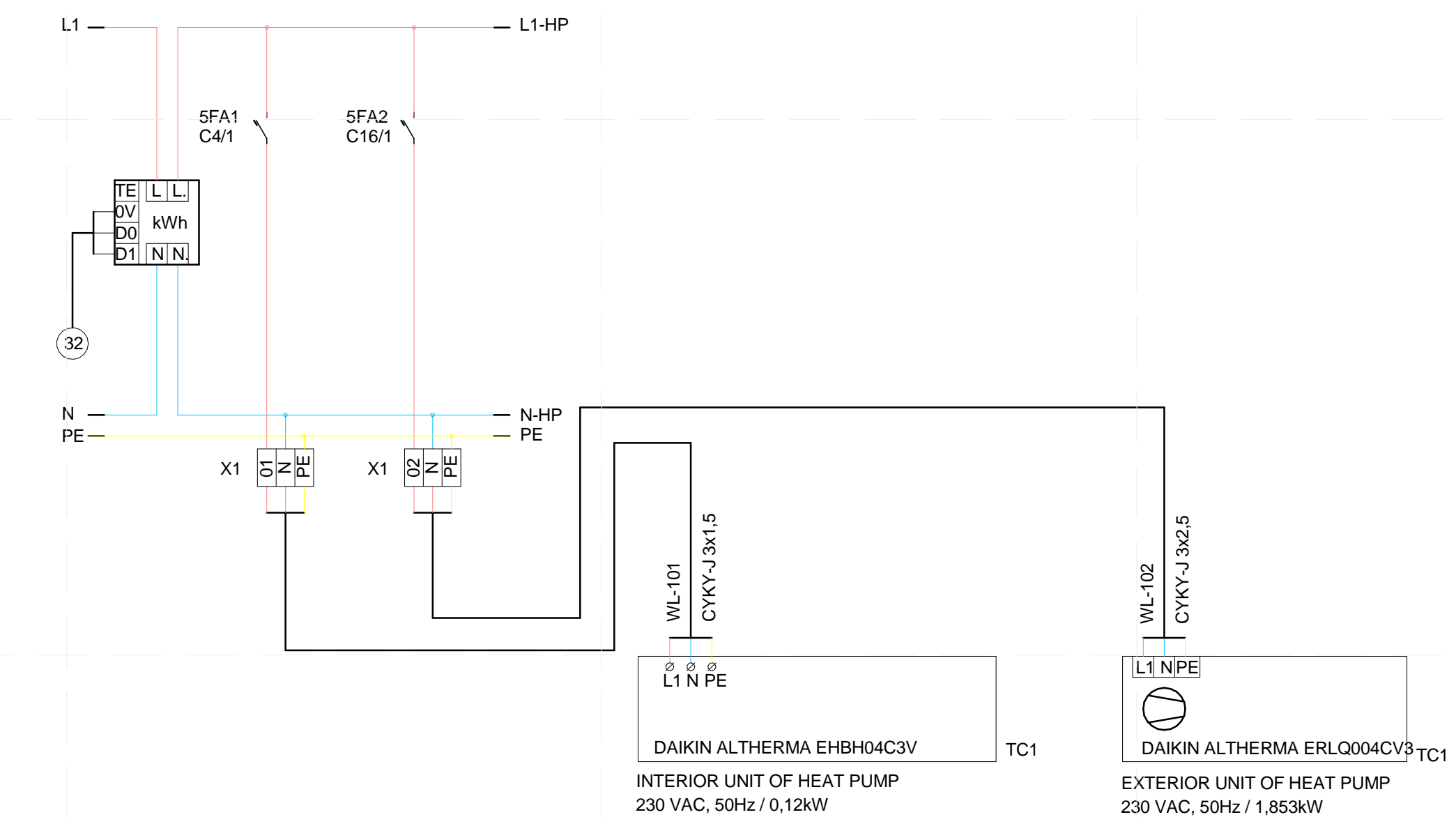


1 SWITCHGEAR RMR-1 THE FRONT VIEW (PAGE 02)

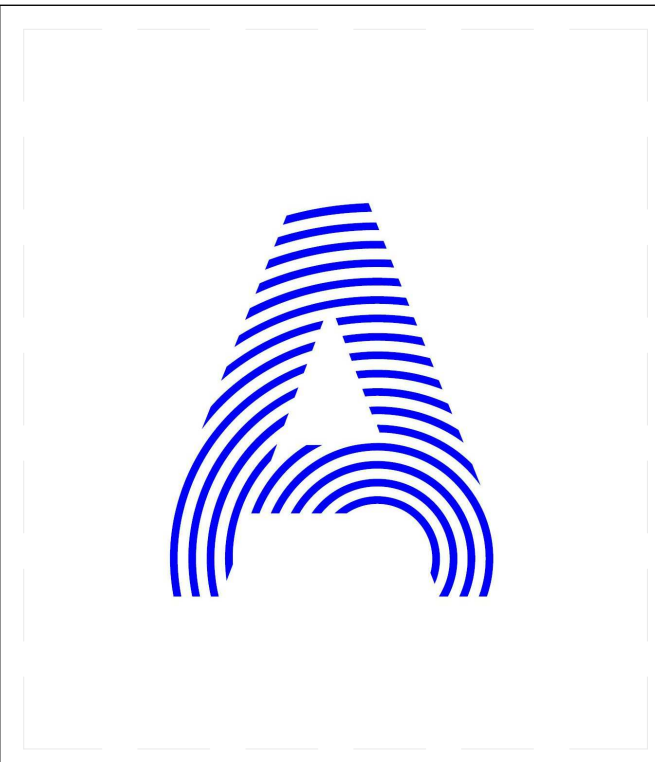
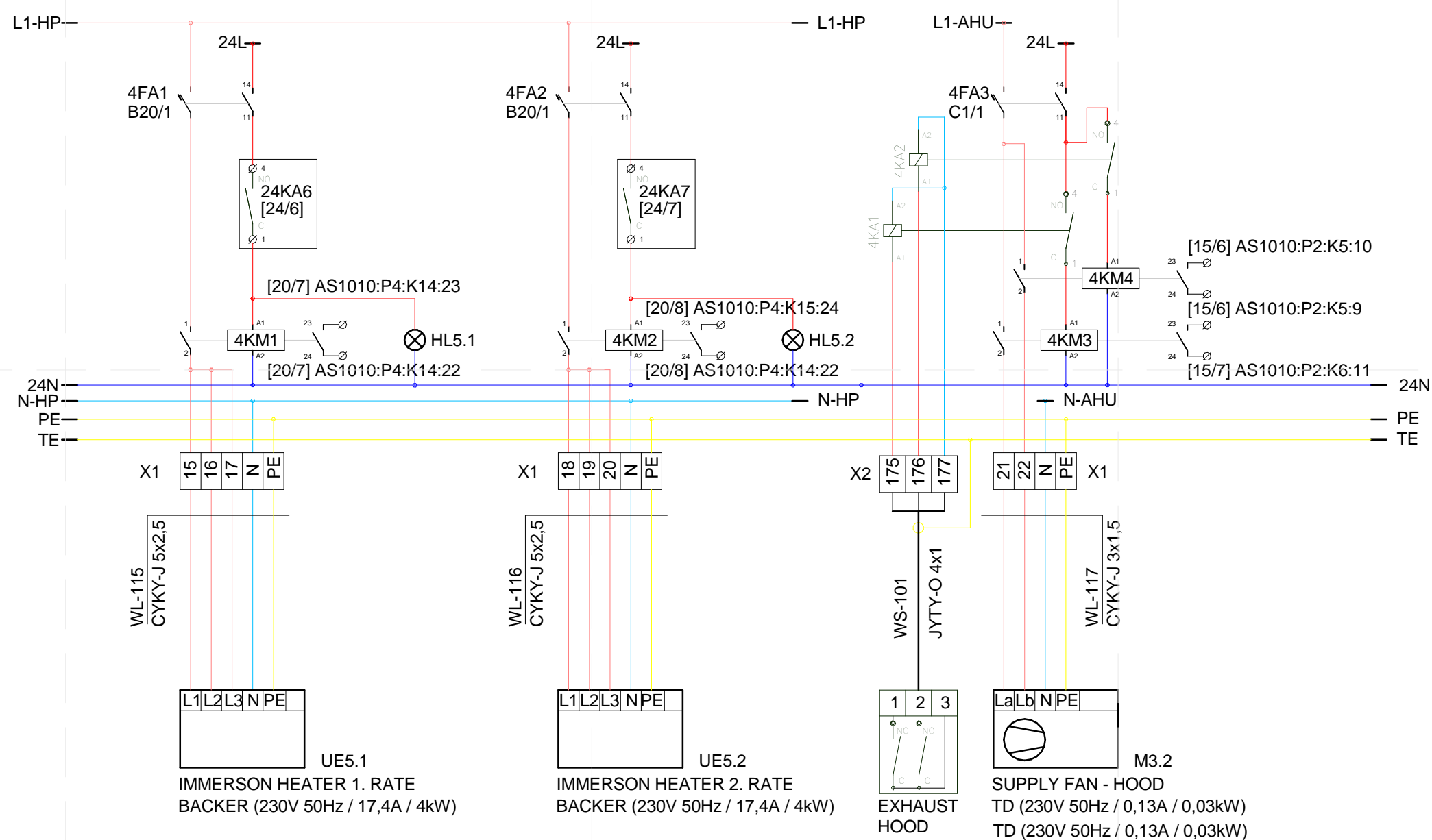
3 SWITCHGEAR RMR-1, WATER HEATER, FAN (PAGE 04)



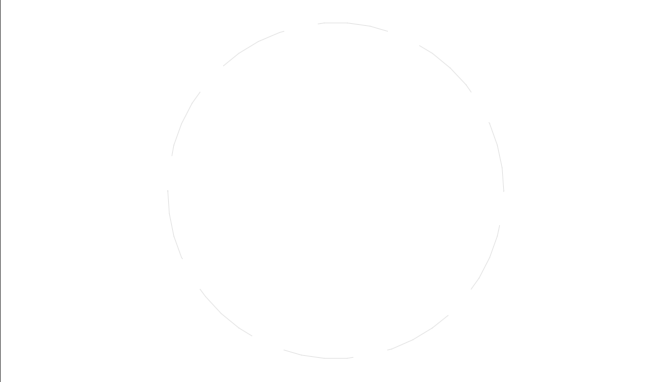
2 SUPPLY POWER (PAGE 03)



4 SWITCHGEAR RMR-1 HEAT PUMP (PAGE 05)



PROJECT TITLE: AIR HOUSE  
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CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ  
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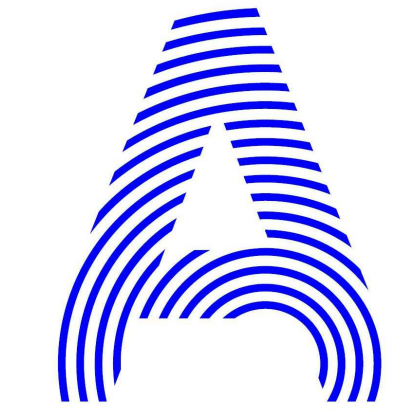
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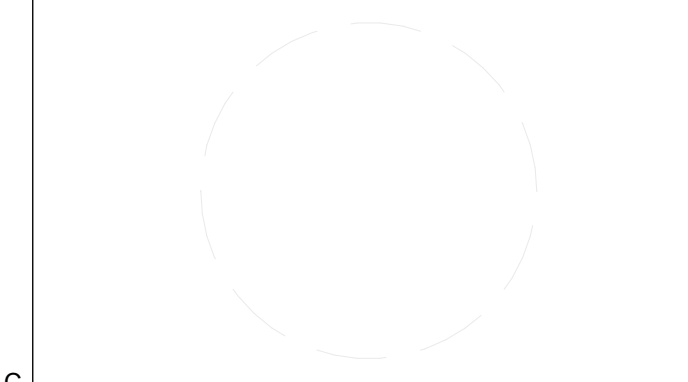
SHEET TITLE  
MEASUREMENT AND CONTROL PANEL BOARD

E-617



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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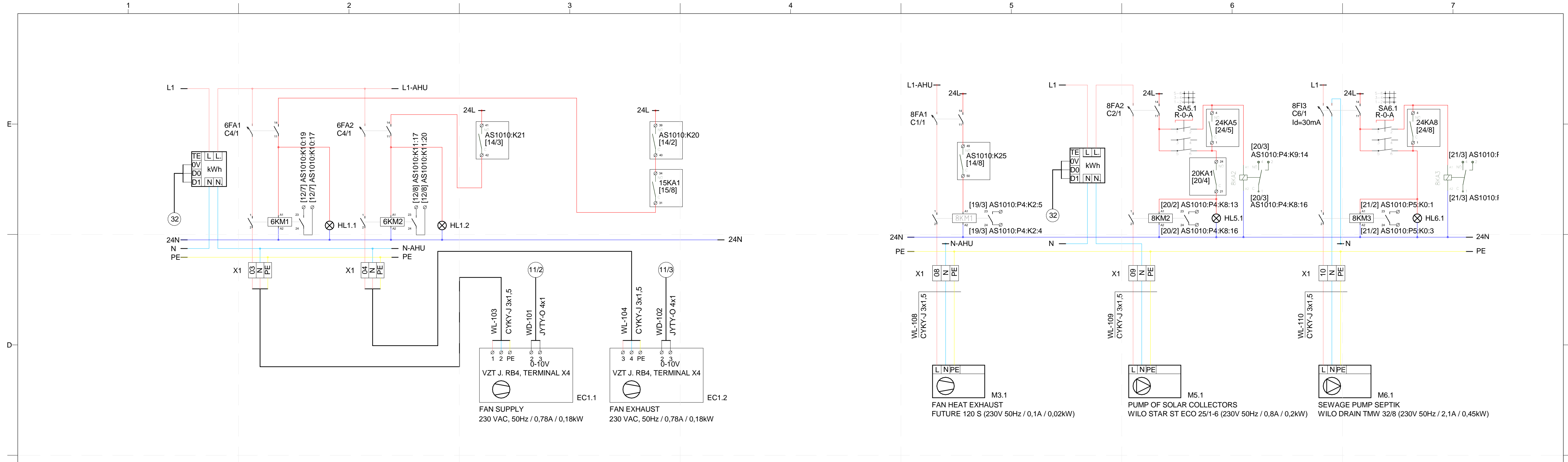
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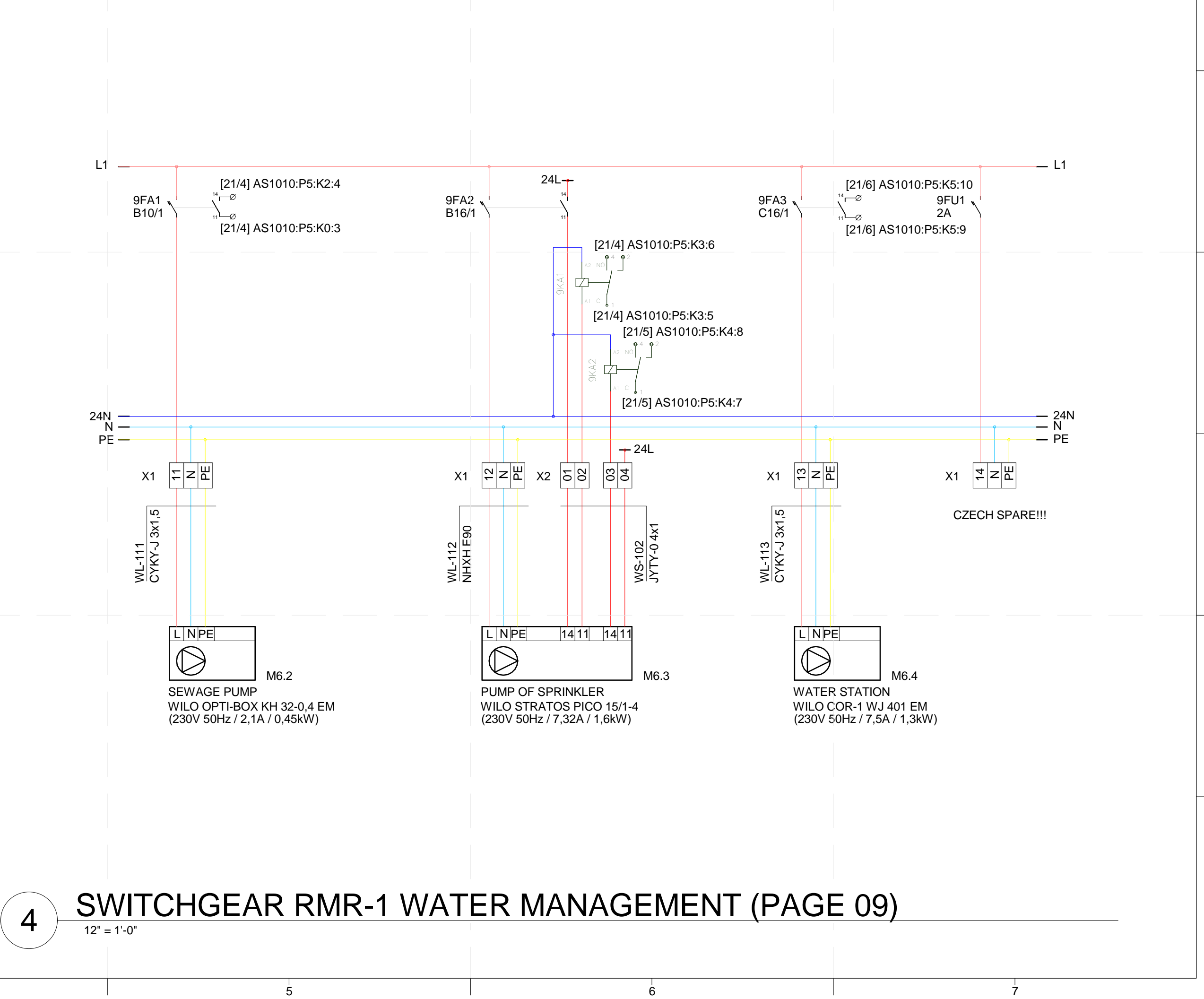
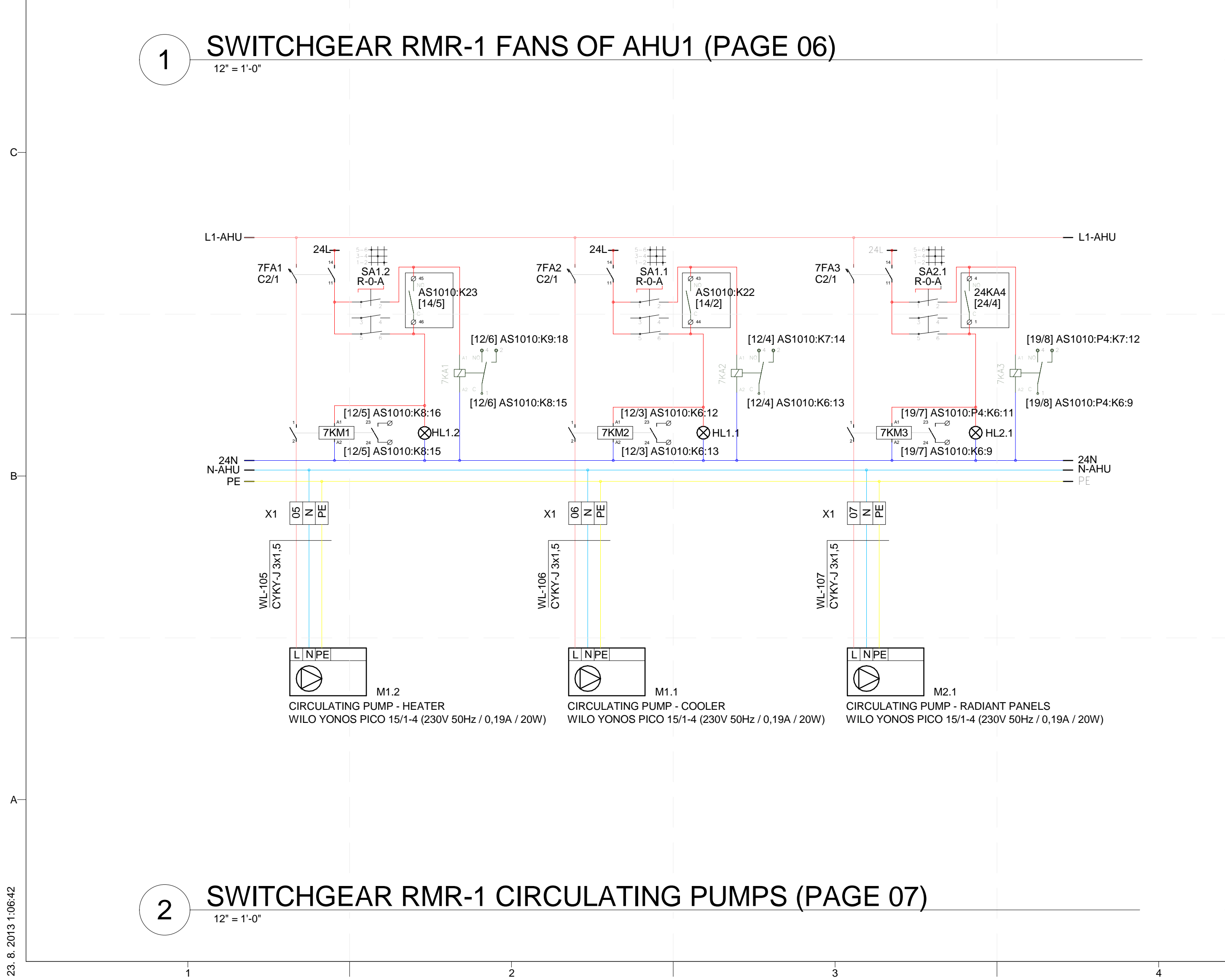
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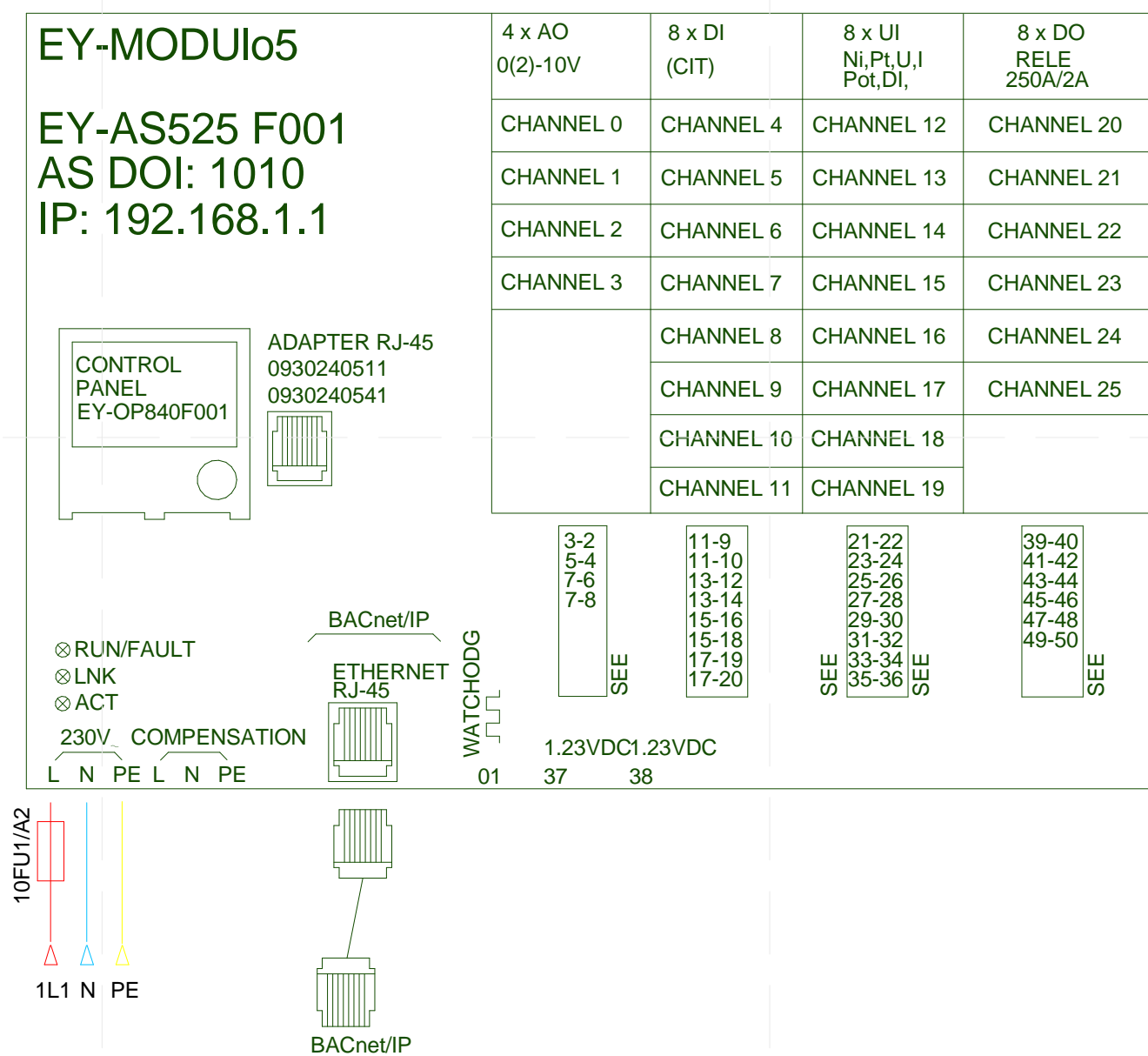
SHEET TITLE  
**MEASUREMENT AND CONTROL PANEL BOARD**  
**E-618**



3 SWITCHGEAR RMR-1 PUMPS AND FAN (PAGE 08)  
 12" = 1'-0"

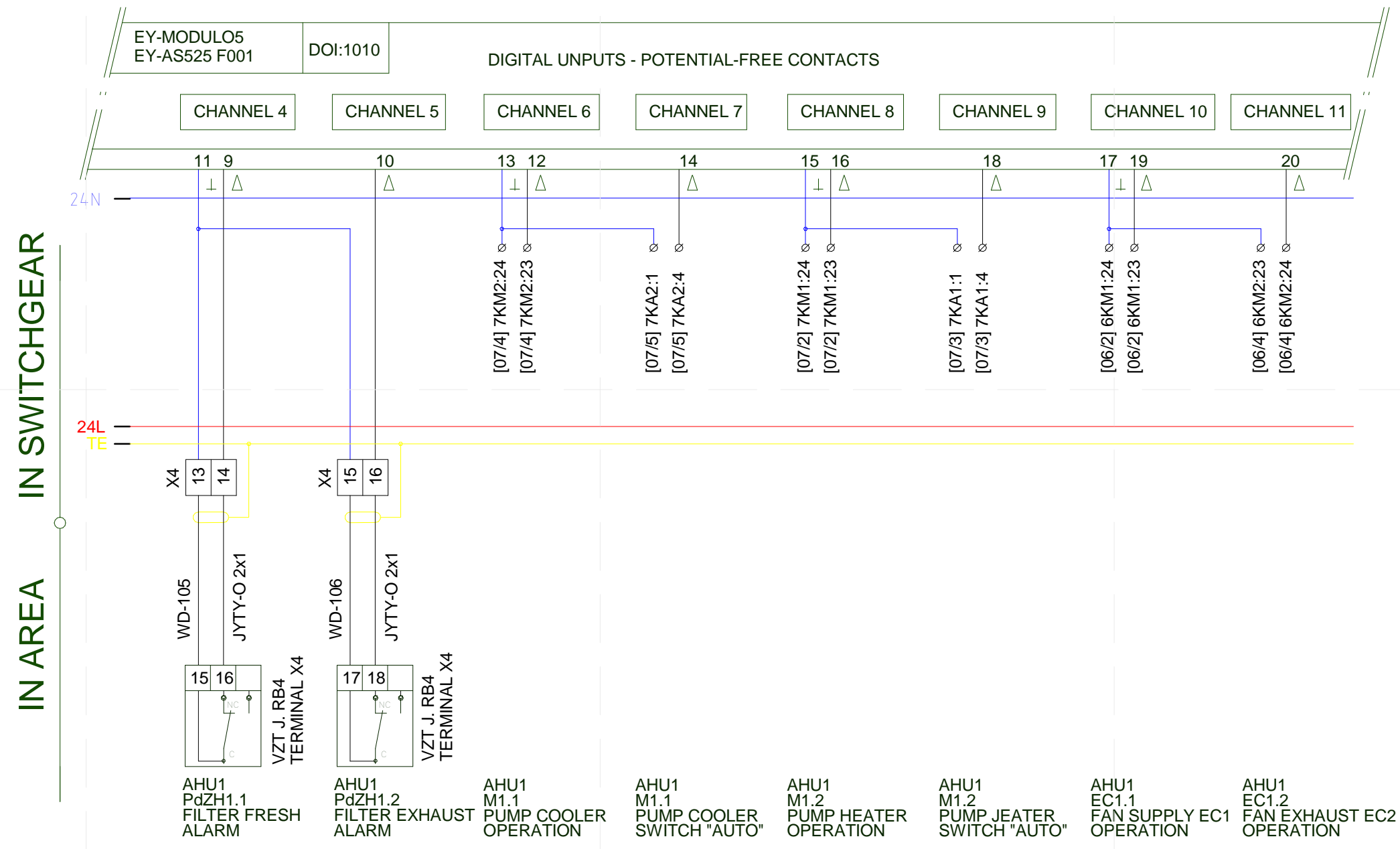






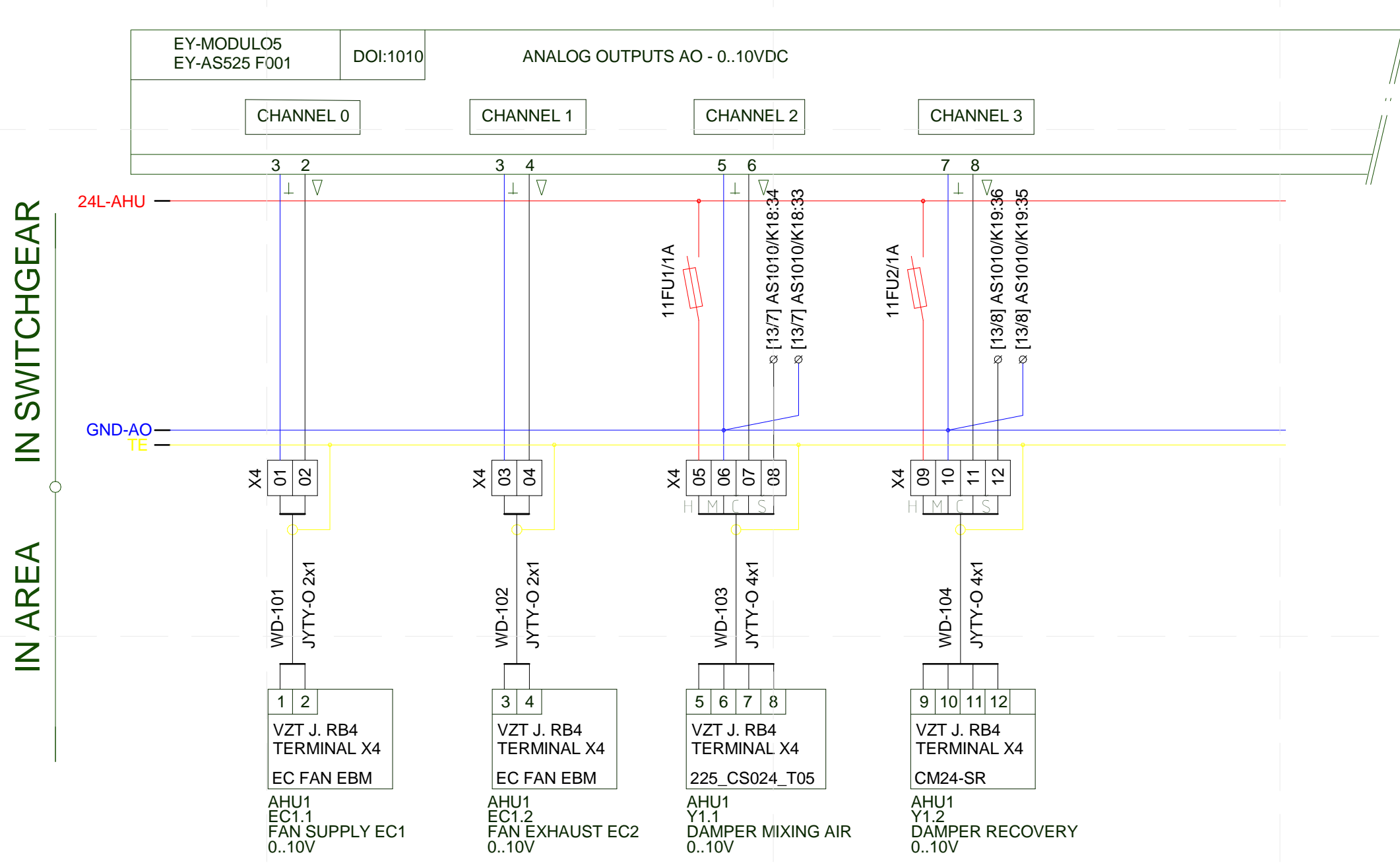
EXPANSIONS SLOTS							
P1	P2	P3	P4	P5	P6	P7	P8
MODUJ21: 1x232 / 1x485	MODUJ72: 4xAO / 3xDI / 8xUI	MODUJ32: 16xUI	MODUJ31: 16xDI	MODUJ71: 8xDI / 8xDO	MODUJ71: 8xDI / 8xDO		

- LEGEND LABELING TERMINA  
X1: POWER SUPPLY  
X2: CONTROL VOLTAGE 230 VAC  
X3: CONTROL VOLTAGE 24VAC  
X4: SENSORS, DEVICES  
X5: FOREIGN SUPPLY VOLTAGE  
X7: DATA COMMUNICATION, BUS

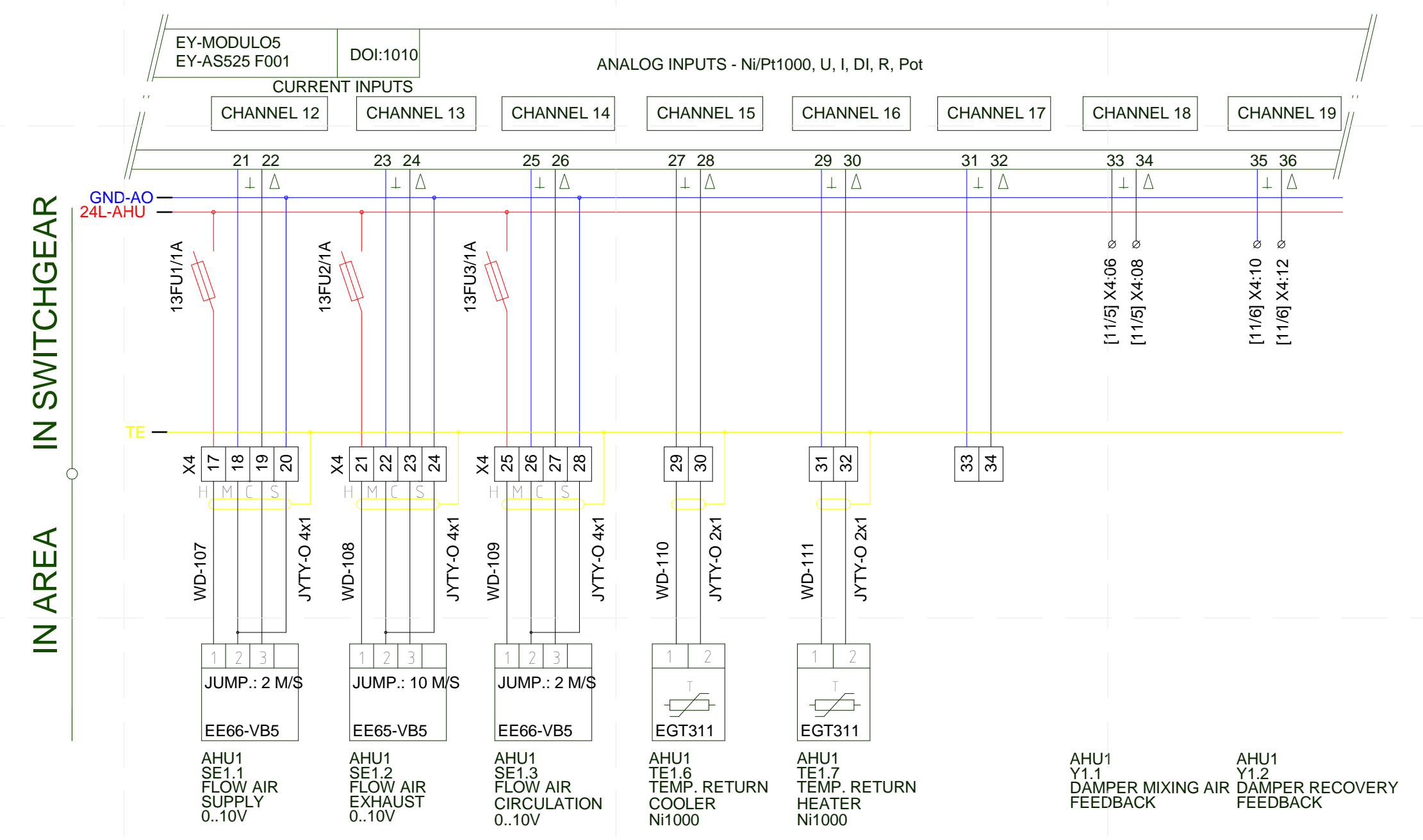


1 SWITCHGEAR RMR-1 DDC AS1010/AS525 (PAGE 10)  
12" = 1'-0"

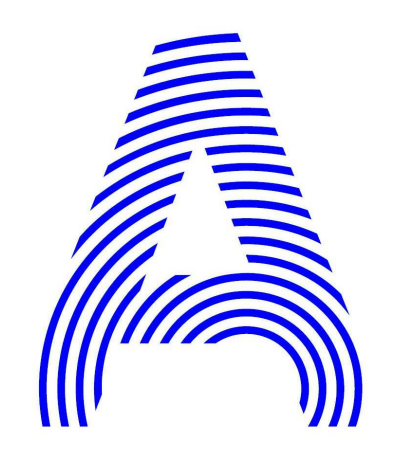
3 SWITCHGEAR RMR-1 DDC AS1010/AS525/DI (PAGE 12)  
12" = 1'-0"



2 SWITCHGEAR RMR-1 DDC AS1010/AS525/A0 (PAGE 11)  
12" = 1'-0"



4 SWITCHGEAR RMR-1 DDC AS1010/AS525/UI (PAGE 13)  
12" = 1'-0"



PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
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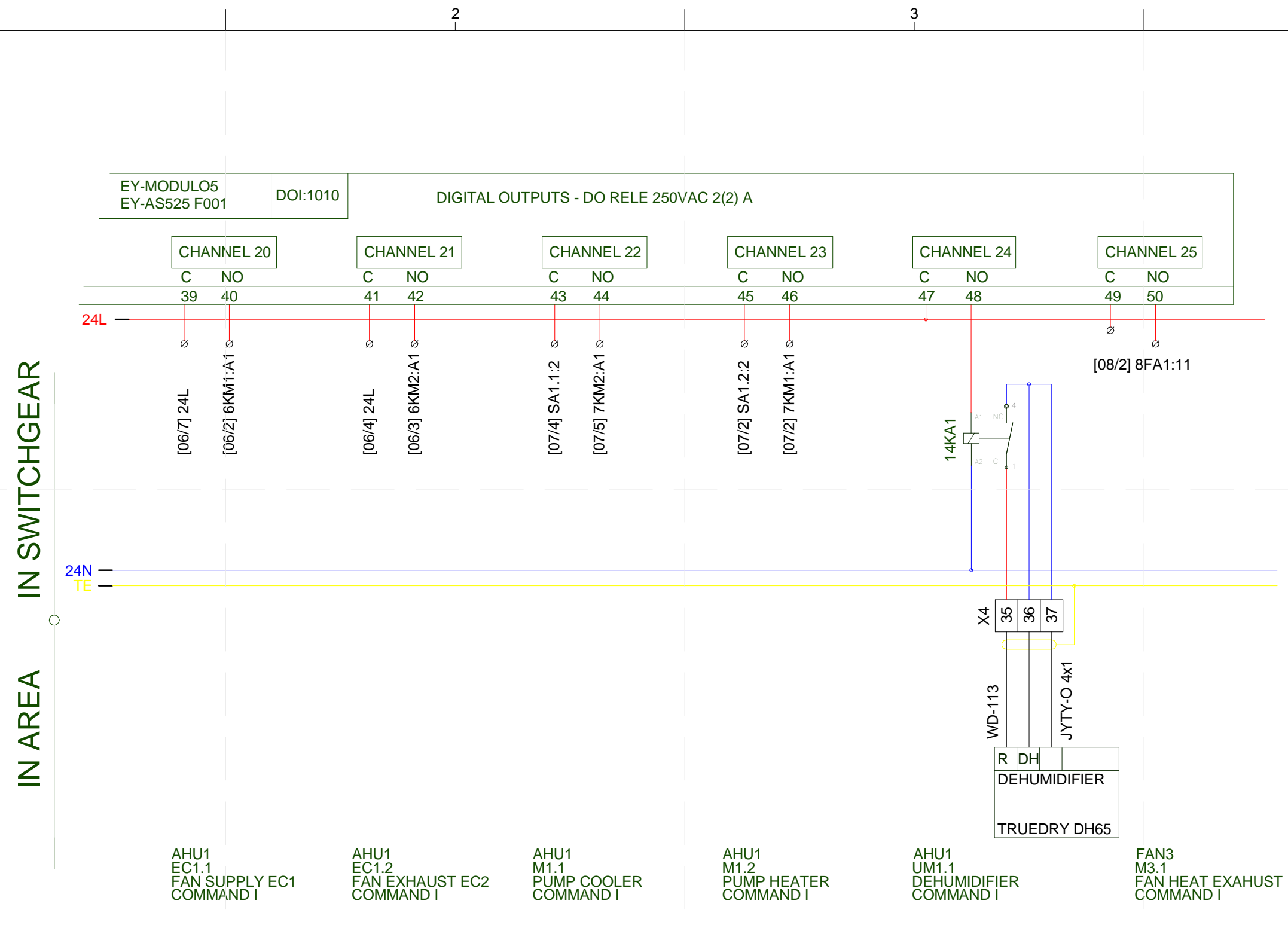


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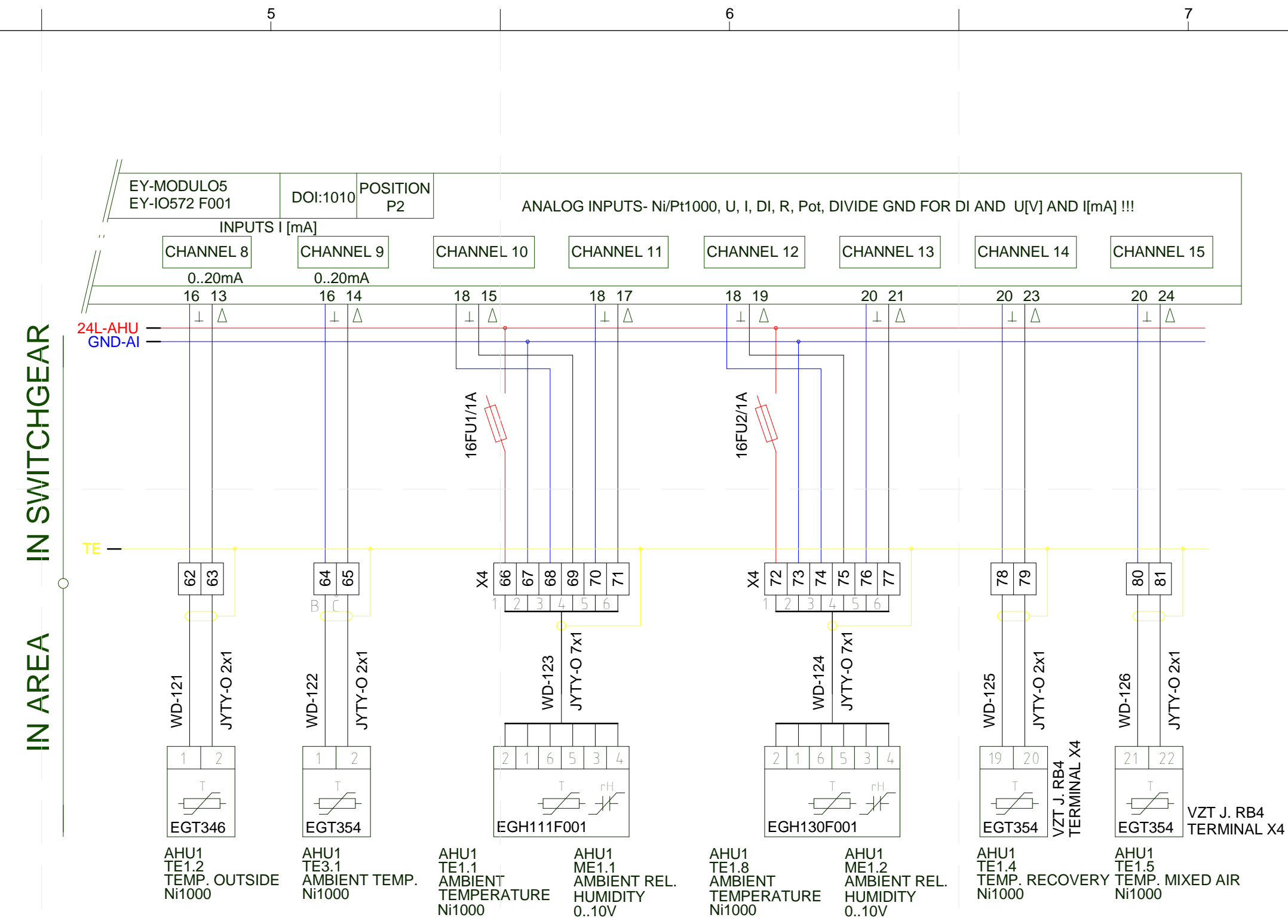
LOT NUMBER: 103  
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SHEET TITLE  
**MEASUREMENT AND CONTROL PANEL BOARD**  
**E-619**

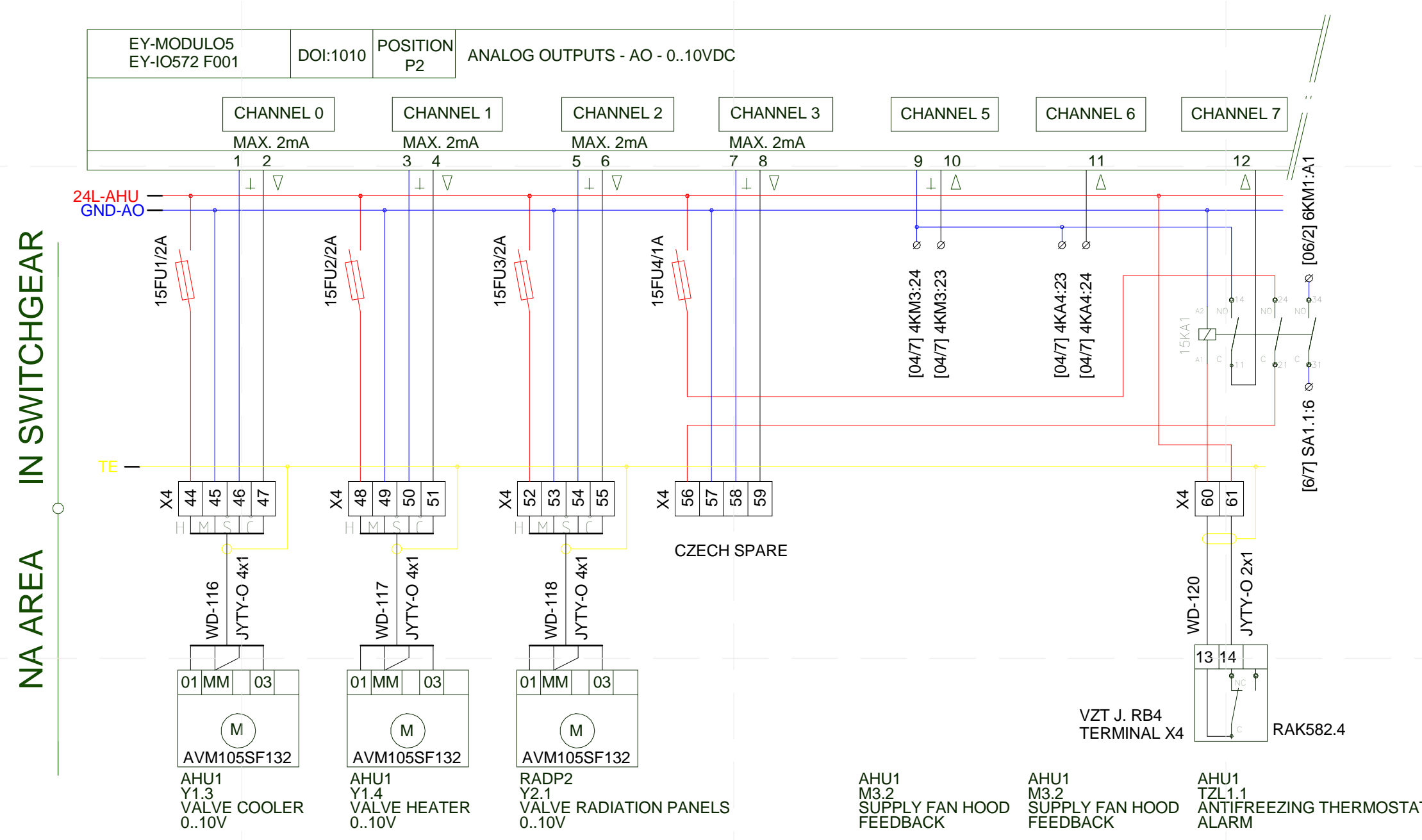
23. 8. 2013 1:06:45



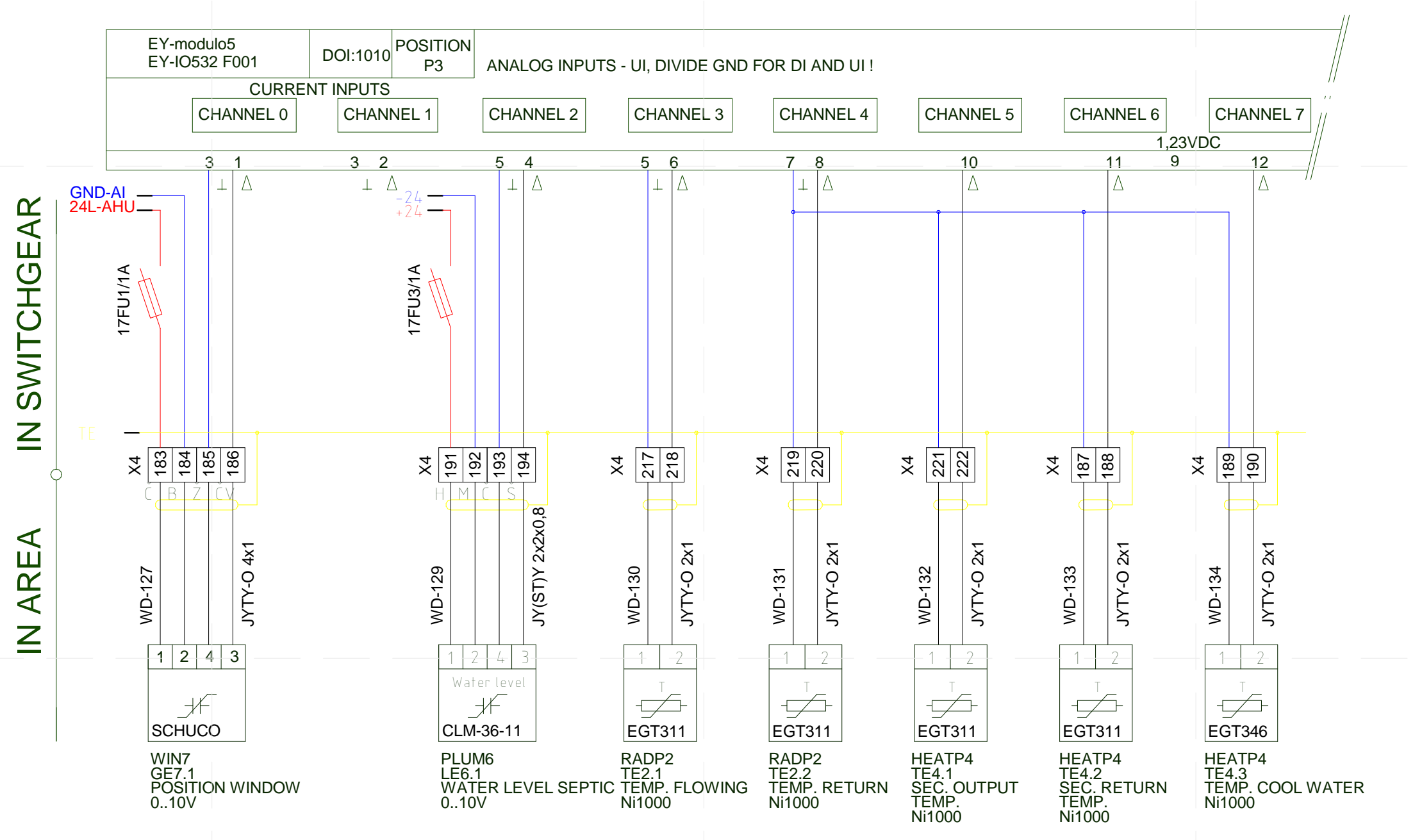
1 SWITCHGEAR RMR-1 DDC AS1010/AS525/D0 (PAGE 14)



3 SWITCHGEAR RMR-1 DDC AS1010/MODU572/2 (PAGE 16)



2 SWITCHGEAR RMR-1 DDC AS1010/MODU572/1 (PAGE 15)



4 SWITCHGEAR RMR-1 DDC AS1010/MODU532/UI (PAGE 17)



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE THAKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
 CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ

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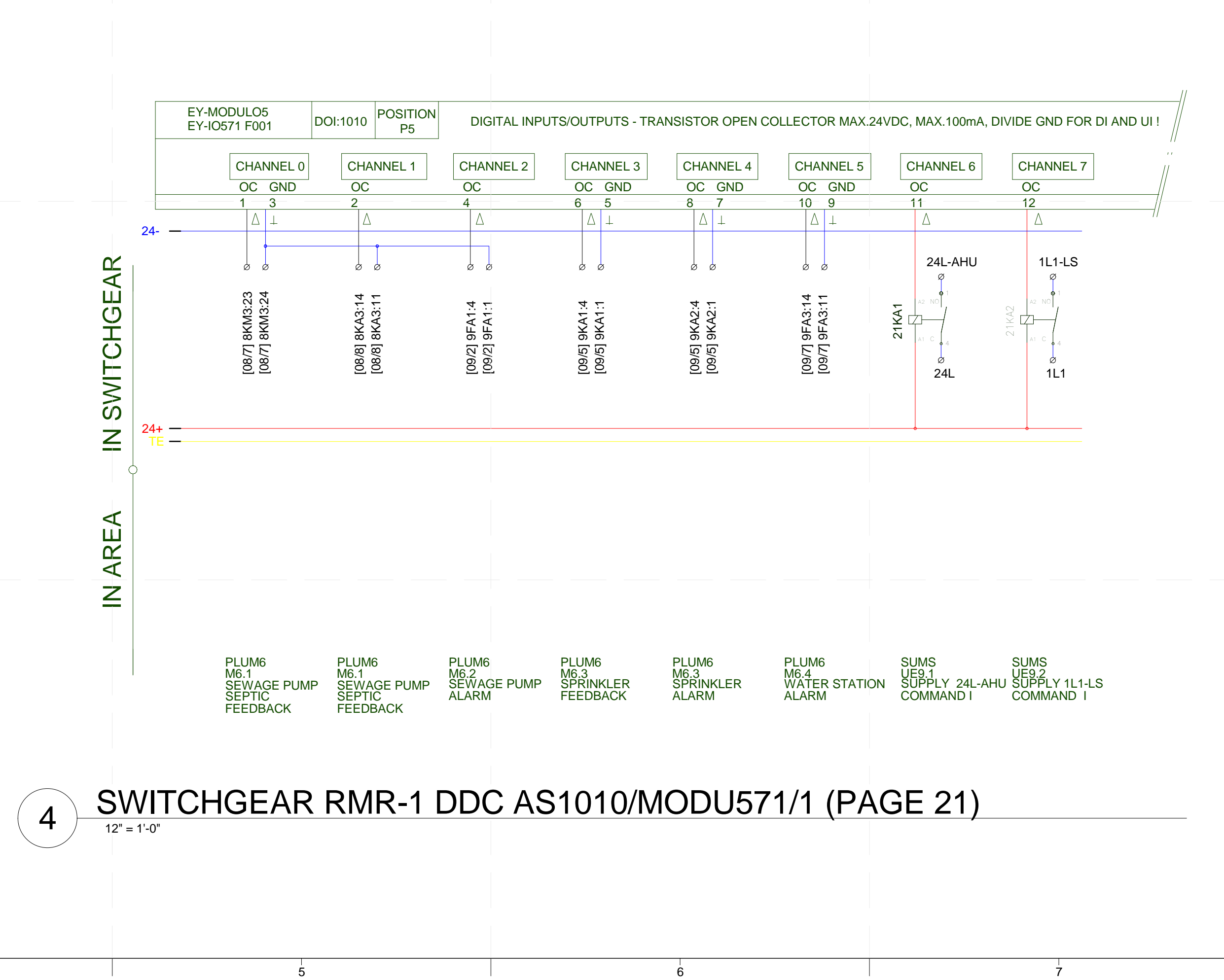
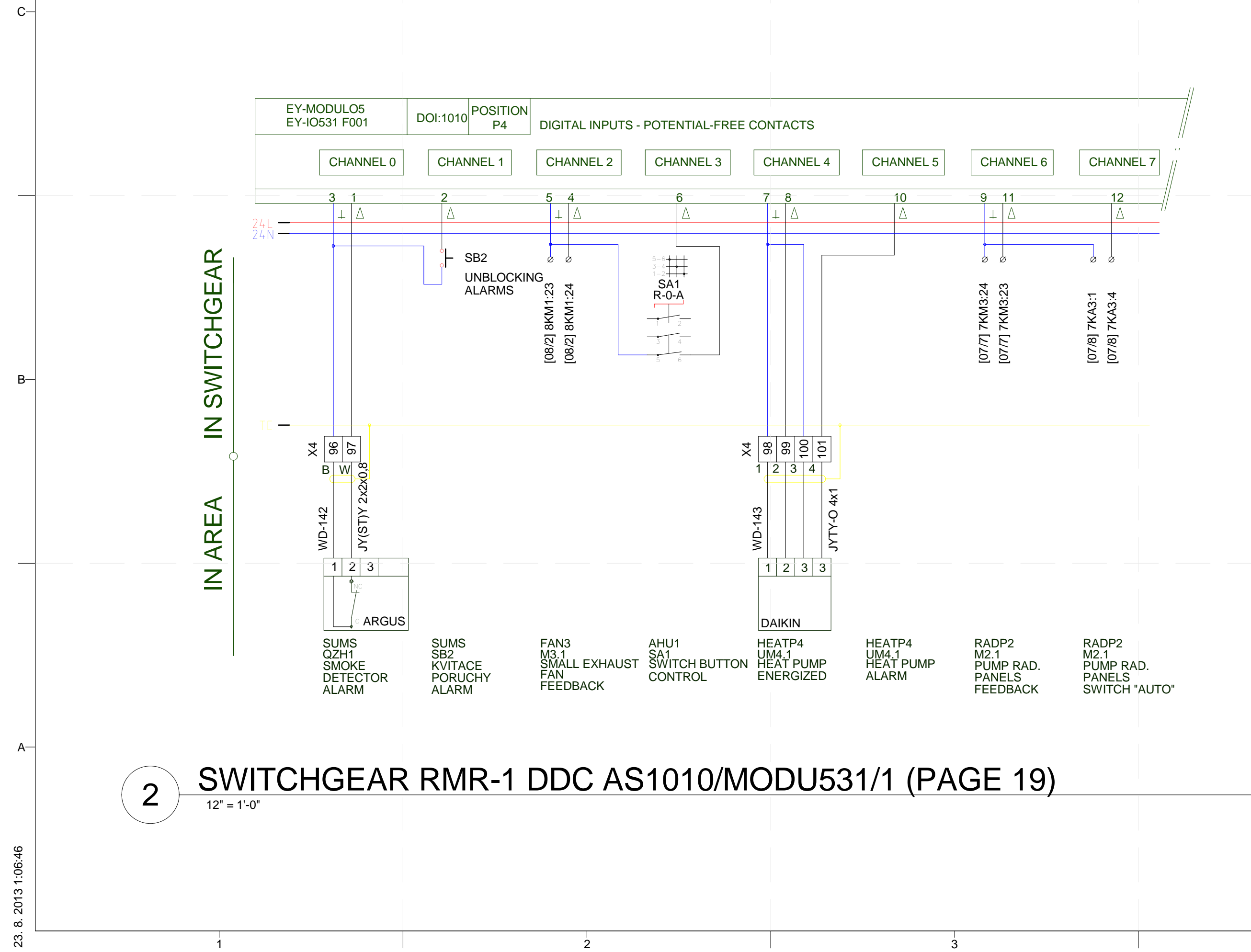
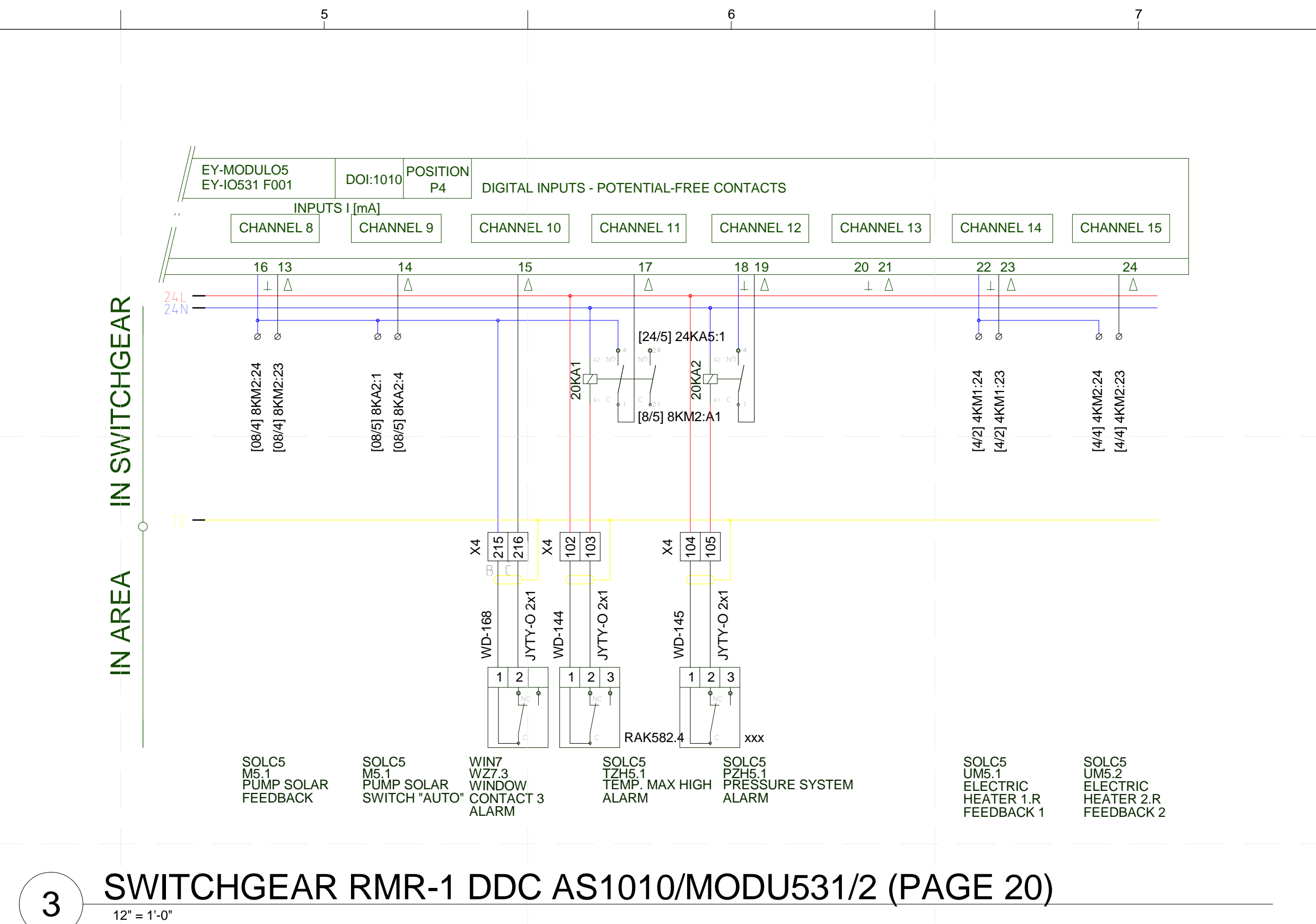
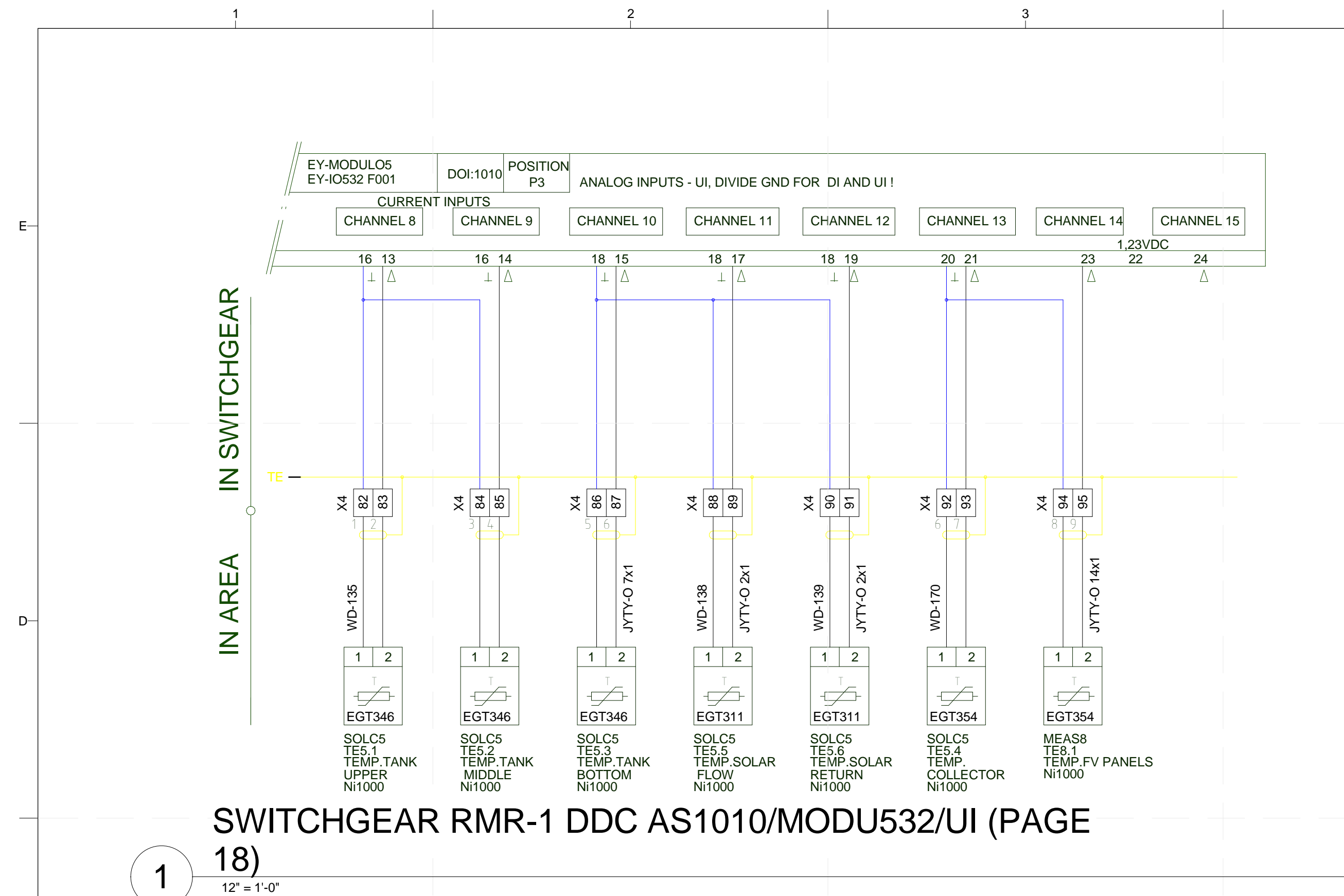


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**E-620**



**PROJECT TITLE:** AIR HOUSE  
**TEAM NAME:** CZECH REPUBLIC / CTU  
**ADDRESS:** CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC  
**CONTACT:** DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ  
**CONSULTANTS:**

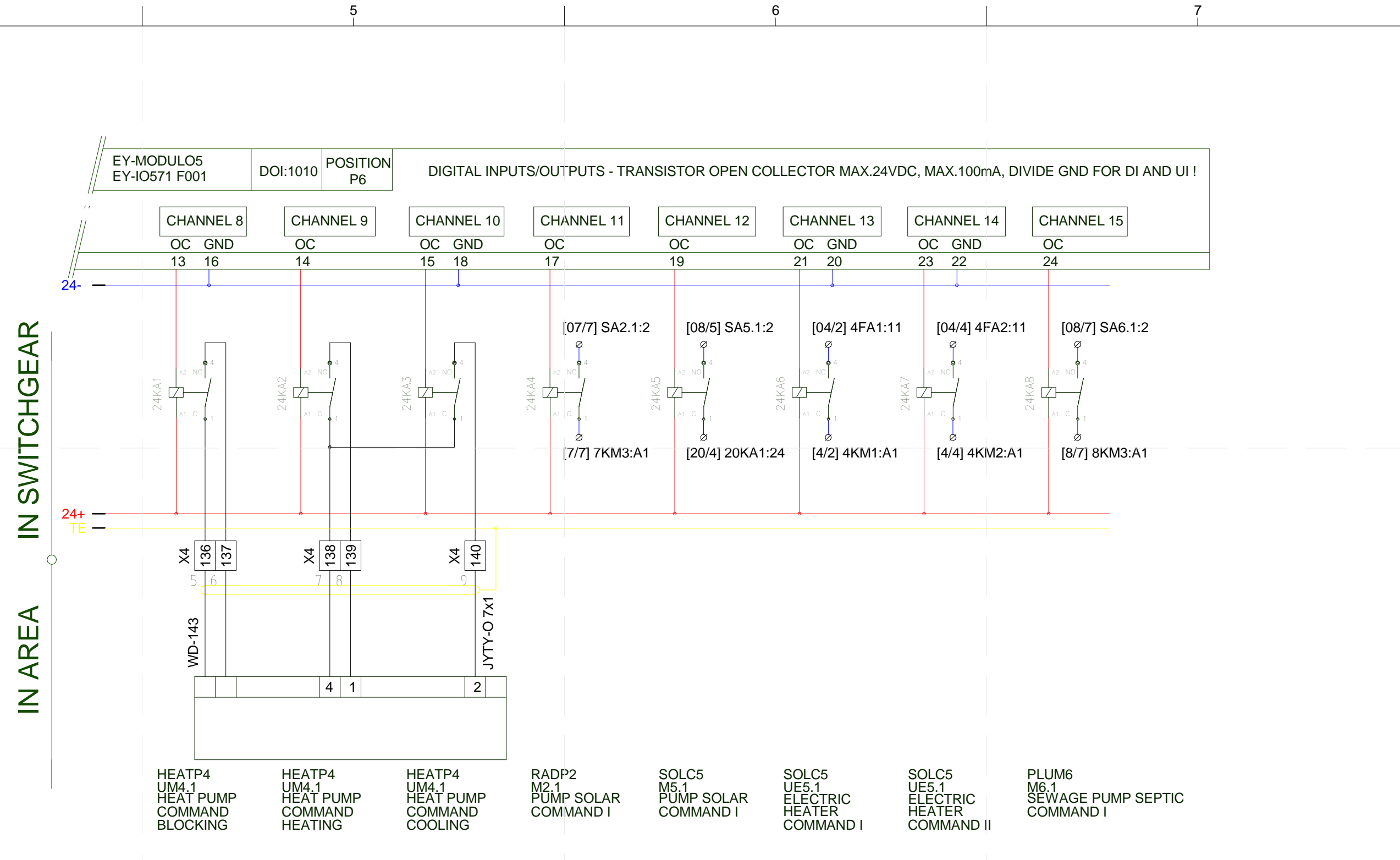
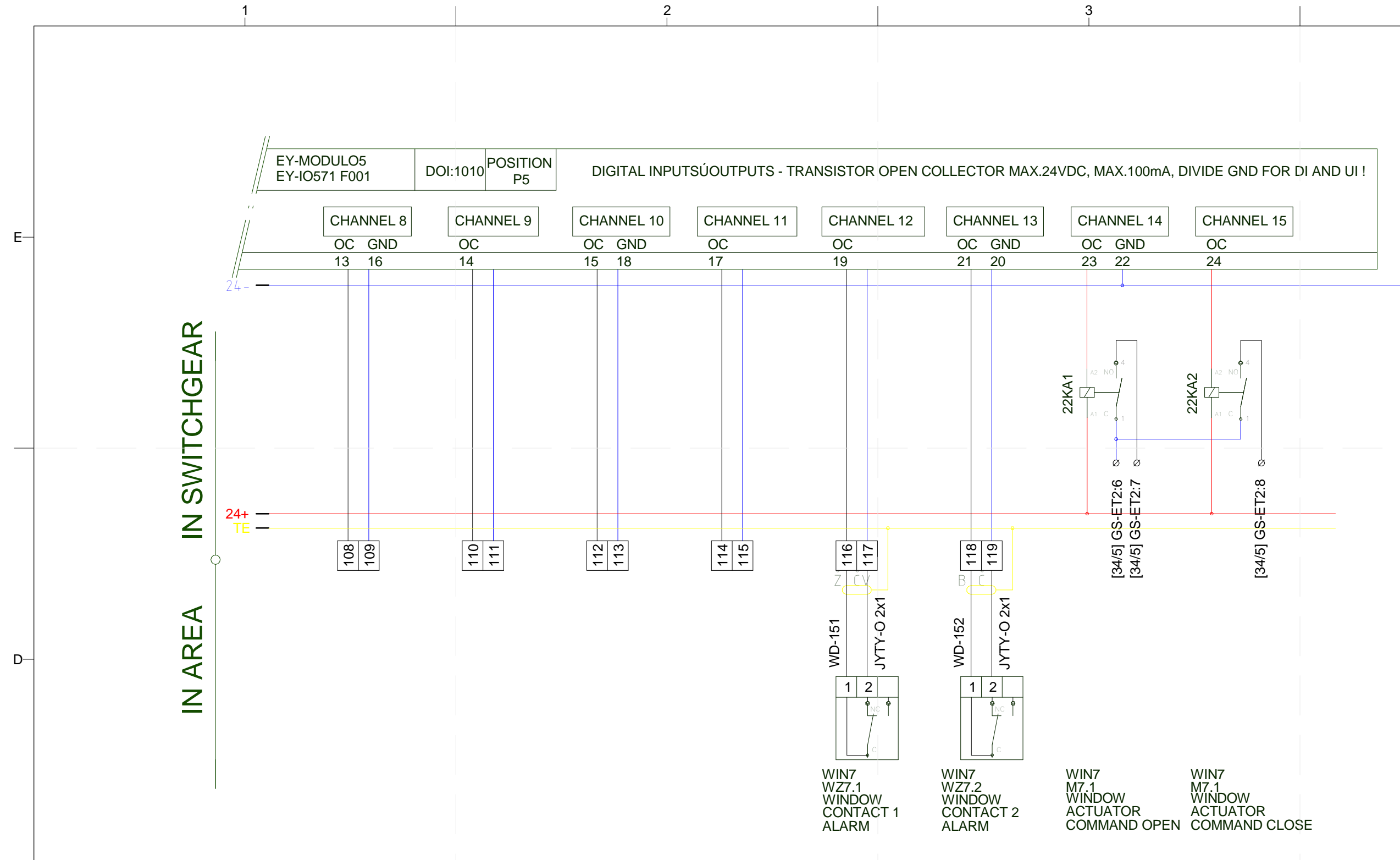
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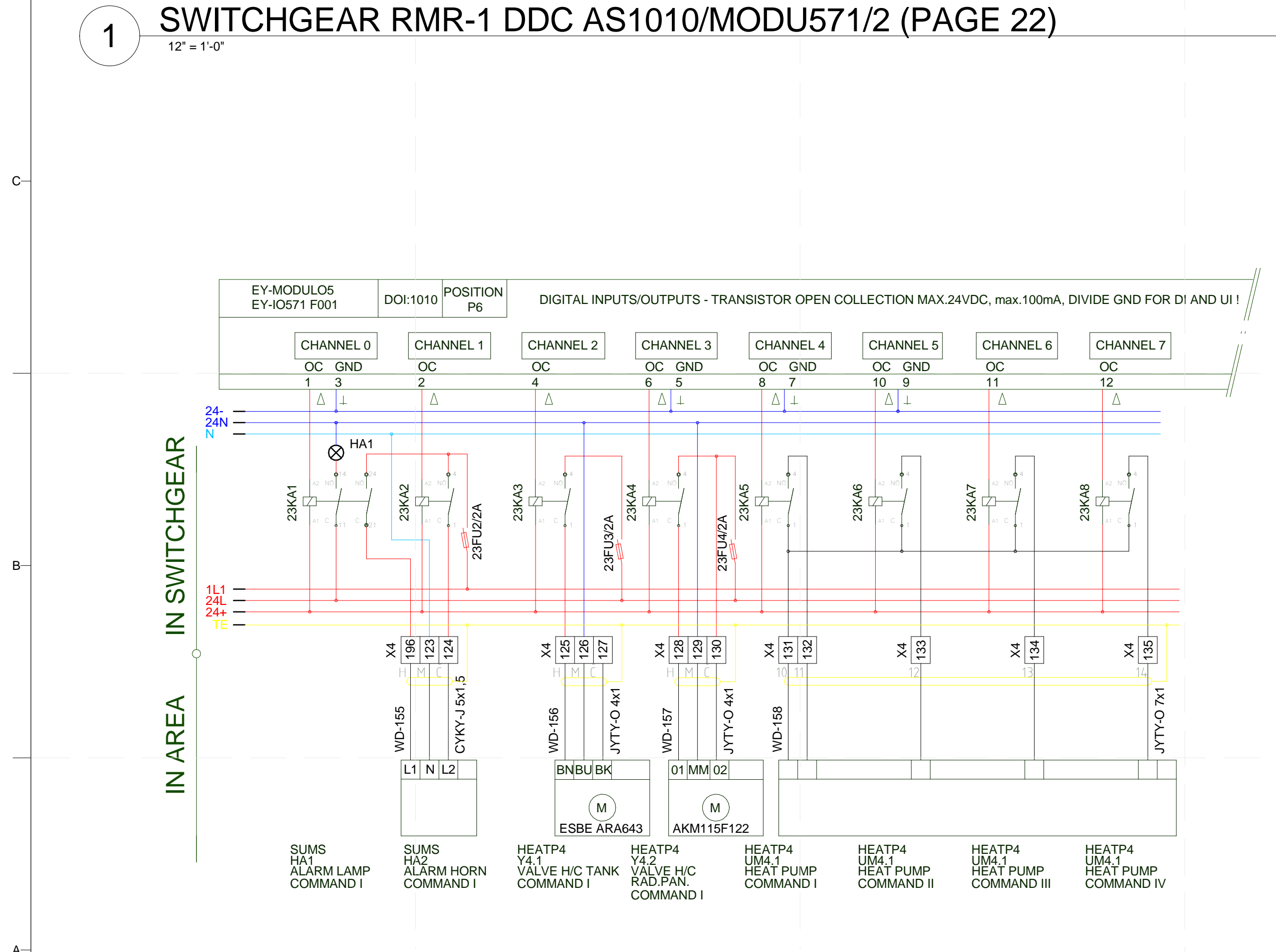
**SHEET TITLE**  
**MEASUREMENT AND CONTROL PANEL BOARD**

**E-621**

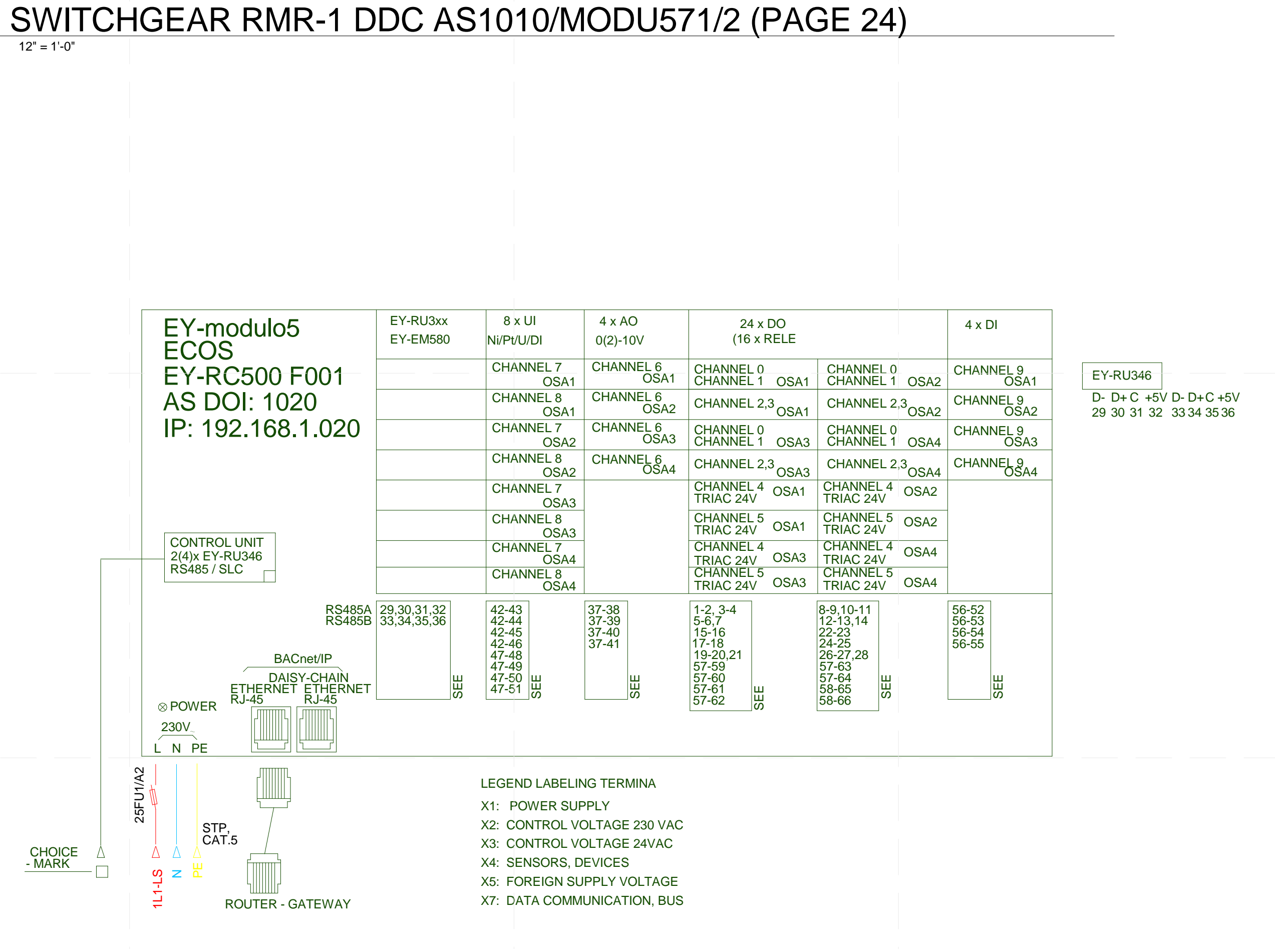


1 SWITCHGEAR RMR-1 DDC AS1010/MODU571/2 (PAGE 22)  
12" = 1'-0"

3 SWITCHGEAR RMR-1 DDC AS1010/MODU571/2 (PAGE 24)  
12" = 1'-0"

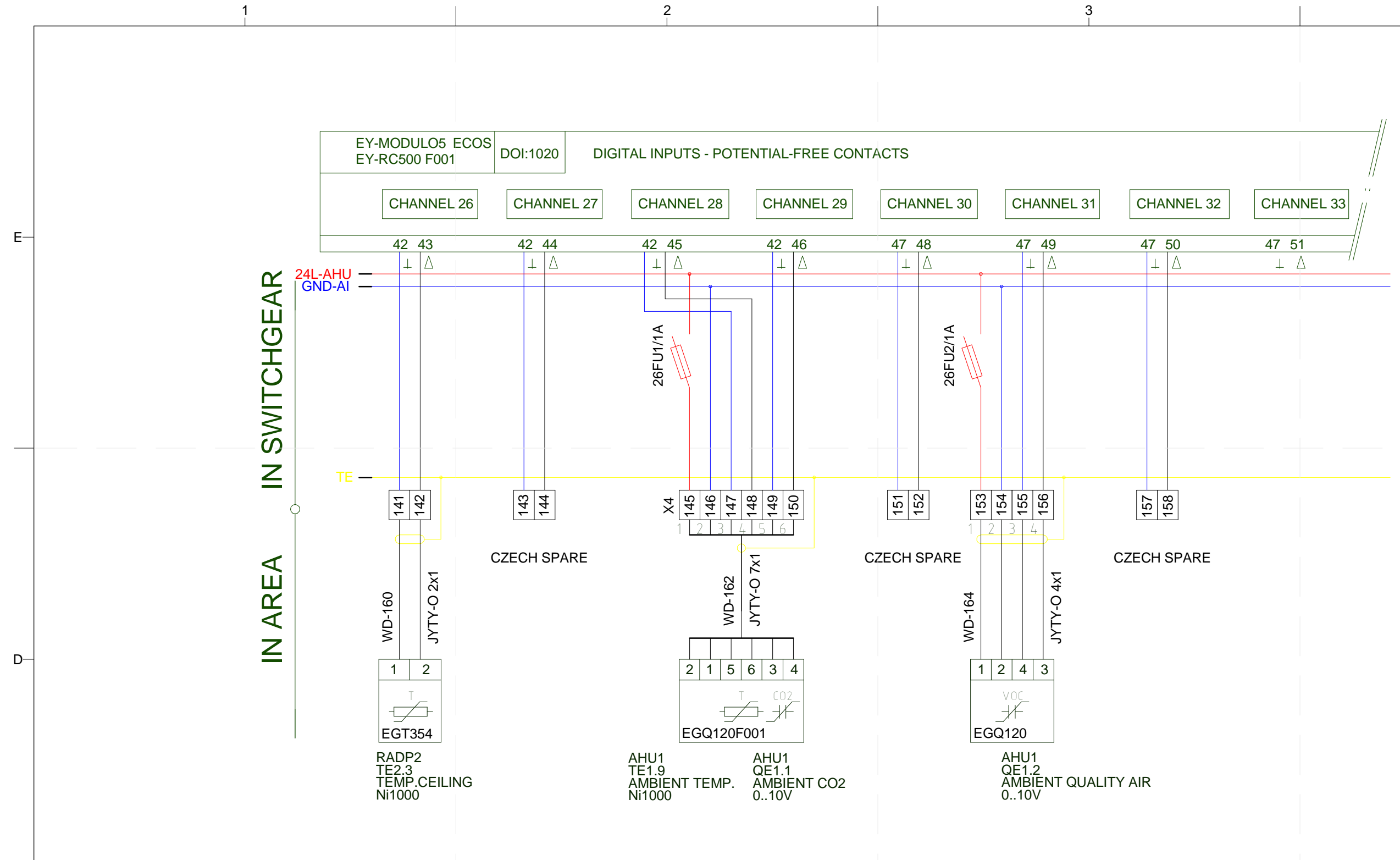


2 SWITCHGEAR RMR-1 DDC AS1010/MODU571/1 (PAGE 23)  
12" = 1'-0"

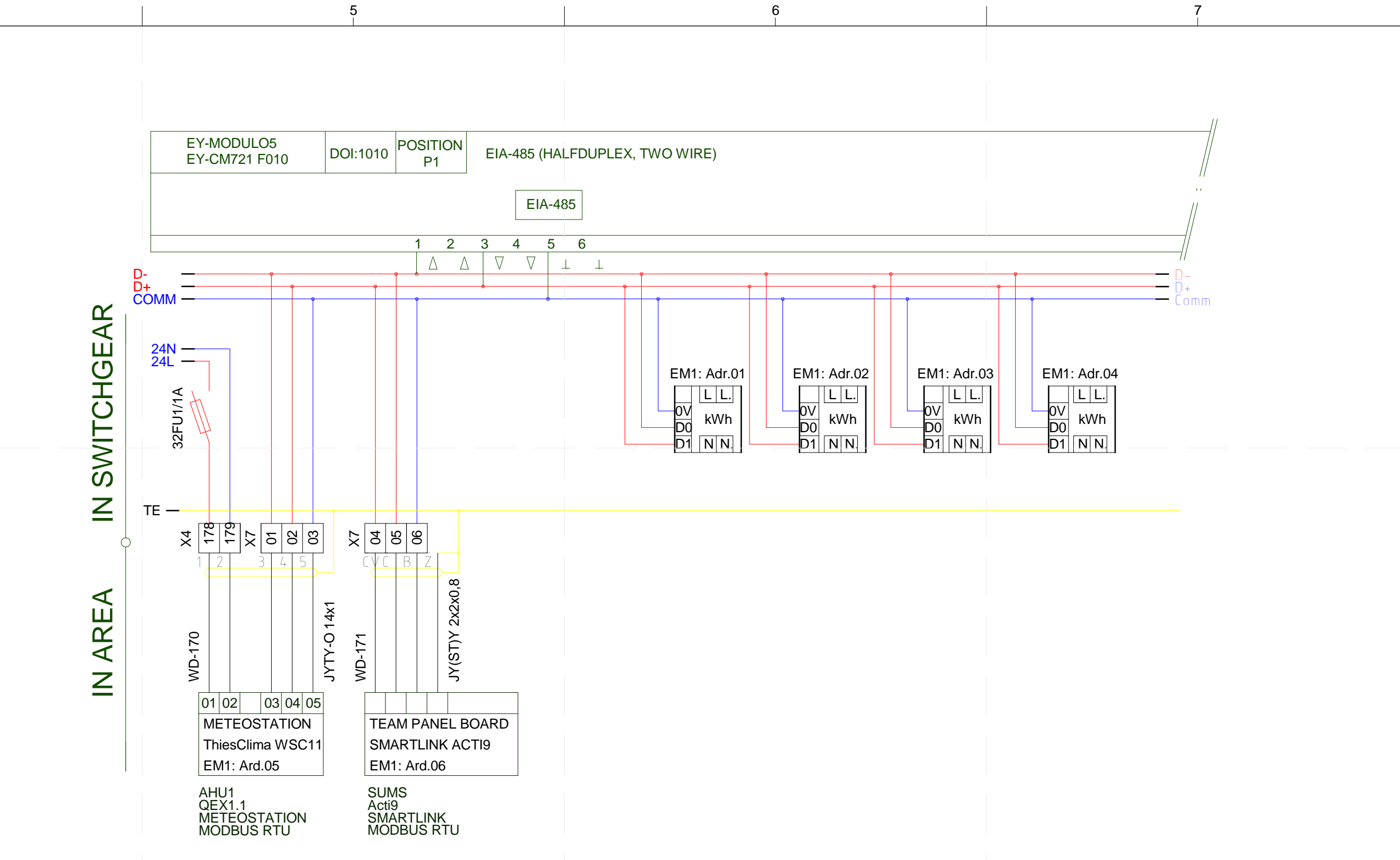


4 SWITCHGEAR RMR-1 ECOS - IRC REGULATOR (PAGE 25)  
12" = 1'-0"

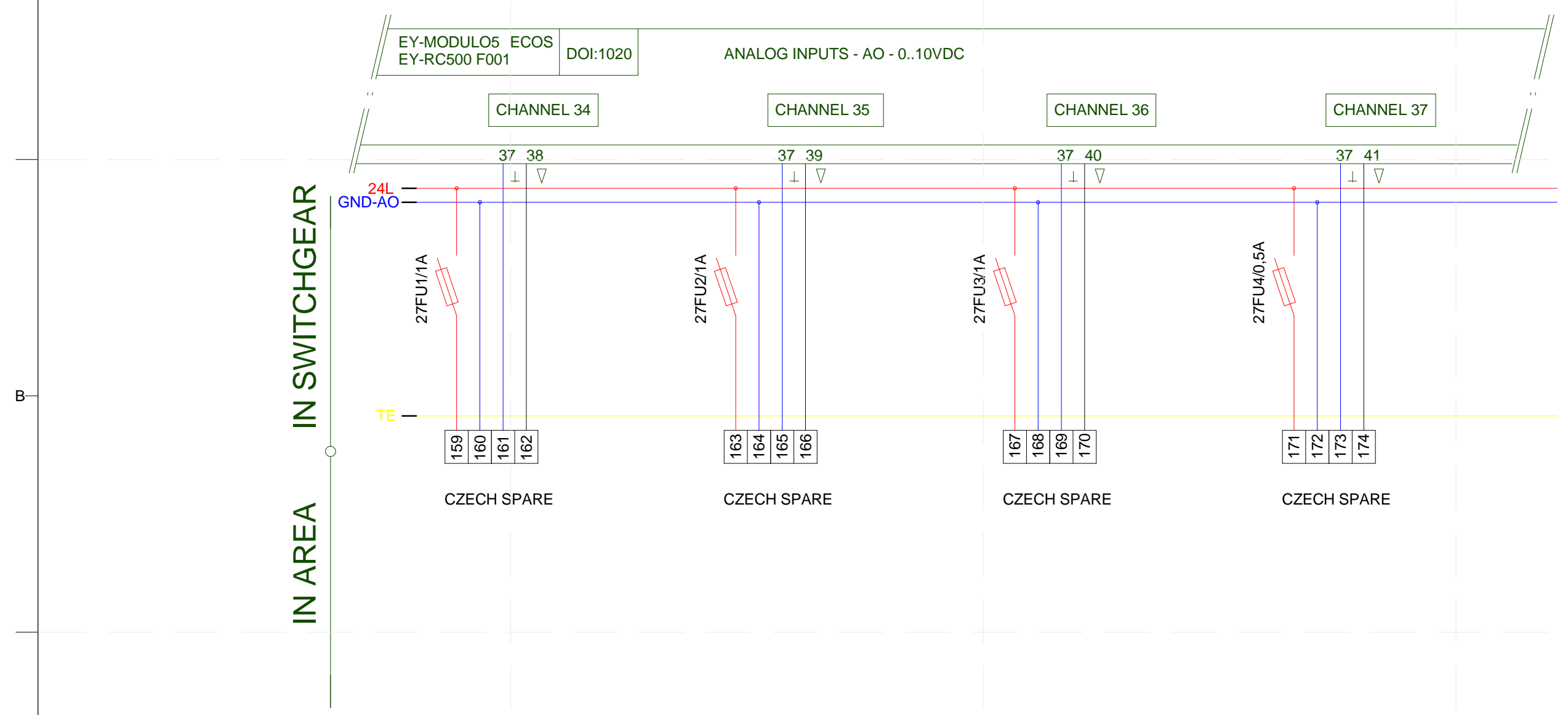
PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
ADDRESS: CTU, FACULTY OF ARCHITECTURE THAKUROVA 9 166 34 PRAHA 6 - DEJVICE CZECH REPUBLIC  
CONTACT: DHLAVACEK@FA.CVUT.CZ WWW.AIRHOUSE.CZ  
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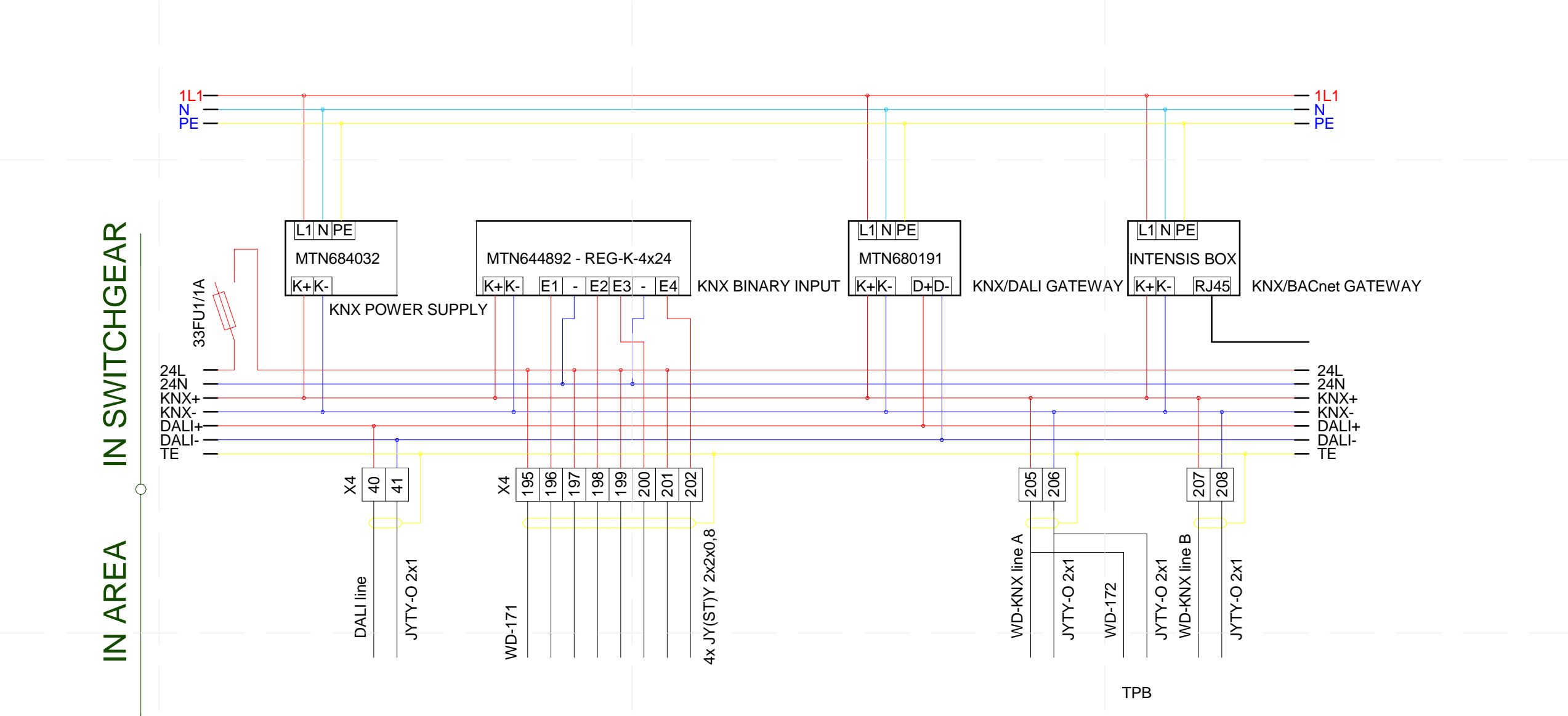
**1 SWITCHGEAR RMR-1 ECOS - IRC REGULATOR (PAGE 26)**  
12" = 1'-0"



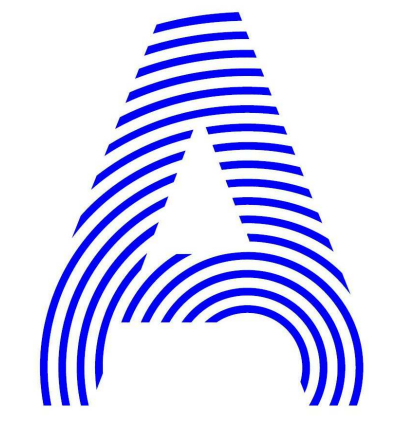
**3 SWITCHGEAR RMR-1 MODBUS RCU LINK (PAGE 32)**  
12" = 1'-0"




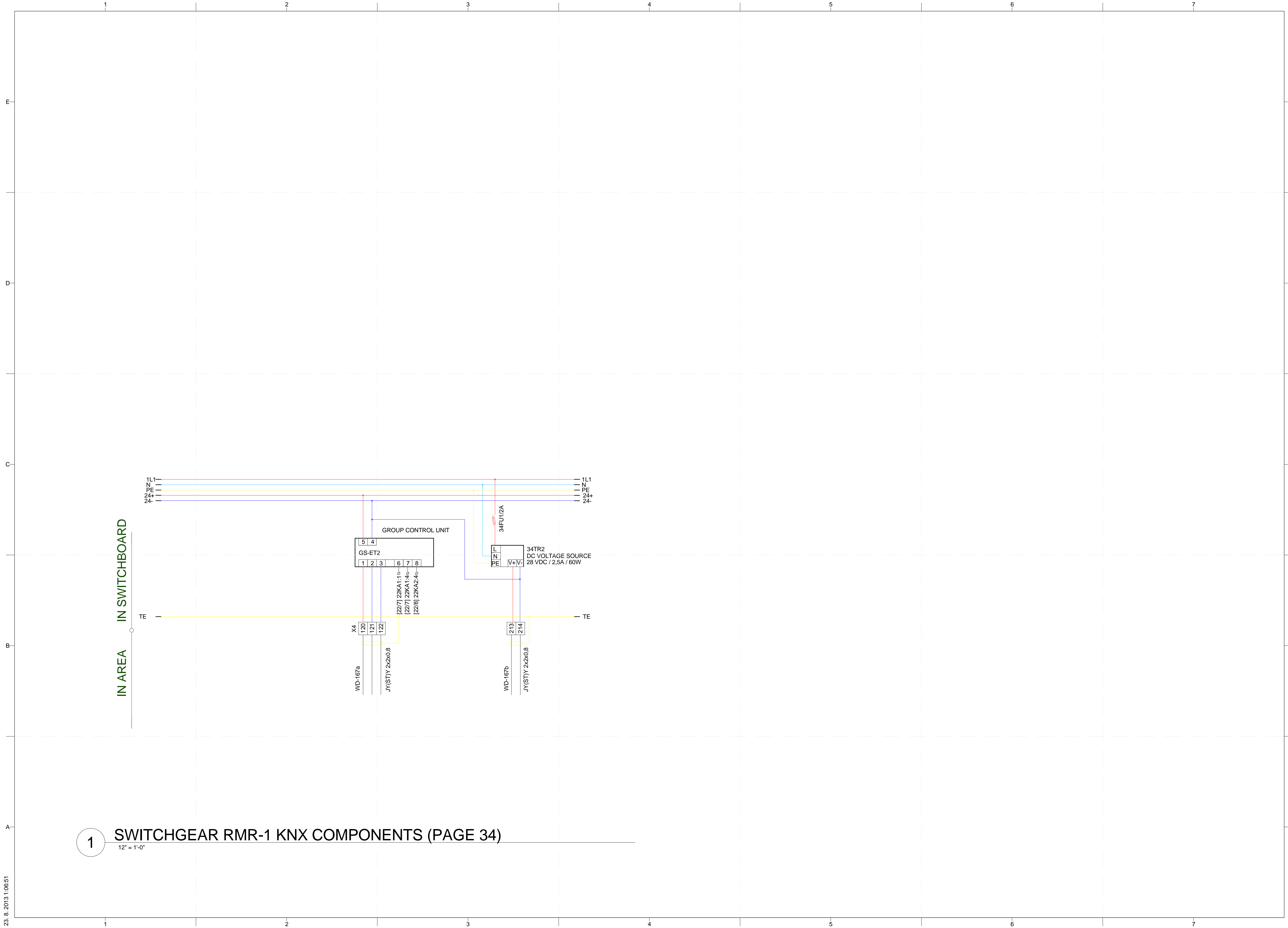
**2 SWITCHGEAR RMR-1 ECOS - IRC REGULATOR (PAGE 27)**  
12" = 1'-0"



**4 SWITCHGEAR RMR-1 KNX COMPONENTS (PAGE 33)**  
12" = 1'-0"



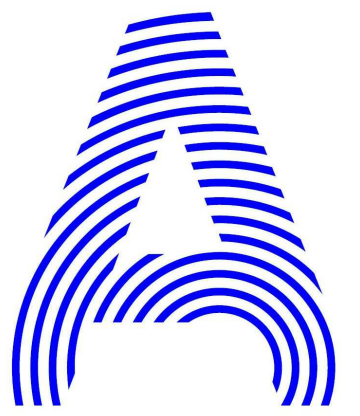
PROJECT TITLE:	AIR HOUSE	
TEAM NAME:	CZECH REPUBLIC / CTU	
ADDRESS:	CTU, FACULTY OF ARCHITECTURE THÁKUROVA 9 166 34 PRAHA 6 – DEJVICE CZECH REPUBLIC	
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	<b>E-623</b>	



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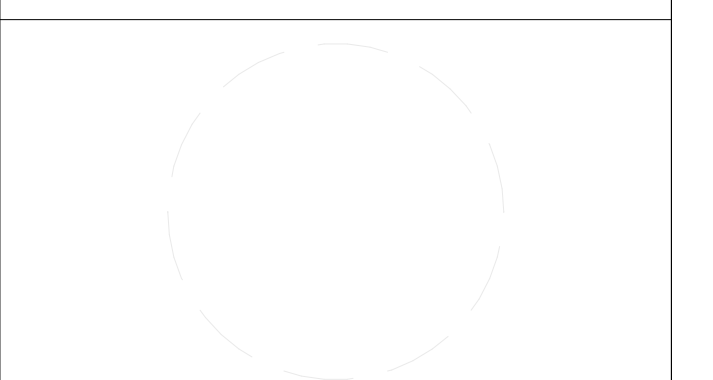
SWITCHGEAR RMR-1 KNX COMPONENTS (PAGE 34)

12" = 1'-0"



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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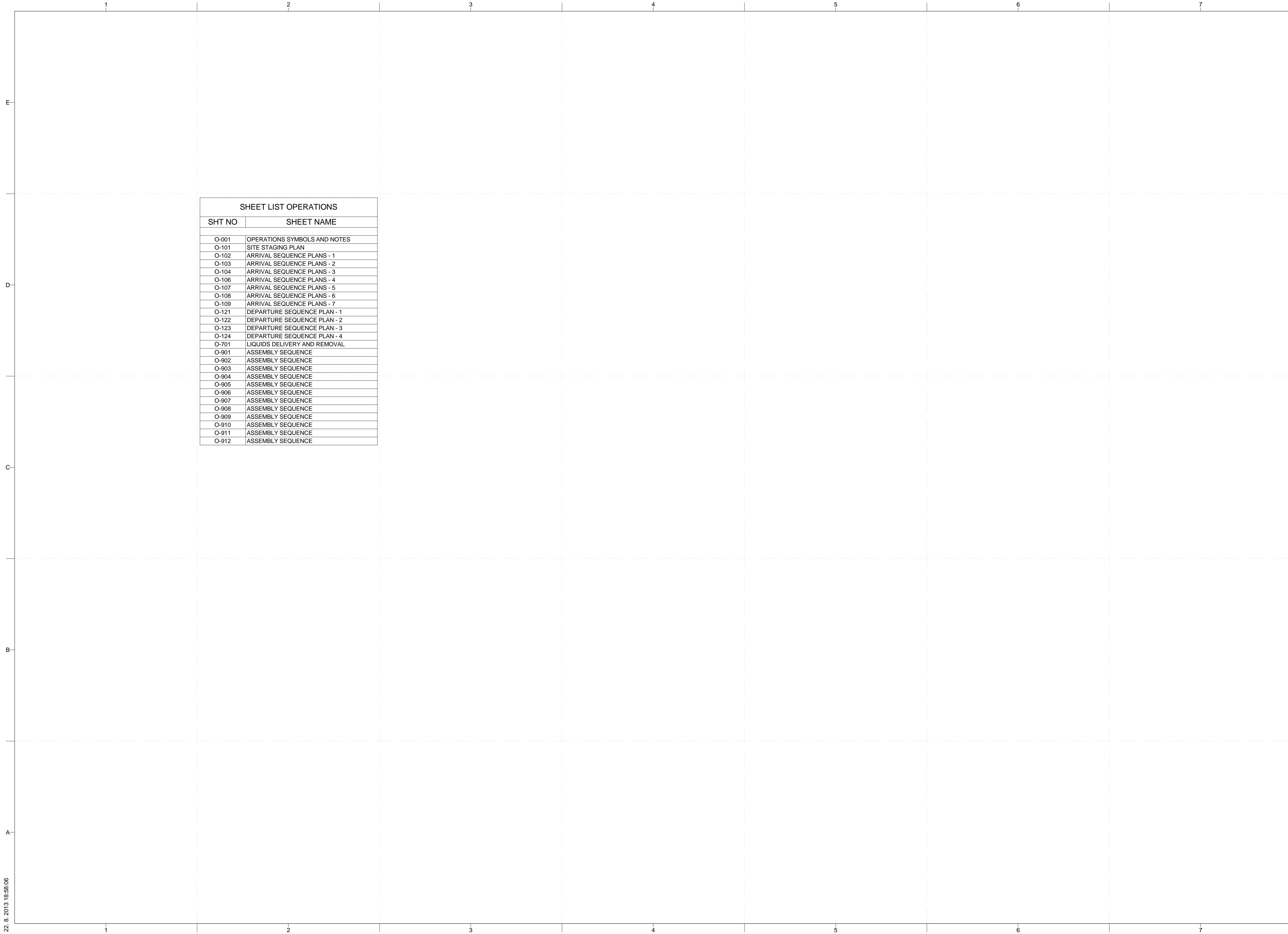


MARK	DATE	DESCRIPTION

SHEET TITLE

MEASUREMENT AND CONTROL PANEL BOARD

E-624

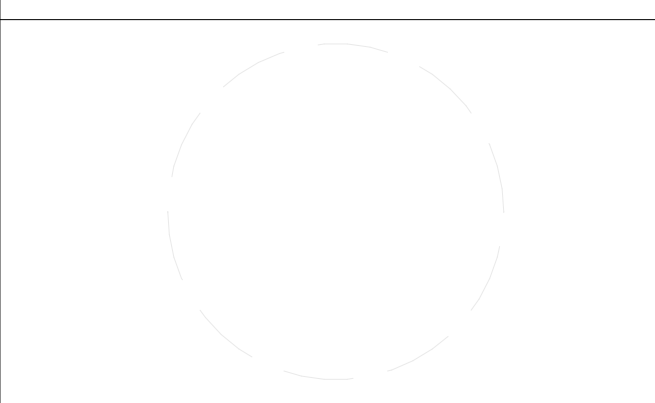


SHEET LIST OPERATIONS	
SHT NO	SHEET NAME
O-001	OPERATIONS SYMBOLS AND NOTES
O-101	SITE STAGING PLAN
O-102	ARRIVAL SEQUENCE PLANS - 1
O-103	ARRIVAL SEQUENCE PLANS - 2
O-104	ARRIVAL SEQUENCE PLANS - 3
O-106	ARRIVAL SEQUENCE PLANS - 4
O-107	ARRIVAL SEQUENCE PLANS - 5
O-108	ARRIVAL SEQUENCE PLANS - 6
O-109	ARRIVAL SEQUENCE PLANS - 7
O-121	DEPARTURE SEQUENCE PLAN - 1
O-122	DEPARTURE SEQUENCE PLAN - 2
O-123	DEPARTURE SEQUENCE PLAN - 3
O-124	DEPARTURE SEQUENCE PLAN - 4
O-701	LIQUIDS DELIVERY AND REMOVAL
O-901	ASSEMBLY SEQUENCE
O-902	ASSEMBLY SEQUENCE
O-903	ASSEMBLY SEQUENCE
O-904	ASSEMBLY SEQUENCE
O-905	ASSEMBLY SEQUENCE
O-906	ASSEMBLY SEQUENCE
O-907	ASSEMBLY SEQUENCE
O-908	ASSEMBLY SEQUENCE
O-909	ASSEMBLY SEQUENCE
O-910	ASSEMBLY SEQUENCE
O-911	ASSEMBLY SEQUENCE
O-912	ASSEMBLY SEQUENCE



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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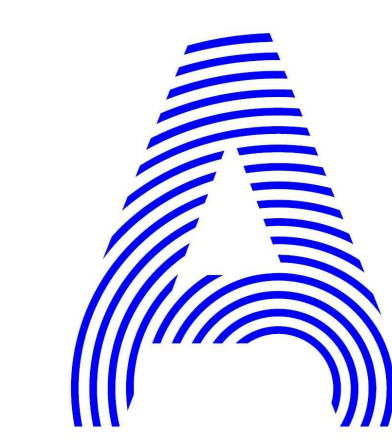
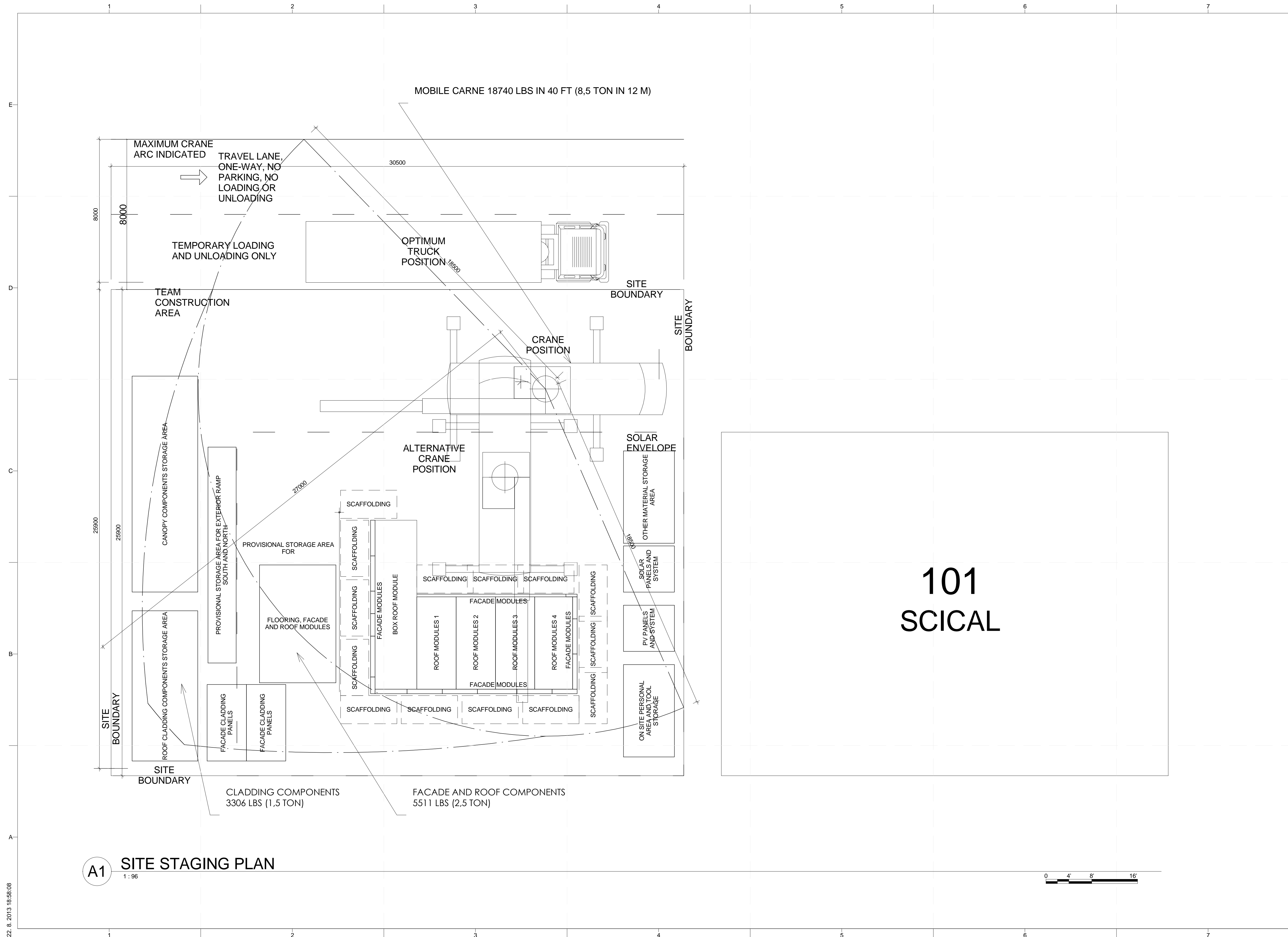
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2	02/14/2013	CD SUBMISSION

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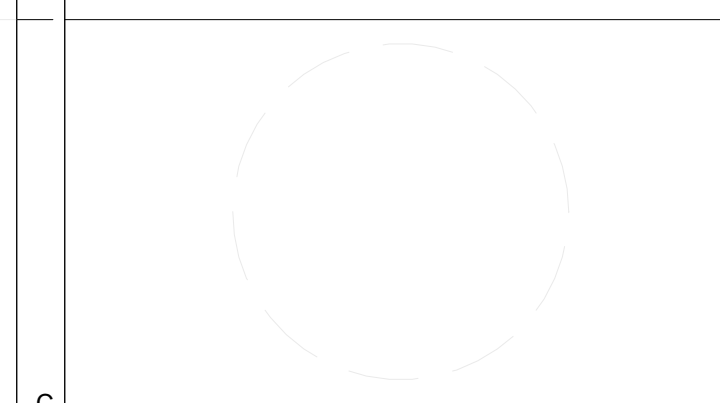
SHEET TITLE  
**OPERATIONS SYMBOLS AND NOTES**

**O-001**



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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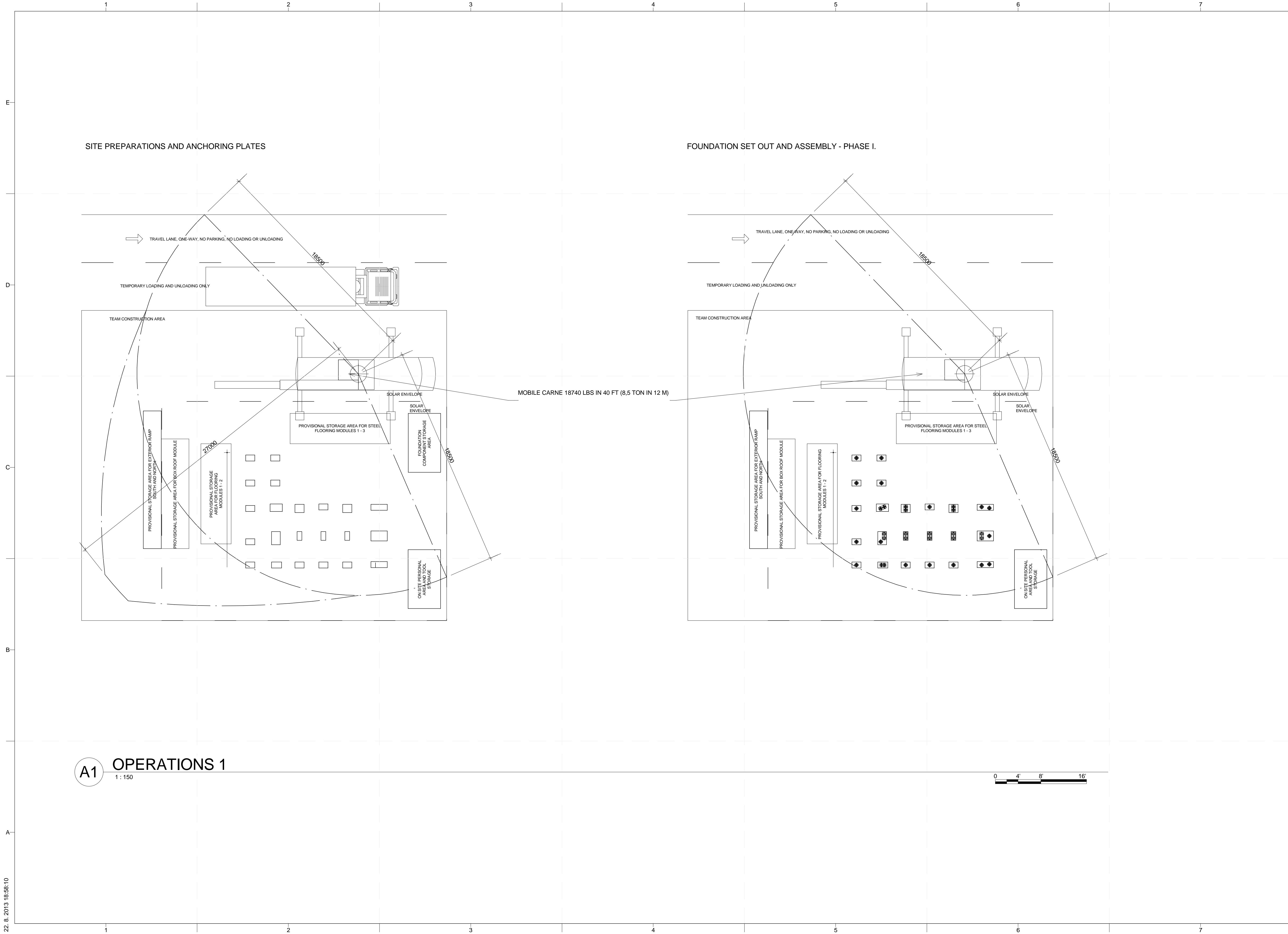
SITE STAGING PLAN

A1 SITE STAGING PLAN  
 1:96

O-101

22. 8. 2013 18:58:08

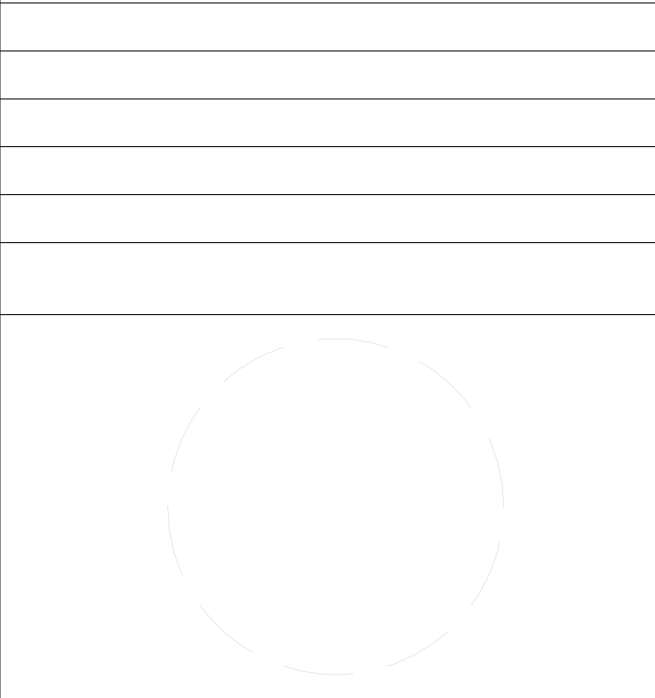




**A1 OPERATIONS 1**  
1:150



PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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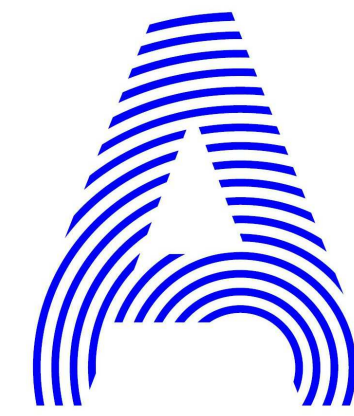
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**ARRIVAL SEQUENCE  
 PLANS - 1**

**O-102**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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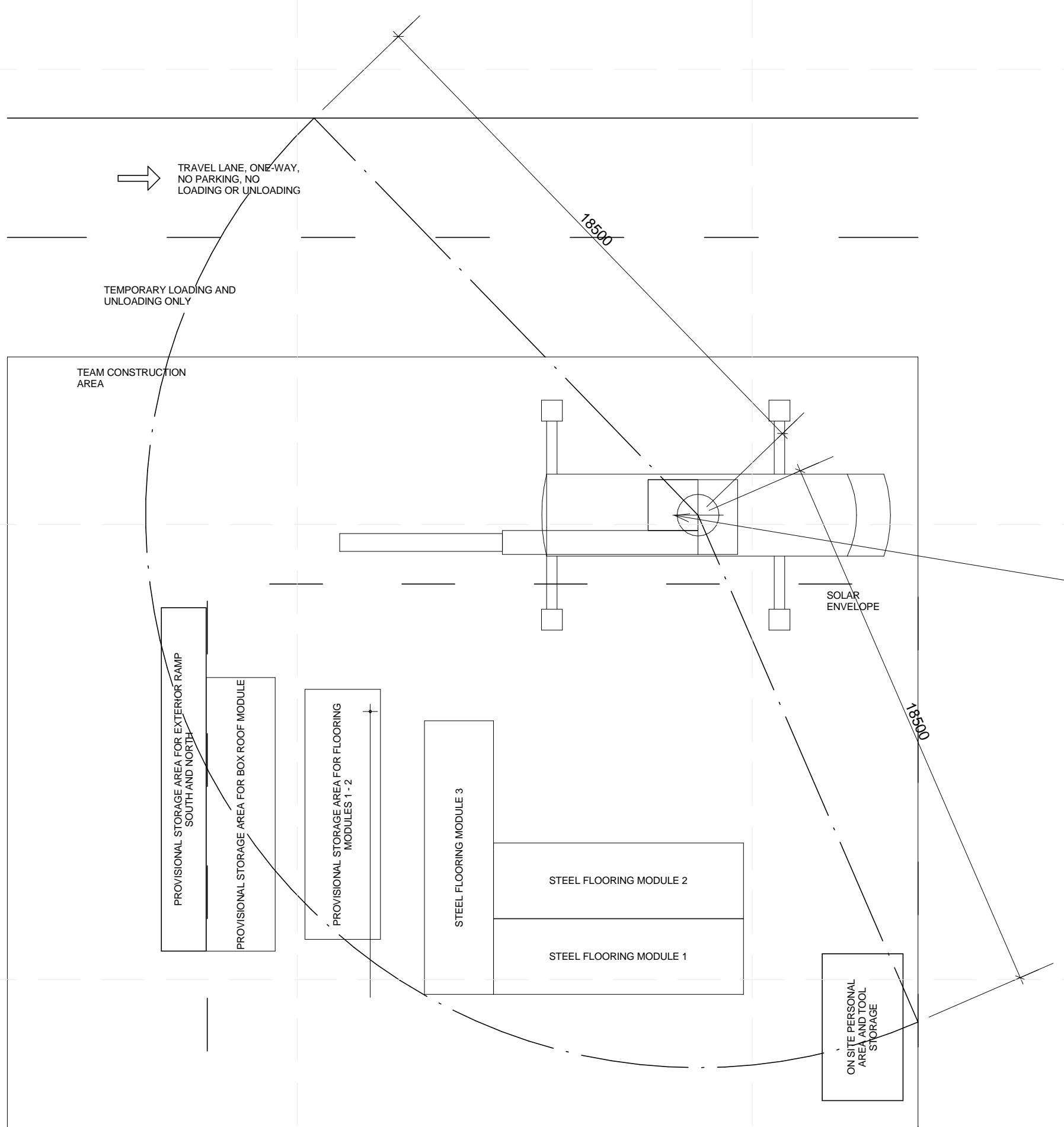
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SHEET TITLE  
ARRIVAL SEQUENCE  
PLANS - 2

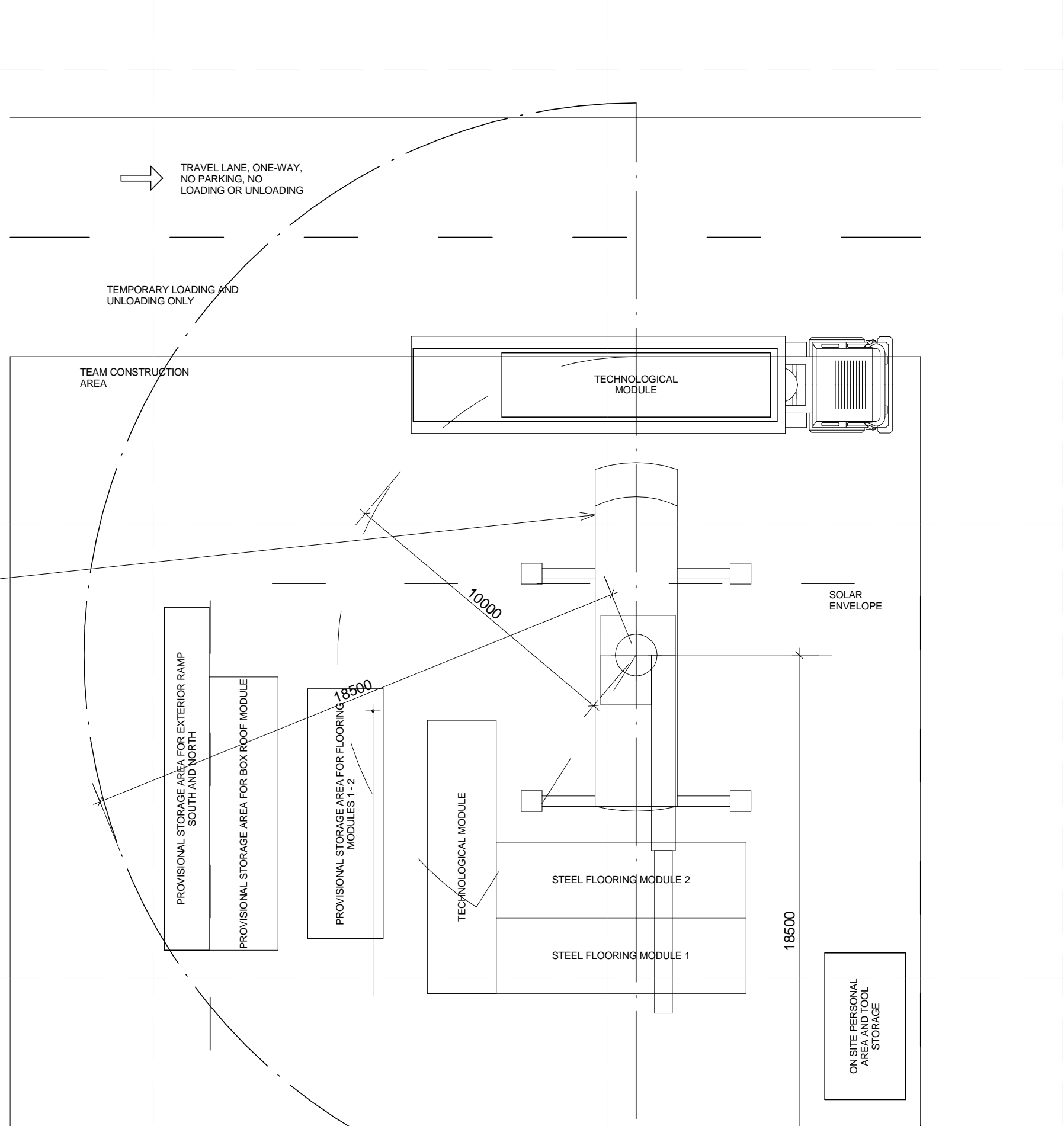
O-103

PLACEMENT OF FLOORING MODULE 4



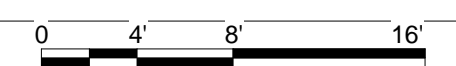
- NOTES:
- CRANE PREPARES TO LIFT STEEL FLOORING MODULES 1 - 3 INTO PLACE
  - FLOORING MODULES 1 - 3 LIFTED INTO PLACE AND FIXED TO FOUNDATION
  - THE CRANE CHANGES ITS POSITION
  - TRUCK 2 WITH TECHNOLOGICAL MODULE ARRIVES ON SITE (LOCATION AS PER O-101)

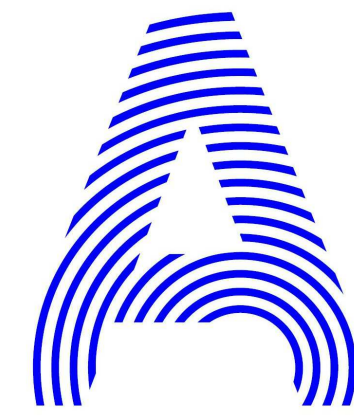
PLACEMENT OF TECHNOLOGICAL MODULE



- NOTES:
- CRANE PREPARES TO LIFT TECHNOLOGICAL MODULE INTO PLACE
  - TECHNOLOGICAL MODULE LIFTED INTO PLACE AND FIXED TO FOUNDATION AND STEEL FLOORING MODULE 3
  - THE CRANE CHANGES ITS POSITION
  - TRUCK 2 EMPTY LEAVES SITE

A1 OPERATIONS 2  
1 : 150





PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
 THÁKUROVA 9  
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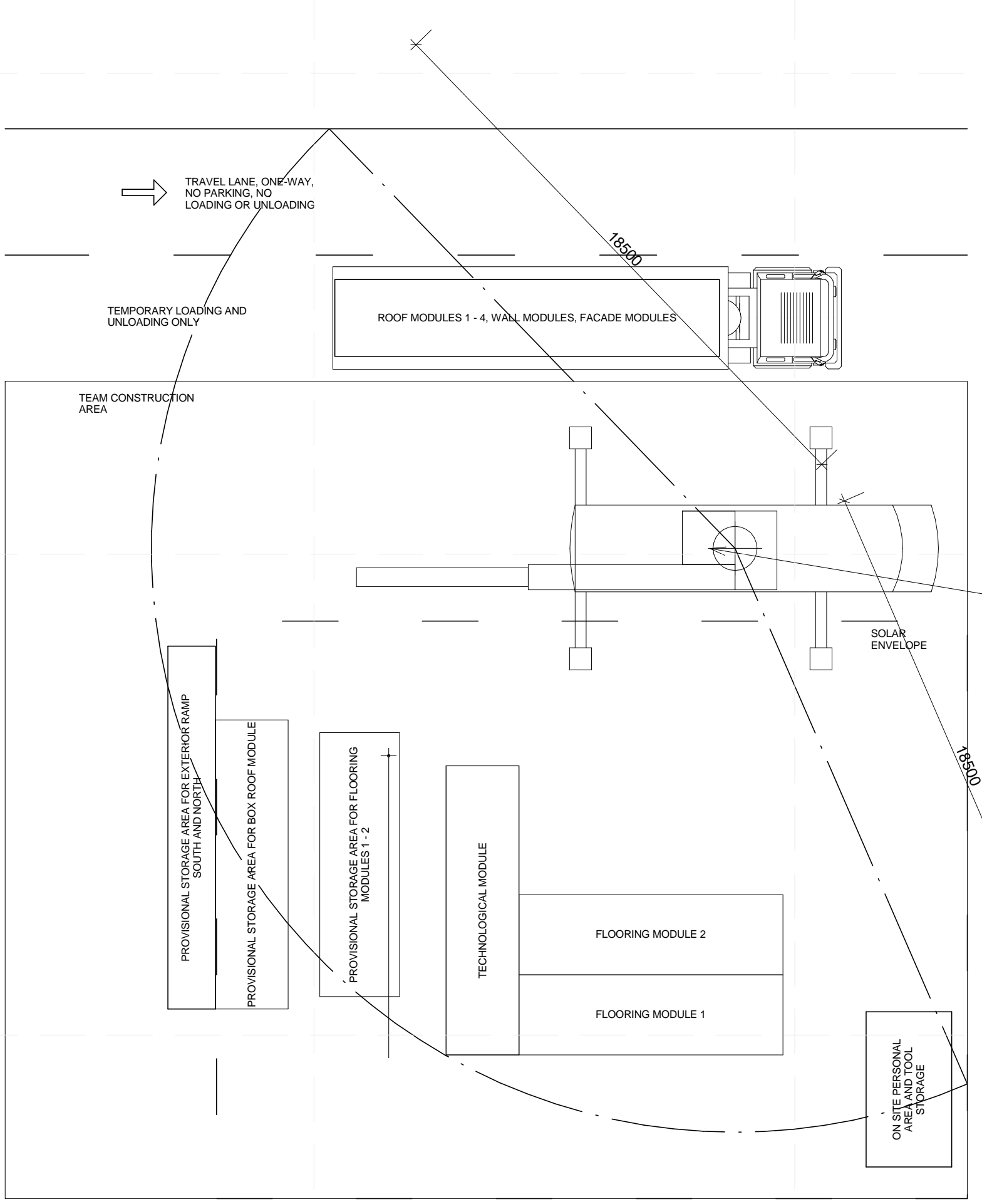
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SHEET TITLE  
 ARRIVAL SEQUENCE  
 PLANS - 3

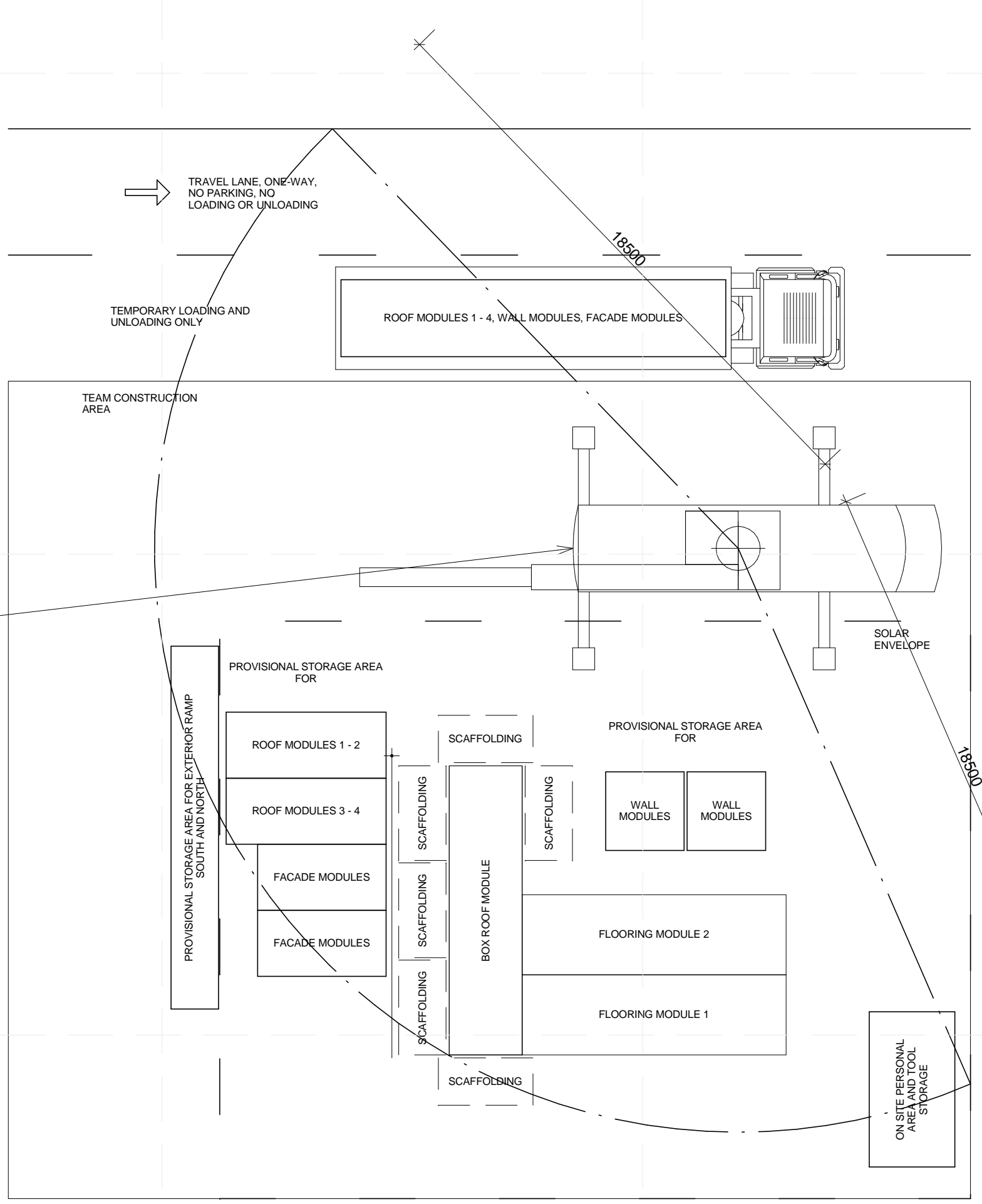
O-104

PLACEMENT OF FLOORING MODULES 1-2



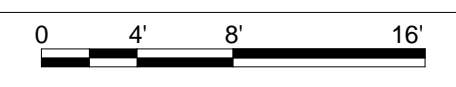
- NOTES:
- ROOF MODULES 1 - 4, WALL MODULES, FACADE MODULES ARE UNLOADED
  - CRANE PREPARES TO LIFT FLOORING MODULES 1 - 2 INTO PLACE
  - FLOORING MODULES 1 - 2 LIFTED INTO PLACE AND FIXED TO FOUNDATION
  - TRUCK 3 WITH 40 FOOT CONTAINER ARRIVES ON SITE. REFER TO O-101 FOR TRUCK PARKING LOCATION
  - CRANE PREPARES TO LIFT BOX ROOF MODULE

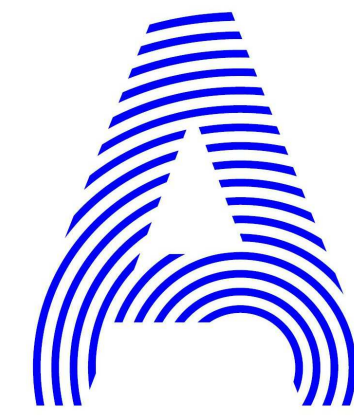
PLACEMENT OF BOX ROOF MODULE



- NOTES:
- BOX ROOF MODULE LIFTED INTO PLACE AND FIXED TO TECHNOLOGICAL MODULE USING SCAFFOLDING
  - CRANE PREPARES UNLOAD CONTAINER
  - ROOF MODULES 1 - 4, WALL MODULES, FACADE MODULES ARE UNLOADED
  - TRUCK 3 EMPTY LEAVES SITE
  - CRANE PREPARES TO LIFT WALL MODULES INTO PLACE

A1 OPERATIONS 3  
 1 : 150





PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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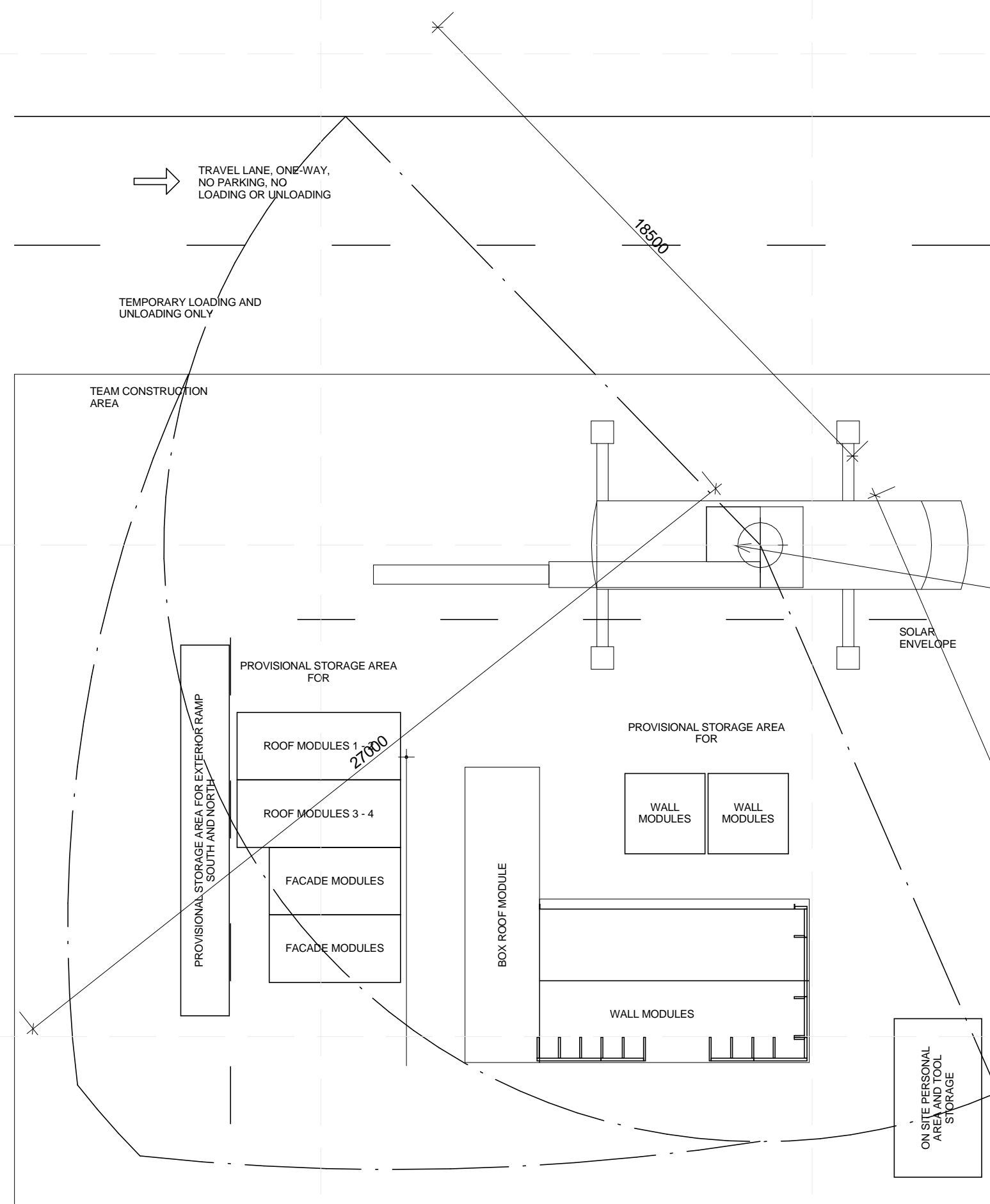
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ARRIVAL SEQUENCE  
PLANS - 4

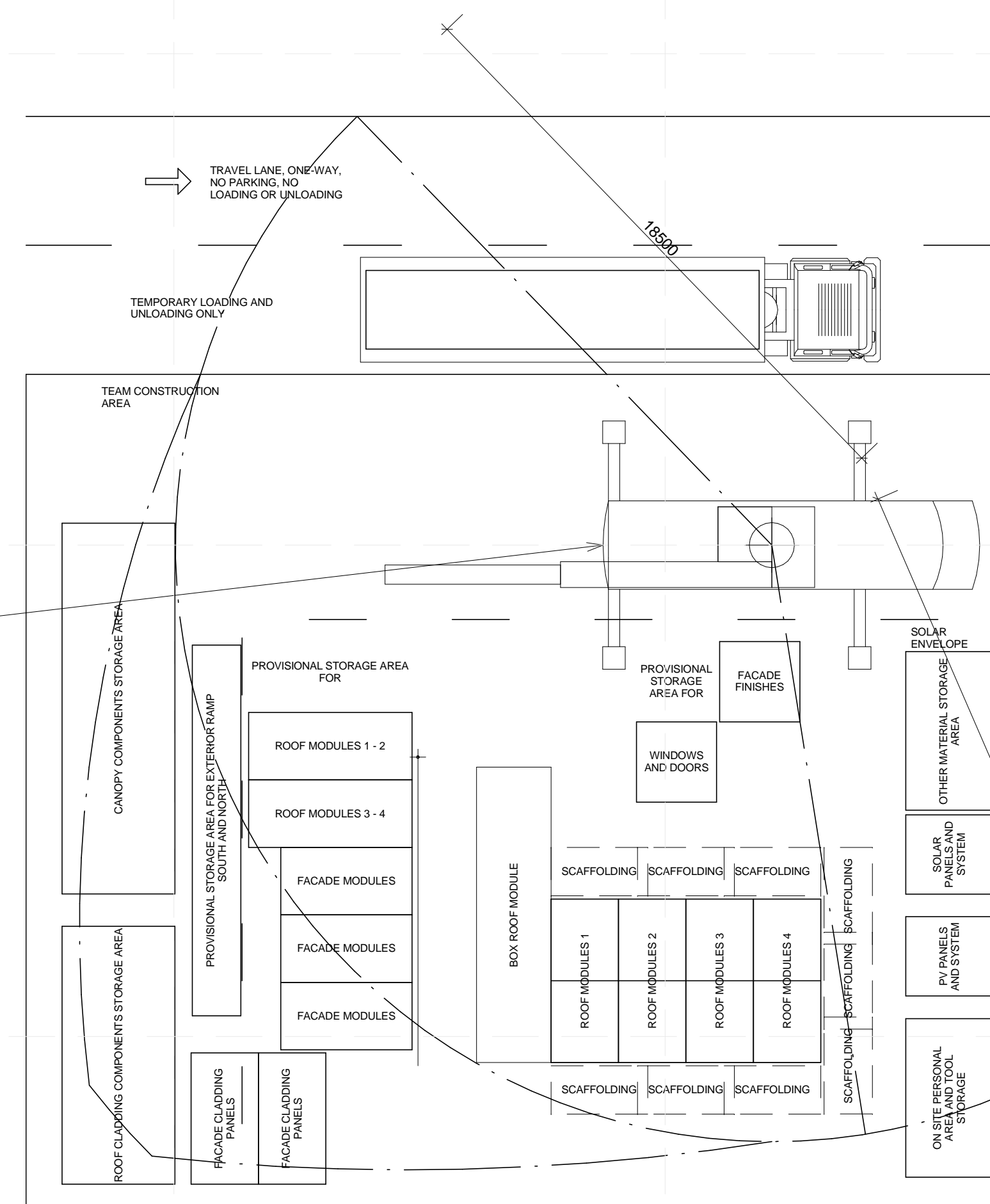
O-106

PLACEMENT OF WALL MODULES



- NOTES:
- WALL MODULES LIFTED INTO PLACE AND FIXED TO FLOORING MODULES AND TECHNOLOGICAL MODULE
  - CRANE PREPARES TO LIFT ROOF MODULES 1 - 4 INTO PLACE
  - PLUMBING INSTALLATION IS STARTED

PLACEMENT OF ROOF MODULES, UNLOAD THREE CONTAINERS

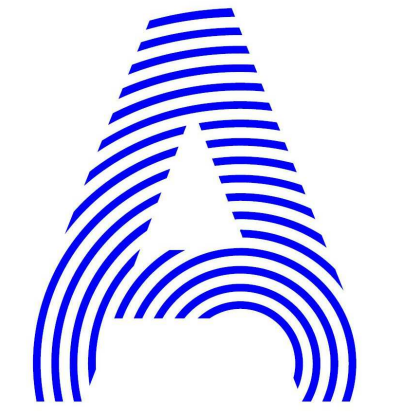


- NOTES:
- ROOF MODULES LIFTED INTO PLACE AND FIXED USING SCAFFOLDING TO WALL MODULES AND TECHNOLOGICAL MODULE
  - TRUCK 4 WITH 40 FOOT CONTAINER ARRIVES ON SITE. REFER TO O-101 FOR TRUCK PARKING LOCATION
  - CRANE PREPARES UNLOAD CONTAINER
  - FACADE MODULES, ROOF CLADDING COMPONENTS ARE UNLOADED
  - TRUCK 4 EMPTY LEAVES SITE
  - TRUCK 5 WITH 40 FOOT CONTAINER ARRIVES ON SITE. REFER TO O-101 FOR TRUCK PARKING LOCATION
  - CRANE PREPARES UNLOAD CONTAINER
  - FACADE MODULES, WINDOWS AND DOORS, FACADE FINISHES ARE UNLOADED
  - TRUCK 5 EMPTY LEAVES SITE
  - TRUCK 6 WITH 40 FOOT CONTAINER ARRIVES ON SITE. REFER TO O-101 FOR TRUCK PARKING LOCATION
  - CRANE PREPARES UNLOAD CONTAINER
  - FACADE CLADDING PANELS, PV SYSTEM, SOLAR SYSTEM AND CANOPY COMPONENTS ARE UNLOADED
  - TRUCK 6 EMPTY LEAVES SITE
  - ALL INTERIOR INSTALLATION IS STARTED

A1 OPERATIONS 4

1:150





PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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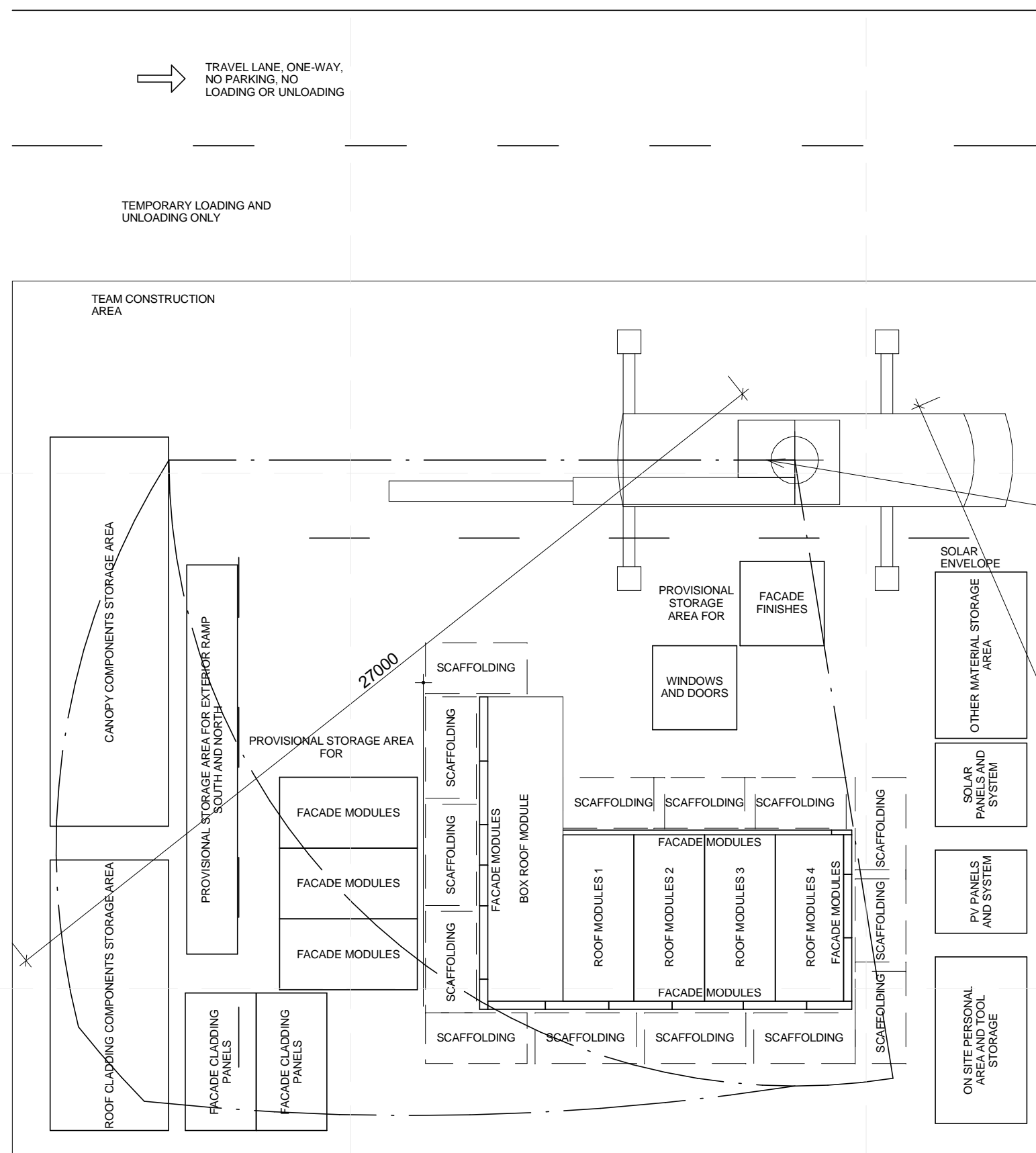
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SHEET TITLE  
 ARRIVAL SEQUENCE  
 PLANS - 5

O-107

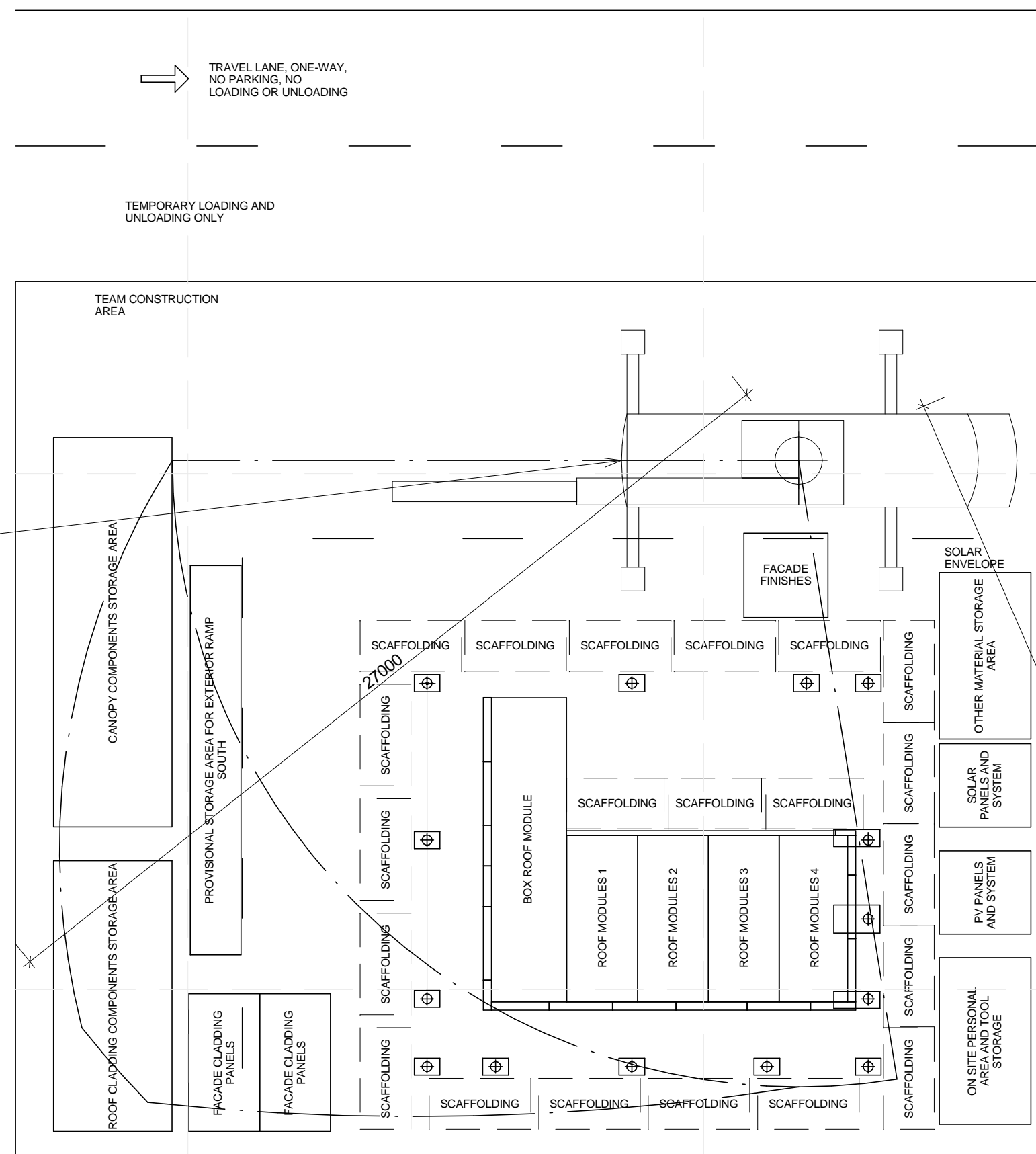
PLACEMENT OF FACADE MODULES, WINDOWS AND DOORS



- NOTES:
- CRANE PREPARES TO LIFT FACADE MODULES INTO PLACE
  - FACADE MODULES LIFTED INTO PLACE AND FIXED TO WALL MODULES AND TECHNOLOGICAL MODULE
  - WINDOWS AND DOORS ARE PLACED AND FIXED TO WALL MODULES AND TECHNOLOGICAL MODULE

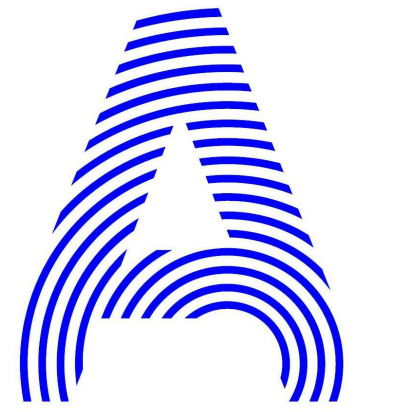
**A1 OPERATIONS 5**  
 1 : 150

PLACEMENT OF CANOPY FOUNDATIONS AND RAMPS



- NOTES:
- FOUNDATION PADS OF CANOPY ARE POSITIONED ACCORDING TO SITE SURVEY
  - FOUNDATION UPRIGHTS OF CANOPY ARE FIXED TO FOUNDATION PADS
  - CRANE PREPARES TO LIFT EXTERIOR RAMPS INTO PLACE
  - NORTH EXTERIOR RAMP IS PLACED AND FIXED TO FACADE MODULES TECHNOLOGICAL MODULE AND CANOPY COMPONENTS
  - THE INSTALLATION OF FACADE FINISHES IS STARTED





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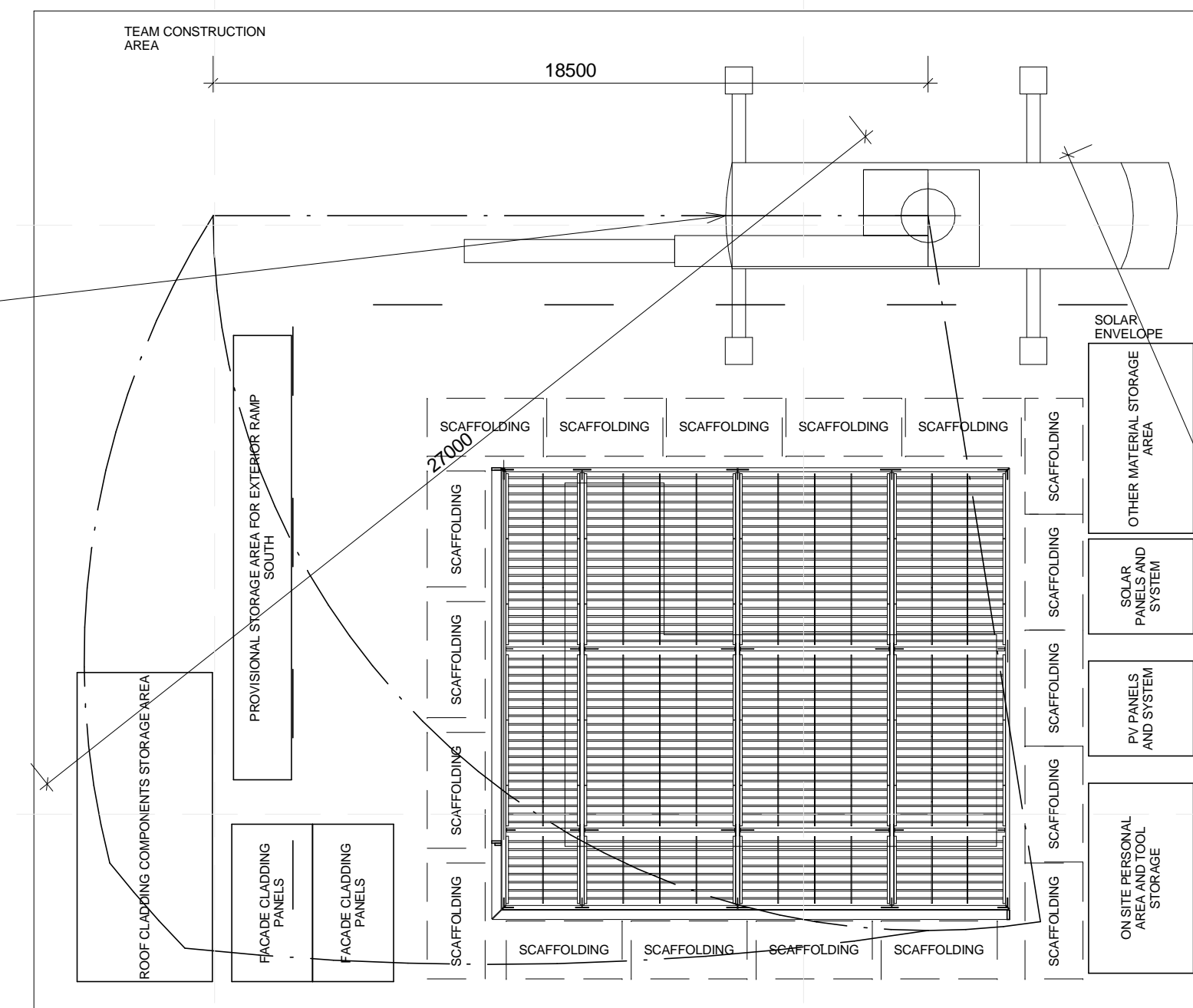
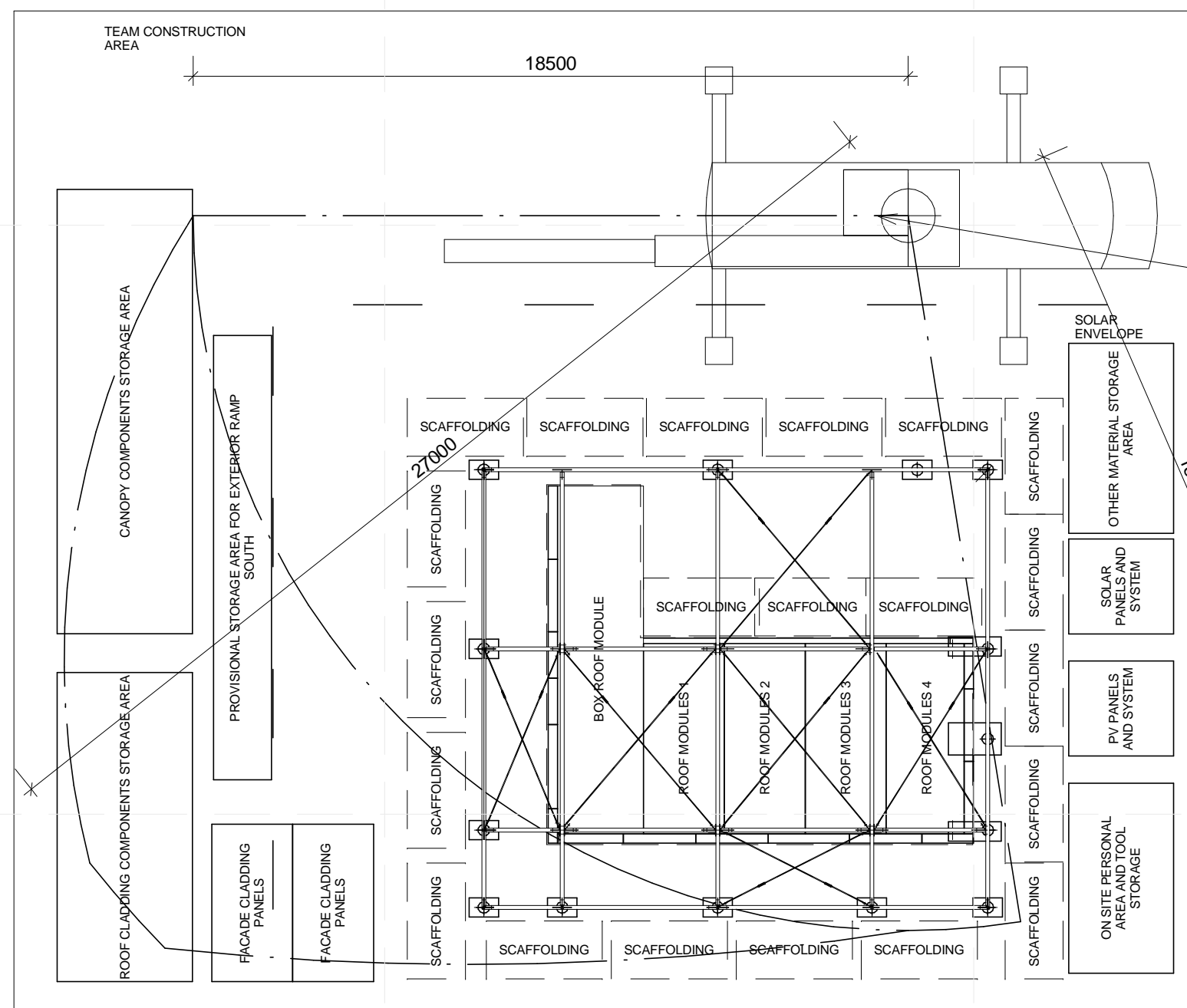
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SHEET TITLE  
 ARRIVAL SEQUENCE  
 PLANS - 6

O-108

CANOPY FRAME INSTALLATION

CANOPY CLADDING AND CLADDING PANELS  
 INSTALLATION AND PV PANEL SUB-STRUCTURE ASSEMBLY

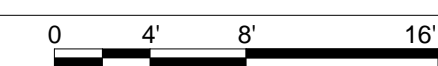


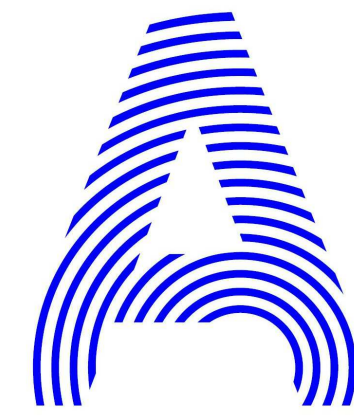
MOBILE CRANE 18740 LBS IN 40 FT (8,5 TON IN 12 M)

NOTES:  
 - CANOPY FRAMES ARE CRANED INTO PLACE AND FIXED TO THE FOUNDATION SYSTEM USING SCAFFOLDING  
 - CRANE PREPARES TO LIFT ROOF CLADDING PANELS INTO PLACE

NOTES:  
 - ROOF CLADDING PANELS ARE LIFTED INTO PLACE AND FIXED TO THE CANOPY FRAMES  
 - LEVELS ARE CHECKED WITH LASER LEVEL  
 - CRANE PREPARES TO LIFT PV AND SOLAR PANEL SUB-STRUCTURE INTO PLACE  
 - PV AND SOLAR PANEL SUB-STRUCTURE ARE LIFTED INTO PLACE AND ASSEMBLY ON CANOPY ROOF FRAMES  
 - CRANE PREPARES TO LIFT WALL CLADDING PANELS INTO PLACE  
 - WALL CLADDING PANELS ARE LIFTED INTO PLACE AND FIXED TO THE CANOPY FRAMES

A1 OPERATIONS 6  
 1 : 150





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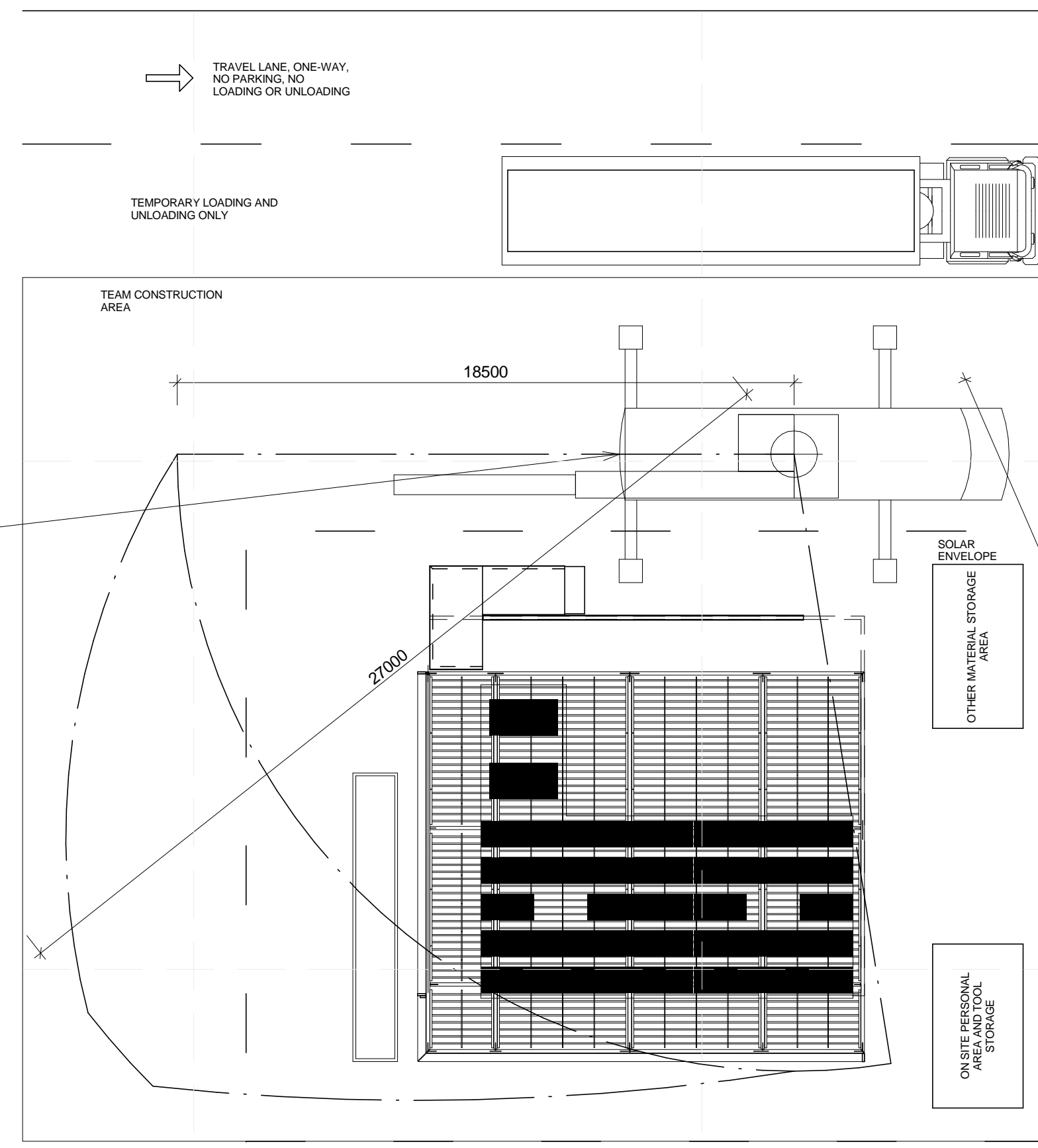
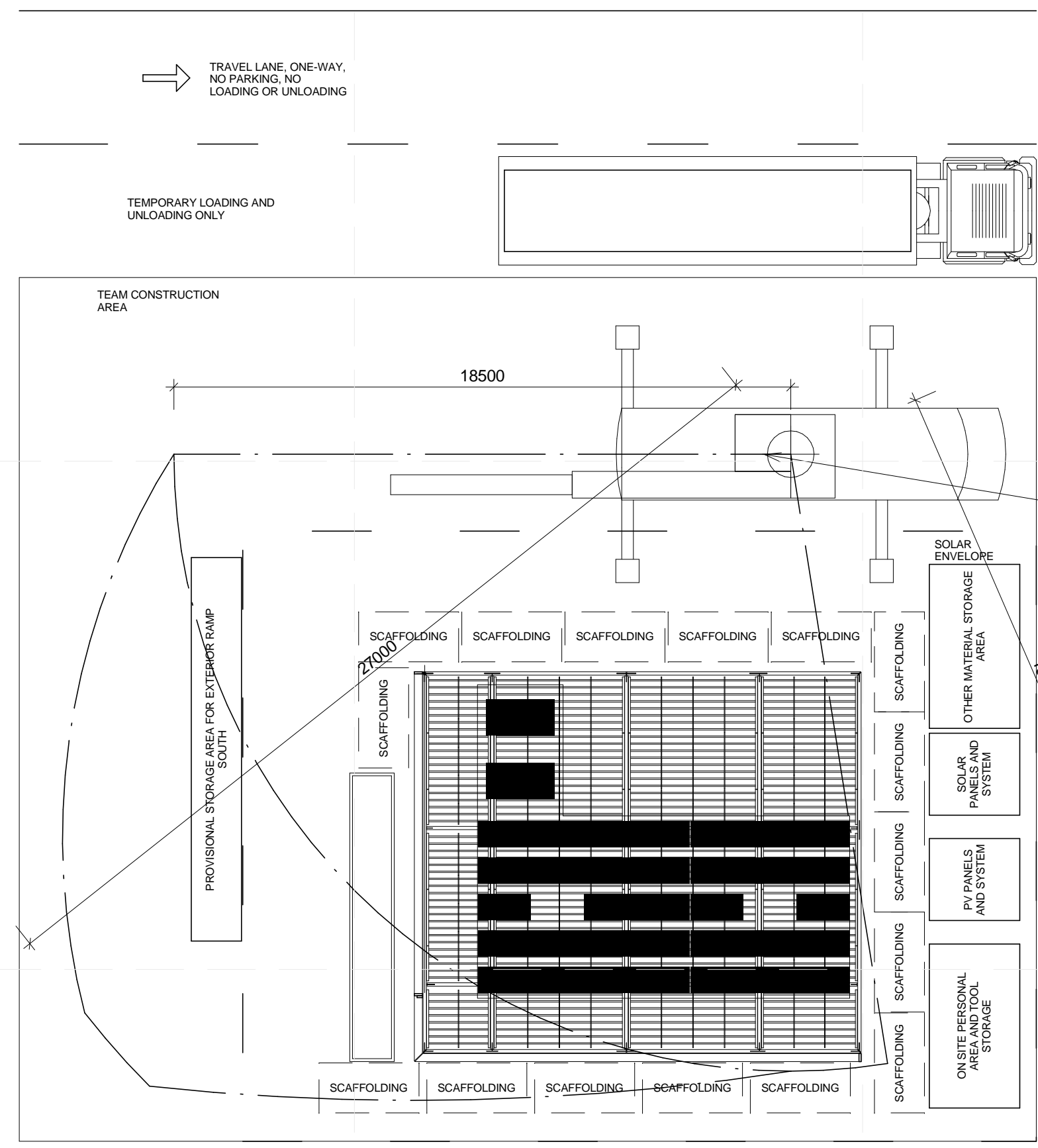
LOT NUMBER: 103  
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SHEET TITLE  
 ARRIVAL SEQUENCE  
 PLANS - 7

O-109

PV AND SOLAR PANEL INSTALLATION AND WATER TANK MODULE INSTALLATION

LANDSCAPE ASSEMBLY AND INSTALLATION OF NORTH RAMP

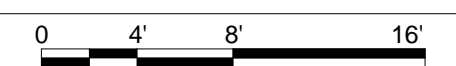


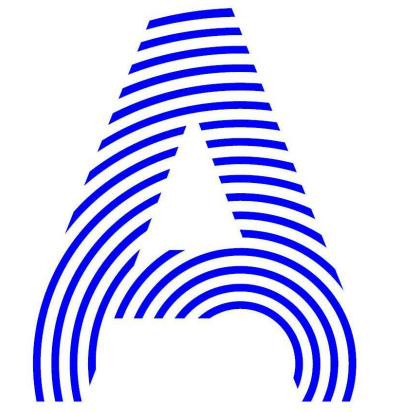
MOBILE CRANE 18740 LBS IN 40 FT (8.5 TON IN 12 M)

- NOTES:
- CRANE PREPARES TO LIFT PV AND SOLAR PANELS INTO PLACE
  - PV AND SOLAR PANELS ARE LIFTED INTO PLACE AND FIXED TO THE SUB-STRUCTURE
  - TRUCK 7 WITH 40 FOOT CONTAINER ARRIVES ON SITE. REFER TO O-101 FOR TRUCK PARKING LOCATION
  - CRANE PREPARES UNLOAD CONTAINER
  - LANDSCAPE SUB-STRUCTURE AND COMPONENTS, WATER TANKS MODULE ARE UNLOADED
  - TRUCK 7 EMPTY LEAVES SITE
  - CRANE PREPARES TO LIFT WATER TANKS MODULE INTO PLACE
  - WATER TANKS MODULE ARE LIFTED INTO PLACE AND CONNECTED WITH HOUSE
  - THE INSTALLATION OF LANDSCAPE SUB-STRUCTURE IS STARTED

**A1 OPERATIONS 7**  
 1:150

- NOTES:
- THE INSTALLATION OF LANDSCAPE SUB-STRUCTURE IS FINISHED
  - LEVELS ARE CHECKED WITH LASER LEVEL
  - THE INSTALLATION OF LANDSCAPE IS STARTED
  - CRANE PREPARES TO LIFT NORTH EXTERIOR RAMP INTO PLACE
  - NORTH EXTERIOR RAMP ARE LIFTED INTO PLACE AND FIXED WITH CANOPY FOUNDATION
  - CRANE PACKS UP AND LEAVES SITE
  - LANDSCAPE DECKING PANELS ARE INSTALLED AND FIXED TO SUB-STRUCTURE
  - LEVELS ARE CHECKED WITH LASER LEVEL
  - PLANTING IS PLACED IN THE DESIGNATED LANDSCAPE AREAS
  - THE ASSEMBLY OF LANDSCAPE IS FINISHED
  - SITE CLEAN UP





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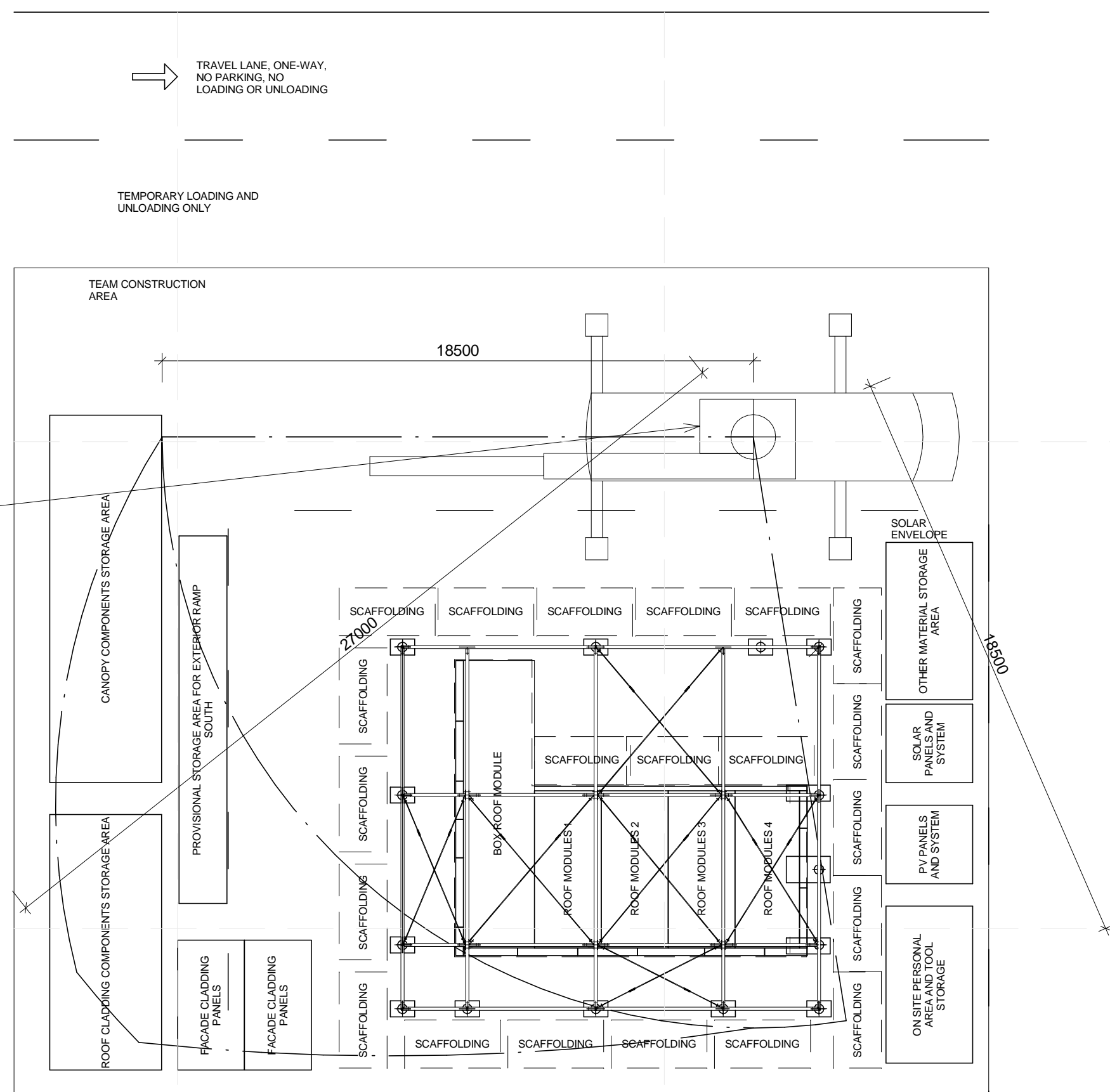
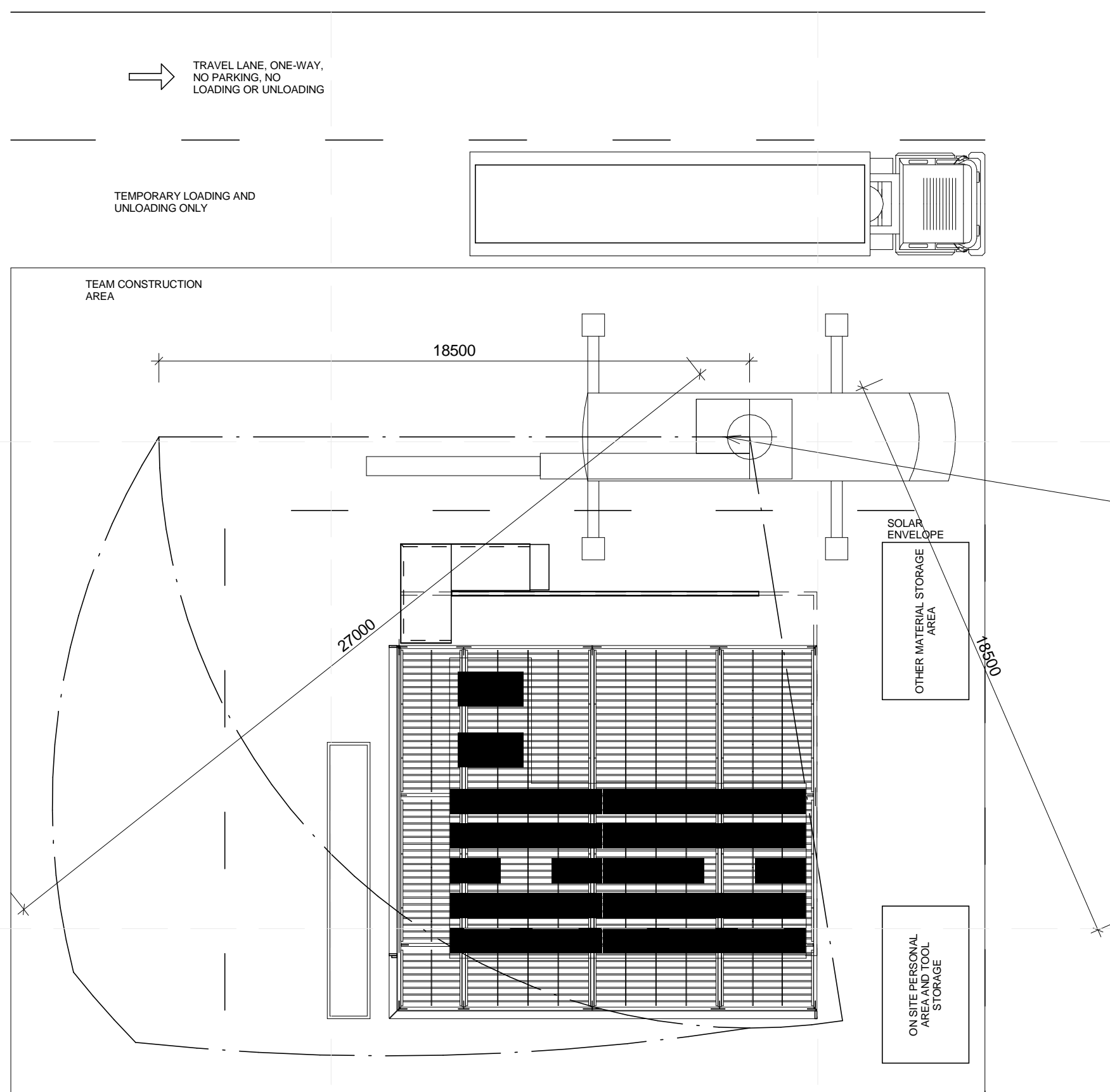
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SHEET TITLE  
 DEPARTURE  
 SEQUENCE PLAN - 1

O-121

LANDSCAPE AND PV PANEL DISASSEMBLY

FACADE CLADDING AND CANOPY CLADDING REMOVAL

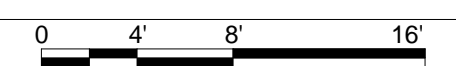


MOBILE CRANE 18740 LBS IN 40 FT (8.5 TON IN 12 M)

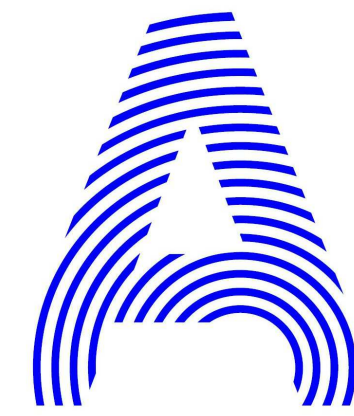
- NOTES:
- LANDSCAPE PANELS DETACHED FROM SUB-STRUCTURE AND STACKED IN DESIGNATED AREA
  - LANDSCAPE SUBSTRUCTURE DISASSEMBLED AND STACKED IN DESIGNATED AREA
  - CRANE ARRIVES ON SITE (REFER O-101 FOR LOCATION) AND IS SET UP
  - CRANE PREPARES TO LIFT NORTH EXTERIOR RAMP FROM PLACE
  - PV PANEL SYSTEM DETACHED FROM PV PANEL SUB-STRUCTURE SUPPORTS REMOVED
  - PV PANELS PACKAGED FOR TRANSPORT

- NOTES:
- FACADE CLADDING PANELS DETACHED FROM CANOPY FRAME AND LIFTED TO DESIGNATED AREA
  - FACADE CLADDING PANELS STACKED IN DESIGNATED AREA
  - CANOPY CLADDING PANELS DETACHED FROM CANOPY FRAME AND LIFTED TO DESIGNATED AREA
  - CANOPY CLADDING PANELS STACKED IN DESIGNATED AREA

A1 OPERATIONS 8  
 1:150







PROJECT TITLE: AIR HOUSE  
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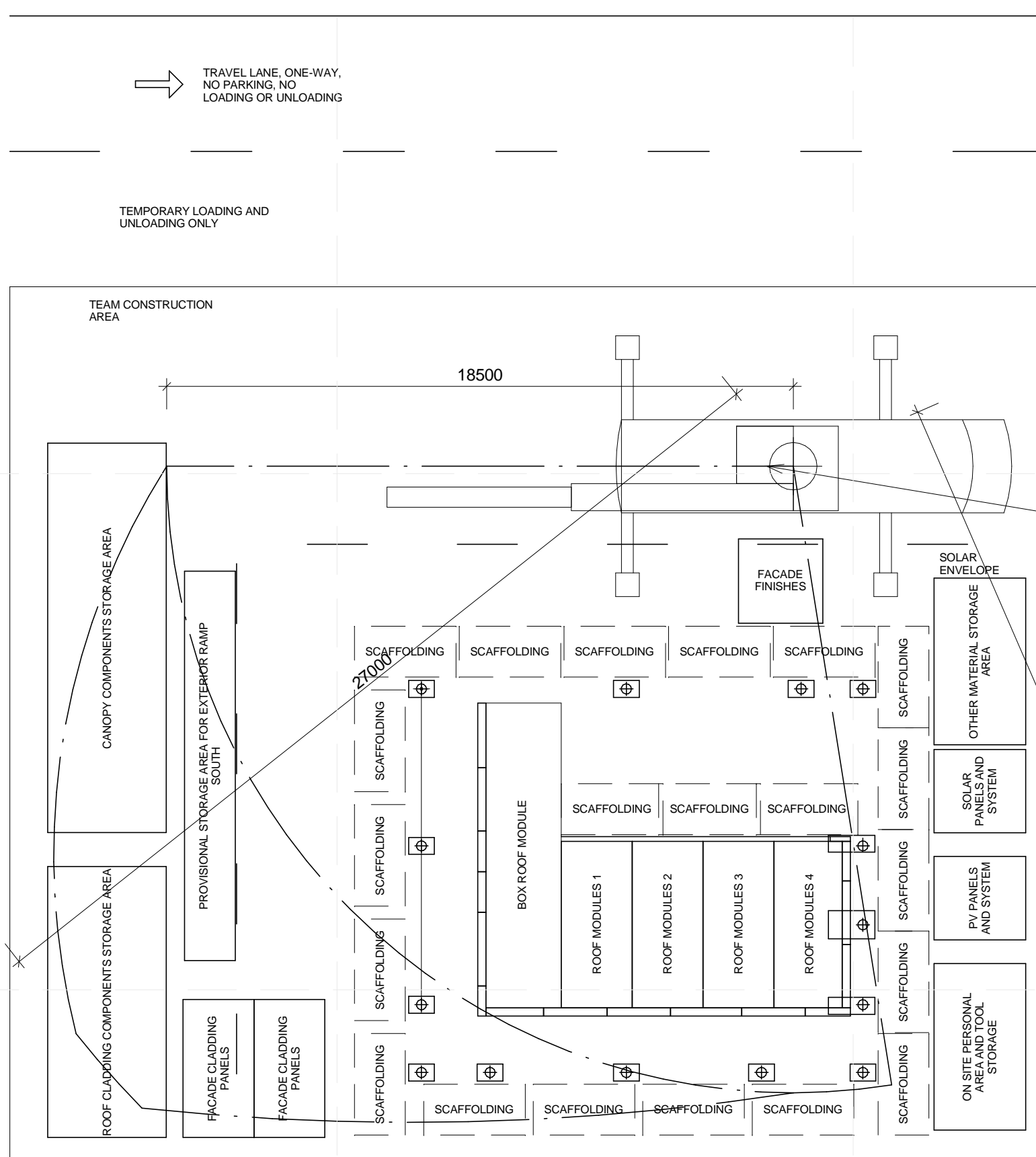
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SHEET TITLE

DEPARTURE  
 SEQUENCE PLAN - 2

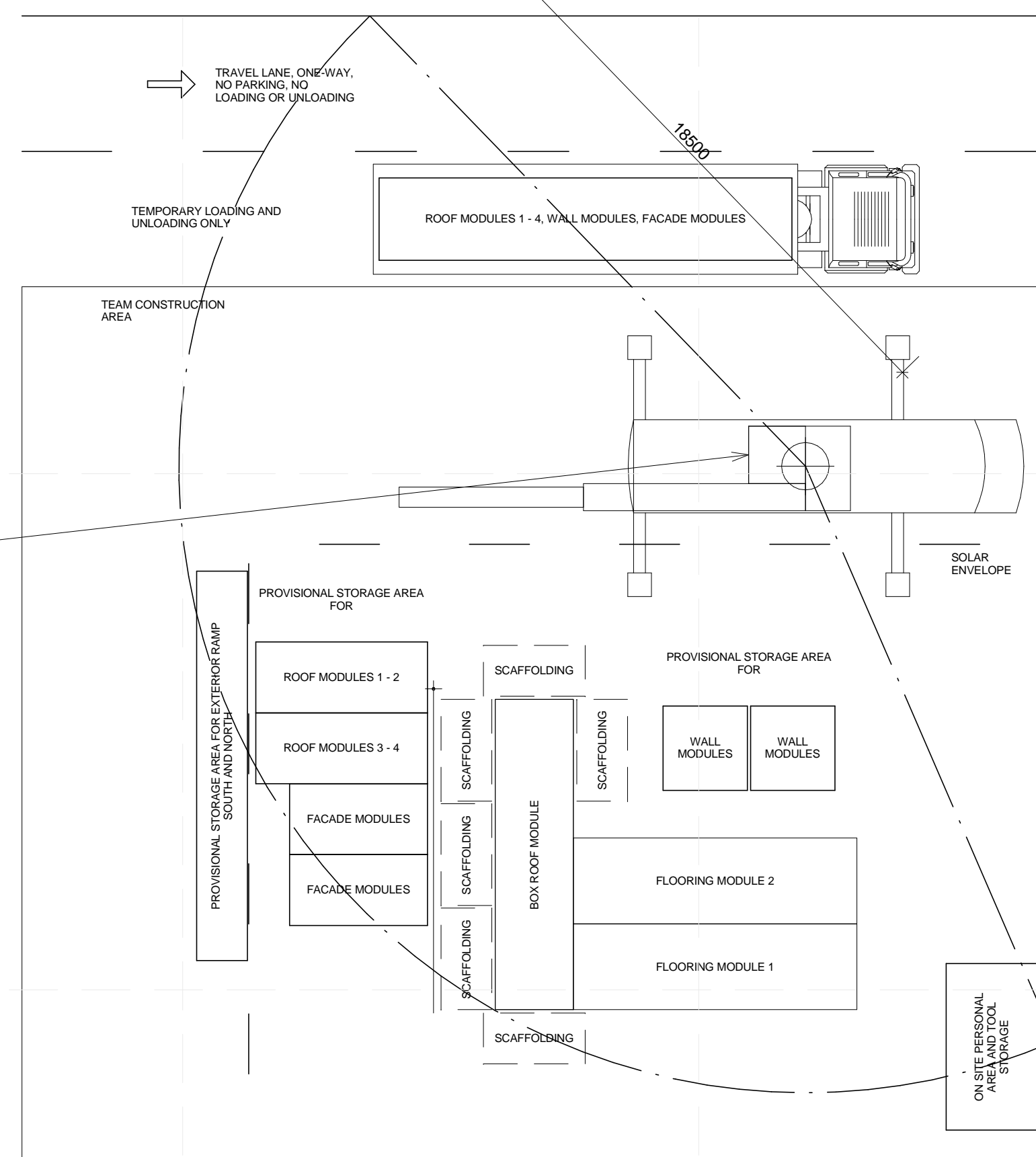
O-122

CANOPY FRAME REMOVAL



NOTES:  
 - CANOPY FRAMES DETACHED FROM FOUNDATION AND CRANED TO DESIGNATED AREA (REFER O-101 FOR LOCATION)  
 - CANOPY FRAMES DISASSEMBLED ON GROUND AND STACKED IN DESIGNATED AREA (REFER O-101 FOR LOCATION)  
 - FOUNDATION SYSTEM OF CANOPY IS DISASSEMBLED AND STACKED IN DESIGNATED AREA  
 - THE CRANE CHANGES ITS POSITION

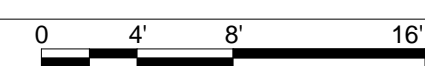
ROOF AND WALL MODULES REMOVAL

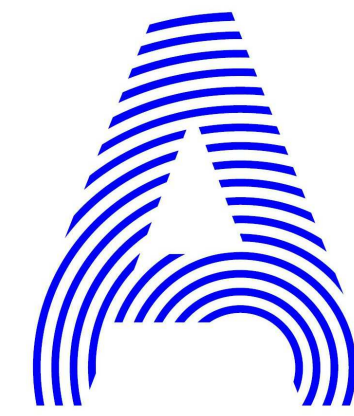


NOTES:  
 - ROOF MODULES DETACHED FROM WALL MODULES AND TECHNOLOGICAL MODULE AND STACKED IN DESIGNATED AREA  
 - WALL MODULES DETACHED FROM FLOORING MODULES AND STACKED IN DESIGNATED AREA  
 - TRUCK 3 ARRIVES ON SITE (REFER O-101 FOR LOCATION)

MOBILE CRANE 18740 LBS IN 40 FT (8.5 TON IN 12 M)

A1 OPERATIONS 9  
 1 : 150





PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
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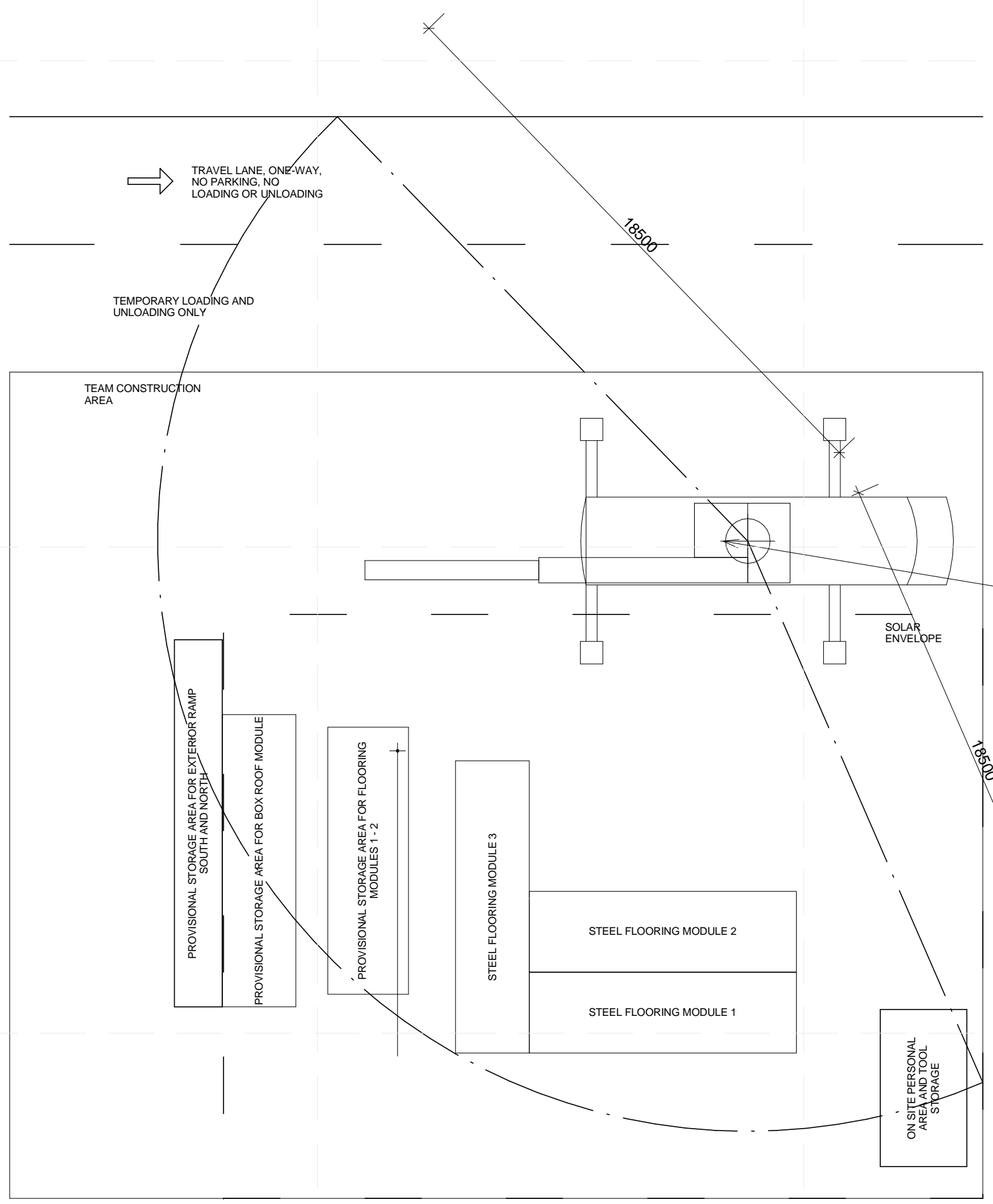
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SHEET TITLE  
 DEPARTURE  
 SEQUENCE PLAN - 3

O-123

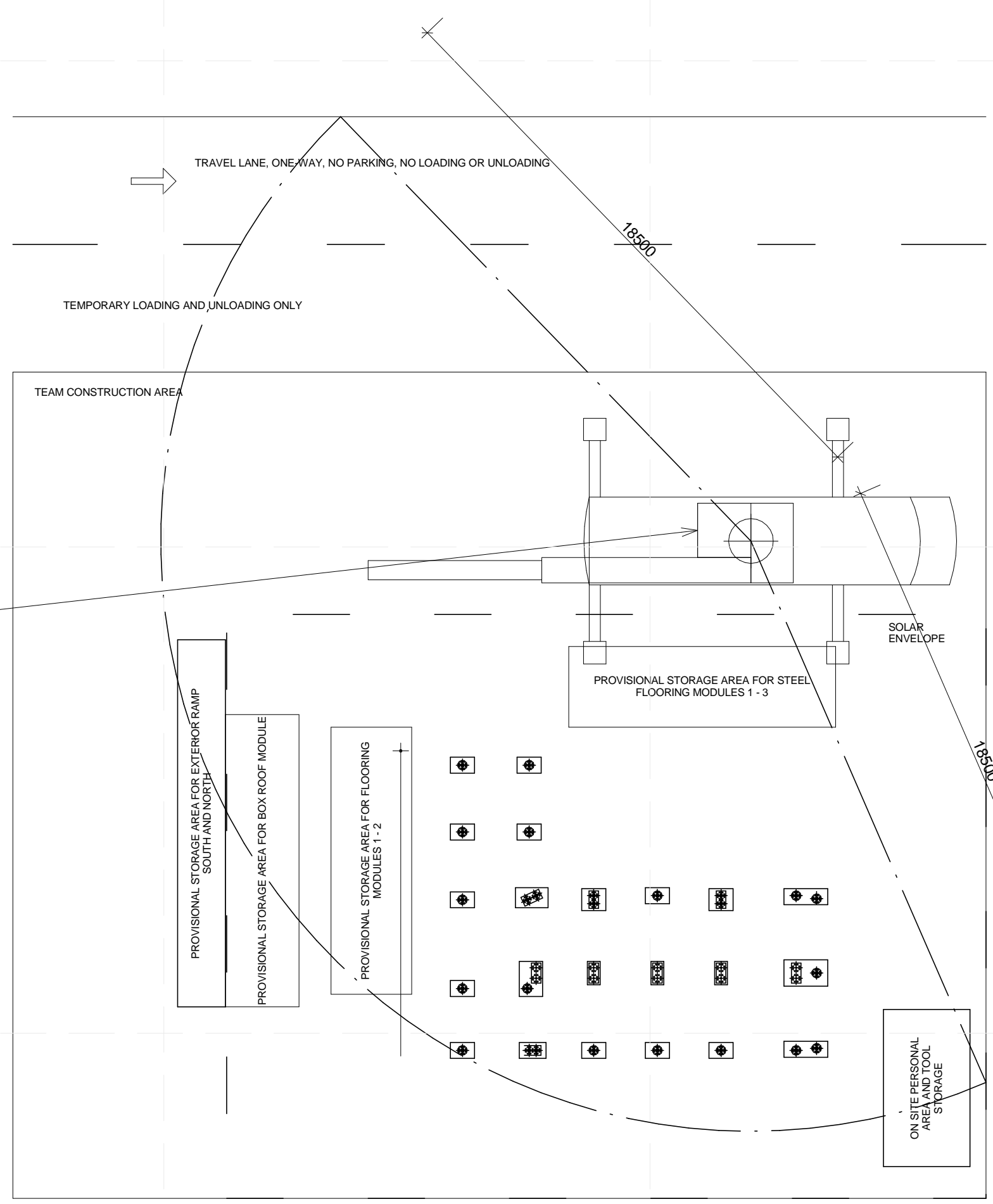
TECHNOLOGICAL MODULE REMOVAL



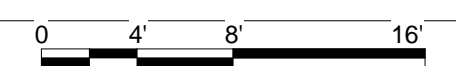
- NOTES:
- TECHNOLOGICAL MODULE DETACHED FROM FLOORING MODULES
  - TECHNOLOGICAL MODULE CRANED ONTO TRUCK 3
  - TRUCK 3 LEAVES SITE
  - TRUCK 2 ARRIVES ON SITE (REFER O-101 FOR LOCATION)

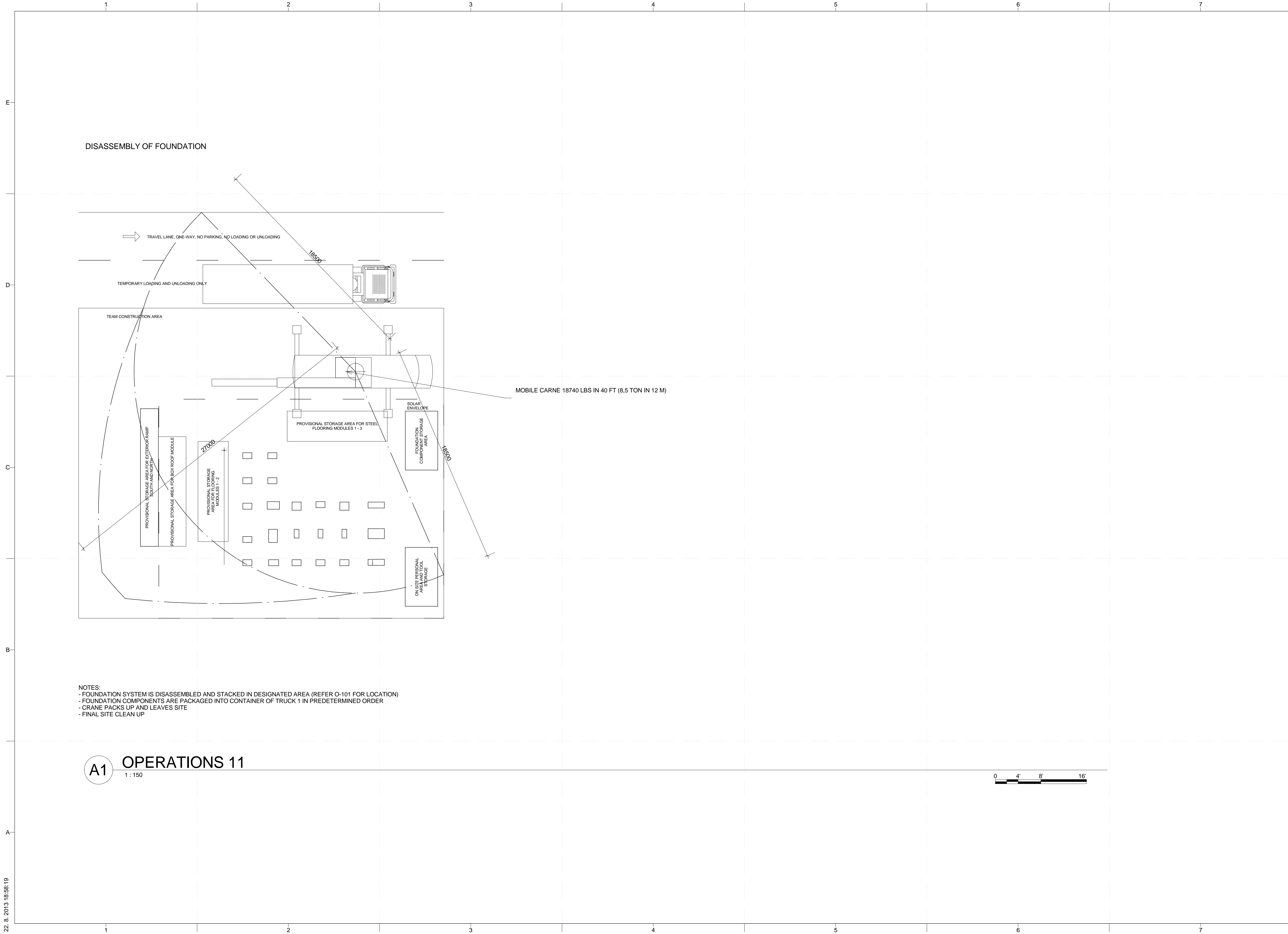
**A1 OPERATIONS 10**  
 1:150

STEEL FLOORING MODULES REMOVAL

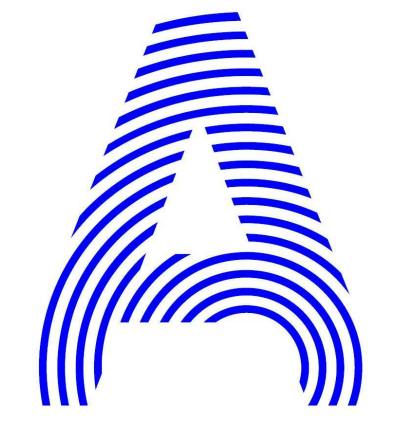
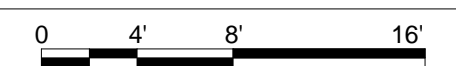


- NOTES:
- STEEL FLOORING MODULES DETACHED FROM FOUNDATION
  - STEEL FLOORING MODULES CRANED ONTO TRUCK 2
  - TRUCK 2 LEAVES SITE



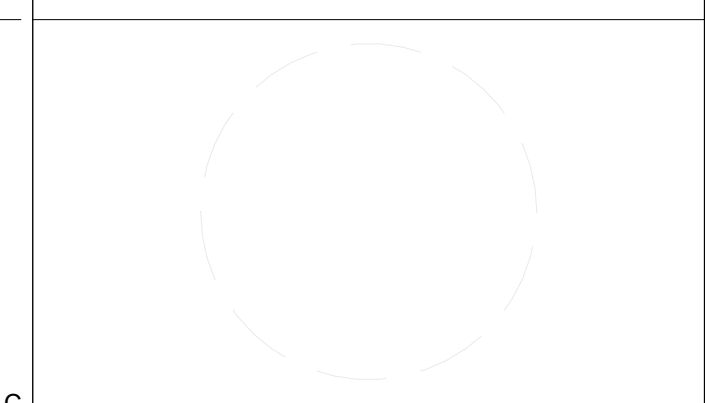


**A1 OPERATIONS 11**  
1:150



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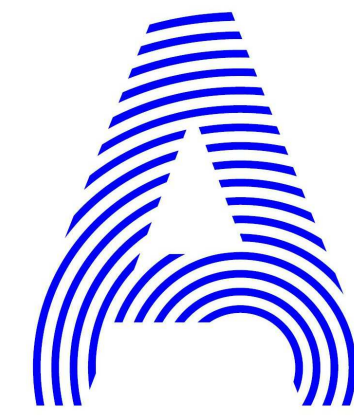
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SHEET TITLE  
**DEPARTURE SEQUENCE PLAN - 4**

**O-124**



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

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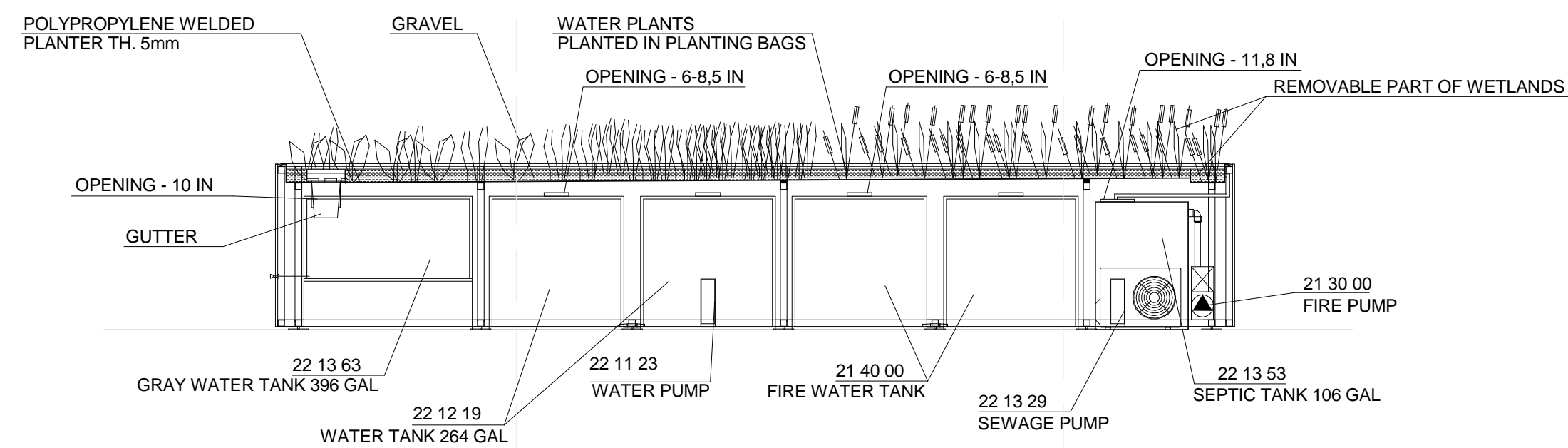


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SHEET TITLE  
**LIQUIDS DELIVERY AND REMOVAL**

**O-701**



- 1/ CONSTRUCTED WETLANDS CONTAINER TO BE TRANSPORTED IN ONE PIECE, INCLUDING TANKS
  - 2/ POLYPROPYLENE WELDED PLANTERS WILL BE REMOVED BEFORE LIQUIDS DELIVERY  
- IRRIGATION WATER BEFORE MAIN WATER DELIVERY - 50 GAL
  - 3/ POLYPROPYLENE WELDED PLANTERS WILL BE REMOVED BEFORE LIQUIDS DELIVERY  
- WATER DELIVERY
  - 4/ PUMPS INSTALLED INSIDE THE CONTAINER
  - 5/ PLUMBING CONNECTED
  - 6/ WETLAND PLANTS PLANTED INTO THE POLYPROPYLENE PLANTER - IRRIGATION
- AFTER COMPETITION
- 7/ REMOVAL OF PLANTS AND POLYPROPYLENE PLANTERS
  - 8/ CONTAINER TO BE OPENED, PUMPS DISCONNECTED/REMOVED
  - 9/ SYSTEM READY FOR WATER REMOVAL

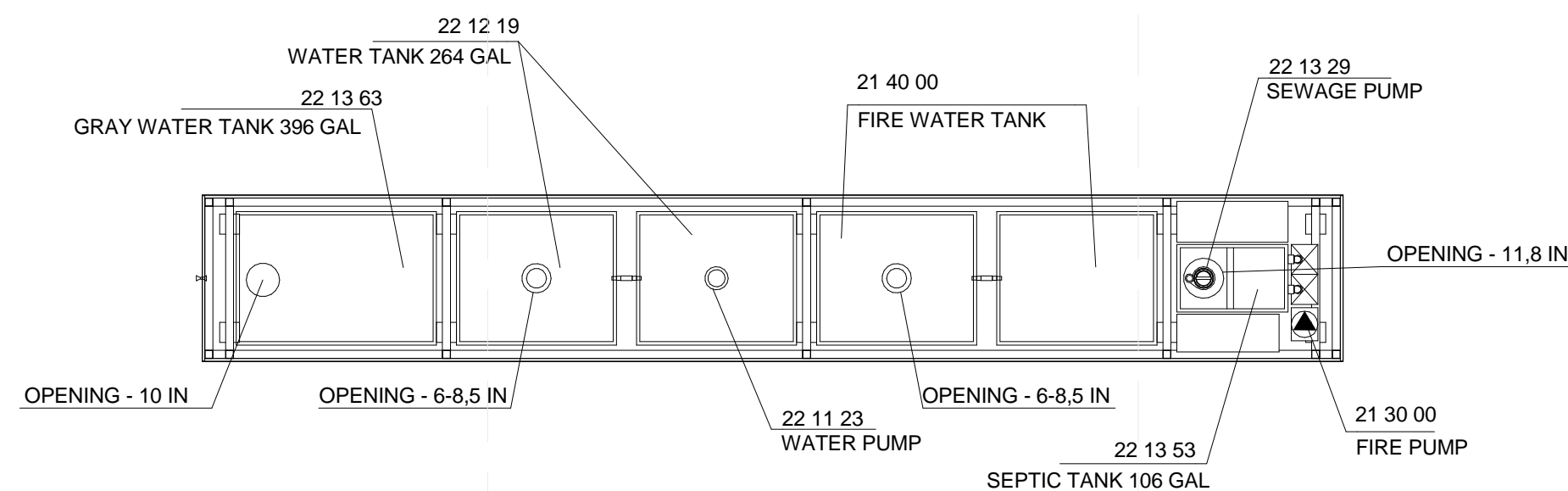
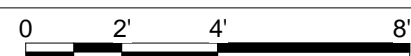
DOMESTIC WATER DRAINAGE  
DOMESTIC WATER WILL BE DRAINED INTO THE SANITARY WASTE AND PUMPED INTO THE GRAY WATER TANK. CONTENTS OF THE GRAY WATER TANK ARE TO BE REMOVED BY THE COMPETITION ORGANIZERS.

SOLAR SYSTEM DRAINAGE  
SOLAR SYSTEM WATER WILL BE DRAINED INTO THE SANITARY WASTE AND PUMPED INTO THE GRAY WATER TANK. CONTENTS OF THE GRAY WATER TANK ARE TO BE REMOVED BY THE COMPETITION ORGANIZERS.

HEATING AND COOLING SYSTEM DRAINAGE  
HEATING AND COOLING SYSTEM WATER WILL BE DRAINED INTO THE SANITARY WASTE AND PUMPED INTO THE GRAY WATER TANK. CONTENTS OF THE GRAY WATER TANK ARE TO BE REMOVED BY THE COMPETITION ORGANIZERS.

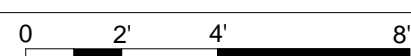
**C1 WETLAND SECTION**

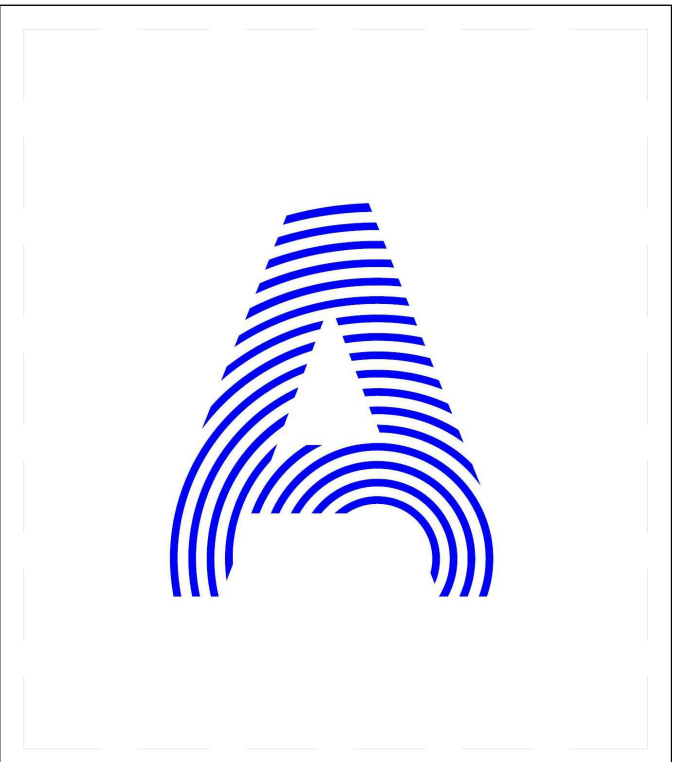
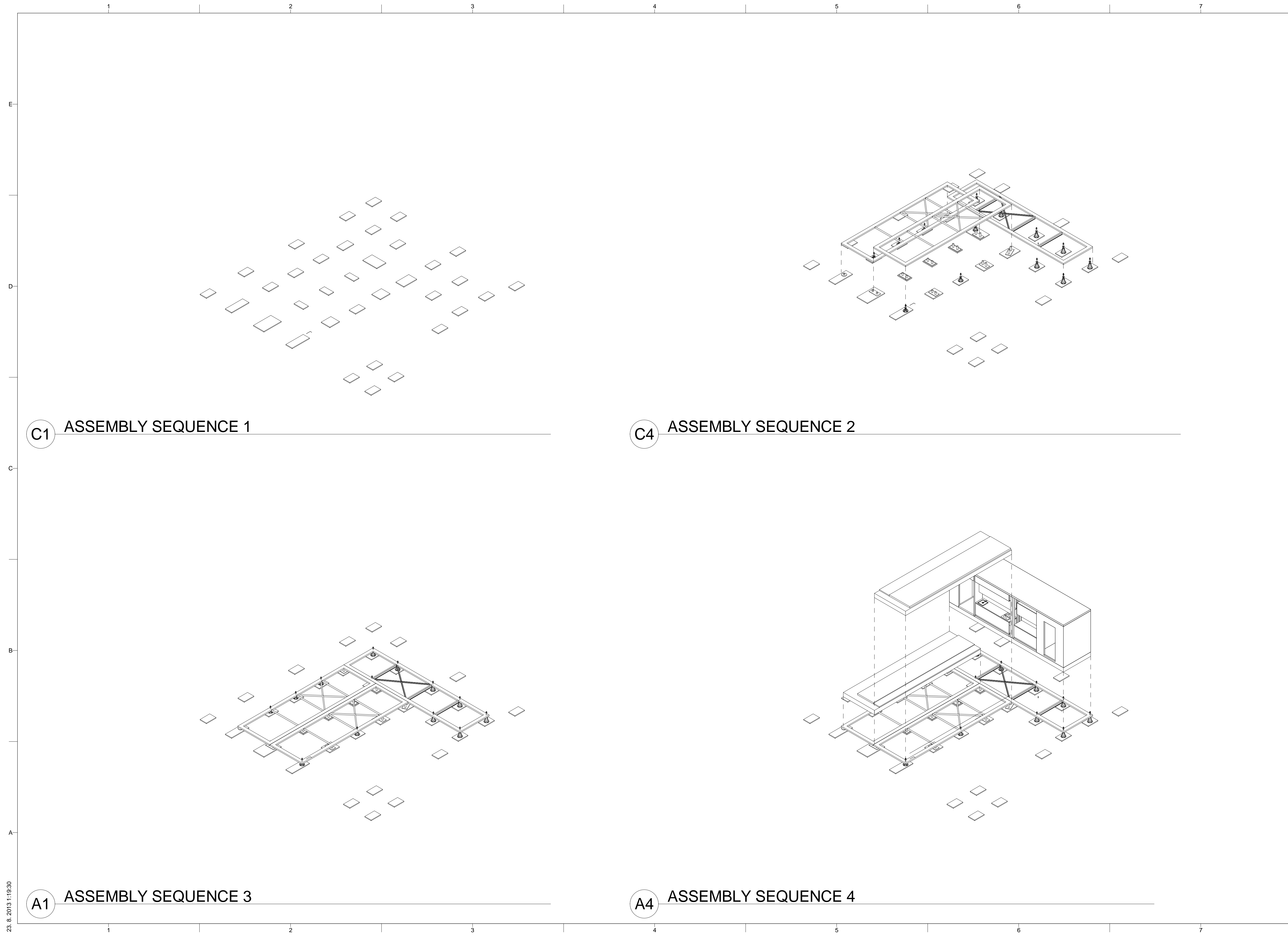
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**A1 WETLAND PLAN**

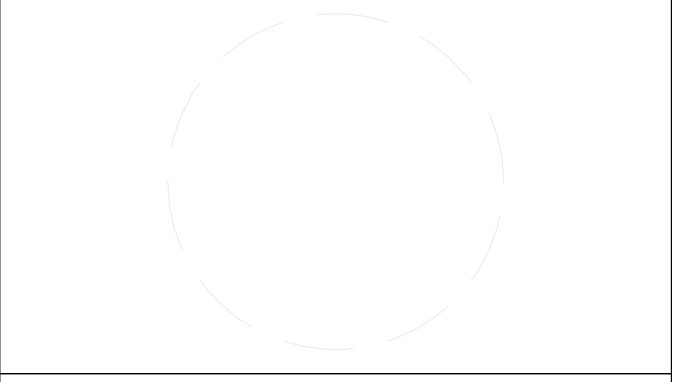
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PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
 ADDRESS: CTU, FACULTY OF ARCHITECTURE  
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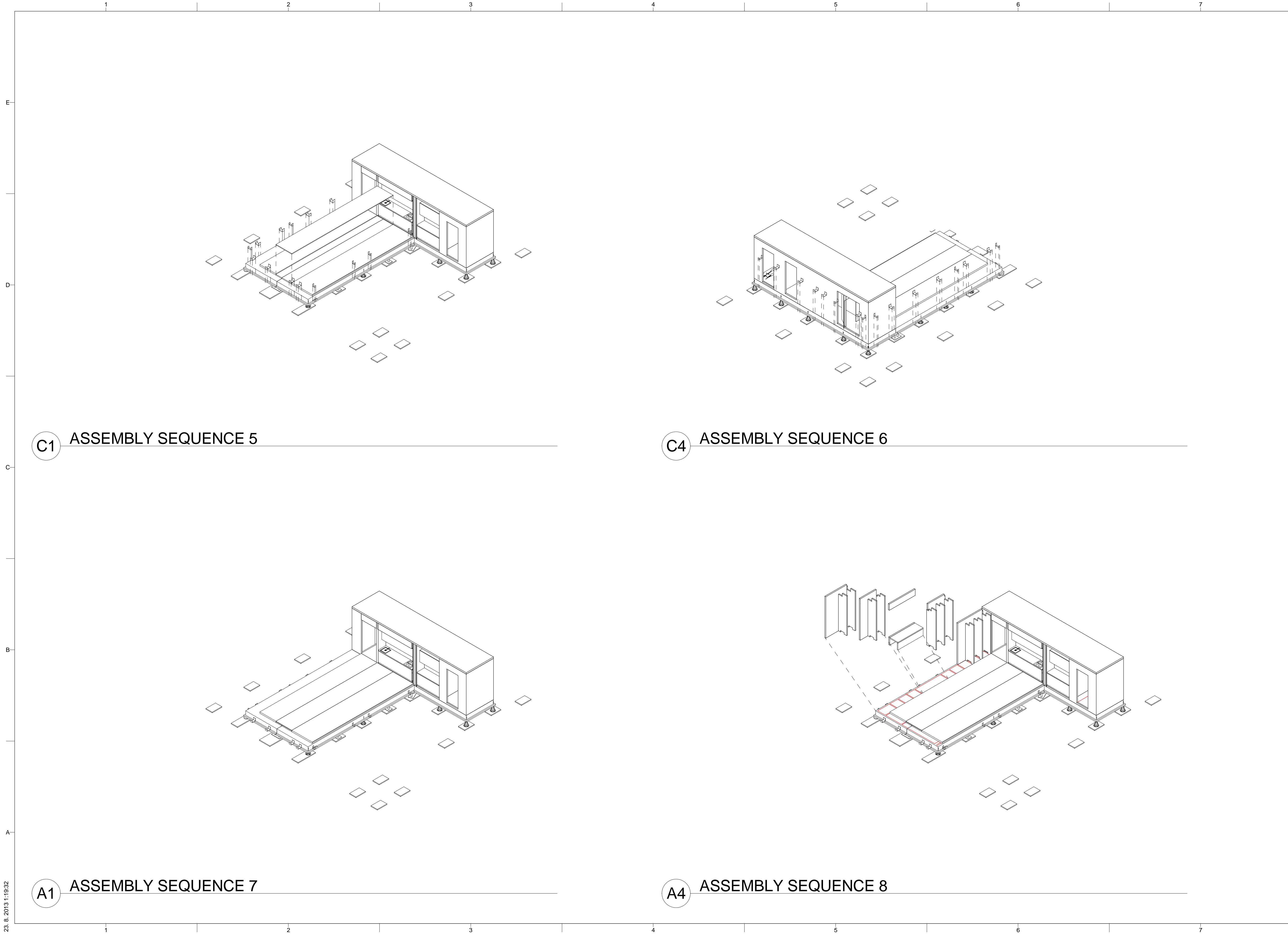


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**O-901**

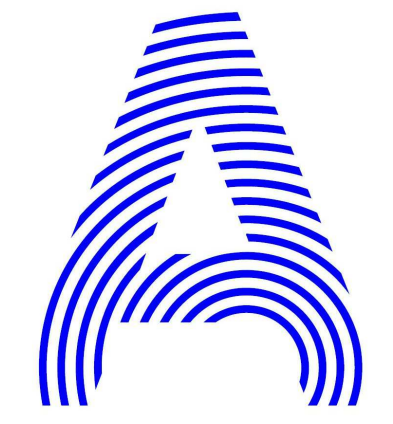


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C4 ASSEMBLY SEQUENCE 6

A1 ASSEMBLY SEQUENCE 7

A4 ASSEMBLY SEQUENCE 8



PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

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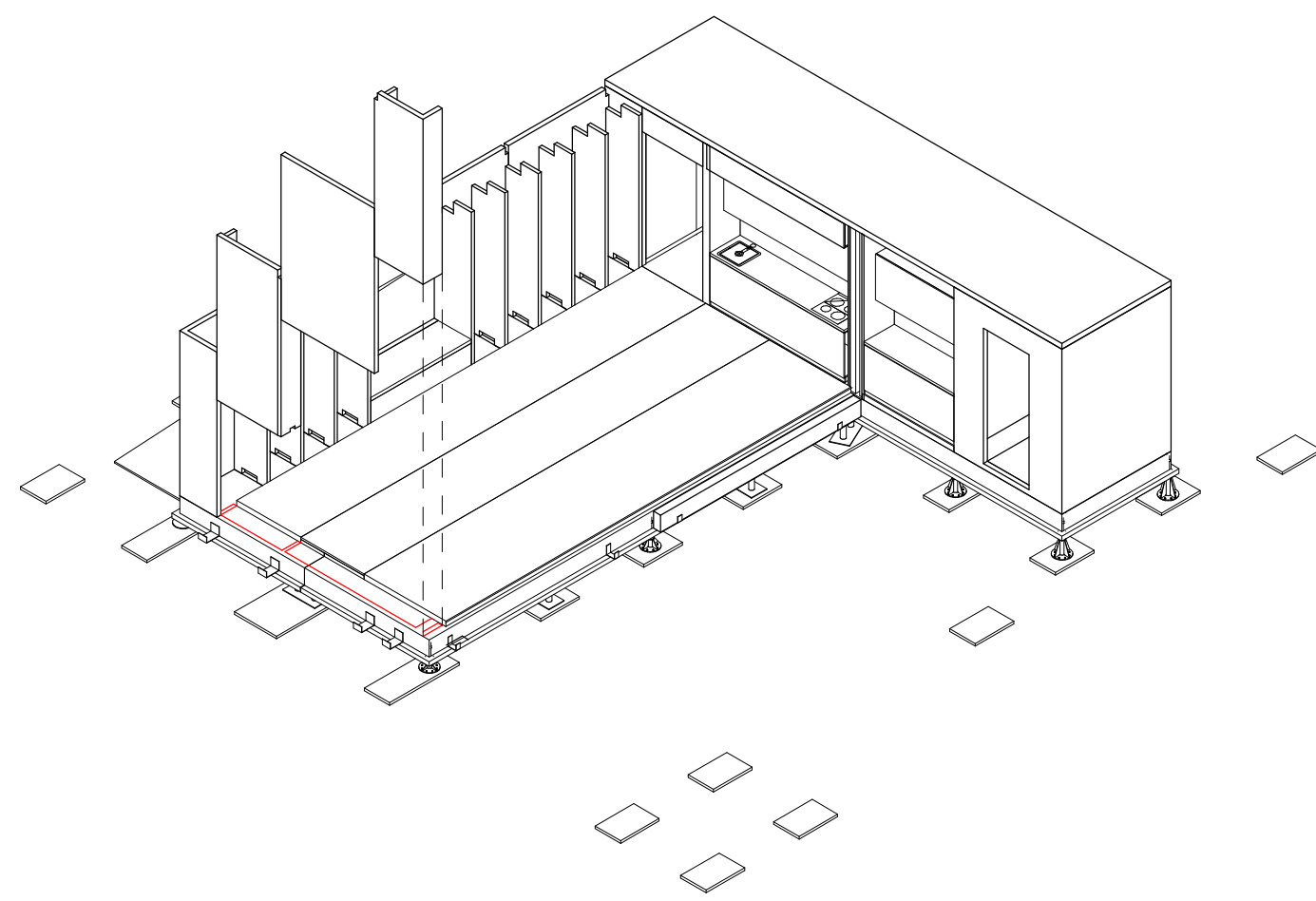
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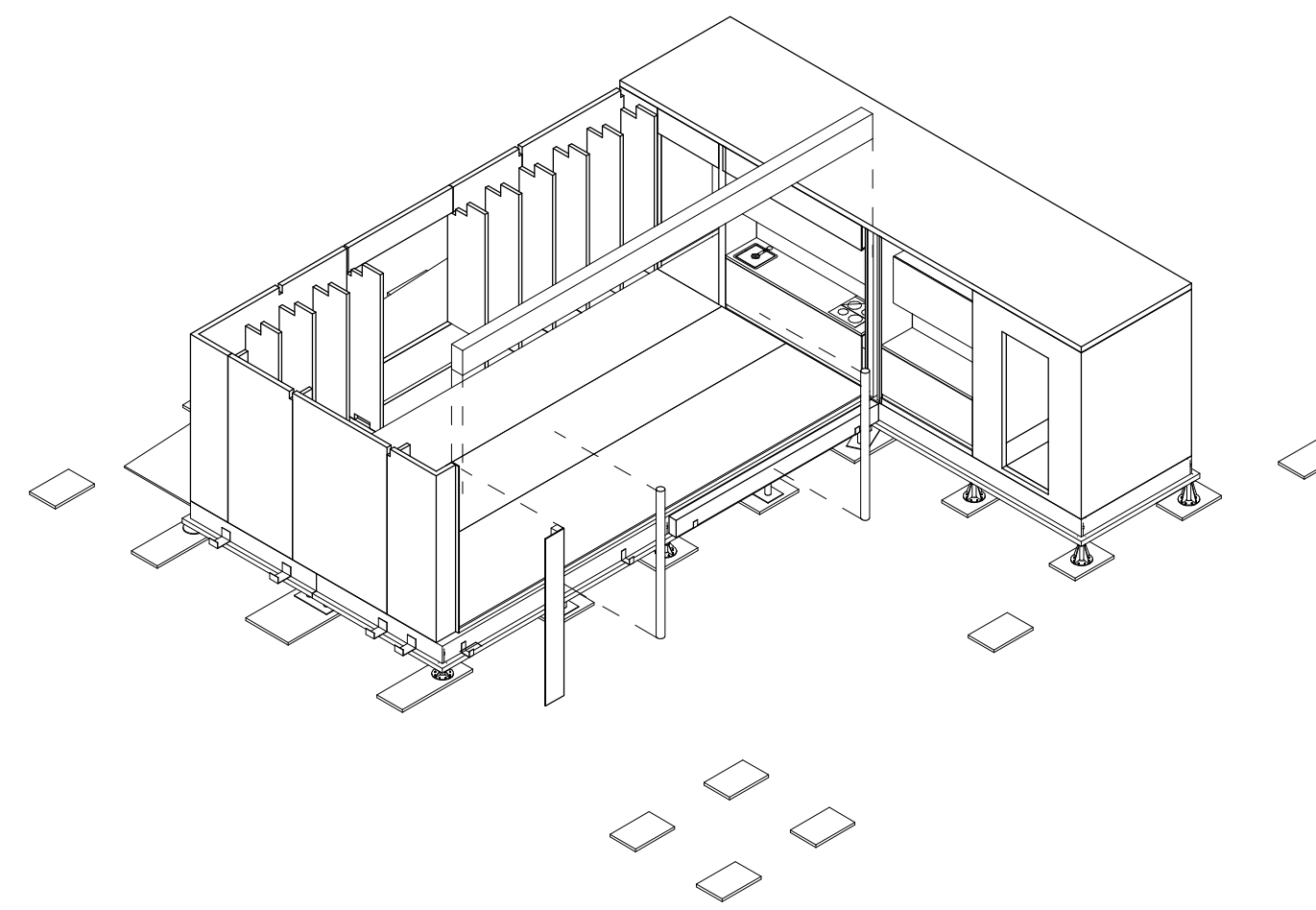
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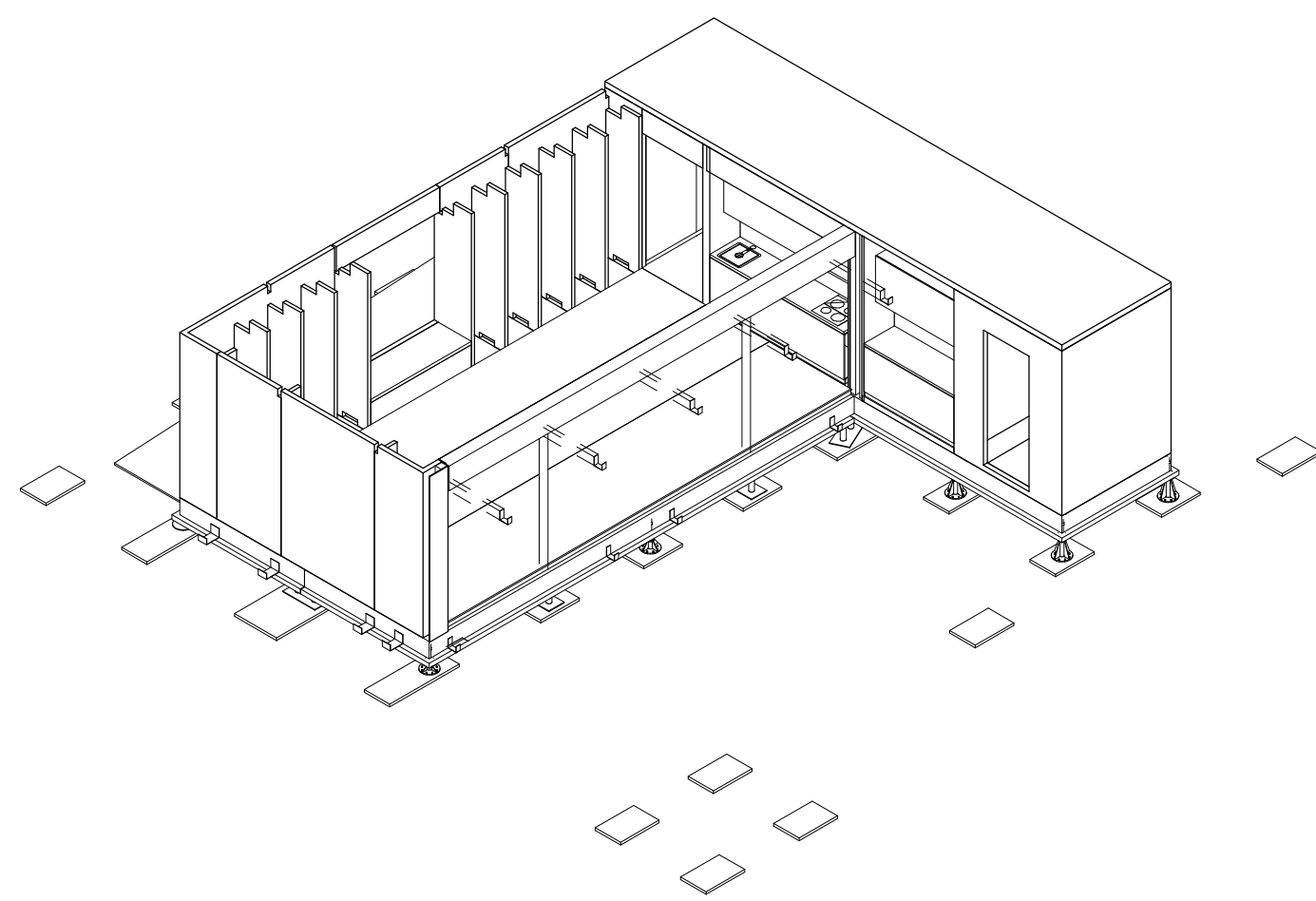
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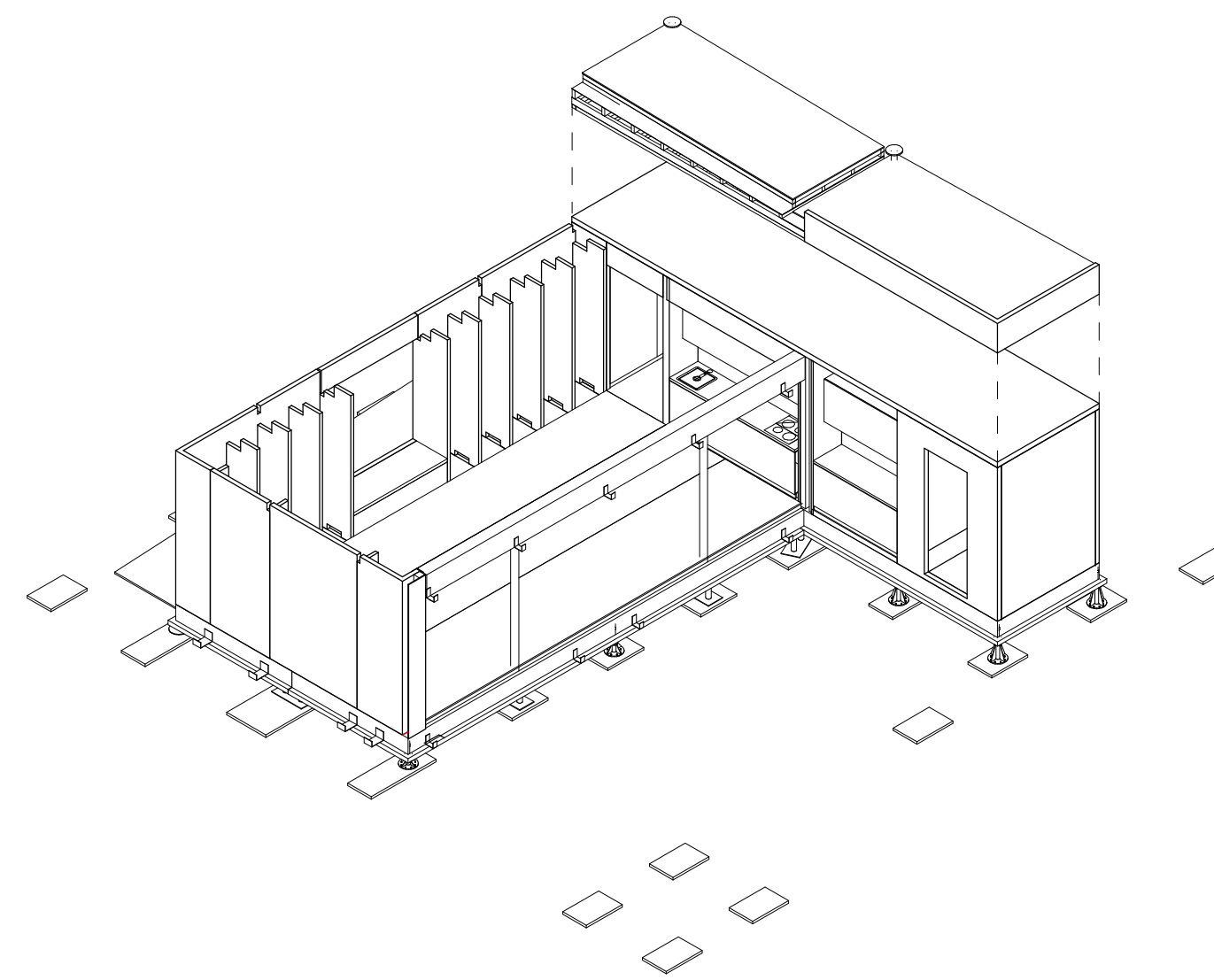
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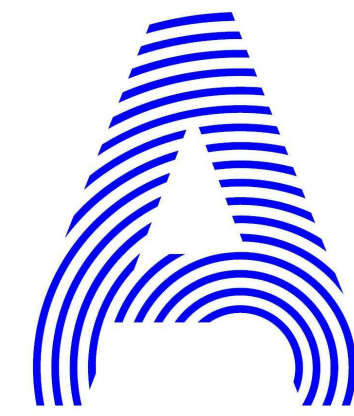
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PROJECT TITLE: AIR HOUSE

TEAM NAME: CZECH REPUBLIC / CTU

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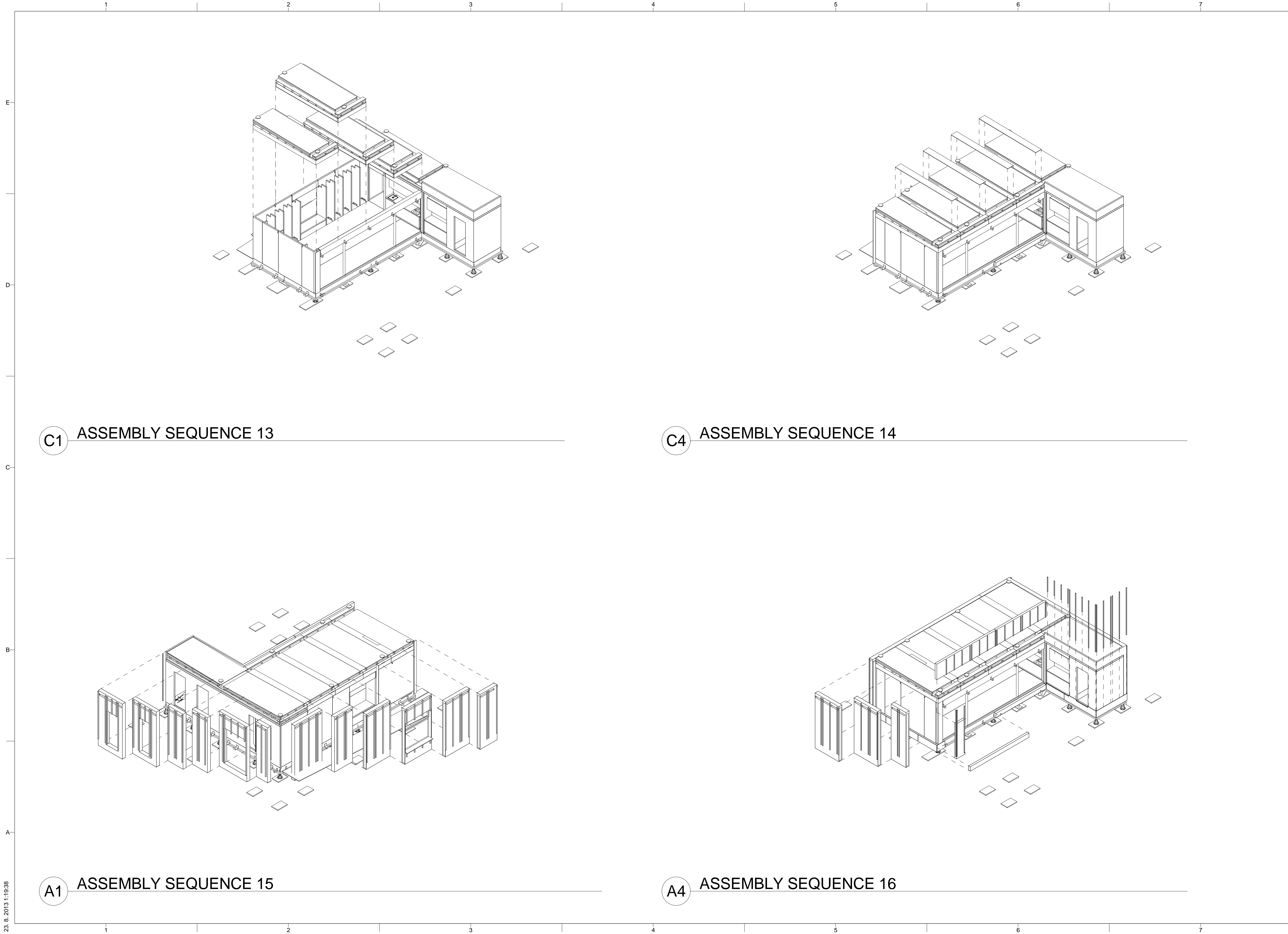
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**O-903**



C1 ASSEMBLY SEQUENCE 13

C4 ASSEMBLY SEQUENCE 14

A1 ASSEMBLY SEQUENCE 15

A4 ASSEMBLY SEQUENCE 16

23. 8. 2013 11:19:38

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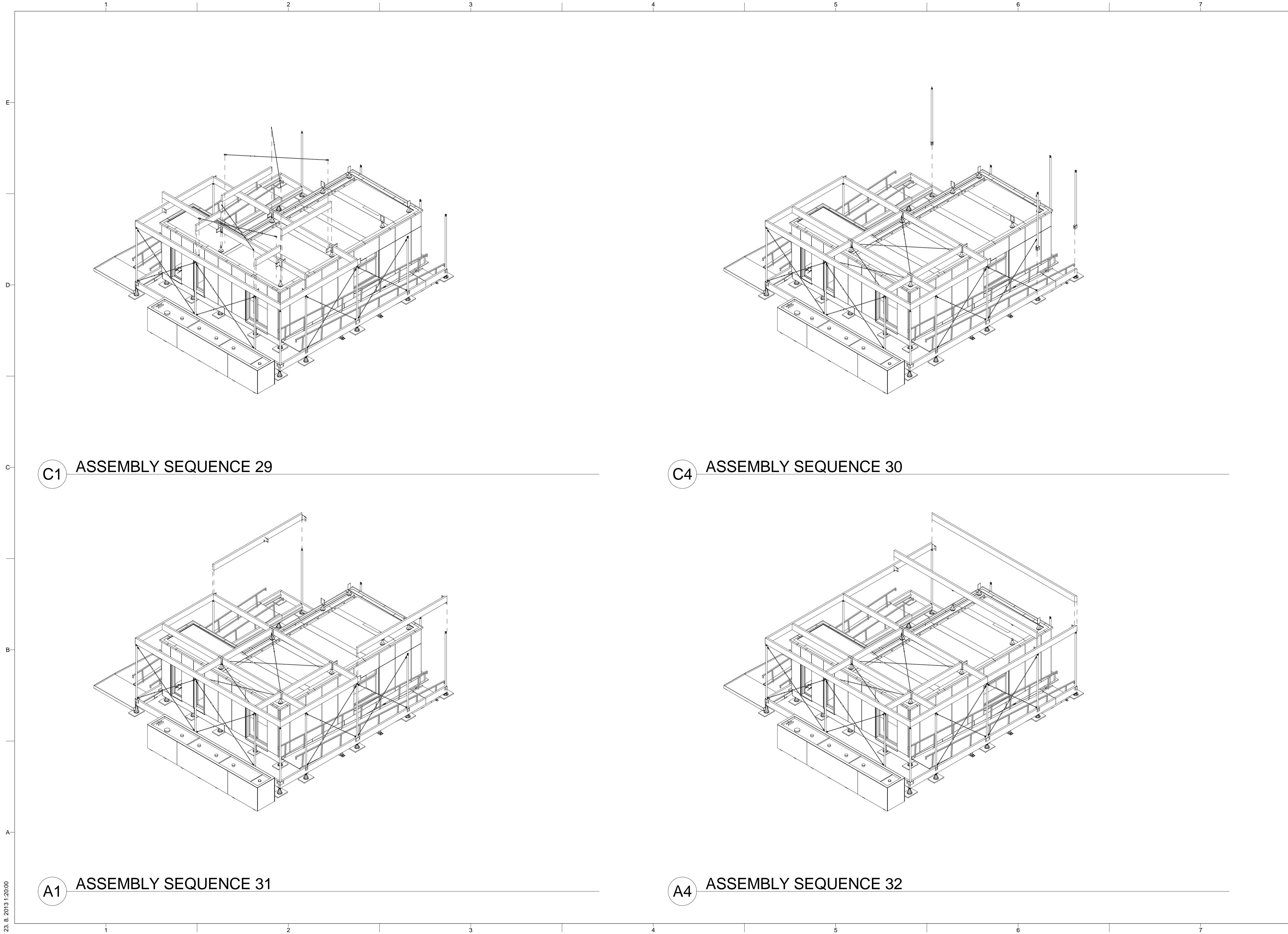
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 O-904











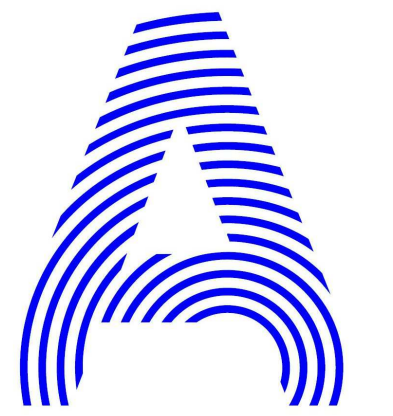
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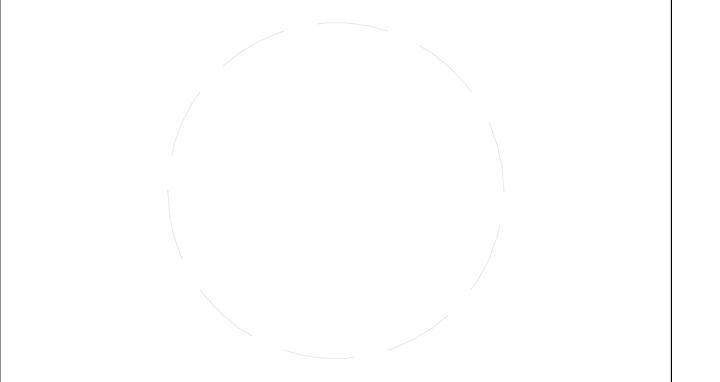
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PROJECT TITLE: AIR HOUSE  
 TEAM NAME: CZECH REPUBLIC / CTU  
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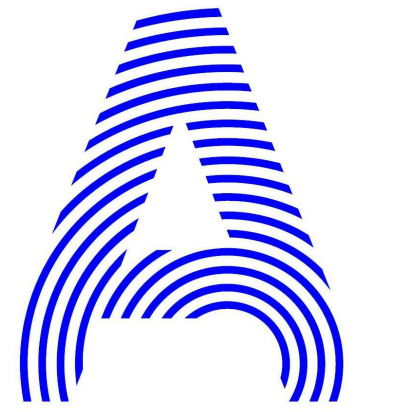
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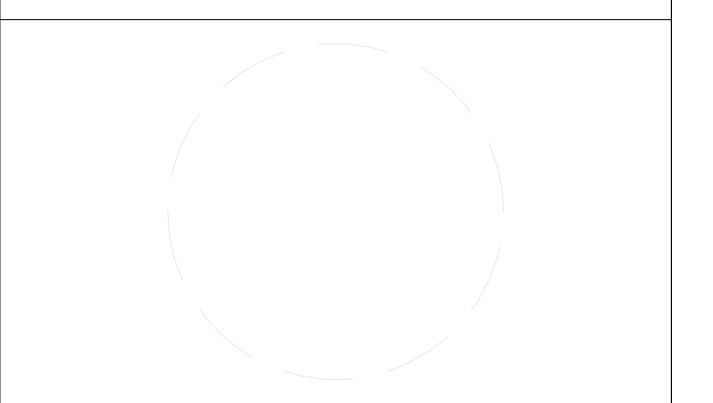
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PROJECT TITLE: AIR HOUSE  
TEAM NAME: CZECH REPUBLIC / CTU  
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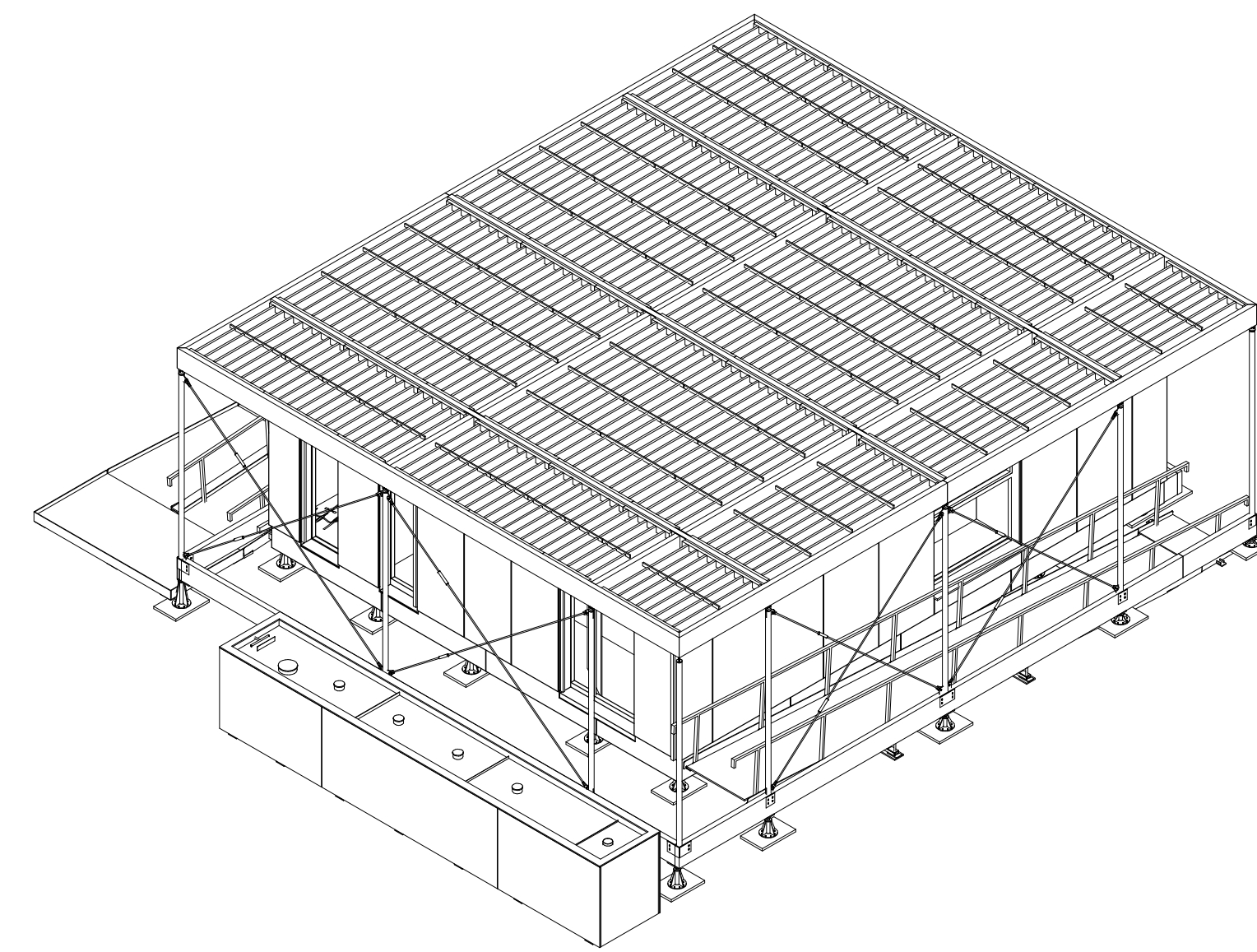
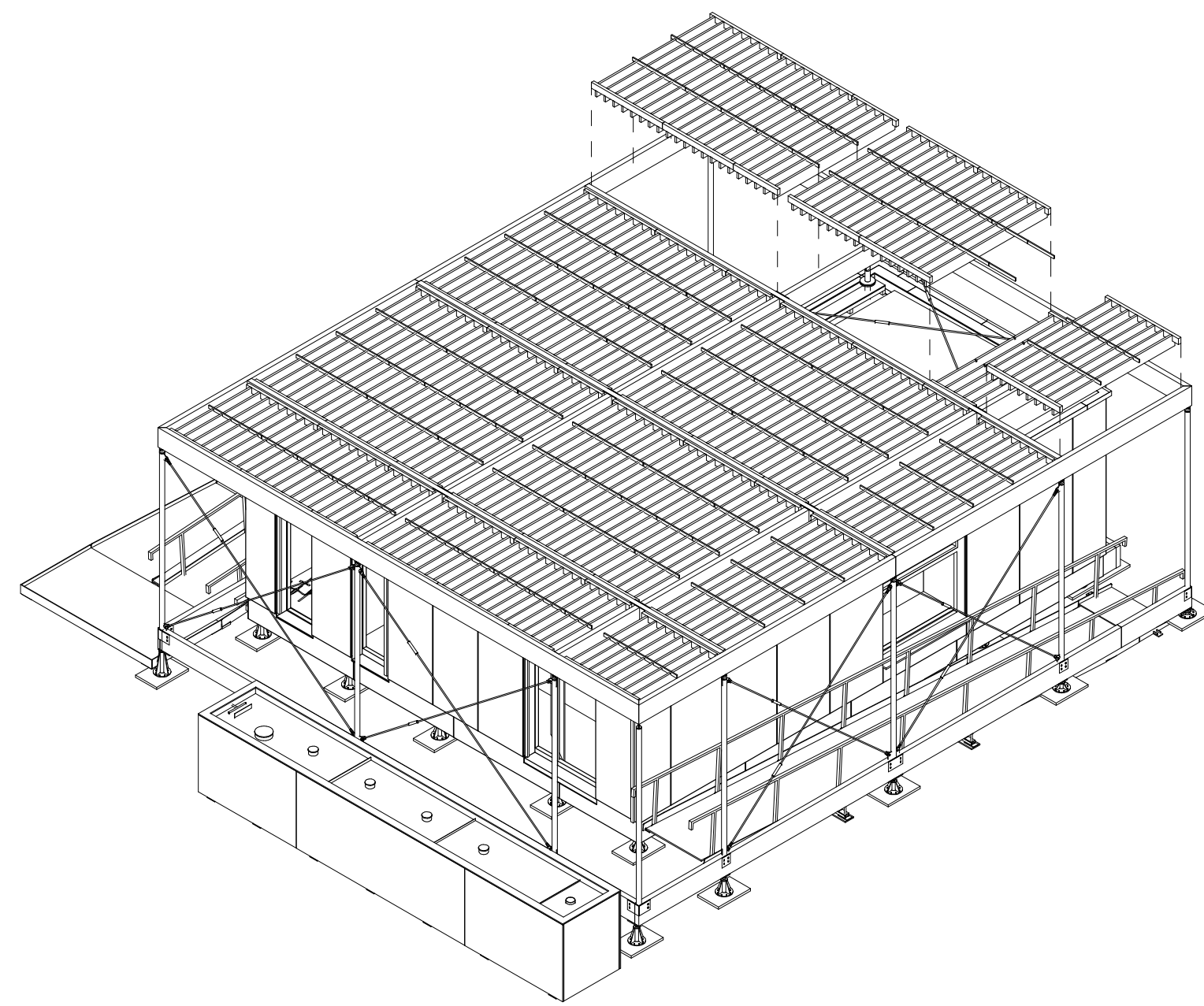


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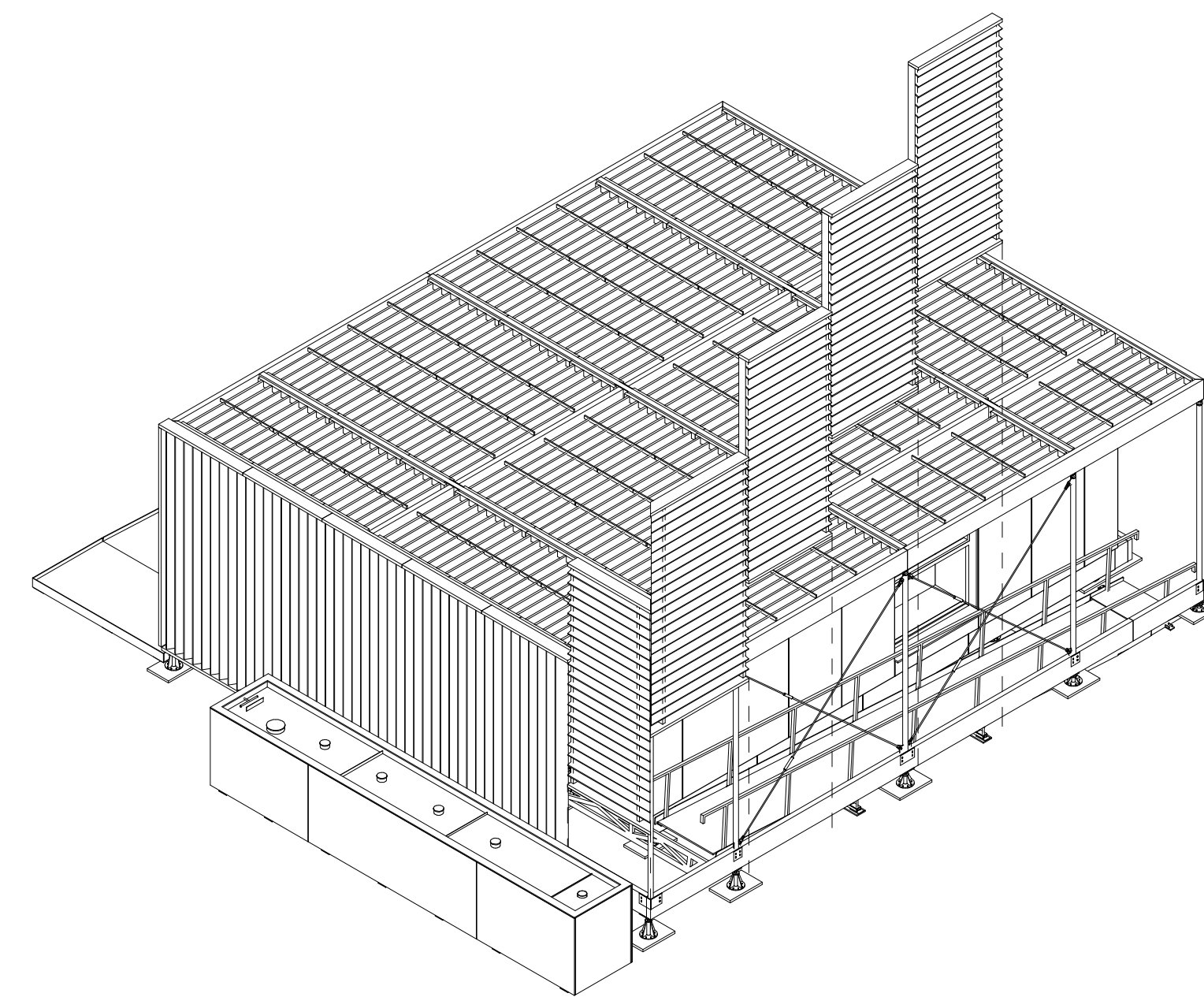
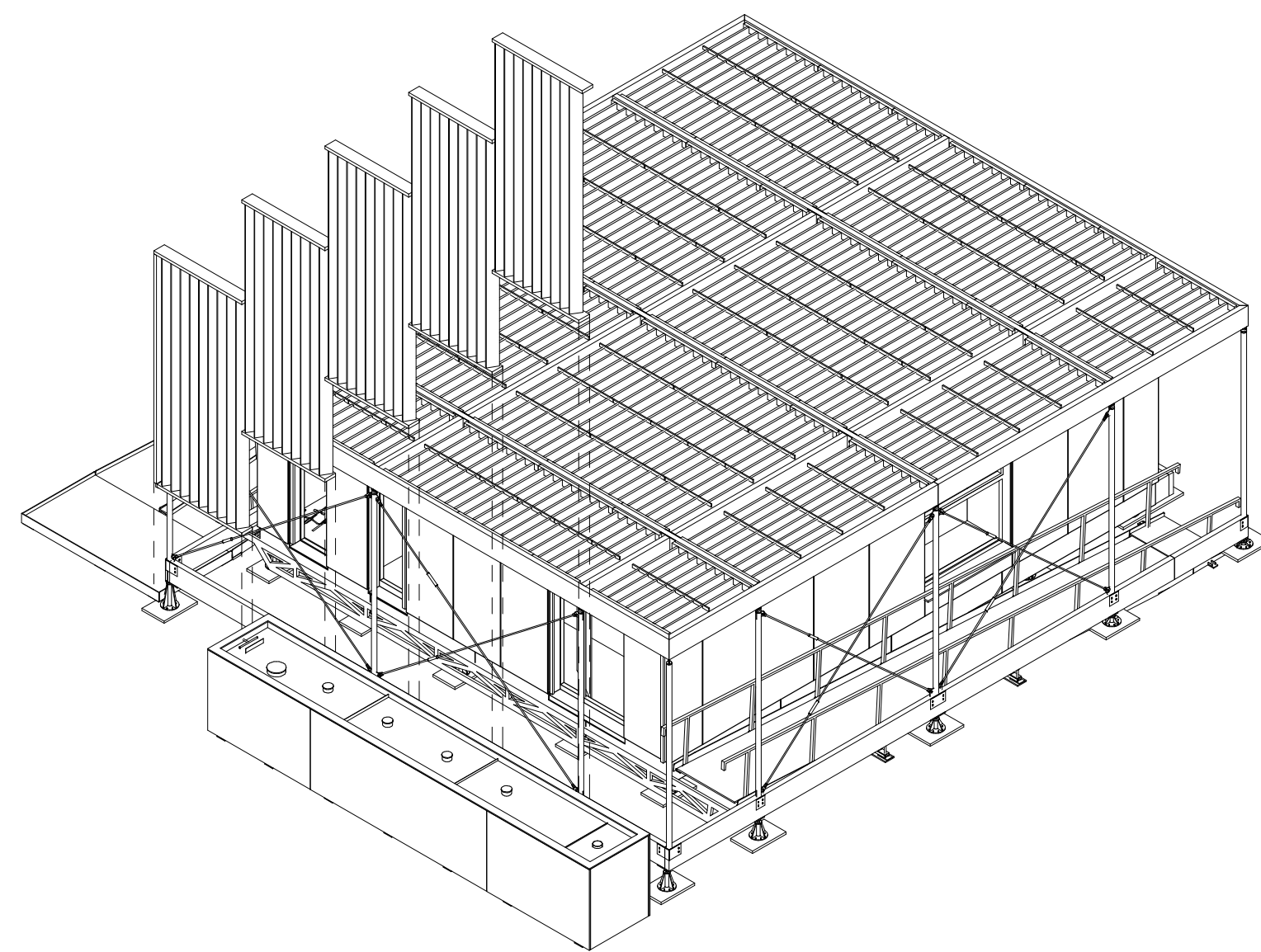
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**C4** ASSEMBLY SEQUENCE 38



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