CITY OF AUSTIN
Development SERVICES DEPARTMENT

Residential Review – One Texas Center
505 Barton Springs Road, Austin, TX 78704; (512) 978-4000

Residential New Construction and Addition Permit Application

To complete this form electronically: Open with Internet Explorer, then Click Here to Save and continue.

Property Information

Project Address: 1607 Mohle Drive, Austin, TX 78703	Tax Parcel ID: 118002
Legal Description: Lot 31, summit place, a subdivision in Travis County, Texas, according to the map or plat recorded in volume 3, page 237, of the plat records of Travis County, Texas	
Zoning District: SF-3-NP	Lot Area (sq ft): 8,890.00
Neighborhood Plan Area (if applicable): Windsor Road, Central West Austin Combined NPA	Historic District (if applicable):

Required Reviews

Is project participating in S.M.A.R.T. Housing? Y ■ N
(If yes, attach signed certification letter from NHCD, and signed conditional approval letter from Austin Energy Green Building)

Does project have a Green Building requirement? Y ■ N
(If yes, attach signed conditional approval letter from Austin Energy Green Building)

Is this site within an Airport Overlay Zone? Y ■ N
(If yes, approval through Aviation is required)

Does this site have a septic system? Y ■ N
(If yes, submit a copy of approved septic permit)

Does the structure exceed 3,600 square feet total under roof? Y ■ N (If yes, Fire review is required)

Is this property within 200 feet of a hazardous pipeline? Y ■ N (If yes, Fire review is required)

Is this site located within an Erosion Hazard Zone? Y ■ N
(If yes, EHZ review is required)

Is this property within 150 feet of the 100 year floodplain? Y ■ N (Proximity to floodplain may require additional review time.)

Is there a protected sized tree on this lot or adjacent lot(s)? ■ Y N (If yes, click here for more information on the tree permit process.)

Is this site within the Residential Design and Compatibility Standards Ordinance Boundary Area? (LDC 25-2 Subchapter F) ■ Y N

Does this site currently have: water availability? ■ Y N (If no, contact Austin Water Utility to apply for
wastewater availability? ■ Y N water/wastewater taps and/or service extension request.)

Are there existing water/wastewater infrastructure, appurtenances or existing water/wastewater easements located on site? Y ■ N
(If yes, contact Austin Water Utility Pipeline Engineering for review and approval)

Does this site have or will it have an auxiliary water source? Y ■ N (If yes, submit approved auxiliary and potable plumbing plans.)
(Auxiliary water supplies are wells, rainwater harvesting, river water, lake water, reclaimed water, etc.)

Does this site require a cut or fill in excess of four (4) feet? Y ■ N (If yes, contact the Development Assistance Center for more information)

Is this site within the Waterfront Overlay? Y ■ N
(LDC 25-2 Subchapter C Article 3)

Is this site within the Lake Austin Overlay? Y ■ N
(LDC 25-2-180, 25-2-647)

Does this site front a paved street? ■ Y N
(If no, contact Development Assistance Center for Site Plan requirements.)

Is this site adjacent to a paved alley? Y ■ N
(Public Works approval required to take access from a public alley.)

Does this site have a Board of Adjustment (BOA) variance? Y ■ N Case # _____ (if applicable)

Does this site have a Residential Design and Compatibility Commission (RDCC) waiver? Y ■ N
(If yes, provide a copy of decision sheet. Note: A permit cannot be approved within 10 days of approval of a variance from BOA.)

Description of Work

Is Total New/Added Building Area > 5,000 Sq Ft? Y ■ N (If yes, construction material recycling is required per LDC 25-11-39)

Existing Use: vacant ■ single-family residential duplex residential two-family residential other: _____

Proposed Use: vacant ■ single-family residential duplex residential two-family residential other: _____

Project Type: ■ new construction addition addition/remodel other: _____

Will all or part of an existing exterior wall, structure, or roof be removed as part of the project? ■ Y N
(Note: Removal of all or part of a structure requires a demolition permit application.)

# existing bedrooms: 1	# bedrooms upon completion: 4	# baths existing: 1	# baths upon completion: 3.5

Project Description: (Note: Please provide thorough description of project. Attach additional pages as necessary.)
New single family construction, back guest house is to remain as auxillary structure. Front house to be completely demoed. New front home is to be single story stucco home.

Trades Permits Required (Circle as applicable): ■ electric ■ plumbing ■ mechanical (HVAC) ■ concrete (R.O.W.)

Job Valuation

Total Job Valuation:	Amount of Total Job Valuation dedicated to all Addition and/or New Construction:	Amount of Total Job Valuation dedicated to all Remodel/Repair:
$ 400,000.00	$ 400,000.00	Bldg: $ 340,000.00
Note: The total job valuation should be the sum total of all valuations noted to the right. Labor and materials only, rounded to nearest dollar. Permit fees are based on adopted fee schedule.	Amount for Primary Structure: $ 40,000.00 Elec: [X] Y [ ] N | Plmbg: [X] Y [ ] N | Mech: [X] Y [ ] N	Elec: $ 20,000.00 Plmbg: $ 20,000.00 Mech: $ 20,000.00
	Amount for Accessory Structure: $ 0 Elec: [ ] Y [ ] N | Plmbg: [ ] Y [ ] N | Mech: [ ] Y [ ] N	TOTAL: $ 400,000.00

Please utilize the Calculation Aid on the last page of the Additional Information, page 7, as a guide to complete the following calculations and to provide supplemental information for thorough review.

Site Development Information

Area Description Note: Provide a separate calculation for each distinct area. Attach additional sheets as necessary. Measurements are to the outside surface of the exterior wall.	Existing Sq Ft		New/Added Sq Ft		Total Sq Ft	
	Bldg 1	Bldg 2	Bldg 1	Bldg 2	Bldg 1	Bldg 2
a) 1st Floor conditioned area	804.00			2,479.00	804.00	2,479.00
b) 2nd Floor conditioned area					0.00	0.00
c) 3rd Floor conditioned area					0.00	0.00
d) Basement					0.00	0.00
e) Covered parking (garage or carport)					0.00	0.00
f) Covered patio, deck, porch, and/or balcony area(s)				207.00	0.00	207.00
g) Other covered or roofed area					0.00	0.00
h) Uncovered wood decks					0.00	0.00
Total Building Area (total a through h)	804.00	0.00	0.00	2,686.00	804.00	2,686.00
i) Pool					0.00	0.00
j) Spa					0.00	0.00
k) Remodeled Floor Area, excluding Addition / New Construction	—	—	—	—		

Building Coverage Information

Note: Building Coverage means the area of a lot covered by buildings or roofed areas, but excludes ground-level paving, landscaping, open recreational facilities, incidental projecting eaves, balconies, and similar features. Pools, ponds, and fountains are not included in this measurement. (LDC 25-1-21)

Total Building Coverage (sq ft): 3,490.00 % of lot size: 39

Impervious Cover Information

Note: Impervious cover is the total horizontal area of covered spaces, paved areas, walkways, and driveways. The term excludes pools, ponds, fountains, and areas with gravel placed over pervious surfaces that are used only for landscaping or by pedestrians. For an uncovered wood deck that has drainage spaces between the deck boards and that is located over a pervious surface, 50 percent of the horizontal area of the deck is included in the measurement of impervious cover. (LDC 25-1-23)

Total Impervious Cover (sq ft): 3,875.00 % of lot size: 44

Setbacks

Are any existing structures on this site a non-compliant structure based on a yard setback requirement? (LDC 25-2-492) Y ■ N

Does any structure (or an element of a structure) extend over or beyond a required yard? (LDC 25-2-513) Y ■ N

Is front yard setback averaging being utilized on this property? (LDC 25-2, Subchapter F, Sec. 2.3 or 25-2-778) Y ■ N

Height Information (LDC 25-1-21 or 25-2 Subchapter F, Section 3.4)

Building Height: 11 ft 7 in Number of Floors: 1

Parking (LDC 25-6 Appendix A & 25-6-478)

of spaces required: 2 # of spaces provided: 2

Right-of-Way Information

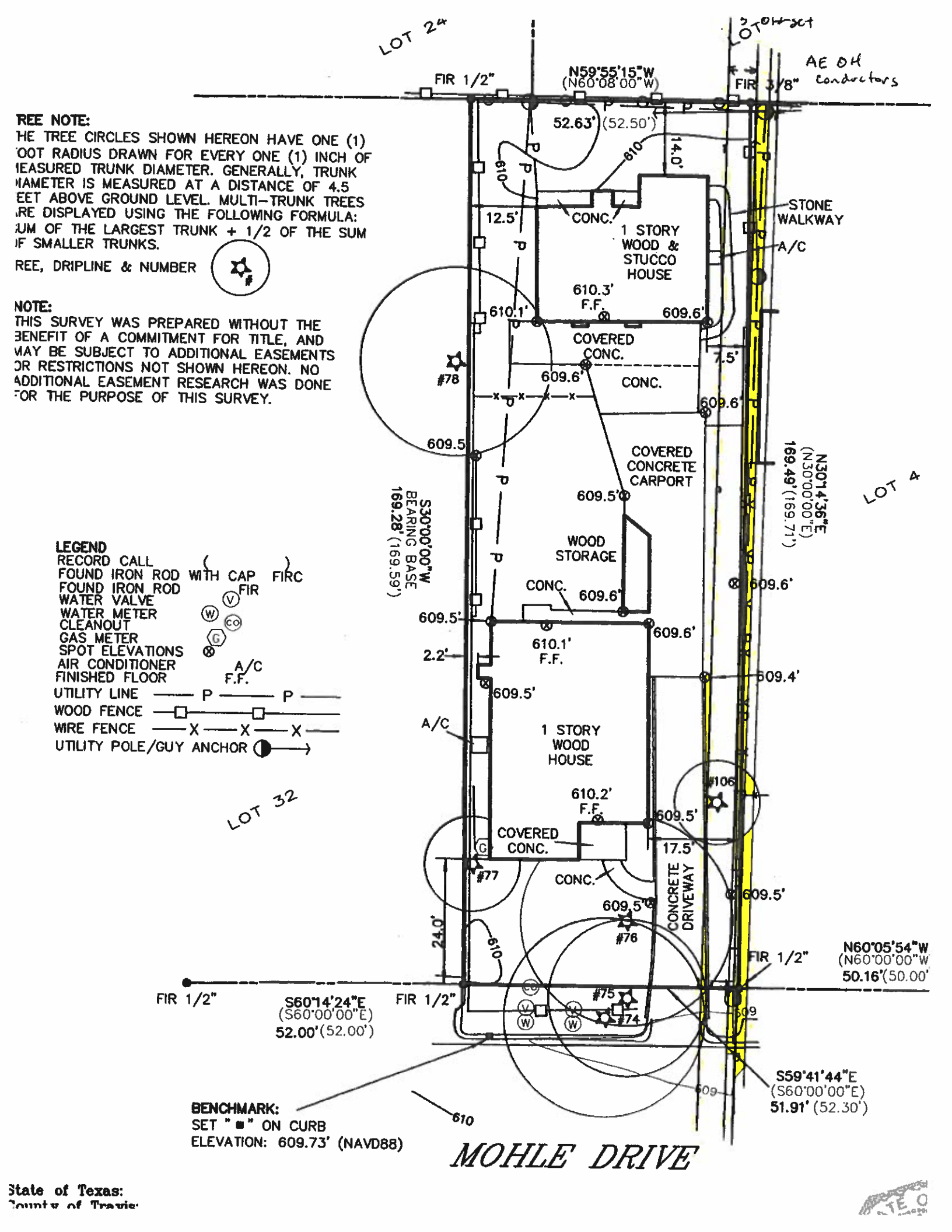
Is a sidewalk required for the proposed construction? (LDC 25-6-353) Y ■ N

*Sidewalks are to be installed on any new construction of a single family, two-family or duplex residential structure and any addition to an existing building that increases the building's gross floor area by 50 % or more.

Will a Type I driveway approach be installed, relocated, removed or repaired as part of this project? ■ Y N

Width of approach (measured at property line): 17.0 ft Distance from intersection (for corner lots only): _____ ft

Are storm sewer inlets located along the property or within ten (10) feet of the boundaries of the property? Y (N)
(If yes, drainage review is required)



State of Texas:
County of Travis:

BUILDING AND SITE AREA

AREA DESCRIPTION	AREA (S.F.)
LOT SIZE:	8890
a) 1ST FLOOR CONDITIONED AREA (NEW BUILDING)	2479
b) 1ST FLOOR CONDITIONED AREA (EXISTING BLDG)	804
c) 2ND FLOOR CONDITIONED AREA	
d) BASEMENT	
e) COVERED PARKING (GARAGE OR CARPORT)	
f) COVERED PATIO, DECK, OR PORCH	207
g) BALCONY	
h) OTHER	
TOTAL BUILDING COVERAGE (excluding b, c, & d)	3490
i) DRIVEWAY	289
j) SIDEWALKS	
k) UNCOVERED PATIO	49
l) UNCOVERED WOOD DECK	
m) AC PADS	6
n) OTHER (pool coping, retaining walls)	41
TOTAL SITE COVERAGE	385
o) POOL	
p) SPA	

SITE DEVELOPMENT INFORMATION

BUILDING COVERAGE	
PROPOSED BUILDING COVERAGE	3490
PERCENT OF LOT SIZE	39.3%
IMPERVIOUS COVERAGE	
PROPOSED IMPERVIOUS COVERAGE	3875
PERCENT OF LOT SIZE	43.6%

GROSS FLOOR AREA - SUBCHAPTER F

LOT SIZE 8890

AREA DESCRIPTION	AREA	EXEMPTION	TOTAL (S.F.)
1ST FLOOR			3490
GARAGE ATTACHED			
GARAGE DETACHED			
ACCESSORY BUILDING			
CEILINGS OVER 15 FT			

TOTAL GROSS FLOOR AREA:	3490
TOTAL FLOOR-AREA RATIO (FAR):	.393
MAXIMUM ALLOWABLE FLOOR AREA (at .4 FAR):	3556

LOT LEGAL DESCRIPTION

LOT 31, SUMMIT PLACE, A SUBDIVISION IN TRAVIS COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT RECORDED IN VOLUME 3, PAGE 237, OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS

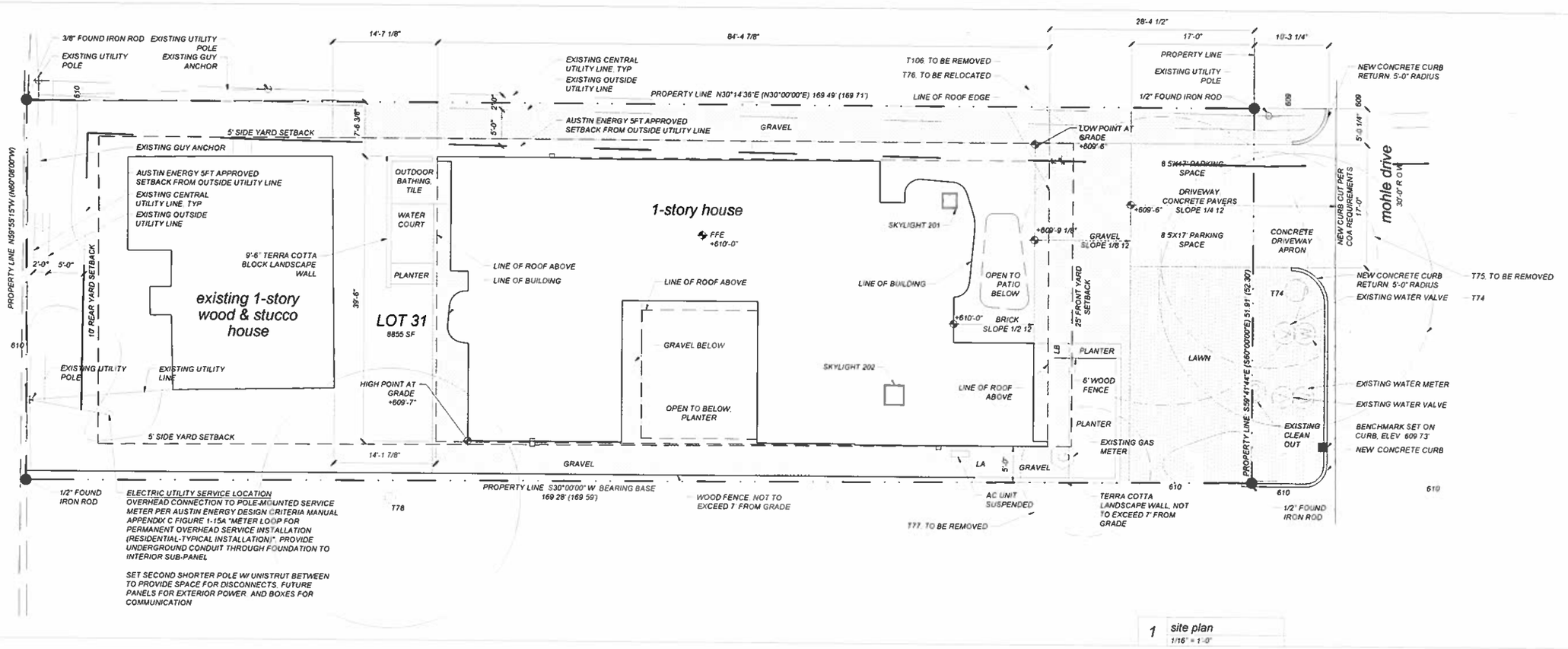
THIS SITE PLAN PRODUCED USING INFORMATION FROM A SITE SURVEY (DATED AUGUST 22ND, 2017, JOB NUMBER J15220) PRODUCED BY WATERLOO SURVEYORS, INC
MAILING ADDRESS: P.O. BOX 160176, AUSTIN, TEXAS 78716-0176
512-481-9602

TREE LIST

NO.	DIA.	SPECIES	NOTES
T74	8,8,7,6	CREPE MYRTLE	
T75	7,6,5,4	CREPE MYRTLE	TO BE REMOVED
T76	20	PALM	TO BE RELOCATED
T77	9	JUNIPER	TO BE REMOVED
T78	18	ELM	
T106	7	SWEET GUM	TO BE REMOVED

tree protection notes:

1. NO UNDERGROUND UTILITY TRENCHES PERMITTED IN 1/2 THE AREA OF A TREE'S CRITICAL ROOT ZONE, OR WITHIN 12' OF TRUNK, WHICHEVER IS THE LARGER DIAMETER
2. NO ACCESS, PARKING, OR MATERIAL STORAGE WITHIN LIMITS OF TREE PROTECTION FENCE
3. ALL ROOT CUTS TO BE CLEAN (NO FRAYED EDGES)
4. AIR SPADE, FERTILIZE, AND APPLY MULCH AT CRITICAL ROOT ZONE OF ALL TREES PRIOR TO CONSTRUCTION. PROVIDE IRRIGATION TO TREES DURING CONSTRUCTION
5. NO PIERS WITHIN 5' OF TREE TRUNKS
6. PROVIDE TREE PROTECTION BOARDS AND FENCING
7. AFTER CONSTRUCTION, AIR SPADE ALL TREES WHERE CONSTRUCTION ACTIVITIES HAVE COMPACTED SOIL WITHIN CRITICAL ROOT ZONE
8. COORDINATE AREAS FOR MATERIAL STORAGE AND DELIVERY WITH ARCHITECT AND PREPARE SUCH AREAS SO THAT THEY CAN BE EFFECTIVELY USED FOR DELIVERIES AND DO NOT CONFLICT WITH TREE PROTECTION REQUIREMENTS
9. PROVIDE AND MAINTAIN AN EROSION CONTROL SYSTEM WITH APPROPRIATE DEVICES PER STATUTORY REQUIREMENTS

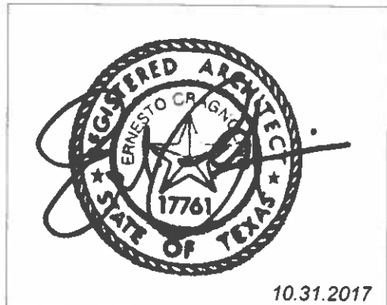


1 site plan
1/16" = 1'-0"

sheet index:

mohle residence

1607 mohle drive
austin, texas 78703



10.31.2017

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architecture LLP
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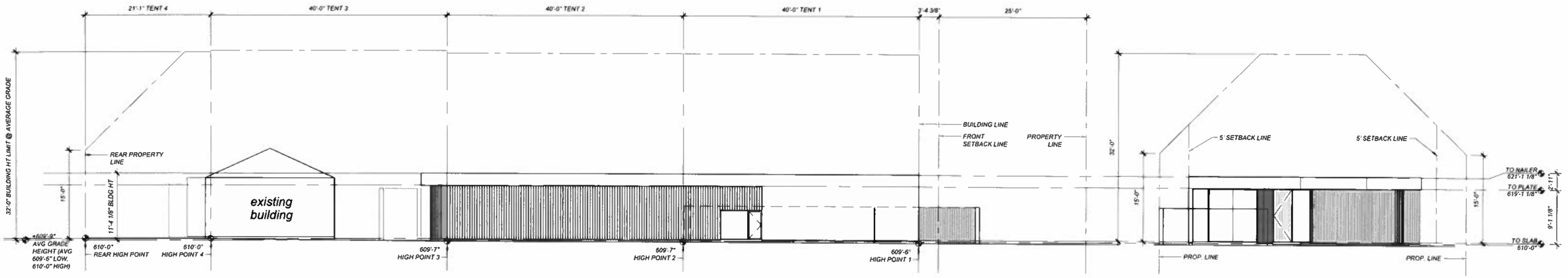
austin, tx 78701
512.499.8007

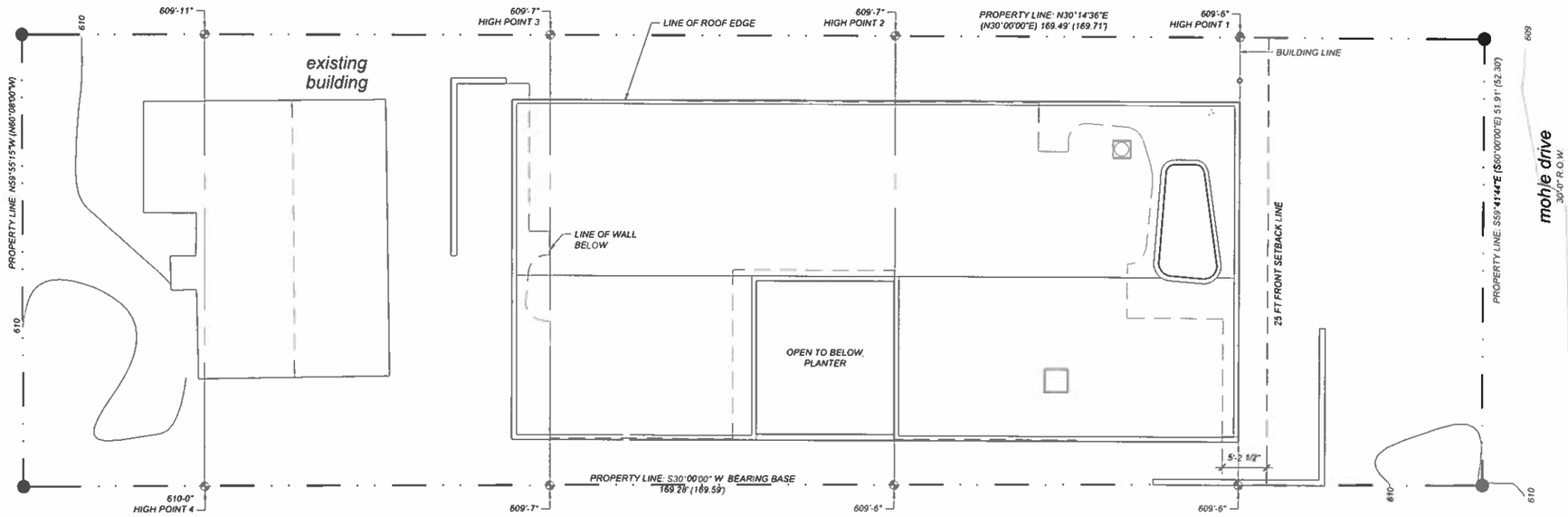
A1
site plan + info

scale AS NOTED

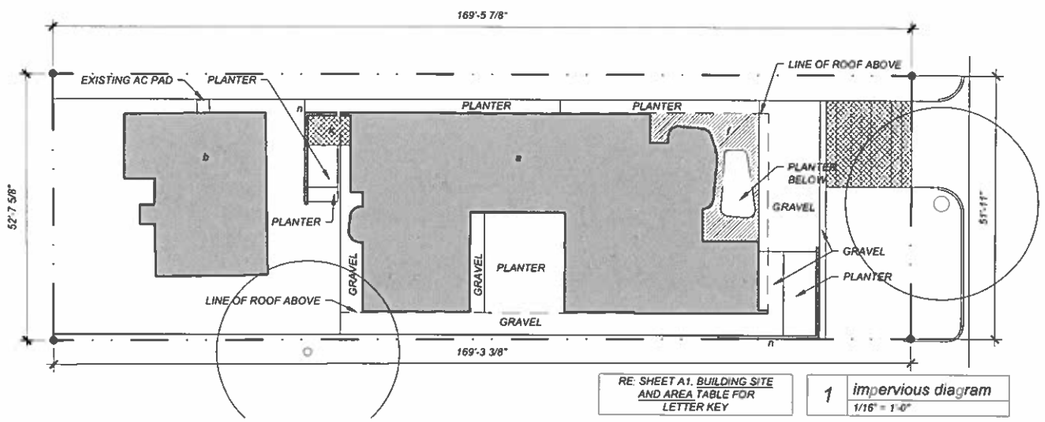


4 tent long elevation
1/16" = 1'-0"

3 tent cross section
1/16" = 1'-0"



2 building tent plan
1/16" = 1'-0"



RE: SHEET A1. BUILDING SITE AND AREA TABLE FOR LETTER KEY

1 impervious diagram
1/16" = 1'-0"

mohle residence

1607 mohle drive
austin, texas 78703

REGISTERED ARCHITECT ERNESTO CRAGNOLINI 17761 STATE OF TEXAS

10.31.2017

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A2 diagrams

scale AS NOTED

DRAWINGS ARE SCALED AS NOTED PER CITY OF AUSTIN PERMITTING REQUIREMENTS
CONTACT ARCHITECT IN CASE OF DISCREPANCIES
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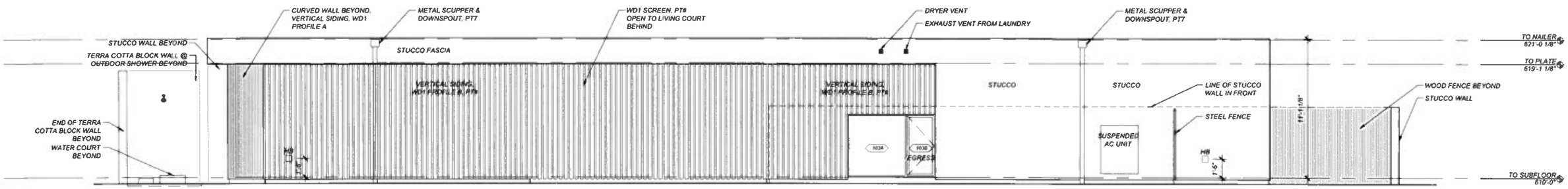
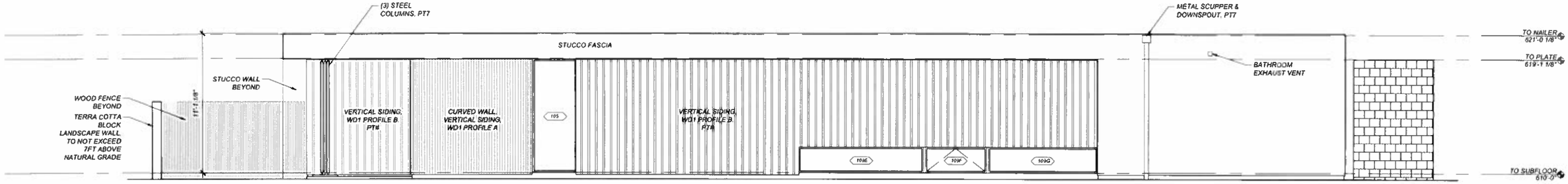
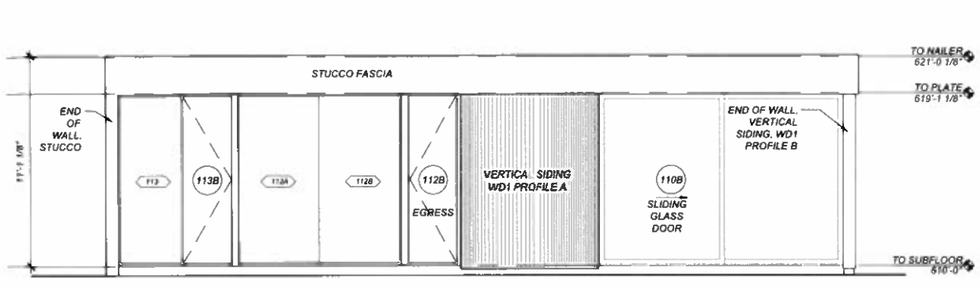


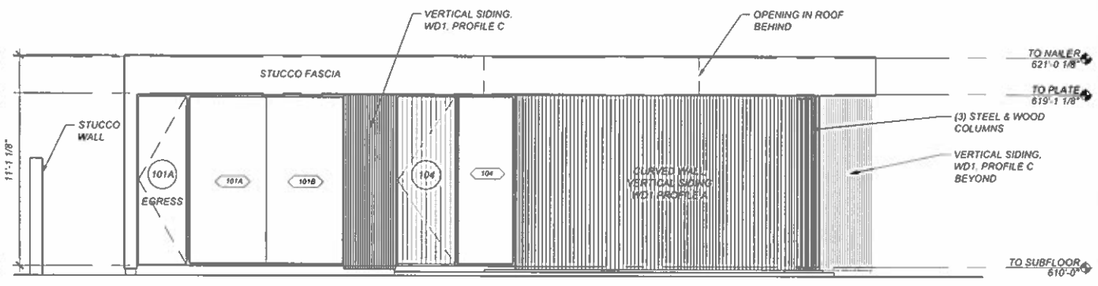
4 south elevation
1/8" = 1'-0"



3 north elevation
1/8" = 1'-0"



2 west elevation
1/8" = 1'-0"



1 east elevation
1/8" = 1'-0"

mohle residence

1607 mohle drive
austin, texas 78703

REGISTERED ARCHITECT ERNESTO CRIGNON 17761 STATE OF TEXAS

10.31.2017

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A4.1
elevations

scale AS NOTED

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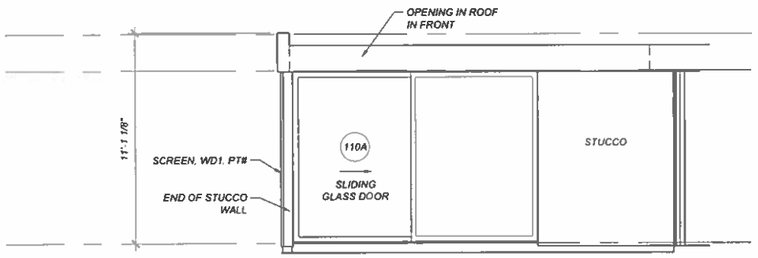
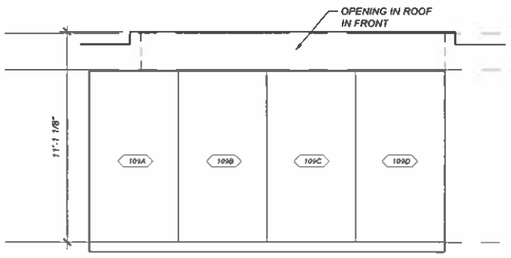
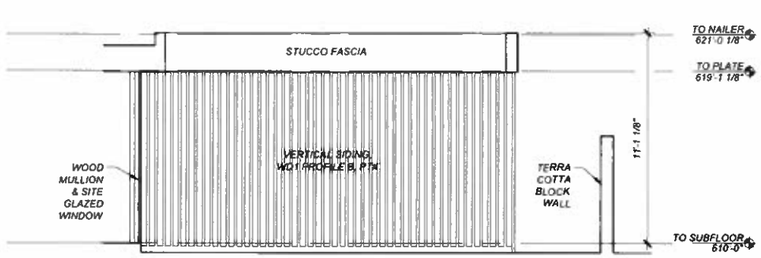


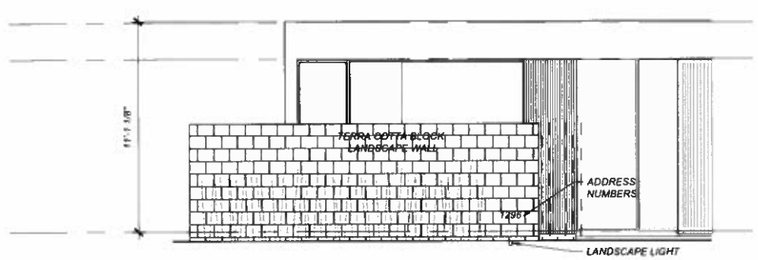
6 west elevation @ living court
1/4" = 1'-0"



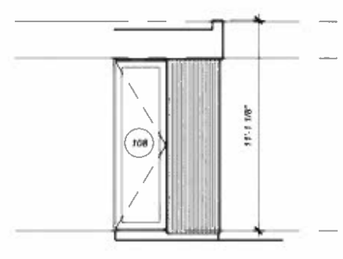
5 north elevation @ living court
1/4" = 1'-0"



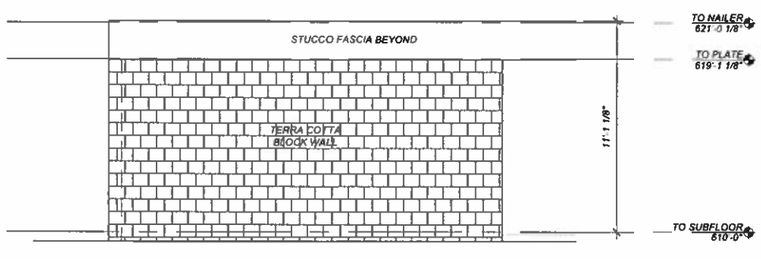
4 east elevation @ living court
1/4" = 1'-0"



3 east elevation @ front wall
1/8" = 1'-0"



2 west elevation @ kitchen
1/8" = 1'-0"



1 east elevation @ back wall
1/8" = 1'-0"

mohle residence

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REGISTERED ARCHITECT ERNEST O. CRANG 17761 STATE OF TEXAS

10.31.2017

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A4.2
elevations

scale AS NOTED

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NAILING SCHEDULE

joist to sill or girder, toe nail	3-8d
1"x6" subfloor or less to each joist, face nail	2-8d
2" subfloor to joist or girder, blind and face nail	2-16d
sole plate to joist or blocking, face nail	16d @16"o c
top or sole plate to stud, end nail	2-16d
stud to sole plate, toe nail	3-8d or 2-16d
double studs, face nail	10d@24"o c
double top plates, face nail	10d@24"o c
sole plate to joist or blocking at braced wall panels	3-16d@16" o c
double top plates, minimum 48" offset of end joints, face nail in lapped area	8-16d
blocking between joists or rafters to top plate, toe nail	3-8d
rim joist to top plate toe nail	8d@6"o c
top plates, laps at corners and intersections, face nail	2-10d
built-up header, two pieces with 1/2" spacer	16d @ 16"o c each edge
continued header, two pieces	16d @ 16"o c each edge
ceiling joists to plate, toe nail	3-8d
continuous header to stud, toe nail	4-8d
ceiling joist, laps over partitions, face nail	3-10d
ceiling joist to parallel rafters, face nail	3-10d
rafter to plate, toe nail	2-16d
1" brace to each stud and plate, face nail	2-8d or 2 stpls 1 3/4
1"x6" sheathing to each bearing, face nail	2-8d or 2 stpls 1 3/4
1"x8" sheathing to each bearing, face nail	3-8d or 3 stpls 1 3/4
wider than 1"x8" sheathing to each bearing, face nail	3-8d or 4 stpls 1 3/4
built-up corner studs	10d @ 24"o c
built-up girders and beams, 2" lumber layers, at top and bottom and staggered Two nails at ends and at each splice	10d @ 32"o c
2" planks	2-16d @ ea bearing
roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d 3-16d
collar bes to rafters, face nail	3-8d
5/16" to 1/2" wood structural panel 6d (wall) 8d (roof)	6" edge 12" field
19/32" to 1" wood structural panel 8d	6" edge 12" field
1-1/8" to 1-1/4" wood structural panel 10d	6" edge 12" field
1/2" gypsum sheathing 1-1/2" galv roofing nail or 1-1/2" screw, type w or s	4" edge8" field
5/8" gypsum sheathing 1-3/4" galv. roofing nail or 1-5/8" screw, type w or s	4" edge8" field

GENERAL

1 Dimensions refer to rough surfaces The contractor must verify all dimensions prior to start of construction the engineer shall be notified of any discrepancies or inconsistencies
2 All drawings are considered part of the contract documents The contractor shall be responsible for review and coordination of all drawings and specifications prior to the start of construction. Any discrepancies that occur shall be brought to the attention of the engineer prior to the start of construction so that clarification can be issued Any work in conflict with the contract documents or any code requirements shall be corrected by the contractor at his own expense and at no expense to the owner or structural engineer.
3 These drawings are based on architectural drawings by:

allerstudio
received August 3, 2017

4 All work shall conform to the minimum standards of the building code as well as any other regulating authority over any portion of the work including those addsonal codes and standards listed in the structural notes and specifications
5 The engineer shall not control and shall not be responsible for construction means, methods, techniques, sequences or procedures; for safety precautions and programs in connection with the work; for acts or omissions of the contractor, subcontractor or for any persons performing the work, or for the failure of any of them to carry out the work in accordance with the contract documents
6 Site observations by field representatives of the engineer are solely for the purpose of determining if the work of the contractor is proceeding in accordance with the structural contract drawings This limited site observation should not be construed as exhaustive or continuous to check the quality or quantity of the work, but rather an effort to guard the owner against defects or deficiencies in the work of the contractor
7 All structures require periodic maintenance to extend life span and to insure structural integrity from exposure to the environment. A planned program of maintenance shall be established by the building owner This program shall include items such as painting of structural steel, protective coating for concrete, sealants, caulked joints, expansion joints, control joints, spalls and cracks in concrete

STRUCTURAL FASTENERS

NAILS

All nails sinker nails per ASTM F1667-95, steel wire, t-head diamond point, round smooth shank, bright

FINISHES

Where a preservative other than borate is used and connectors and fasteners (including nails and bolts) contact treated lumber, use stainless steel connectors and fasteners, unless builder and supplier can demonstrate that pressure treatment is not corrosive to galvanized metal

GLUE

Glue shall meet the requirements of the American Plywood Association adhesive specification AFG-01 and shall be applied as directed by the glue manufacturer. Glue may be applied manually or with pneumatic or electric equipment

EXPANSION ANCHORS

Simpson Strong-Bolt, 1/2" dia installed as directed by manufacturer

WOOD SCREWS, LAG SCREWS AND BOLTS

Wood screws shall comply with ASME B18 6 1 Unless noted otherwise, screws are #8

Lag screws shall comply with ASME B18 2 1 Unless noted otherwise, lag screws are 1/2" dia by length as required to penetrate secondary member entirely minus 1/2".

Applicable ASTM specifications for bolts:

For common bolts	ASTM A307, Gr A (Fu= 60 ksi)
For nuts:	ASTM A563
For washers.	ASTM F436
For threaded rod	ASTM A36 (Fy=36 ksi, Fu = 58-80 ksi)

POWDER-ACTUATED FASTENERS (PAFS)

PAFs shall comply with CABO NER-272 where permitted by details, wood sill plates may be fastened to the concrete slab using powder driven pins following manufacturer's recommendations. The fastening system shall have ICBO approval Pins shall have a minimum shank diameter of 0 177", a minimum length of 3 1/4", and be spaced per the details

FINISHING MATERIALS

1. Masonry Veneer

a Maximum wall height. Install over a backing of wood wall and limited in height to a maximum of 30 feet above the foundation (38 feet permitted at the top of gable ends).
b Masonry on wood. Where indicated on plans, masonry weighing less than 40 psf may be supported on wood framing (deflection limited to L/600). Install a movement joint between the veneer supported by wood and the veneer supported by foundation.
c. Anchorage. Anchor to wood wall framing with corrosion-resistant 22 gage x 7/8" corrugated sheet metal ties spaced a maximum of 24" horizontally and 19.5" vertically.
d Lintels over openings. Support masonry on loose lintels per code supported on masonry to foundation at each end.
e Isolation joints: Install vertical isolation/expansion joints at approximately 25 feet on center.
2. Gypsum. Comply with GA-216-2000 "Application and Finishing of Gypsum Board." Flexibility details in GA-216-2000 such as control joints and corner details shall be used
3 Tile. Comply with American National Standard Specifications for the Installation of Ceramic Tile. Flexibility details in specification such as control and expansion joints shall be used

STRUCTURAL STEEL

STANDARD SPECIFICATIONS AND CODES

Structural steel design, fabrication and construction governed by ASD Specification for Structural Steel Buildings: Specification for Structural Joints using ASTM A325 or A490 bolts, and Code of Standard Practice for Steel Buildings and Bridges

MATERIAL

1. All hot rolled structural steel plates, shapes and bars shall be new steel conforming to ASTM A6-98A
2. Unless noted otherwise on these drawings, structural steel shall be as follows:

W-shapes	ASTM A992
C-shapes	ASTM A36
L-shapes	ASTM A36
HSS-shapes	ASTM A500 Fy = 46 KSI

3 All connection material including bearing plates, gusset plates, stiffener plates, angles, etc ASTM A36 (unless higher grade is required by strength)

CONNECTIONS

1 See typical details on drawings

STRUCTURAL BOLTS AND THREADED FASTENERS

1 Unless noted otherwise, all bolts in structural connections shall conform to ASTM A325 type 1.
2 Threaded rod F 1554 grade 36
3 Pins ASTM A36

WELDING

1. Welding shall conform to the American Welding Society Standard D1 1.
2 Unless noted otherwise, electrodes for welding shall conform to E70XX (SMAW)

ANCHOR RODS

1. Anchor rods ASTM F1554 grade 36

GROUT

1. Grout non-metallic, non-shrink grout with a minimum strength of 6000 psi

HEADED CONCRETE ANCHORS:

1. Headed concrete anchors shall be nelson headed concrete anchors (or approved equal), and shall conform to ASTM A108, grades C-1010 through C-1020.
2 Anchors shall be automatically end welded with suitable stud welding equipment in the shop or in the field. welding shall be in accordance with the recommendations of the nelson stud welding company.

WOOD FRAMING

GENERAL

1. Lumber. All materials and workmanship shall conform with the requirements of the latest "National Design Specifications for Stress-Grade Lumber and its Fastenings" by National Forest Products Association.
2. All lumber shall be Southern Pine (S4S) conforming to the standard grading and dressing rules of the Southern Pine Inspection Bureau
3 Unless indicated otherwise, the minimum grade of structural members shall be as follows

studs :	no 3
other lumber :	no. 2

4. Microlam (LVL) laminated veneer lumber. LVL shall be manufactured by Trus Joist, and design shall be in accordance with ICBO ES ER-4979
5 Plywood or OSB Sheathing/single floor shall be exterior grade bear the following APA span rating

15/32" roof sheathing :	32/16
1 1/8" single floor t&g :	48 oc
15/32" wall sheathing :	32/16

6. All floor sheathing shall be glued to the joists. The field-glued system shall comply with the recommendations of the American Plywood Association.
7. At roofs, unsupported plywood panel end and side edges shall be backed with 2x4 flat blocking or Simpson panel sheathing clips
8 All framing connectors shall be Simpson Strong-Tie. Where connectors and fasteners contact treated lumber, use stainless steel connectors and fasteners, unless builder and supplier can demonstrate that pressure treatment is not corrosive to galvanized metal.

STUD WALL NOTES:

1. See architectural drawings for exact plate height.
2. Compare architect's plate heights and wall sizes to the table below for acceptable maximum Contact engineer if discrepancies are found

supporting roof only

2x4 @ 24" o c	10'-0"
2x4 @ 16" o c	12'-0"
2x6 @ 24" o c	16'-0"
2x6 @ 16" o c	18'-0"

supporting one floor and a roof

2x4 @ 24" o c	not permitted
2x4 @ 16" o c	10'-0"
2x6 @ 24" o c	14'-0"
2x6 @ 16" o c	18'-0"

3 Bottom plate Treated 2x same width as wall studs Anchor with 1/2" dia anchor bolt embedded 7" and spaced maximum 6'-0" o c. Locate anchors within 12" of each end of each plate section.
4 Attach interior walls to slab with pafs spaced at 12" o.c. with two pins 6" and 10" from each end of each plate.
5 Where joists, trusses or rafters are spaced more than 16" o c and bearing studs below are spaced at 24" members must bear within 5" of studs beneath.
6 Drilling and notching - Studs
a In exterior walls or bearing partitions, notch a maximum of 25%.
b In nonbearing partitions, notch a maximum of 40%.
c Any stud, bored/drill no closer than 5/8" to edge of stud and not in the same section as a cut or notch and a maximum diameter of 40%
d Studs may be bored to 60% of stud width provided the stud is doubled and no more than two successive studs are bored With engineer's prior approval Simpson HSS/SS stud shoes may be used in specific cases of notches or bores exceeding these maximums
7. Drilling and notching - Top plate When piping in a wall necessitates the cutting of a top plate by more than 50% its width, use a Simpson RPS strap tie at each plate with six 16d nails each side of notch

WOOD FRAMING: (continued)

WALL BRACING NOTES

1 Braced wall lines: Using braced wall panel construction in accordance with the prescriptive methods of IRC, brace walls as follows:
a Exterior walls. Continuous structural panel sheathing (thickness as noted above), including above and below openings, shall be used on the outside face of all exterior walls (blocking of edges not required), and any braced wall lines that include an exterior wall are considered adequately braced
b Interior walls 1x4 let-in braces sloped between 45 and 60 degrees from horizontal and notched into top and bottom plates and intervening studs and attached with two 8d nails at each plate/stud or simpson WB wall bracing installed in accordance with manuf. specs. or 1/2" thickness gypsum board minimum 48" wide attached to studs w/ 6d nails @ 7" o.c.
2 Bracing locations As described below, where architectural layout will not permit the application of these prescriptive methods, use engineered shear walls as indicated and detailed on these drawings Contractor must review drawings prior to construction and contact engineer if discrepancies are found
a For one story or top story of two or three: Locate at each end and at least every 25 feet on center but not less than 16% of braced wall line
b First story of two story second story of three story: Locate at each end and at least every 25 feet on center but not less than 25% of braced wall line.
3 Locate braced wall panels within 12'-6" of the end of each braced wall line.
4 Out-of-plane offsets up to 4'-0" are permitted in braced wall lines
5 Alternate braced wall panel: In one and two story houses, a panel constructed in accordance with IRC R602 10 6 can be considered a braced panel

ROOF AND CEILING STRUCTURE NOTES.

1 Where shown on plan, provide purlin same size as rafters and braced with (2)2x4 braces at 48" o c. Slope braces between 45 degrees and vertical and lap onto rafters and nail
2 Ridge board braced as shown on plan with (2) 2x4 braces sloped between 60 degrees and vertical.
3 Brace roof only as shown on plan Contractor must compare resulting rafter spans to allowable span chart and contact engineer for approval of any necessary additional braces
4 Unless noted otherwise, for ridges, hips and valleys, use one mill size larger than the common rafters it supports Center any splices on an approved brace point.
5 At point-of-support for braces, adequately block walls and beams to prevent rotation and horizontal movement
6 Compare ceiling joist sizes shown on plan with allowable span table below and contact engineer if discrepancies are found

Maximum Span for #2 Southern Pine Ceiling Joists:

spacing	24" o.c	16" o.c.	12" o.c.
2x6	11'-0"	13'-6"	15'-6"
2x8	14'-2"	17'-5"	20'-1"
2x10	16'-11"	20'-9"	23'-11"
2x12	19'-10"	24'-0"	24'-0"

from International Residential Code Table R802 4 2 with 20 psf live load, 10 psf dead load, L/240 allowable deflection

7 Maximum Span for #2 Southern Pine Rafters with Light Roof Covering and Not Supporting Ceiling

spacing	24" o.c.	16" o.c.	12" o.c.
2x6	12'-3"	15'-1"	17'-0"
2x8	15'-10"	19'-5"	22'-5"
2x10	18'-11"	23'-2"	24'-0"
2x12	22'-2"	24'-0"	24'-0"

from International Residential Code Table R802 5 1(1) with 20 psf live load, 10 psf dead load, L/180 allowable

8 Unless noted otherwise, install Simpson H2 5 hurricane ties at every rafter.
9 Block beams, joists, rafters and trusses at bearing as required to prevent rotation

FLOOR TRUSSES:

1. Trusses to be designed by truss engineer employed by truss manufacturer and in accordance with
- National Design Specification for Wood Construction, AF&PA
- National Design Standard for Metal Plate Connected Wood Truss Construction, ANSI/TPI 1-1995
- Local code jurisdictions
2 Design roof trusses for the minimum line and point loads shown on plan (line loads from upper walls are minimum 100 lb/ft u n o) and, unless noted otherwise on the plan, the following minimum area loads

Top chord live load	40 psf
Top chord dead load	20 psf
Bottom chord dead load	5 psf

Maximum deflections:
under live load only: L/360
under live + dead load L/240

3. Prior to fabrication, truss design drawings bearing the seal and registration number of Texas registered engineer shall be submitted to:
- Builder/Architect for approval of all truss dimensions, pitches and elevations.
- Engineer for approval of truss layout and design inputs.
4 Strongbacks: Install continuous 2x6 (min.) strongbacks through trusses at mid-span and spaced a maximum of 10'-0" o.c.
- Fasten with three 16d nails at each vertical
- Where vertical web members are not suitably located for strongback attachment, install vertical 2x4 block fastened with two 16d nails at top and bottom chords
- Restrain strongback at each end
- Locate strongback as close to bottom chord as possible.
5. Alterations to trusses: cutting and altering trusses is not permitted.
6. Truss bracing:
- Restrain top chord with roof sheathing
- Brace bottom chord with 1x4 spaced per truss designers requirements (8'-0" maximum).
- Restrain trusses at points of bearing with blocking and hurricane ties per details.
- Brace web compression members with continuous 2x4 per truss designers requirements
- Install 2x4 X-braces at third points of common truss span. Extend X-braces from girder truss to girder truss

ROOF TRUSSES

1. Trusses to be designed by truss engineer employed by truss manufacturer and in accordance with
- National Design Specification for Wood Construction, AF&PA.
- National Design Standard for Metal Plate Connected Wood Truss Construction, ANSI/TPI 1-1995.
- Local code jurisdictions.
2 Design roof trusses for the minimum line and point loads shown on plan and, the following minimum area loads, unless noted otherwise on the plan:

Top chord live load	See Roof Live Load
Top chord dead load	See Dead Load
Bot. chord live load	10 psf
Bot. chord dead load	5 psf

Maximum deflections:
under live load only L/360
under live+dead load L/240

3 Prior to fabrication, truss design drawings bearing the seal and registration number of Texas registered engineer shall be submitted to:
- Builder/architect for approval of all truss dimensions, pitches and elevations.
- Engineer for approval of truss layout and design inputs
4 Strongbacks: install continuous 2x6 (min.) strongbacks through trusses at mid-span and spaced a maximum of 10'-0" o.c.
- Fasten with three 16d nails at each vertical
- Where vertical web members are not suitably located for strongback attachment, install vertical 2x4 block fastened with two 16d nails at bottom chords.
- Restrain strongback at each end
- Locate strongback as close to bottom chord as possible
5 Alterations to trusses: cutting and altering trusses is not permitted
6 Truss bracing:
- Restrain top chord with roof sheathing
- Brace bottom chord with 1x4 spaced per truss designers requirements (8'-0" maximum).
- Restrain trusses at points of bearing with blocking and hurricane ties per details.
- Brace web compression members with continuous 2x4 per truss designers requirements
- Install 2x4 X-braces at third points of common truss span. Extend X-braces from girder truss to girder truss

Member type	Simpson Designation	Floor Load	Roof Load
2x4	LU24	445	555
2x6	LU26	665	830
2x8	LU28	890	1 110
2x10	LU28	890	1 110
2x12	LU210	1 110	1 390
(2)2x4	LUS24-2	765	900
(2)2x6	LUS26-2	1 000	1 250
(2)2x8	LUS26-2	1 265	1 595
(2)2x10	LUS210-2	1 765	2 210
(2)2x12	LUS210-2	1 765	2 210
(3)2x6	LUS26-3	1 000	1 250
(3)2x8	LUS28-3	1 265	1 595
(3)2x10	LUS210-3	1 765	2 210
(3)2x12	LUS210-3	1 765	2 210
(2)1 75x11 875	HGUS48	6 805	7 925
(2)1 75x14	HGUS410	8 780	8 540
(2)1 75x16	HGUS410	8 780	8 540
(2)1 75x18	HGUS414	10 015	10 015
(3)1 75x11 875	HGUS5 50/12	9 155	9 155
(3)1 75x14	HGUS5 50/14	10 015	10 015
(3)1 75x16	HGUS5 50/14	10 015	10 015
(3)1 75x18	HGUS5 50/14	10 015	10 015

DRAINAGE, WATERPROOFING AND VENTILATION

The following items are beyond the scope of the structural engineer and are therefore the responsibility of others The client is responsible for arranging for the design of these systems. Any mention of these items on these drawings is for information purposes only and does not relieve the client of these responsibilities.
- Drainage systems including surface drainage, any area inlets, grate drains, french drains and subgrade drain pipes
- Waterproofing systems including vapor barriers, roofing, flashing, waterproofing and drip edges
- Ventilation systems including crawlspace and attic

SELECT FILL

1. Scarify and re-compact all areas to receive fill. Surfaces steeper than 1 vertical to 4 horizontal which are to receive fill must be benched
2. Select underslab fill material shall be composed of hard durable particles of gravel or crushed stone and shall meet the following criteria
Gradation:

sieve size	% finer by weight
1-3/4"	100
1-1/2"	85 - 100
3/4"	45 - 75
No. 4	25 - 70
No. 40	10 - 40

Material passing the no 40 sieve

% minus no. 40	max. PI	min. PI
25-40	15	3
10-25	20	4

Maximum liquid limit of the minus no 40 material shall be 45

3 No organic matter is permitted
4 Compaction shall be to 95 percent of maximum laboratory density determined in accordance with ASTM D 698 Material shall be within three percent of optimum moisture at time of compaction
5 Placements should be in lifts not exceeding six inches after compaction
6 Backslopes Select fill shall extend a minimum of three feet horizontally beyond slab edges before sloping downward at 1V 2H backslope to natural soil. Backslope fill shall be well compacted If perimeter grade beams are carried into natural soil, backslope fill is not required

REQUIRED TESTING AND APPROVALS

- Fill material composition, placement and compaction shall be tested and approved by the Geotechnical Engineer
- A 100 pound sample of proposed fill material shall be submitted to the Geotechnical Engineer a minimum 7 days in advance of filling and compaction operations to determine Moisture-Density Relationship
- Testing Frequency: Not less than one field density test per 2,000 square feet and minimum 3 tests per lift.

If foundation bearing elements (including exterior grade beams and interior piers or hard points) penetrate fill, THE ABOVE TESTING AND APPROVALS ARE NOT REQUIRED, and the underslab fill will be considered forming fill

REINFORCED CONCRETE

STANDARD SPECIFICATIONS AND CODES

Structural Concrete Building Code Requirements for Reinforced Concrete, ACI 318-02.

MATERIALS:

1. Concrete shall meet the following requirements:

28 day strength:	3000 psi
aggregate type.	C33
max. aggregate size	1 1/2"

2 Reinforcing steel shall meet the following requirements:
#3 to #18 ASTM A615 grade 60

REINFORCING STEEL COVERAGE:

For layer nearest surface unless specified otherwise on drawings

1. Concrete surfaces cast against and permanently in contact with earth
#3 to #18 bars 3"
2 Concrete surfaces exposed to earth or weather.
#3 to #5 bars 1.5"
#6 to #18 bars 2"
3 Concrete surfaces not exposed to weather or in contact with earth:
#3 to #11 bars in slabs & walls 1"
#3 to #18 bars in beams & columns 1.5"

DETAILS:

1 Contractor shall submit proposed locations for construction joints not shown on drawings for review by the Architect and Structural Engineer
2 Embedded conduits, pipes, and sleeves shall meet the requirements of ACI 318-02, Section 6.3

CONCRETE CRACK CONTROL

1. Install crack control joints @ 15'-0" o.c.e.w. If crack control is not a consideration as determined by both the builder and the owner, then the joints may be eliminated
2. Create crack control joints by tooling or sawcutting to a depth of one third the slab thickness. Tool the base of all drops-in-slab to function as control joints

FILL PLACEMENT

1. Use select fill as specified below (not on site fill) in areas under building footprints All compaction to minimum of 95% of the maximum dry density obtained from standard proctor (ASTM D 698) No remove and replace required beyond organics and top soil
2 Scarify and re-compact all areas to receive fill. surfaces steeper than IV 4H which are to receive fill must be benched
3 Select underslab fill material shall be composed of hard durable particles of gravel or crushed stone and shall meet the following criteria

A Gradation

sieve size	% finer by wt
1-3/4"	100
1-1/2"	85-100
3/4"	45-75
NO. 4	25-70
NO. 40	10-40

B Material passing the no 40 sieve shall meet the following

% passing no. 40	max. PI	min. PI
25-40	15	3
10-25	20	4

Maximum liquid limit of the -no. 40 material shall be 45
No organic matter is permitted

4 Placements should be in lifts not exceeding six inches after compaction A one inch sand level-up course may be placed immediately below concrete slab and waterproof membrane
5 Proposed fill material should be submitted to testing agency for approval, in advance of placement
6 Backslopes: Select fill shall extend a minimum of three feet horizontally before sloping downward at 1V 2H backslope to natural soil. Backslope fill shall be well compacted If perimeter grade beams are carried into natural soil, backslope fill is not required

DESIGN DATA

GENERAL BUILDING CODE:

The contract documents are based on the requirements of
THE 2012 INTERNATIONAL RESIDENTIAL CODE

Ground snow load	5 psf
Wind speed (3 second gust):	90 mph
Exposure category.	C
Seismic design category.	A

Live Loads:

exterior balconies	60 psf
deck	40
fire escapes	40
passenger vehicle garages	50
attics without storage	10
attics with storage	20
rooms other	40
sleeping rooms	30
stairs	40
guardrails and handrails	200lbs

Roof Live Load	tributary area 0-200	201-600	601-up
roof slope			
4:12	20 psf	16	12
4:12 to <12:12	16	14	12
12:12 and up	12	12	12

Dead Loads:

roofing	membrane (2 psf)
flooring	ceramic tile 3/4" thick (10 psf) hardwood 7/8" thick (4 psf) carpet and pad (2 psf)

Note Materials indicated above were assumed in design. Prior to construction, builder must compare to actual materials and weights and contact engineer if differences are found. Actual dead loads must not exceed the loads indicated.

Deflections

The building movement specified below is anticipated and should be considered by the contractor in the performance of the work.

rafters :	L/180
floors/ceilings :	L/360
others :	L/240

STRUCTURAL OBSERVATION

1 The structural engineer of record, or his designate, shall provide structural observation of the structural system for general conformance to the approved plans and specifications at significant construction stages and at completion of the structural system as noted elsewhere in the contract documents.
2 The contractor shall notify the engineer a minimum of 72 hours prior to the date the observation is required
3 The following items require structural observation
- Foundation reinforcing and pre-pour setup
- Framing prior to insulation

FOUNDATION

1 The foundation design is based on the geotechnical investigation performed by CAPITAL GEOTECHNICAL SERVICES dated September 25 2017 (project no 17-0124)

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ENGI
Austin, Texa
PRO ECT
CLIENT
Mohle Residence
ISSUE
package
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for permit
SHEET TITL
SHEET NU