

# matt bachardy building design

ASSOCIATE MEMBER OF THE AMERICAN INSTITUTE OF ARCHITECTS

P.O. BOX 2669 WIMBERLEY, TEXAS 78676

512-755-4214

www.mattbachardydesign.com info@mattbachardydesign.com

## 1104 PRIVATE RESIDENCE PROGRAM DESCRIPTION

My clients are both music professors, semi-retired with no children. They desired a Mid-Century Modern inspired residence of modest size. We searched for a suitable site for several months that provided privacy and seclusion, yet convenient to Wimberley and San Marcos.

The site selected is densely wooded, gently sloped from north to south. The design solution weaves the buildings around the large oaks and understory growth that dominate the site. Only 2 trees were removed for construction.

A limited budget dictated simple shapes and a limited palette of standard off the shelf materials and components. The goal was to design and build a "well-appointed series of simple boxes".

The result is a very unique, comfortable and efficient home.

## **GENERAL DATA:**

LOCATION: 5-acre wooded site located between Wimberley and San Marcos, Texas

TOTAL PROJECT AREA: 3,586 SQ. FT. HEATED AREA: 1,880 SQ. FT.

2 Bedrooms, one separated from the main living area to serve as a music studio / guest suite.

2 full baths.

Large covered porch with outdoor kitchen.

Great room including kitchen and dining.

Carport with heated mechanical / storage room and screen wall.

Extensive outdoor terraces, patios, planters and walled garden at the master bath.

## **SITE PLANNING:**

Permanent concrete benchmarks were set in the ground around the building site using GPS survey equipment. These benchmarks were used to align the building along an exact east-west solar orientation for the site's location. The benchmarks also provided exact elevation control with the project's numerous level changes in relation to the site's existing grade characteristics.

#### **DESIGN FEATURES:**

The site's attributes determined the floor plan layout. Sight lines to the north, east and south assure a dramatic view of the surrounding forest from all of the major rooms. The dense forest provides privacy from the neighboring homes. During the temperate times of the year, prevailing southeast breezes can be directed to cool the home by opening windows and sliding doors on the south side and opening clearstory windows on the north side, creating a thermosiphon effect.

The home is designed for low maintenance: Exterior materials consist of concrete, painted Hardi Panel board & batten siding, galvalume standing seam roof and glass

Interior finishes consist of diamond polished concrete floors, low VOC painted trim, doors and drywall, tile in the baths, granite counter tops in kitchen. One area that we splurged on is the kitchen / living area. High-end cabinetry with Wolf / Sub Zero appliances were specified. We also deleted the gas fired heater / stove in order to install a Big Ass Fan, which moves a large volume of air very quietly.

Exterior doors & windows: Vinyl clad awning, casement and fixed windows; clad sliding doors.

Careful consideration was given to the placement of all windows and doors to provide unimpeded views and promote natural ventilation of the house.

### **STRUCTURAL COMPONENTS:**

Foundation: Monolithic concrete slab-on-grade.

Exterior walls: 2x6 wood framing. Interior walls: 2x4 wood framing.

Structural beams: Glue laminated wood beams.

Roof structure: 12" engineered I Joists.

Roof decking: 5/8" plywood with Ice & Water Shield membrane. Diagonal lath strips with continuous low / high venting provide an isolated ventilation space between the roof

deck and standing seam roof panels. Insulation: Full thickness, spray foam.

#### **MECHANICAL SYSTEMS:**

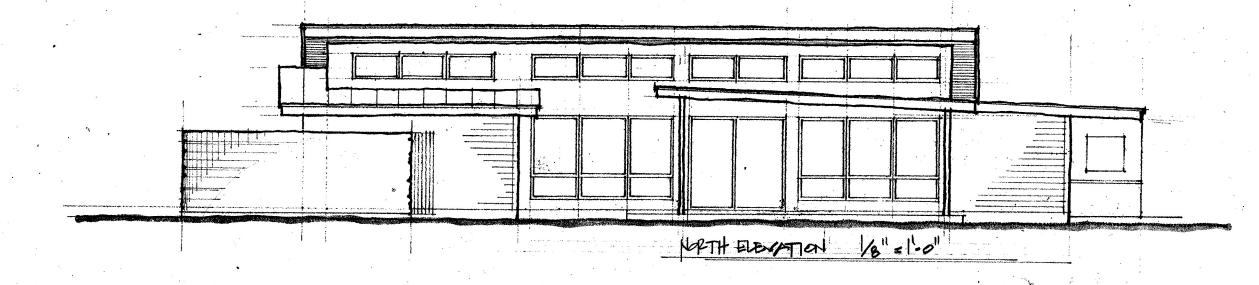
Air Conditioning system:

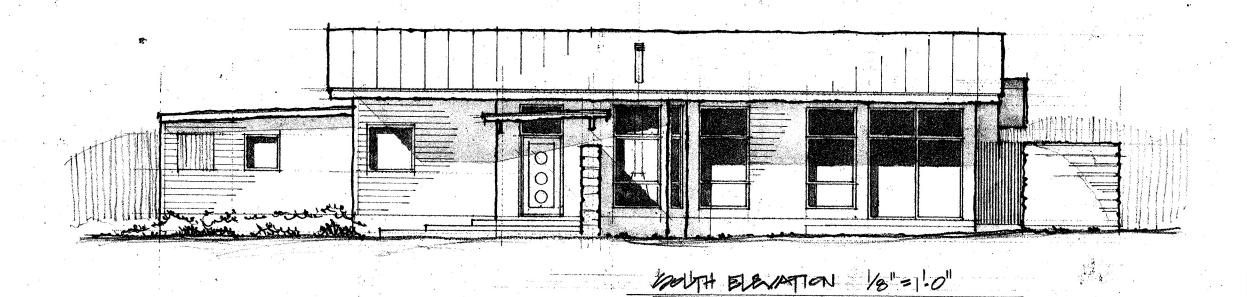
- (1) Zone American Standard 16.0 SEER A/C / 90% propane gas fired forced air heating.
- (1) Zone Mitsubishi mini spilt heat pump at the Studio

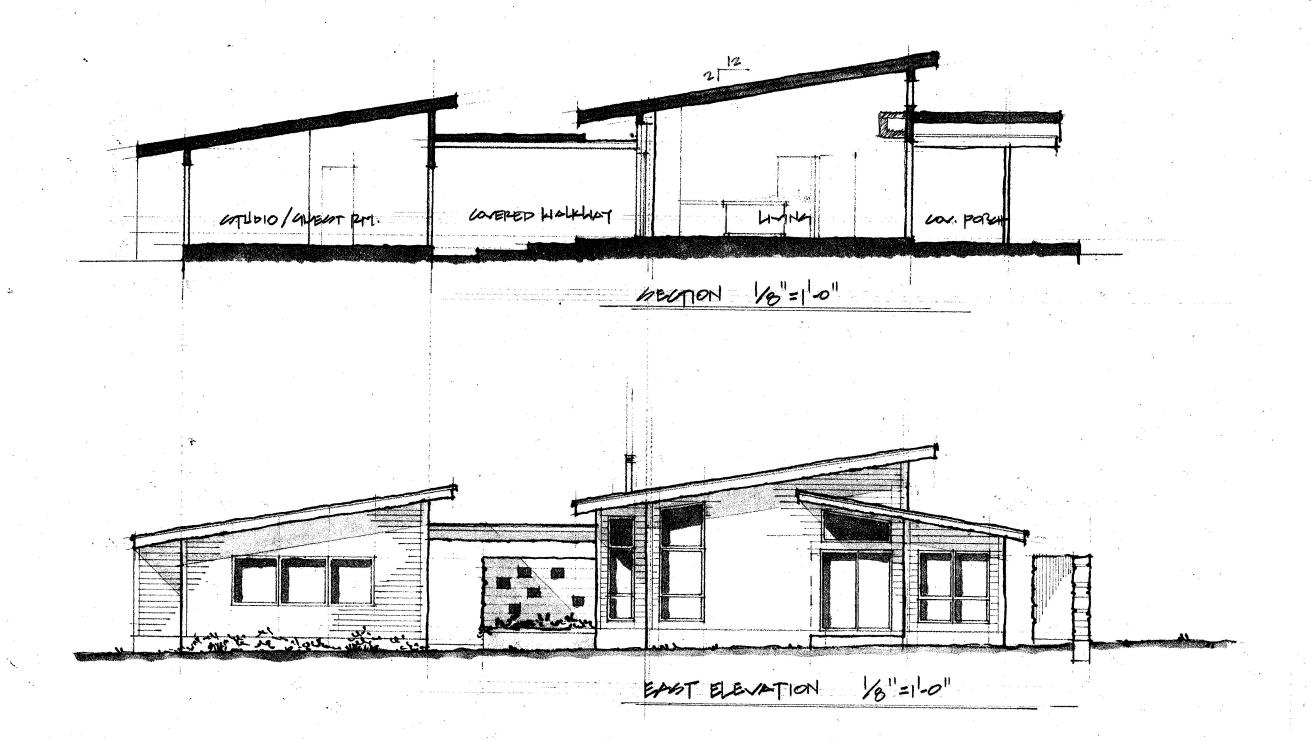
Water heating:

Power vented high efficiency 50 gallon Rheem water heater







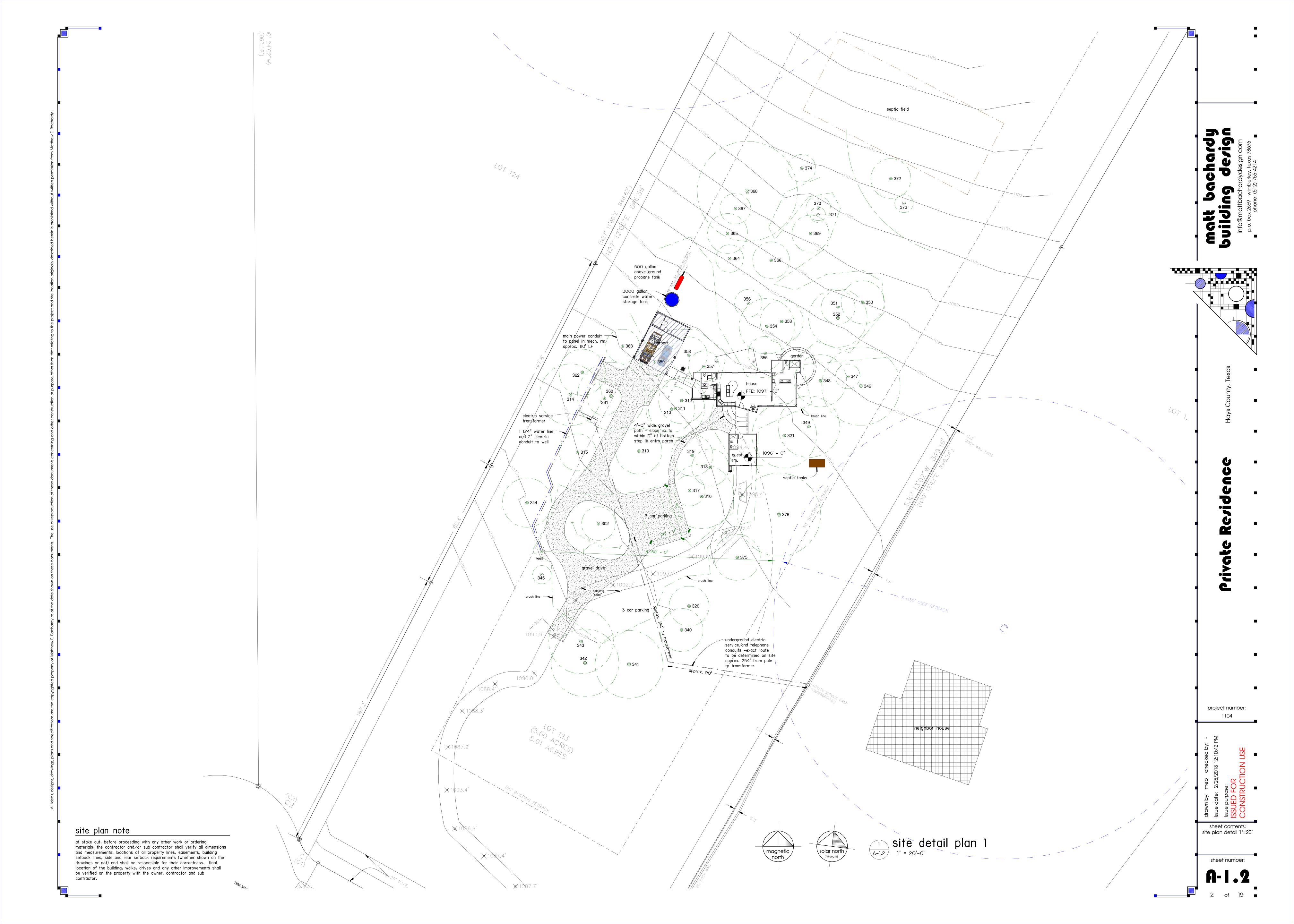


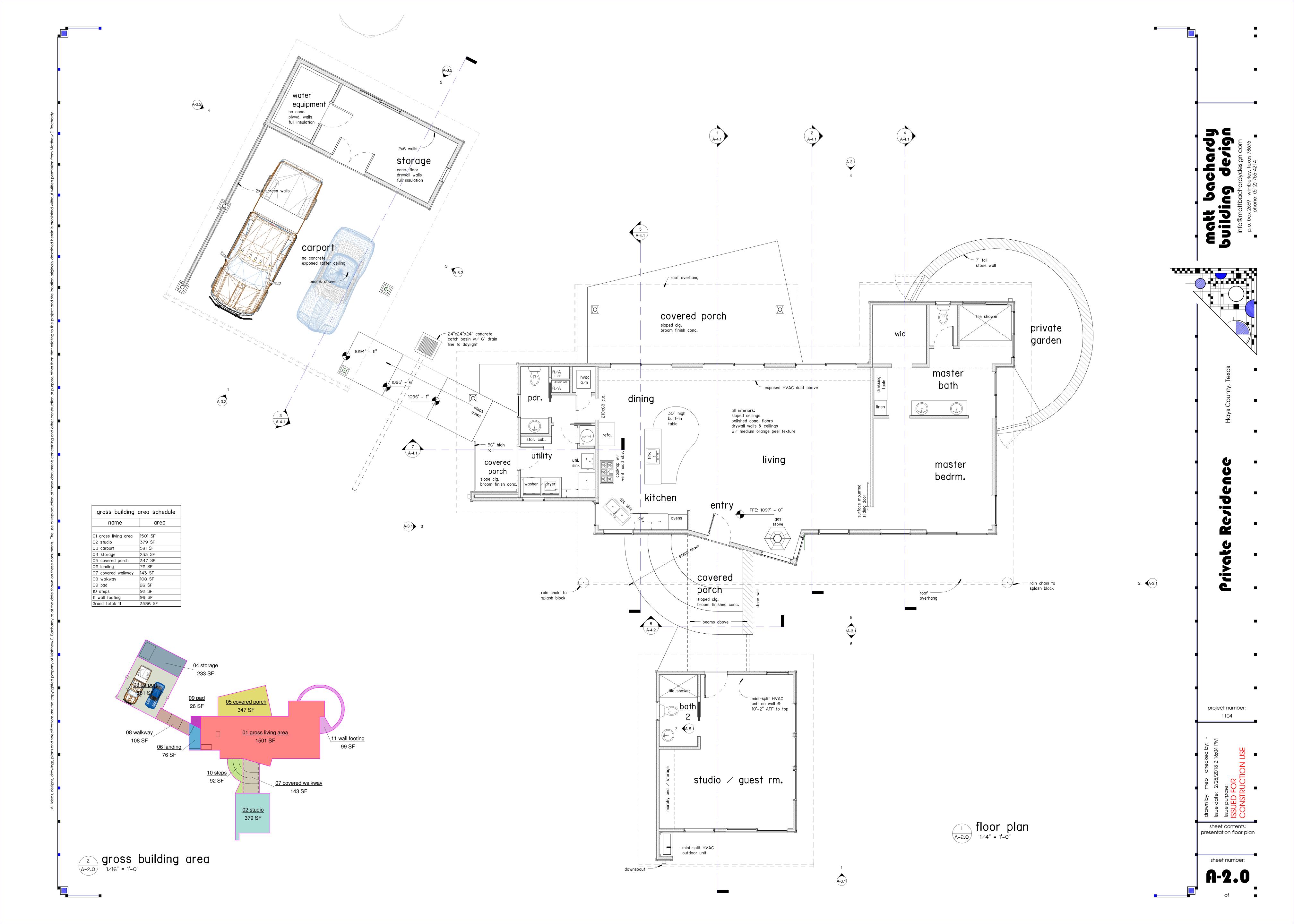


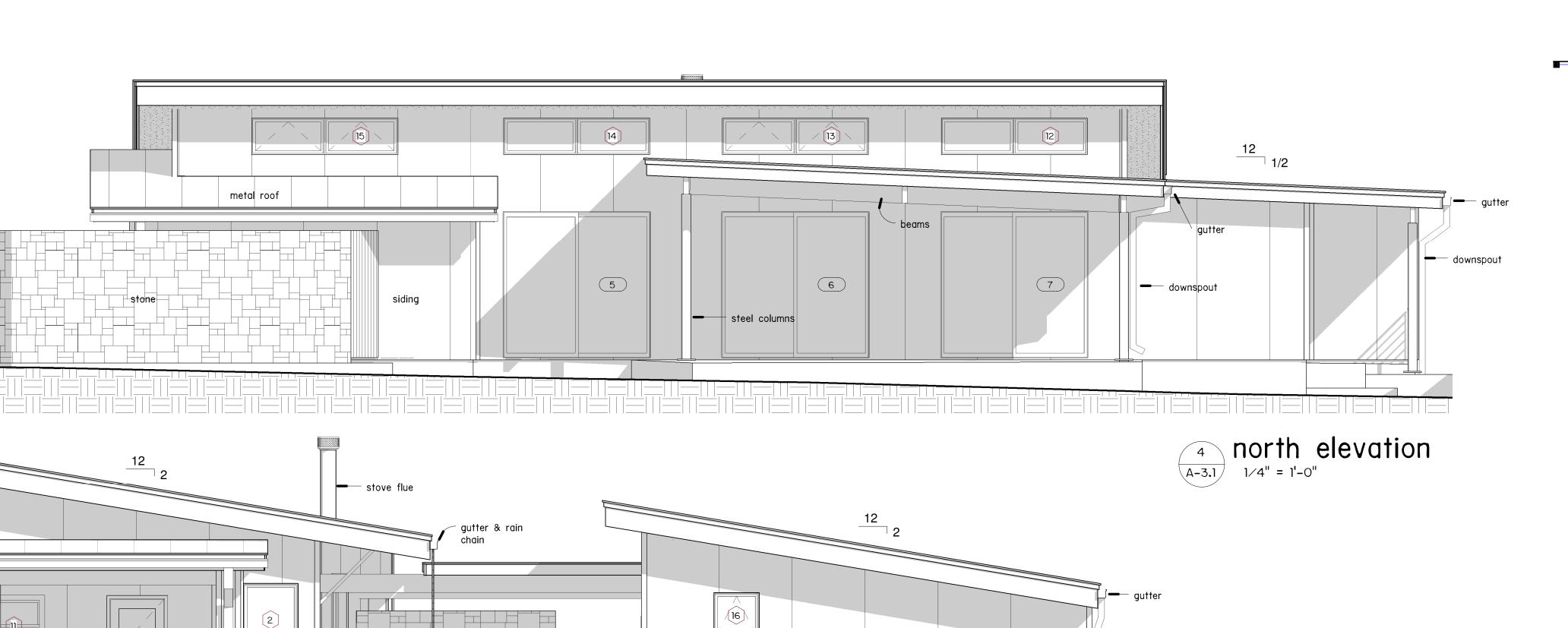












door schedule				
mark	width	height	function	comments
1	3' - 0"	8' - 0"	Exterior	
2	8' - 0"	8' - 0"	Exterior	
3	6' - 0"	8' - 0"	Exterior	
4	6' - 0"	6' - 8"	Exterior	
5	8' - 0"	8' - 0"	Exterior	
6	8' - 0"	8' - 0"	Exterior	
7	8' - 0"	8' - 0"	Exterior	
8	3' - 0"	6' - 8"	Exterior	RH 1/2 glass
9	3' - 0"	6' - 8"	Exterior	
10	8' - 0"	6' - 8"	Exterior	
11	5' - 0"	6' - 8"	Exterior	
12	3' - 0"	6' - 8"	Exterior	
13	2' - 0"	6' - 8"	Interior	
14	2' - 8"	6' - 8"	Interior	
15	2' - 6"	6' - 8"	Interior	
16	2' - 0"	6' - 8"	Interior	
17	3' - 6"	7' - 6"	Interior	surface slider w/ overhead track
18	2' - 6"	6' - 8"	Interior	
19	2' - 6"	6' - 8"	Interior	
20	3' - 0"	7' - O"	Exterior	wood gate
21	3' - 0"	7' - 0"	Exterior	wood gate

window schedule

level 2 - guest room 5' - 6" level 2 - guest room 2' - 8" level 2 - guest room 2' - 8"

level 2 - guest room 2' - 8" level 2 - guest room 2' - 8"

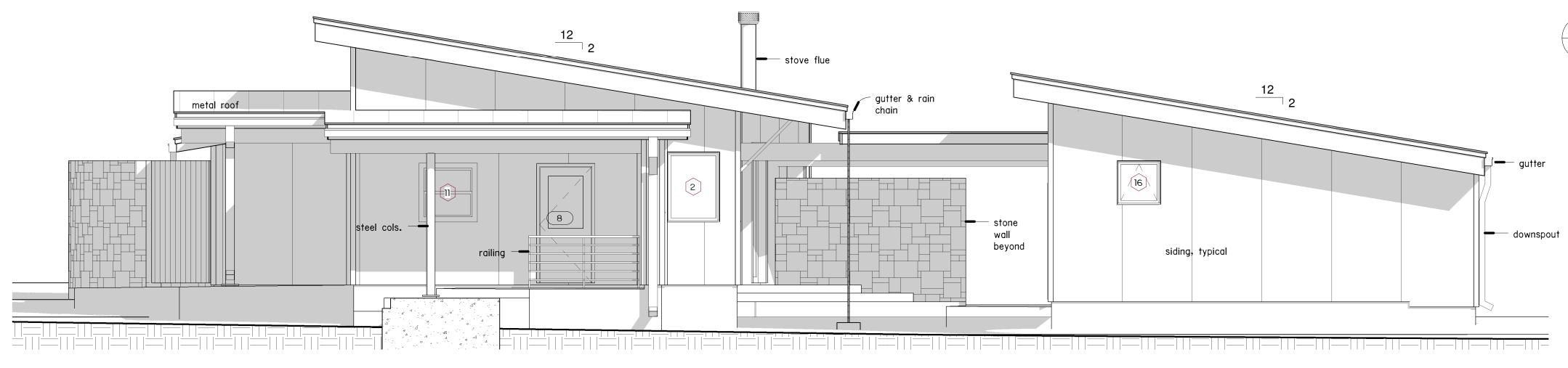
level 3 - carport 4' - 0"
level 3 - carport 8' - 0"

mark width height operation

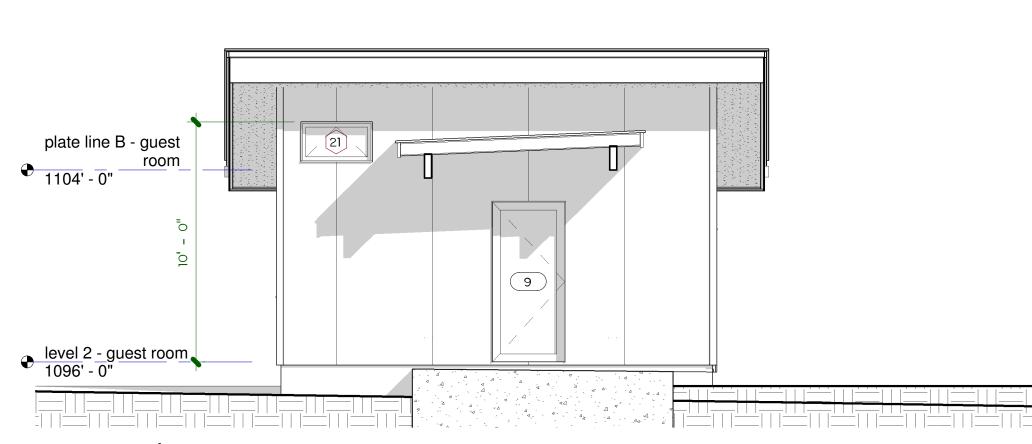
2' - 0" 4' - 0" single hung 6' - 0" 2' - 0" slider

Grand total: 21

3' - 0" 4' - 0" fixed over awning level 1









north elevation – guest room

1/4" = 1'-0"

5 south elevation - house



before proceeding with any other work or ordering materials, the contractor and/or general contractor shall verify all dimensions, measurements and locations of building components, their interrelationship at the building site and shall be responsible for their correctness.

south elevation
1/4" = 1'-0"

ค-3.1

sheet contents: exterior elevations house

project number:

sheet number:

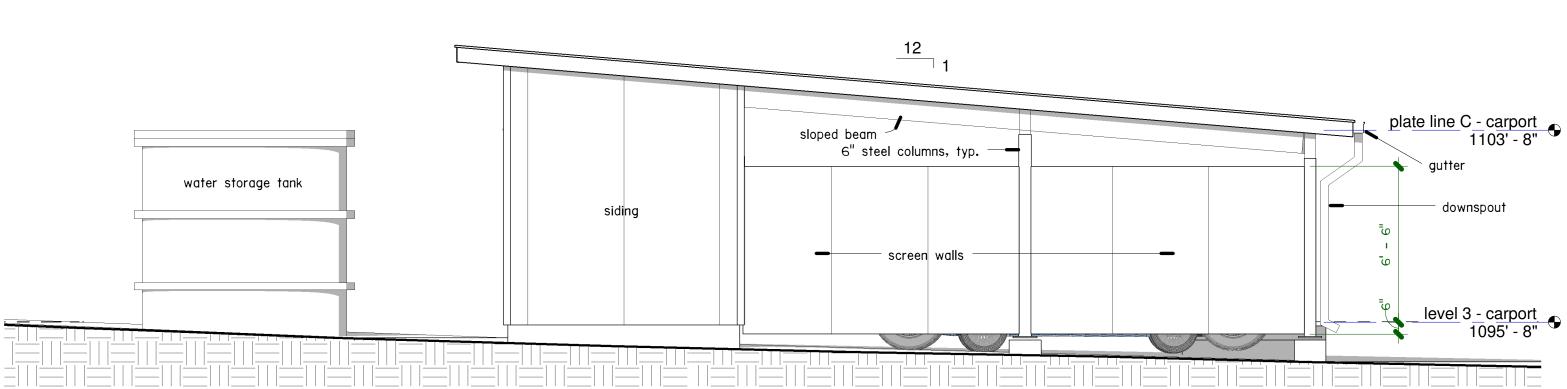
sheet contents:

exterior elevations carport

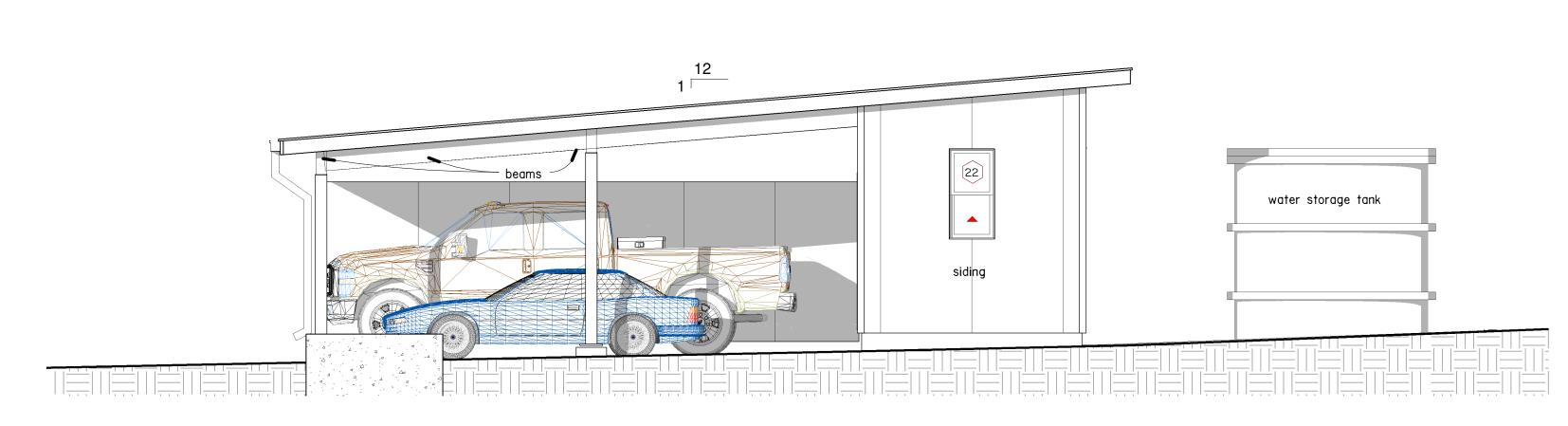
sheet number: **A-3.2** 

typical roof framing over carport:

2x6 rafters, 5/8" plywood decking,
ice & water shield underlayment,
galvalume metal roof exposed rafters — no soffit @ carport ceiling 6" steel columns — - 2x6 walls storage 5 section B-2 1/4" = 1'-0"

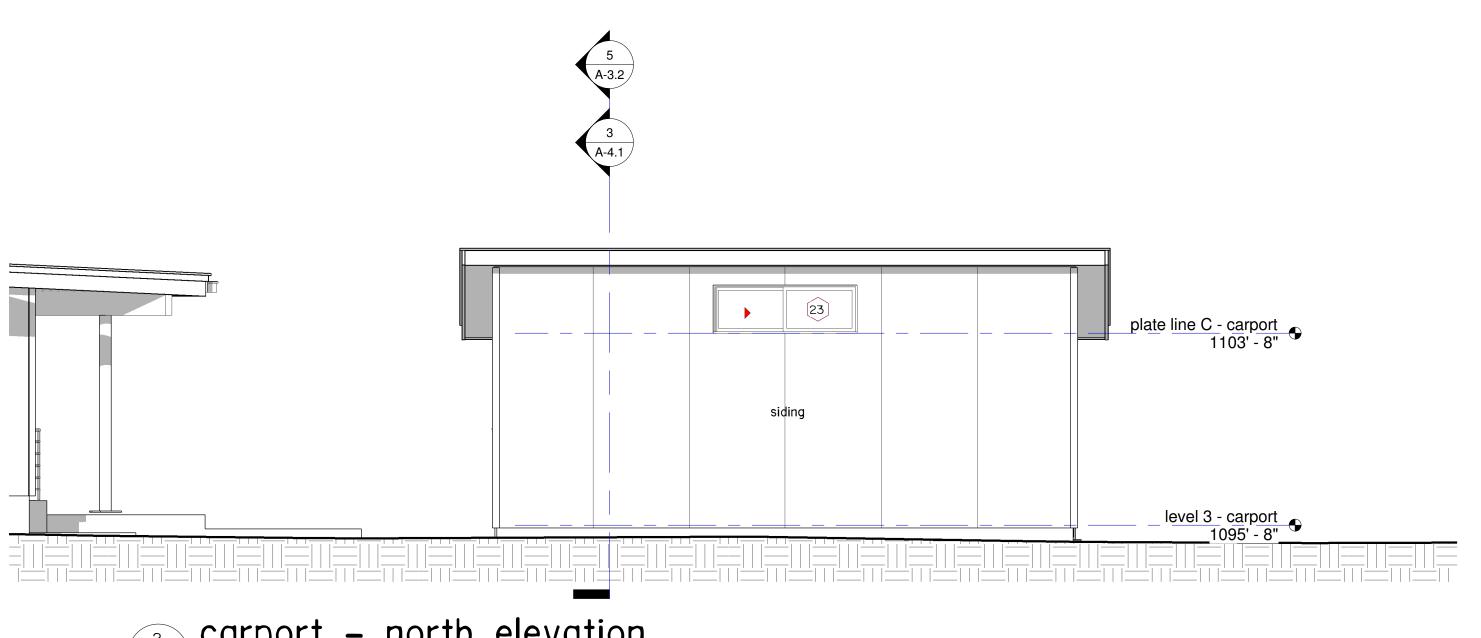


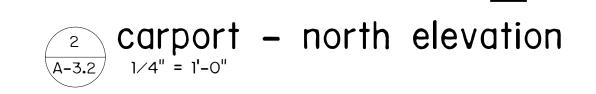
carport - west elevation

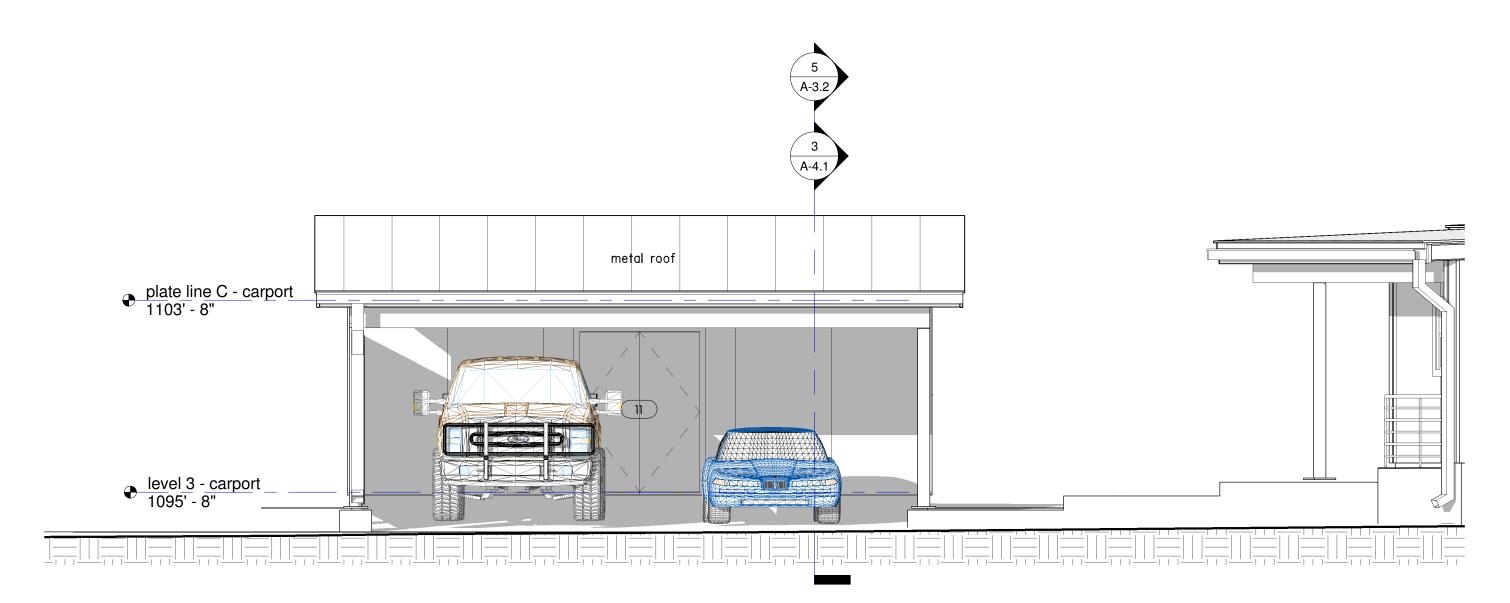


carport - east elevation

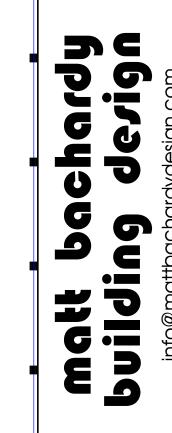
before proceeding with any other work or ordering materials, the contractor and/or general contractor shall verify all dimensions, measurements and locations of building components, their interrelationship at the building site and shall be responsible for their correctness.

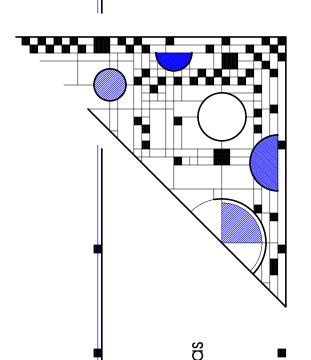






carport - south elevation





FICE Hays County

Private Resident

project number:

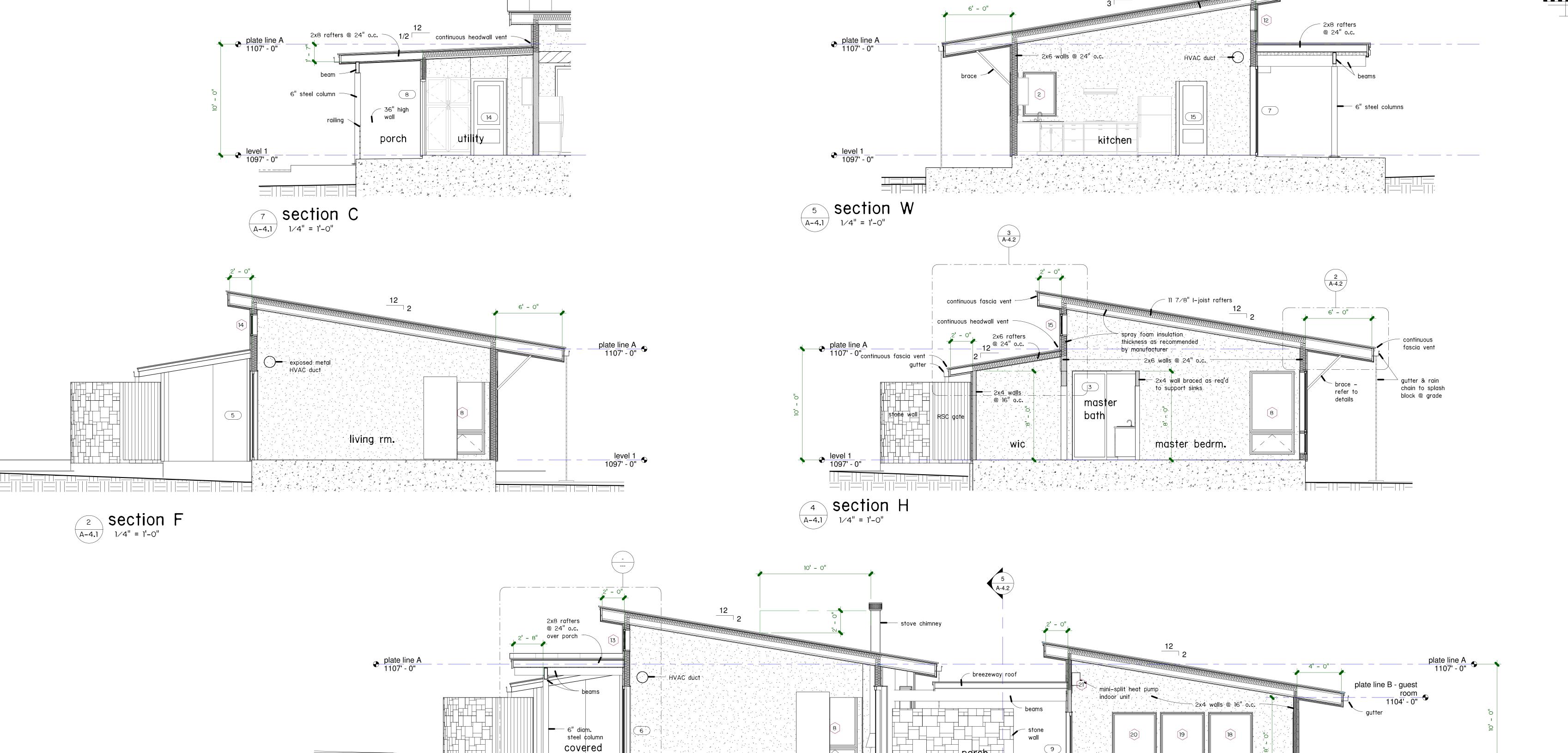
drawn by: meb checked by: issue date: 2/25/2018 12:21:46 PM
issue purpose:
ISSUED FOR
CONSTRUCTION USE

building sections

sheet contents:

level 2 - guest room 1097' - 0"

sheet number:



living

level 2 - guest room
1096' - 0"

11 7/8" I-joist rafters spacing per manufacturer

guest rm.

typical roof framing over carport: 2x6 rafters, 5/8" plywood decking, ice & water shield underlayment, galvalume metal roof

section D
1/4" = 1'-0"

storage

exposed rafters -

no soffit @ carport ceiling

6" steel columns —

plate line C - carport 1103' - 8"

3 section B
1/4" = 1'-0"

before proceeding with any other work or ordering materials, the contractor and/or general contractor shall verify all dimensions, measurements and locations of building components, their interrelationship at the building site and shall be responsible for their correctness.