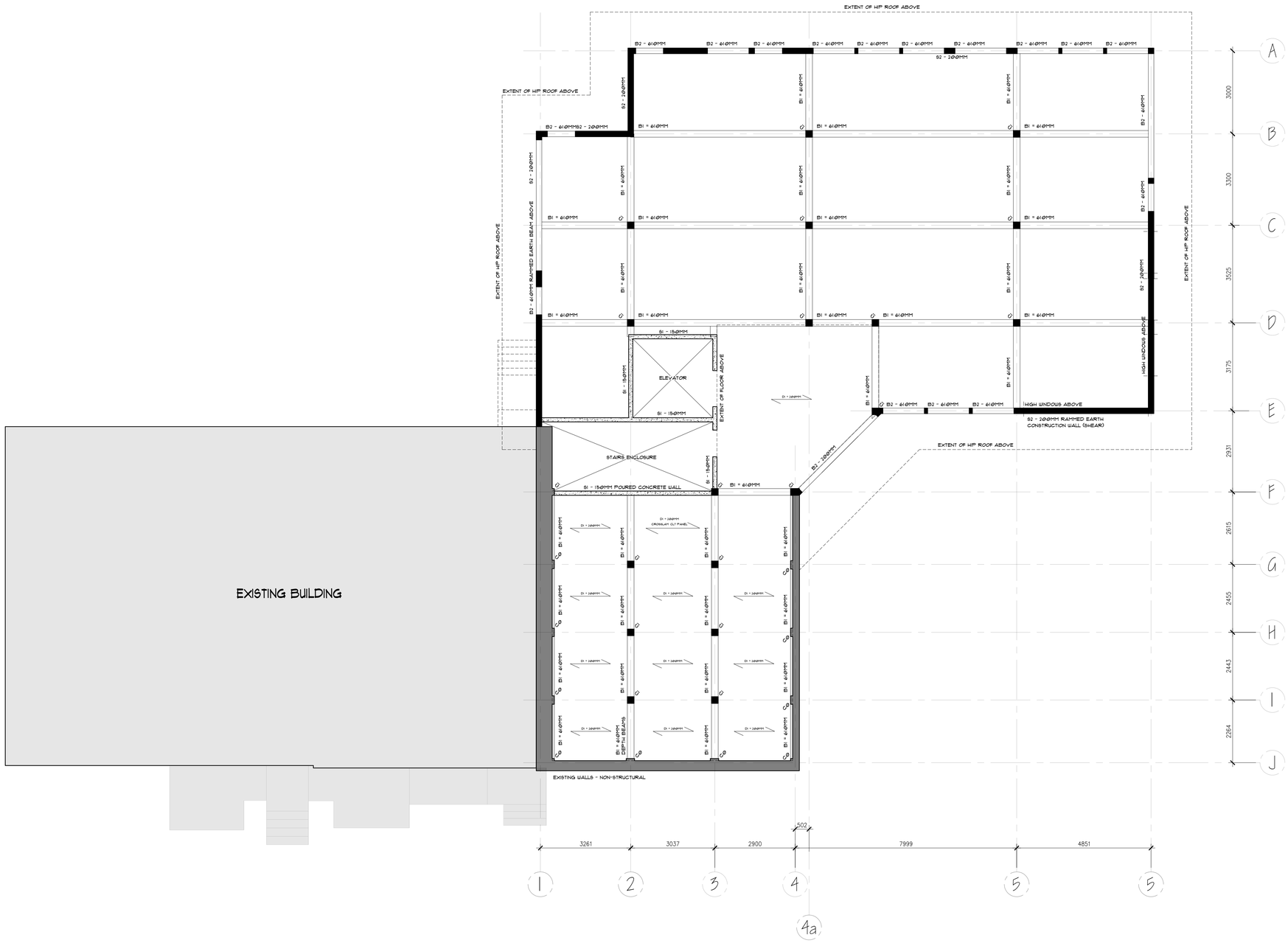
TERRA

ARCH34231 - STUDIO 6
Midterm Presentation
Raissa Menezes Siqueira
Justin Loucks
Sheridan | Architecture



CONSTRUCTION NORTH	TRUE NORTH

LEGEND AND NOTES

- EXTENT OF FLOOR ABOVE
- DECK SPAN
- C@ EXISTING COLUMNS
- C1 241 X 241 TALL SOLID WOOD COLUMNS
- EXISTING WALL (NON-STRUCTURAL)
- B1 - 150MM POURED CONCRETE WALL
- B2 - 200MM RAMMED EARTH WALL (SHEAR)
- GLUE LAM WOOD BEAM B1 - 610MM
- RAMMED EARTH BEAM ABOVE B2 - 200MM

HEAVY TIMBER CONSTRUCTION

FLOOR TO FLOOR HEIGHT: 4500MM

TOTAL TRIBUTARY AREA IS THE SUMMED AREA OF THE ROOF AND ALL FLOORS SUPPORTED BY THE COLUMN

1. COLUMNS
LARGEST AREA SUPPORTING SECOND FLOOR AND ROOF: 21M2
LARGEST AREA SUPPORTING ONLY ROOF: 30M2
C@ = EXISTING COLUMN
C1 = TALL SOLID WOOD 241 X 241 MM

2. CROSS LAMINATED WOOD DECKING
LARGEST SPAN: 8M

D1 = 200MM CROSSLAM CLT PANEL

3. GLUE LAMINATED WOOD BEAMS
LARGEST SPAN: 8M
B1 = 610MM DEPTH BEAMS
B2 = 610MM RAMMED EARTH BEAM ABOVE

4. WALLS
B1 = 150MM POURED CONCRETE WALL
B2 = 200MM RAMMED EARTH CONSTRUCTION WALL (SHEAR)

NUMBER:	DATE:	DESCRIPTION:

ASSOCIATION:

Sheridan Architecture
4180 DUKE OF YORK BOULEVARD
MISSISSAUGA, ON L5B 0G5

COMPANY NAME AND LOGO

RMS DESIGN

PROJECT NAME AND LOCATION:

THE TERRA PLACE
NATURE'S MILLWORKS
4575 BRUCE ROAD, #1
PAISLEY, ONTARIO

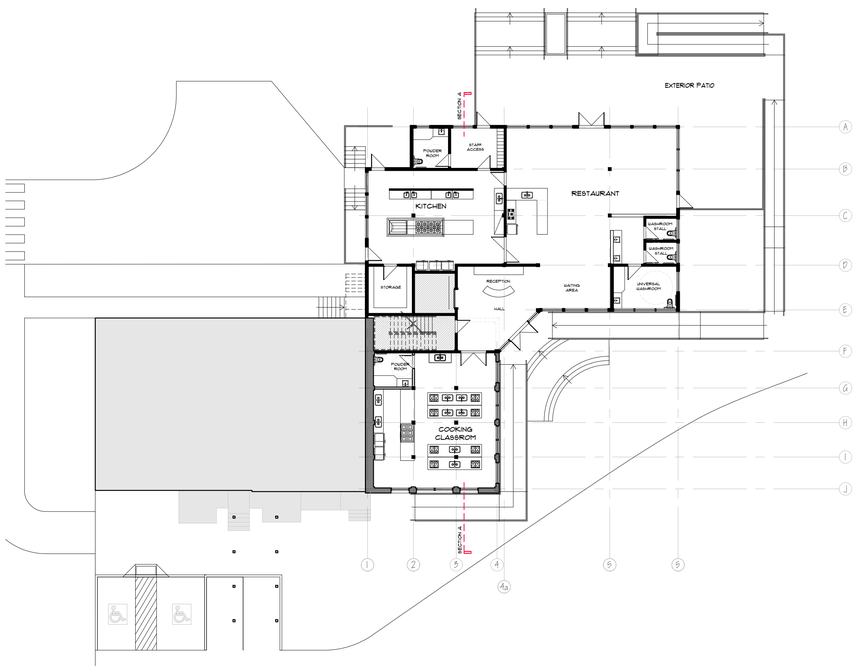
DRAWN BY:	CHECK BY:
RAISSA MENEZES SIQUEIRA	JUSTIN LOUCKS

SHEET TITLE:

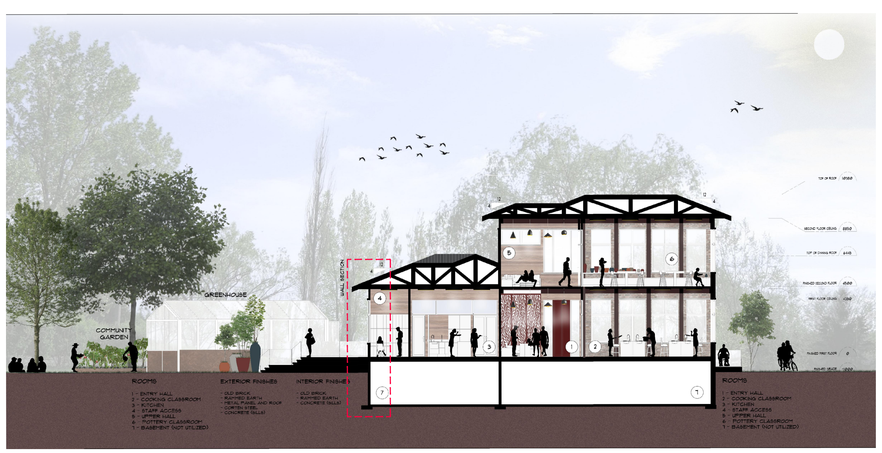
BUILDING SYSTEM: STRUCTURE

SCALE:	SHEET NUMBER:
1:75	S101

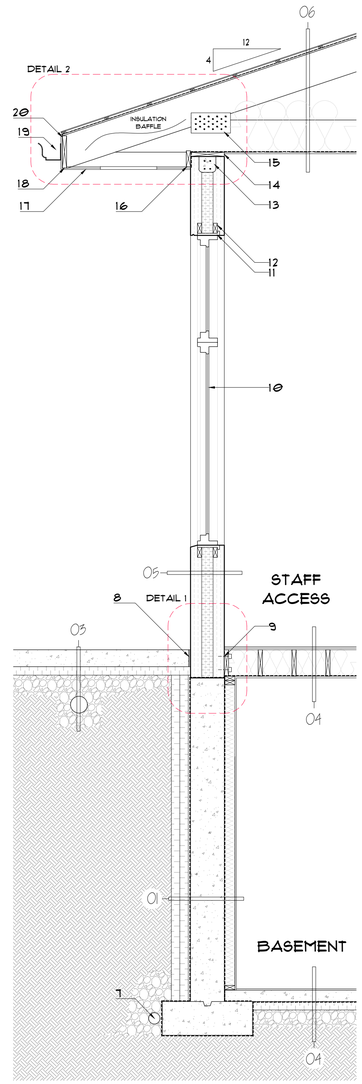
REVISION:	DATE DRAWN:
001	7/24/2022



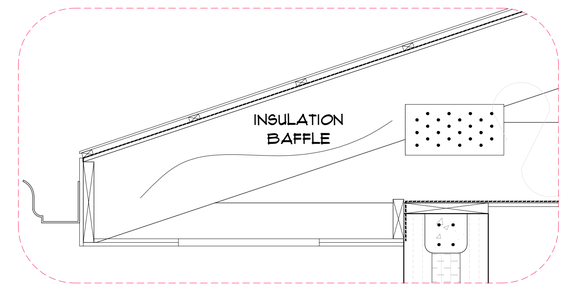
REF. PLAN
SCALE 1:200



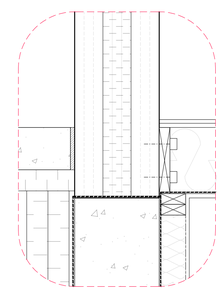
SECTION AA
SCALE 1:200



WALL SECTION
SCALE 1:25



DETAIL 2 - WALL AT TRUSS W/ SOFFITED EAVE
SCALE 1:10



DETAIL 1 - EXTERIOR WALL AT FOUNDATION
SCALE 1:10

01 - FOUNDATION WALL
2X75MM SEMI RIGID INSULATION
DRAINAGE BOARD
DAMPPROOFING
300MM CONCRETE WALL
6MIL POLY. VAPOUR BARRIER
89 WOOD STUD @ 400 O.C. W/
89 BATT INSULATION
13 G.W.B.

02 - BASEMENT FLOOR
13 PLYWOOD SUBFLOOR
100MM CONCRETE SLAB
VAPOUR RETARDER
75MM RIGID INSULATION
150MM COMPACTED GRANULAR A
UNDISTURBED SOIL

03 - EXTERIOR PORCH ON GRADE
150MM CONCRETE SLAB ON GRADE
75MM SEMI RIGID INSULATION
COMPACTED GRANULAR A
150MM PERFORATED PIPE
COMPACTED GRANULAR A
UNDISTURBED SOIL

04 - TIMBER FLOORING
13 FINISHED FLOOR
15 PLYWOOD SUBFLOORING
284 FLOOR JOIST @300 O.C. W/
284 BATT INSULATION
6MIL POLY. VAPOUR BARRIER
13 G.W.B.

05 - RAMMED EARTH WALL
150 RAMMED EARTH
150 RECYCLED COMMERCIAL
GRADE POLYISO FOAM
150 RAMMED EARTH

06 - ROOF TRUSS
METAL SHINGLES
38 X 19 STRAPPING @ 400 O.C.
ICE AND WATER SHIELD
FELT PAPER
15.5 OSB @-2 ROOF SHEATHING
38X286 ROOF TRUSSES CHORDS
300 BLOWN CELLULOSE INSULATION
6 MIL POLY. VAPOUR BARRIER
13 G.W.B.

7 - WEEPING TILE

8 - COMPRESSIBLE FILLER

9 - LEDGER WITH EPOXIED ANCHOR BOLTS

10 - HIGH EFFICIENCY WINDOW

11 - PLYWOOD BUCK

12 - ROUGH OPENINGS FRAMED WITH COMPOSITE WOOD

13 - REINFORCED CONCRETE BOND BEAM

14 - TIMBER TOP PLATE TIED DOWN

15 - PRESSED METAL GUSSET PLATE

16 - 38 X 140 LEDGER

17 - VENTED ALUMINUM SOFFIT
(13 FINISH + 13 OSB SHEATHING)

18 - 38 X 286 FASCIA BOARD

19 - METAL GUTTER

20 - FASCIA FINISH

CONSTRUCTION NORTH	TRUE NORTH

NUMBER	DATE	DESCRIPTION

ASSOCIATION

Sheridan Architecture
4180 DUKE OF YORK BOULEVARD
MISSISSAUGA, ON L5B 0G5

COMPANY NAME AND LOGO

RMS DESIGN

PROJECT NAME AND LOCATION

THE TERRA PLACE
NATURE'S MILLWORKS
4979 BRUCE ROAD, #1
PAISLEY, ONTARIO

DRAWN BY:	CHECK BY:
RAISSA MENEZES SIQUEIRA	JUSTIN LOUCKS

SHEET TITLE

BUILDING SECTION
WALL SECTION
DETAILS

SCALE	SHEET NUMBER:
1:75	A301
REVISION: 001	DATE DRAWN: 7/31/2022

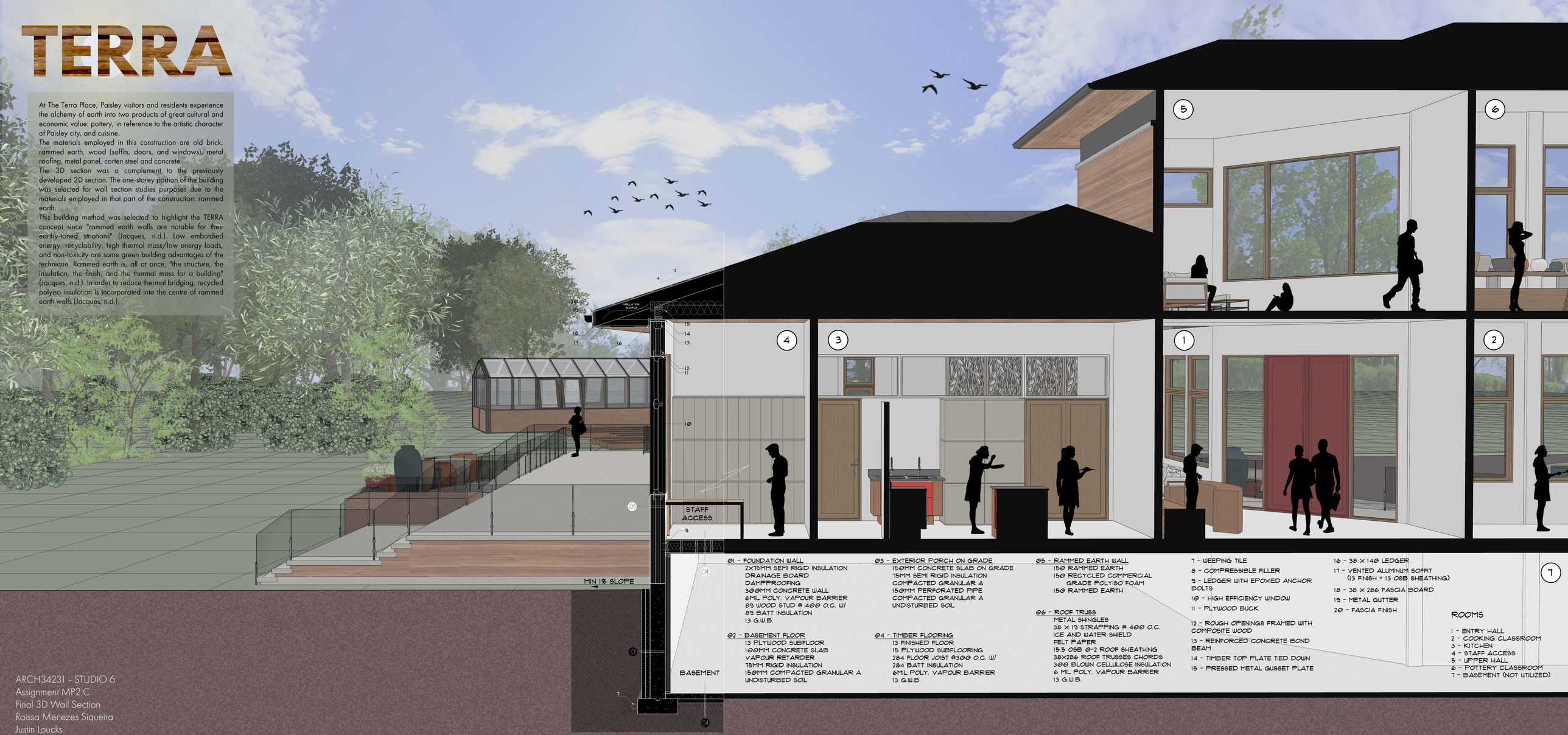
TERRA

At The Terra Place, Paisley visitors and residents experience the alchemy of earth into two products of great cultural and economic value: pottery, in reference to the artistic character of Paisley city, and cuisine.

The materials employed in this construction are old brick, rammed earth, wood (soffits, doors, and windows), metal roofing, metal panel, corten steel and concrete.

The 3D section was a complement to the previously developed 2D section. The one-storey portion of the building was selected for wall section studies purposes due to the materials employed in that part of the construction: rammed earth.

This building method was selected to highlight the TERRA concept since "rammed earth walls are notable for their earthy-toned striations" (Jacques, n.d.). Low embotdied energy, recyclability, high thermal mass/low energy loads, and non-toxicity are some green building advantages of the technique. Rammed earth is, all at once, "the structure, the insulation, the finish, and the thermal mass for a building" (Jacques, n.d.). In order to reduce thermal bridging, recycled polyiso insulation is incorporated into the centre of rammed earth walls (Jacques, n.d.).



01 - FOUNDATION WALL
2X15MM SEMI RIGID INSULATION
DRAINAGE BOARD
DAMPPROOFING
300MM CONCRETE WALL
6MIL POLY. VAPOUR BARRIER
89 WOOD STUD @ 400 O.C. W/
89 BATT INSULATION
13 G.W.B.

02 - BASEMENT FLOOR
13 PLYWOOD SUBFLOOR
100MM CONCRETE SLAB
VAPOUR RETARDER
75MM RIGID INSULATION
150MM COMPACTED GRANULAR A
UNDISTURBED SOIL

03 - EXTERIOR PORCH ON GRADE
150MM CONCRETE SLAB ON GRADE
75MM SEMI RIGID INSULATION
COMPACTED GRANULAR A
150MM PERFORATED PIPE
COMPACTED GRANULAR A
UNDISTURBED SOIL

04 - TIMBER FLOORING
13 FINISHED FLOOR
15 PLYWOOD SUBFLOORING
284 FLOOR JOIST @300 O.C. W/
284 BATT INSULATION
6MIL POLY. VAPOUR BARRIER
13 G.W.B.

05 - RAMMED EARTH WALL
150 RAMMED EARTH
150 RECYCLED COMMERCIAL
GRADE POLYISO FOAM
150 RAMMED EARTH

06 - ROOF TRUSS
METAL SHINGLES
38 X 19 STRAPPING @ 400 O.C.
ICE AND WATER SHIELD
FELT PAPER
15.5 OSB @-2 ROOF SHEATHING
38X286 ROOF TRUSSES CHORDS
300 BLOWN CELLULOSE INSULATION
6 MIL POLY. VAPOUR BARRIER
13 G.W.B.

7 - WEEPING TILE
8 - COMPRESSIBLE FILLER
9 - LEDGER WITH EPOXIED ANCHOR BOLTS
10 - HIGH EFFICIENCY WINDOW
11 - PLYWOOD BUCK
12 - ROUGH OPENINGS FRAMED WITH COMPOSITE WOOD
13 - REINFORCED CONCRETE BOND BEAM
14 - TIMBER TOP PLATE TIED DOWN
15 - PRESSED METAL GUSSET PLATE
16 - 38 X 140 LEDGER
17 - VENTED ALUMINUM SOFFIT (13 FINISH + 13 OSB SHEATHING)
18 - 38 X 286 FASCIA BOARD
19 - METAL GUTTER
20 - FASCIA FINISH

ROOMS

1 - ENTRY HALL
2 - COOKING CLASSROOM
3 - KITCHEN
4 - STAFF ACCESS
5 - UPPER HALL
6 - POTTERY CLASSROOM
7 - BASEMENT (NOT UTILIZED)

ARCH34231 - STUDIO 6
Assignment MP2.C
Final 3D Wall Section
Raissa Menezes Siqueira
Justin Loucks