BUILDING CODE (La Marque):
2018 International Residential Code
2018 International Plumbing Code
2017 National Electrical Code
2018 Property Maintenance Code
2018 International Fire Code
2018 International Energy Conservation Code
2018 International Fuel and Gas Code

PROJECT FOR
Single Story Residence
510 Bluebonnet Dr
La Marque, TX 77568

SHEET INDEX

GULF PROJECT SOLUTIONS
PO BOX 580561
HOUSTON, TEXAS 77258
281-989-6788

STATE OF TEXAS
RICHARD D. TOMLINSON
77704
LICENSED
PROFESSIONAL ENGINEER
GULF PROJECT SOLUTIONS
F-18126

11/25/23

ENGINEER NOTES OVERRIDE
ARCHITECTURAL NOTES

GENERAL NOTES:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL ARCHITECTURAL AND ENGINEERING DRAWINGS TO DETERMINE ANY DISCREPANCIES.
3. ANY AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE DESIGNER PRIOR TO START OF CONSTRUCTION.
4. UNAUTHORIZED USE OR COPY OF THIS DRAWING W/O THE WRITTEN PERMISSION OF THE ENGINEER IS NOT PERMITTED.

SQUARE FOOTAGE CALCULATION

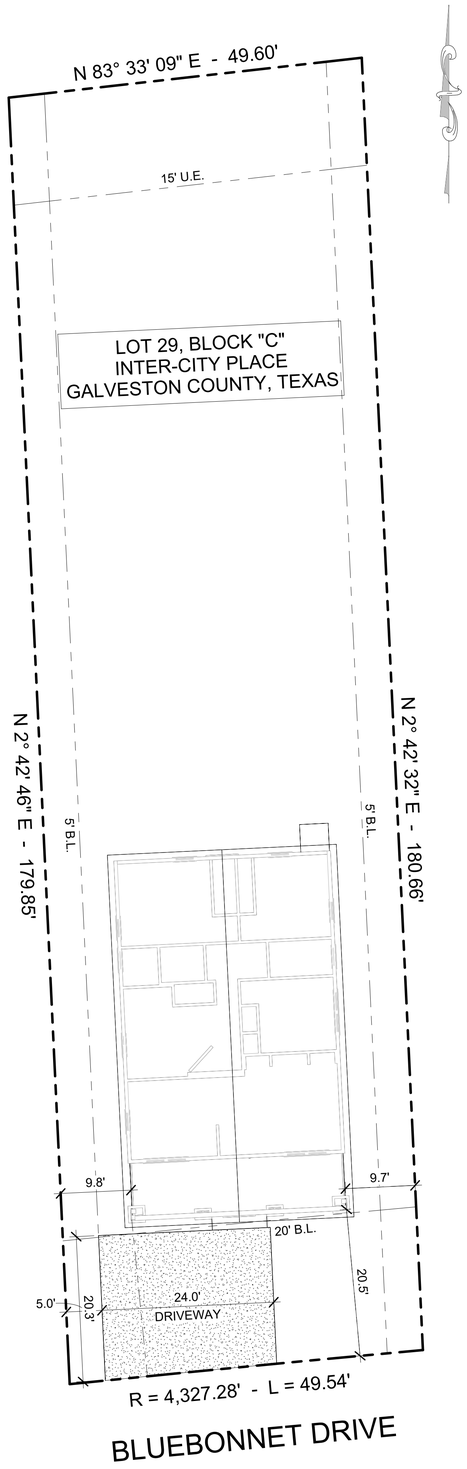
FIRST FLOOR:
CONDITIONED - 1,260 SF
FRONT PORCH - 240 SF

TOTAL CONDITIONED SPACE - 1,260 SF
TOTAL SQUARE FOOTAGE - 1,500 SF

PROJECT FOR: SINGLE STORY RESIDENCE
510 BLUEBONNET DR
LA MARQUE, TX 77568

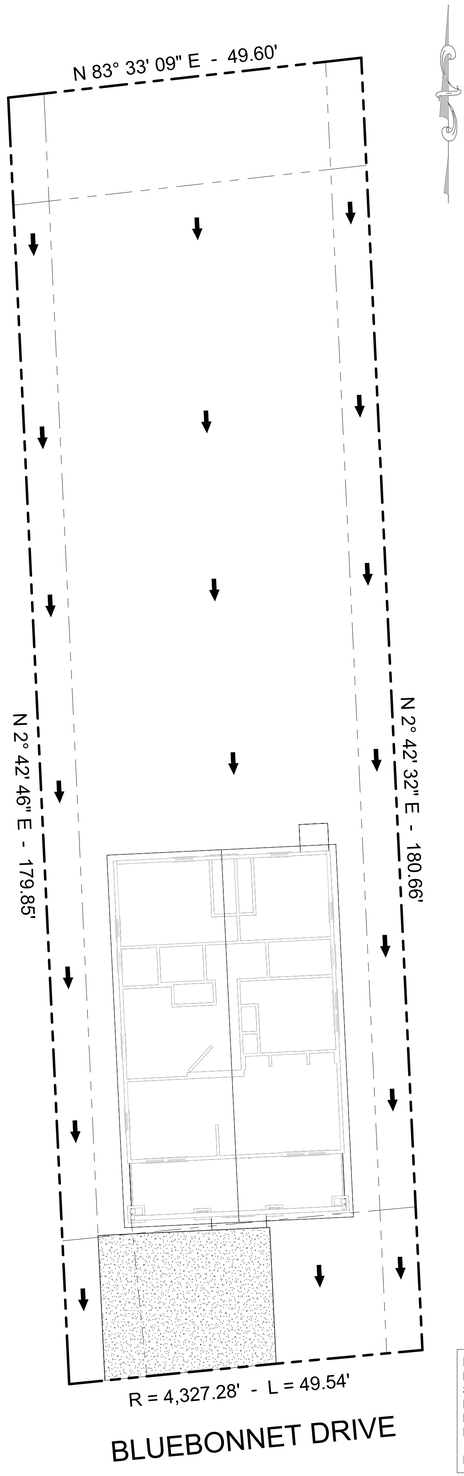
Revisions	By
8/12/2023	EV
8/30/2023	EV
11/02/2023	EV
11/10/2023	EV
11/22/2023	EV

Drawn by:	EV
Date:	7/27/2023
Job No.:	####
Sheet:	00



SITE PLAN

Scale: 1" = 10'-0"



DRAINAGE PLAN

Scale: 1" = 10'-0"

ENGINEER'S NOTE:
NO FILL SHALL BE BROUGHT TO SITE. NO CHANGES SHALL BE MADE TO EXISTING GRADING OR DRAINAGE PLANS (AS-BUILT), AND THERE SHALL BE NO DRAINAGE IMPACT TO NEIGHBORHOOD PROPERTIES. CONTRACTOR/BUILDER SHALL BE 100% LIABLE FOR DEVIATION FROM THESE REQUIREMENTS BASED ON CITY INSPECTION.

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PROJECT FOR: SINGLE STORY RESIDENCE

510 BLUEBONNET DR
LA MARQUE, TX 77568

Revisions	By
8/12/2023	EV
8/30/2023	EV
11/02/2023	EV
11/10/2023	EV
11/22/2023	EV

Drawn by:	Author
Date:	7/27/2023
Job No.:	####
Sheet:	01

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB Control No. 1660-0008
Expiration Date: 06/30/2026

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

A1. Building Owner's Name: Cherag Mistry

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number:
Called as Lot 29A, Block 1 of the Replat of Inter City Place Subdivision Lot 28 & and East 1/2 of Lot 29.

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Residential

A5. Latitude/Longitude: Lat. N29° 22' 30.83" Long. W94° 57' 31.59" Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983 ☐ WGS 84

A6. Attach at least two and when possible four clear photographs (one for each side) of the building (see Form pages 7 and 8).

A7. Building Diagram Number: 1B

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s): 0.00 sq. ft.

b) Is there at least one permanent flood opening on two different sides of each enclosed area? ☐ Yes ☐ No ☒ N/A

c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade:
Non-engineered flood openings: 0 Engineered flood openings: 0

d) Total net open area of non-engineered flood openings in A8.c: 0.00 sq. in.

e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions): 0.00 sq. ft.

f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): 0.00 sq. ft.

A9. For a building with an attached garage:

a) Square footage of attached garage: 0.00 sq. ft.

b) Is there at least one permanent flood opening on two different sides of the attached garage? ☐ Yes ☐ No ☒ N/A

c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade:
Non-engineered flood openings: 0 Engineered flood openings: 0

d) Total net open area of non-engineered flood openings in A9.c: 0.00 sq. in.

e) Total rated area of engineered flood openings in A9.c (attach documentation – see Instructions): 0.00 sq. ft.

f) Sum of A9.d and A9.e rated area (if applicable – see Instructions): 0.00 sq. ft.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1.a. NFIP Community Name: City of La Marque B1.b. NFIP Community Identification Number: 485486

B2. County Name: Galveston B3. State: TX B4. Map/Panel No.: 48167C0265 B5. Suffix: G

B6. FIRM Index Date: 08/15/2019 B7. FIRM Panel Effective/Revised Date: 08/15/2019

B8. Flood Zone(s): X Shaded B9. Base Flood Elevation(s) (BFE) (Zone AO, use Base Flood Depth): 5.0'

B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9:
☐ FIS ☒ FIRM ☐ Community Determined ☐ Other:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: ☐ CBRS ☐ OPA

B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)? ☐ Yes ☒ No

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.
Benchmark Utilized: NGS: HGCSD 60 (PID: AW5578) Vertical Datum: NAVD88

Indicate elevation datum used for the elevations in items a) through h) below.
☐ NGVD 1929 ☒ NAVD 1988 ☐ Other:

Datum used for building elevations must be the same as that used for the BFE. Conversion factor used? ☐ Yes ☒ No
If Yes, describe the source of the conversion factor in the Section D Comments area.

		Check the measurement used:
a) Top of bottom floor (including basement, crawlspace, or enclosure floor):	9.05	☒ feet ☐ meters
b) Top of the next higher floor (see Instructions):		☒ feet ☐ meters
c) Bottom of the lowest horizontal structural member (see Instructions):		☒ feet ☐ meters
d) Attached garage (top of slab):		☒ feet ☐ meters
e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area):		☒ feet ☐ meters
f) Lowest Adjacent Grade (LAG) next to building: ☒ Natural ☐ Finished	7.00	☒ feet ☐ meters
g) Highest Adjacent Grade (HAG) next to building: ☒ Natural ☐ Finished	7.40	☒ feet ☐ meters
h) Finished LAG at lowest elevation of attached deck or stairs, including structural support:		☒ feet ☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No

☐ Check here if attachments and describe in the Comments area.

Certifier's Name: Randall J. Liska License Number: 89374

Title: Registered Professional Engineer

Company Name: Baker & Lawson, Inc.

Address: 4005 Technology Drive, Suite 1530

City: Angleton State: TX ZIP Code: 77515

Signature: Randall Liska, PE Date: 10/03/2023

Telephone: (979) 849-6681 Ext.: Email: rliska@bakerlawson.com

Place Seal Here

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments):
B&L Job No. 15566
Centerline of road = 7.46' NAVD 1988
NGS MONUMENT: HGCSD 60 (PID: AW5578)
PUBLISHED ELEVATION: 5.40 FEET, NAVD88

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.

Building measurements are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the appropriate boxes to show whether the measurement is above or below the natural HAG and the LAG.

a) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (C2.b in applicable Building Diagram) of the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge*

☐ Check here if attachments and describe in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Telephone: _____ Ext.: _____ Email: _____

Comments:

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when:

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2.a. ☐ A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.

G2.b. ☐ A local official completed Section H for insurance purposes.

G3. ☐ In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.

G4. ☐ The following information (Items G5–G11) is provided for community floodplain management purposes.

G5. Permit Number: _____ G6. Date Permit Issued: _____

G7. Date Certificate of Compliance/Occupancy Issued: _____

G8. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G9.a. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum: _____

G9.b. Elevation of bottom of as-built lowest horizontal structural member: _____ ☐ feet ☐ meters Datum: _____

G10.a. BFE (or depth in Zone AO) of flooding at the building site: _____ ☐ feet ☐ meters Datum: _____

G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member: _____ ☐ feet ☐ meters Datum: _____

G11. Variance issued? ☐ Yes ☐ No If yes, attach documentation and describe in the Comments area.

The local official who provides information in Section G must sign here. *I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.*

Local Official's Name: _____ Title: _____

NFIP Community Name: _____

Telephone: _____ Ext.: _____ Email: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in Sections A, B, D, E, or H):

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)

The property owner, owner's authorized representative, or local floodplain management official may complete Section H for all flood zones to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be completed. Enter heights to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). ***Reference the Foundation Type Diagrams (at the end of Section H Instructions) and the appropriate Building Diagrams (at the end of Section I Instructions) to complete this section.***

H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the Lowest Adjacent Grade (LAG):

a) **For Building Diagrams 1A, 1B, 3, and 5–9.** Top of bottom floor (include above-grade floors only for buildings with subgrade crawlspaces or enclosure floors) is: _____ ☐ feet ☐ meters ☐ above the LAG

b) **For Building Diagrams 2A, 2B, 4, and 6–9.** Top of next higher floor (i.e., the floor above basement, crawlspace, or enclosure floor) is: _____ ☐ feet ☐ meters ☐ above the LAG

H2. Is **all** Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevated to or above the floor indicated by the H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the appropriate Building Diagram?

☐ Yes ☐ No

SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and H must sign here. *The statements in Sections A, B, and H are correct to the best of my knowledge.* **Note:** If the local floodplain management official completed Section H, they should indicate in Item G2.b and sign Section G.

☐ Check here if attachments are provided (including required photos) and describe each attachment in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Telephone: _____ Ext.: _____ Email: _____

Comments:

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo One

Photo One Caption:

Clear Photo One

Photo Two

Photo Two Caption:

Clear Photo Two

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

BUILDING PHOTOGRAPHS

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
510 Blue Bonnet Dr

City: La Marque State: TX ZIP Code: 77568

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo Three

Photo Three Caption:

Clear Photo Three

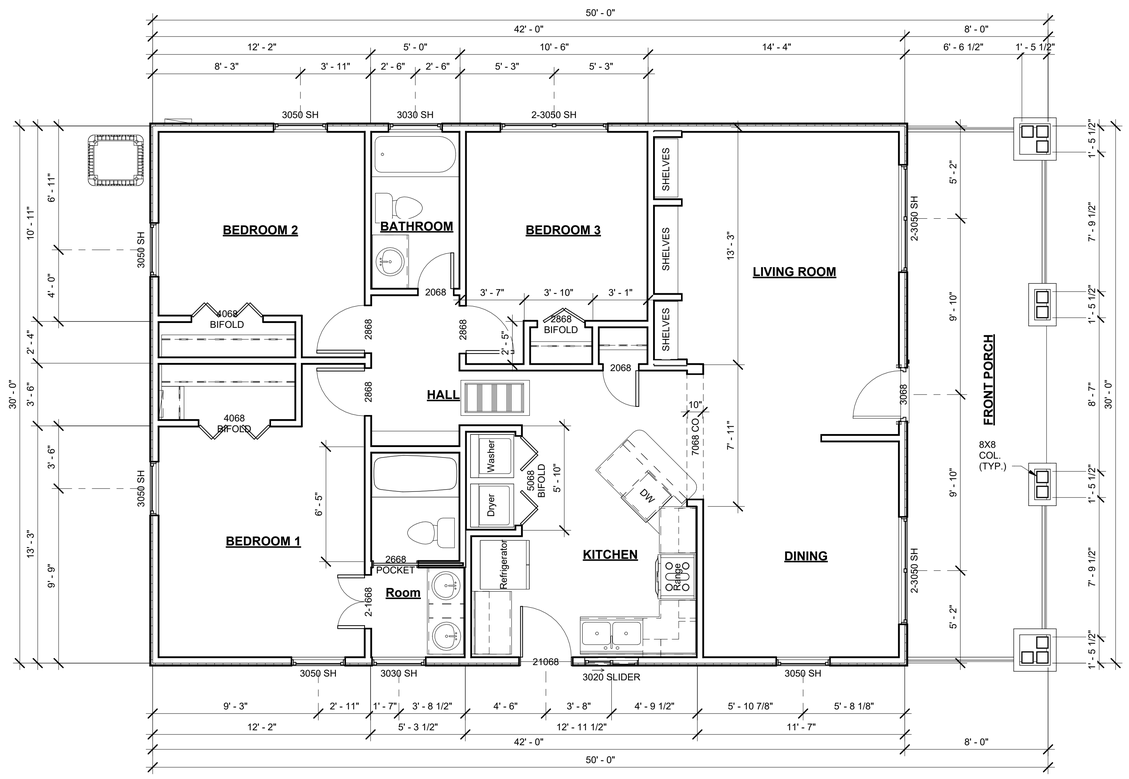
Photo Four

Photo Four Caption:

Clear Photo Four

ROOF PLAN

Scale: 1/4" = 1'-0"



FIRST FLOOR PLAN

Scale: 1/4" = 1'-0"

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11/25/23

PROJECT FOR: SINGLE STORY RESIDENCE

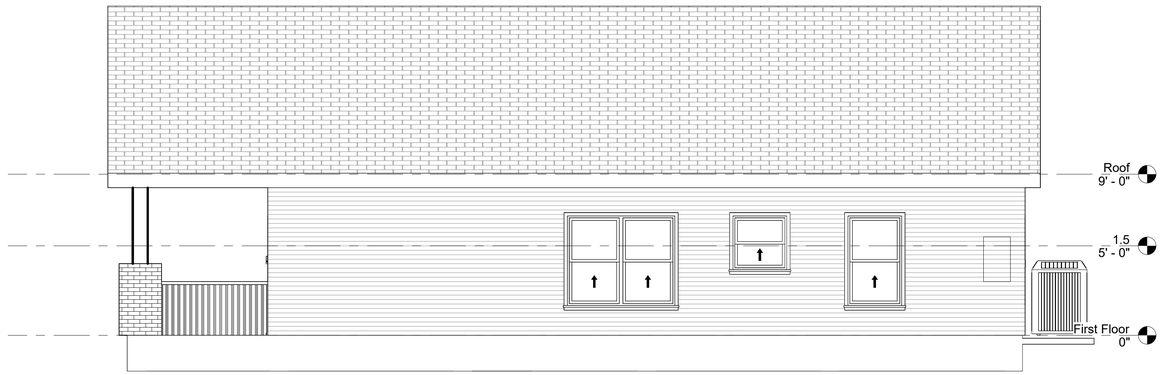
510 BLUEBONNET DR
LA MARQUE, TX 77568

Revisions	By
8/12/2023	EV
8/30/2023	EV
11/02/2023	EV
11/10/2023	EV
11/22/2023	EV

Drawn by:	Author
Date:	7/27/2023
Job No.:	####
Sheet:	A1

FRONT VIEW

Scale: 1/4" = 1'-0"



RIGHT VIEW

Scale: 1/4" = 1'-0"

REAR VIEW

Scale: 1/4" = 1'-0"

LEFT VIEW

Scale: 1/4" = 1'-0"

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PROJECT FOR: SINGLE STORY RESIDENCE

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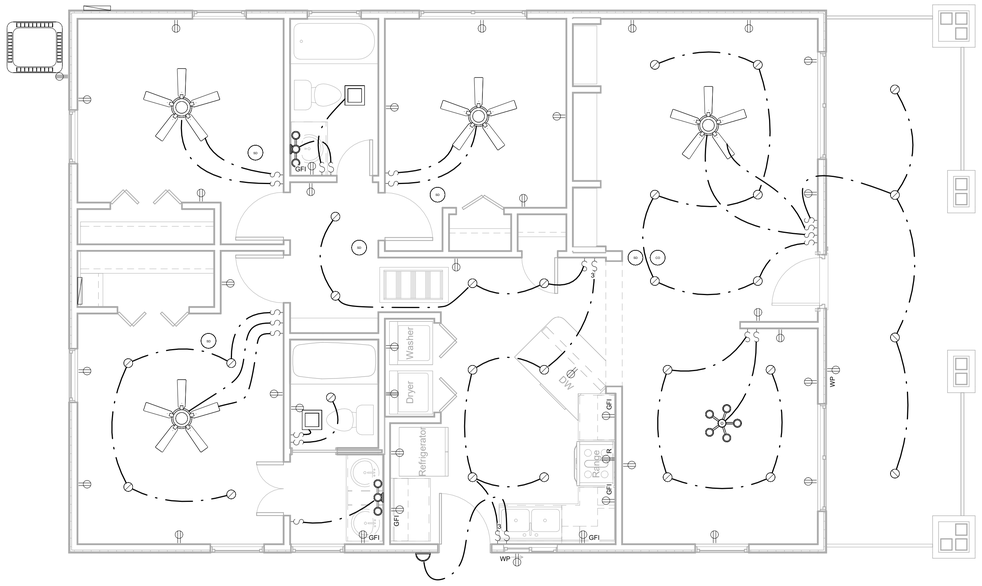
Drawn by:	Author
Date:	7/27/2023
Job No.:	####
Sheet:	A2



FIRST FLOOR ELECTRICAL PLAN

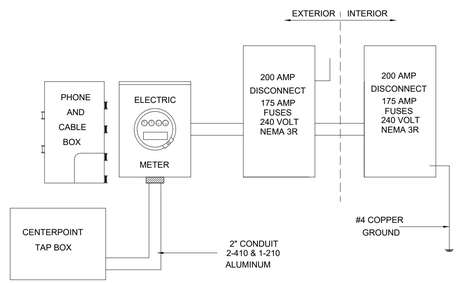
Scale: 1/4" = 1'-0"

ELECTRICAL LEGEND

- 110 VOLT RECEPTACLE
- WP — WATERPROOF RECEPTACLE
- CLG. — 110 VOLT IN CEILING
- MNTL. — 110 VOLT AT FIREPLACE MANTLE
- GFI — 110 VOLT W/GROUND FAULT INTERRUPT
- FLR. — 110 VOLT IN FLOOR
- 220 VOLT RECEPTACLE
- TELEVISION ANTENNA/CABLE JACK
- TELEPHONE JACK
- $ — SINGLE POLE SWITCH
- $3 — 3-WAY SWITCH
- $4 — 4-WAY SWITCH
- $DIM — DIMMER SWITCH
- PB — PUSH BUTTON
- SD — SMOKE DETECTOR INTERCONNECTED AND HARD-WIRED W/BATTERY BACKUP
- CO (SD) — COMBINATION CARBON MONOXIDE & SMOKE DETECTOR INTERCONNECTED CHIMES
- CEILING MOUNTED LIGHT FIXTURE
- HANGING LIGHT
- LAMP POST
- RECESSED CAN LIGHT
- WP — WATERPROOF RECESSED CAN LIGHT
- RECESSED EYEBALL SPOT LIGHT
- MONO-POINT OR DIRECTIONAL LT.
- STEP LIGHT
- WALL WASHER OR LOW VOLTAGE LT.
- SCONCE OR WALL MOUNTED FIXTURE
- PC — PORCELAIN FIXTURE W/ PULL CORD
- FLOOD LIGHTS
- EXHAUST FAN
- LT — EXHAUST FAN W/ LIGHT
- EXHAUST FAN W/ HEAT LAMP
- LT — EXHAUST FAN W/ HEAT LAMP & LIGHT
- CEILING FAN
- CEILING FAN W/ LIGHT
- CEILING LIGHT W/ FUTURE FAN
- 2' x 2' FLUORESCENT LIGHT
- 1' x 4' FLUORESCENT LIGHT
- 2' x 4' FLUORESCENT LIGHT
- UNDER-COUNTER LIGHT
- OVER-COUNTER LIGHT
- TRACK LIGHTING

ELECTRICAL NOTES:

1. NO WIRING SMALLER THAT 12 AWG.
2. VERIFY FLOOR PLUG LOCATIONS WITH OWNER PRIOR TO SLAB INSTALLATION.
3. ALL WIRING MUST BE COPPER WITH EXCEPTION OF UNDERGROUND TO MAIN BOX AND FROM MAIN BOX TO BREAKERS, WHICH SHALL BE CODE-APPROVED ALUMINUM.
4. ALL LIGHT SWITCHES SHALL BE MOUNTED AT 36" AFF.
5. USE LEVITON "DECORA" ROCKER SWITCHES AT ALL STANDARD LIGHT AND APPLIANCE SWITCHES.
6. ALL SMOKE DETECTORS SHALL BE LISTED AND INSTALLED IN ACCORDANCE WITH I.R.C. SECTION R317 AND SHALL CONFORM TO THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.
7. ALL ELECTRICAL BELOW THE DESIGN FLOOD ELEVATION MUST BE INSTALLED IN WATERPROOF CONDUIT AND ENCLOSURES AND MAY NOT BE INSTALLED IN BREAKAWAY WALLS.
8. ALL ELECTRICAL BELOW BASE FLOOD MUST BE ON ITS OWN DEDICATED CIRCUIT.



CONTRACTOR NOTE:
THE MAIN ELECTRICAL SERVICE DISCONNECT, AND METER WILL BE LOCATED A MIN. OF 1'-5" ABOVE BASE FLOOD ELEVATION, AND THE DISCONNECT WILL BE READILY ACCESSIBLE FROM THE EXTERIOR OF THE BUILDING BY AN APPROVED PERMANENT MEANS OF ACCESS.

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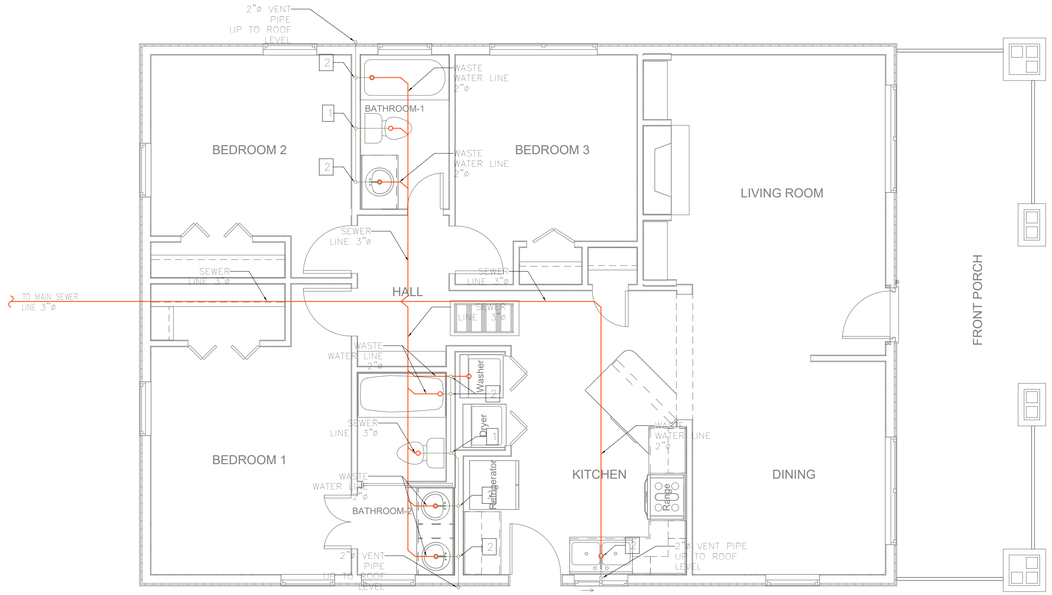
GULF PROJECT SOLUTIONS
F-18126

11/25/23

PROJECT FOR: SINGLE STORY RESIDENCE
510 BLUEBONNET DR
LA MARQUE, TX 77568

Revisions	By
8/12/2023	EV
8/30/2023	EV
11/02/2023	EV
11/10/2023	EV
11/22/2023	EV

Drawn by:	Author
Date:	7/27/2023
Job No.:	####
Sheet:	A3



DRAINAGE SYSTEM LAYOUT

FIRST FLOOR

SCALE: 1/4"=1'-0"

PLUMBING LEGEND

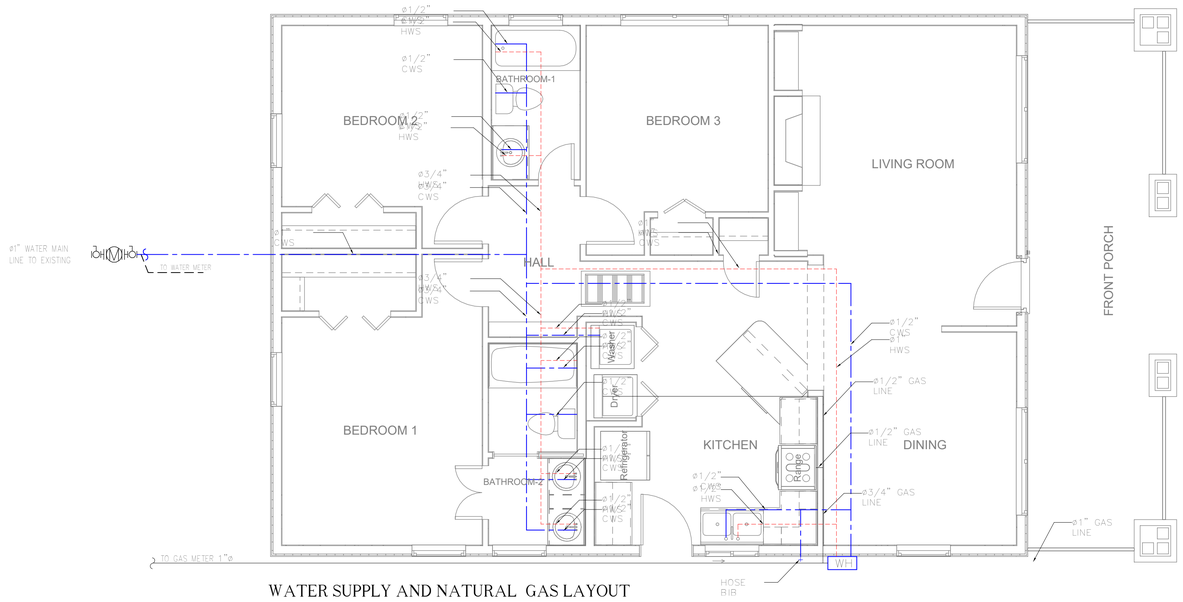
- COLD WATER SUPPLY (COPPER PIPE, TYPE 'L')
- HOT WATER SUPPLY (COPPER PIPE, TYPE 'L')
- NATURAL GAS SUPPLY (IPS YELLOW POLY GAS PIPE)

SEWERAGE LEGEND

- WASTE WATER/ SEWER LINE
- DRAINAGE SYSTEM VENTILATION LINE

1 2" W DN B.G., VTR

2 2" W DN B.G., 1-1/2" V UP



WATER SUPPLY AND NATURAL GAS LAYOUT

FIRST FLOOR

SCALE: 1/4"=1'-0"

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GULF PROJECT SOLUTIONS

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NAILING SCHEDULE--FRAMING MEMBERS

CONNECTED MEMBERS	NAIL SIZE (NOTE 1)	NUMBER OR NAILING PATTERN
BRIDGING TO JOIST	8d	2TOE NAIL EA. END
SOLE PLATE TO JOIST OR BLOCKING.	16d	@ 16" O.C. FACENAIL.
TOP PLATE TO STUD	16d	2 END NAIL.
STUD TO SOLE PLATE.	8d OR 16d	4 TOE NAIL. 2 END NAIL
DOUBLE STUDS.	16d	@ 24" FACE NAIL.
DOUBLED TOP PLATES.	2@16d	@ 12" FACE NAIL.
TOP PLATES: LAPS & INTERSECTIONS.	16d	2 FACE NAIL.
CONTINUOUS HEADER, TWO PIECE.	16d	@ 16" FACE NAIL ALONG EA. EDGE.
CEILING JOISTS TO PLATE.	8d	3 TOE NAIL.
CONTINUOUS HEADER TO STUD.	8d	4 TOE NAIL.
CEILING JOISTS, LAPS OVER PARTITIONS.	16d	3 FACE NAIL.
CEILING JOISTS TO PARALLEL RAFTERS.	16d	3 FACE NAIL.
RAFTER TO PLATE.	8d	3 TOE NAIL.
1" BRACE TO EACH STUD & PLATE.	8d	2 FACE NAIL.
BUILT UP CORNER STUDS.	16d	@ 24" FACE NAIL.
CONTINUOUS HEADER, 3 OR MORE PIECE&BUILT UP GIRDERS OR BEAMS.	BOLTS	RE: GEN. NOTES.

NOTES: ALL NAILS SHALL BE COMMON UNLESS NOTED OTHERWIISE.

NAILING SCHEDULE--WALL SHEATHING AND SIDING

SHEATHING TYPE & THICKNESS	FASTNER SIZE & TYPE	NAILING PATTERN
PLYWOOD & PARTICLE BOARD		6" O.C. @ PANEL EDGES
LESS THAN 1/2"	6d COMMON DEFORMED SHANK OR STAPLE	12" O.C. @ INTERMEDIATE SUPPORTS
1/2" THRU 3/4"	8d COMMON, OR 6D DEFORMED SHANK	
FIBERBOARD		
1/2" OR LESS	6d COMMON NAILS, OR NO. 11 GA. NAILS (2) OR, NO. 16 GA. STAPLES (3) OR,	3" O.C. @ PANEL EDGES 6" O.C. @ INTERMEDIATE SUPPORTS
25/32"	8d COMMON NAILS OR NO. 11 GA. NAILS (2) OR, NO. 16 GA. STAPLES (3)	
GYPSUM SHEATHING		
1/2" OR 5/8"	12 GA. (4)	4" O.C. @ EDGES 8" O.C. @ INTERMEDIATE SUPPORTS
GYPSUM WALLBOARD		
1/2"	1 3/8" DRYWALL NAILS	7" O.C. @ CEILINGS
5/8"	1 1/2" DRYWALL NAILS	8" O.C. @ WALLS
PANEL SIDING (TO FRAMING)		
1/2" OR LESS	6d (1)	1 EACH PANEL
5/8"	8d (1)	

NOTES ON "NAILING--WALL SHEATHING & SIDING"

1. CORROSION-RESISTANT SIDING OR CASING NAILS CONFORMING TO THE REQUIREMENTS OF IRC
2. CORROSION-RESISTANT ROOFING NAILS WITH 7/16-INCH DIAMETER HEAD AND 1 1/2-INCH IN LENGTH FOR 1/2-INCH SHEATHING AND 1 3/4-INCH LENGHT FOR 25/32-INCH SHEATHING CONFORMING TO THE REQUIREMENTS OF IRC
3. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16-INCH CROWN CROWN AND 1 1/8-INCH LENGHT FOR 1/2-INCH SHEATHING AND 1 1/2-INCH LENGHT FOR 25/32-INCH SHEATHING CONFORMING TO THE REQUIREMENTS OF IRC
4. CORROSION-RESISTANT, LARGE HEAD.

NAILING SCHEDULE--FLOOR & ROOF DECK

DECK TYPE & THICKNESS	NAIL SIZE (NOTE 1)	NUMBER OR NAILING PATTERN
PLYWOOD OR PARTICLE BOARD		
1/2" OR LESS	6" COMMON, DEFORMED SHANK OR STAPLE (1)	6" O.C. @ PANEL EDGES
19/32" THRU 3/4"	8d COMMON, OR 6d DEFORMED SHANK	12" O.C. @ INTERMEDIATE SUPPORTS (TYP)
7/8" THRU 1" (FLR.)	8d COMMON OR DEFORMED SHANK	
1 1/8" THRU 1 1/4" (FLR.)	10d COMMON OR 8d DEFORMED SHANK	

NOTES: (1) CORROSION-RESISTANT STAPLES

GRADES
ROOF RAFTERS: NO. 2 SOUTHERN YELLOW PINE (SYP), KD, S4S.
CEILING & FLOOR JOISTS: NO. 2 SOUTHERN YELLOW PINE (SYP), KD, S4S.
BEAMS & HEADERS: NO. 2 SOUTHERN YELLOW PINE (SYP), KD, S4S.
STUDS: STUD GRADE, SYP, KD, S4S.
WOOD POSTS: NO. 2 SYP, SURFACE GREEN.

BEAMS AND HEADERS

1. AT BEAMS MADE UP OF A NUMBER OF 2x JOISTS, EACH JOIST WILL BEAR ON A WALL STUD (I.E. NUMBER OF WALL STUDS SHALL MATCH NUMBER OF JOISTS BEARING ON THESE STUDS). THE CENTERLINE OF THE BEAM SHALL BE THE CENTERLINE OF THE SUPPORTING WALL STUDS.
2. ALL BEAMS MADE UP OF A NUMBER OF 2x JOISTS SHALL BE FASTENED AS FOLLOWS: FOR THE MAXIMUM HORIZONTAL SPACING OF BOLTS:
   2-2x12 16 d NAILS@ 12" TOP & BOTTOM, STAGGER, EA. FACE
   3-2x12 20 d NAILS@ 12" TOP & BOTTOM, STAGGER, EA. FACE
   4-2x12 (OR MORE) @ BOLTS @ 12" TOP & BOTTOM, STAGGER (W/ STD WASHERS)
   BOLTS SHALL BE 5/8"∅, LOCATED 2" MINIMUM FROM BEAM EDGES AND SHALL BE STAGGERED IN TOP AND BOTTOM ROWS. PROVIDE STANDARD WASHERS @ EACH FACE.
3. ALL DOOR AND WINDOW HEADERS (OR HEADERS AT ANY OTHER OPENING) THAT ARE NOT SPECIFIED ON PLANS SHALL BE AS FOLLOWS:
   FLOOR FRAMING: 2-2X12
   CEILING FRAMING: 2-2X8
4. MINIMUM BEARING OF ANY BEAM OR HEADER AT A STUD WALL IS 3 INCHES

NOTES:
1. ALL BEAMS MADE UP OF MULTIPLE 2x MEMBERS SHALL BE SUPPORTED @ EA. END BY A POST EQUAL IN THICKNESS TO THE BEAM (MIN.) I.E. 2-2x12 BEAM SHALL REQUIRE 2-2x STUD POST (MIN.) SOLID SAWN LUMBER MAY BE SUBSTITUTED FOR BUILT-UP POSTS.
2. COLUMNS MADE UP OF MULTIPLE 2x MEMBERS SHALL BE GLUED & FASTENED TO ACT AS A UNIT AS DETAILED BELOW.
3. UNLESS NOTED OTHERWISE, PARALLEL STRAND LUMBER (PSL) AND LAMINATED LUMBER (LSL & LVL) BEAMS & HEADERS SHALL BE SUPPORTED AT EACH END AS FOLLOWS:
   3 INCH WIDE MEMBERS.....3-2x STUDS OR 4x6 POST
   5 INCH WIDE MEMBERS UP TO 14" DEPTH.....4-2x STUDS OR 4x6 POST
   5 INCH WIDE MEMBERS OVER 14" DEPTH.....5-2x STUDS OR 4x8 POST
   7 INCH WIDE MEMBERS.....5-2x STUDS OR 4x8 POST
   MAX. COLUMN OR POST HEIGHT: 10'-0". RE: PLANS OR CONSULT ENGINEER FOR LARGER HEIGHTS.

JOISTS
1. JOIST BLOCKING
   A) JOISTS SHALL BE LATERALLY SUPPORTED AT EACH END AND AT EACH SUPPORT BY SOLID BLOCKING EXCEPT WHERE THE ENDS OF JOISTS ARE NAILED INTO A HEADER, BAND OR RIM JOIST OR TO AN ADJOINING STUD. SOLID BLOCKING SHALL NOT BE LESS THAN TWO INCHES IN THICKNESS AND SHALL MATCH THE DEPTH OF THE JOIST.
   B) PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS PERPENDICULAR TO THE DIRECTION OF THE JOISTS.
   C) PROVIDE DOUBLE JOISTS UNDER ALL BEARING WALLS PARALLEL TO THE DIRECTION OF THE JOISTS.
2. JOIST BRIDGING
   PROVIDE BRIDGING AT ALL FLOOR JOISTS AT SPACING NOT TO EXCEED 8'-0".
3. JOIST HOLES AND NOTCHES
   A) NOTCHES IN TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE SIXTH (1/6) THE JOIST DEPTH AND SHALL NOT BE LOCATED WITHIN MIDDLE THIRD OF THE SPAN.
   B) HOLES SHALL NOT BE CLOSER THAN 2" TO TOP OR BOTTOM OF JOIST. THE DIAMETER OF ANY HOLE SHALL NOT EXCEED ONE FOURTH (1/4) THE JOIST DEPTH UNLESS

FASTENERS

1. BOLTS:
   A. ALL BOLTS SHALL CONFORM TO ASTM-A307, INSTALLED WITH STANDARD NUTS AND WASHERS.
   B. MAINTAIN A MINIMUM DISTANCE OF 1 1/2 TIMES BOLT DIAMETER TO EDGE OF CONNECTED STEEL MEMBER.
   C. BOLT HOLE DIAMETER SHALL NOT EXCEED BOLT DIAMETER BY MORE THAN 1/16".

STUD WALLS

STUDS SHALL BE AS FOLLOWS:
2x4 OR 2x6 @ 16" AT ALL FLOORS IN ONE- OR TWO- STORY STRUCTURES.
DBL 2x4 OR 2x6 @ 16" AT ALL STUD WALLS AT FIRST FLOOR AREAS DIRECTLY BELOW A THIRD FLOOR.
PROVIDE A MINIMUM OF TWO (2) STUDS AT EACH SIDE OF OPENINGS LARGER THAN 4'-0", FULL HEIGHT OF WALL (KING STUDS).
MAXIMUM STUD WALL HEIGHT SHALL BE AS FOLLOWS:
2x4 STUDS @ 16" o.c. 10'-0"
2x6 STUDS @ 16" o.c. 13'-0"
2x8 STUDS @ 16" o.c. 16'-0"
BLOCKING & LATERAL BRACING:
PROVIDE BLOCKING AND/OR TEMPORARY CROSS BRACING AS REQUIRED TO ENSURE STUD STRAIGHTNESS ACCORDING TO SPECIFIED TOLERANCES.
MAXIMUM TOLERANCE FOR STUD STRAIGHTNESS IN EITHER DIRECTION IS 1/4 INCH PER TEN (10) FEET OF STUD HEIGHT.
MINIMUM BLOCKING:
1 ROW FOR STUD HEIGHT UP TO 9'-0";
2 ROWS FOR STUD HEIGHT UP TO 15'-0";
3 ROWS FOR STUD HEIGHT OVER 15'-0".

HURRICANE CLIPS:

PROVIDE HURRICANE CLIPS @ EVERY ROOF TRUSS OR RAFTER.
(SIMPSON H2.5)

MISCELLANEOUS:

ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE TREATED LUMBER.

PLYWOOD FLOOR DECK:

PLYWOOD SHALL BE A MINIMUM OF 3/4" THICK AND RATED STURO-I-FLOOR (2-4-1)

LAY PANELS IN A STAGGARED PATTERN.
BLOCK ALL EDGES W/ 2-2x4 BLOCKING.
GLUE & NAIL TO FRAMING MEMBERS AS FOLLOWS:
GLUE SHALL CONFORM TO APA SPECIFICATION AF6-01, APPLIED IN A CONTINUOUS BEAD & IN ACCORDANCE WITH THE MANUFATURER'S RECOMMENDATIONS.
ALL NAILS SHALL BE 8d RING OR SCREW SHANK. NAIL SPACING SHALL BE 4" O.C. @ PANEL EDGES & 12" O.C. @ INTERMEDIATE SUPPORTS.

ROOF DECK:

MINIMUM THICKNESS SHALL BE 5/8" THICK. MATERIAL SHALL BE CDX PLYWOOD.
ORIENTED STRAND BOARD (OSB) MAY BE USED IN LIEU OF PLYWOOD.
MINIMUM NAILING SHALL BE AS REQUIERD BY THE BUILDING CODE.
PLYWOOD CLIPS SHALL BE INSTALLED @ ROOF DECKING TO RESULT IN A 1/8" GAP BETWEEN ALL PANEL EDGES. PROVIDE 1 CLIP PER SPAN (JOIST SPACING). CLIPS SHALL BE SIMPSON PSCL, TO MATCH CORRESPONDING PLYWOOD THICKNESS.

CONNECTORS

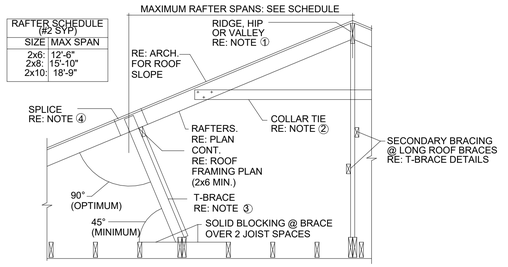
1. CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC.,
2. CONNECTORS SHALL BE THE MANUFACTURER-DESIGNATED SIZE FOR FRAMED MEMBERS, AND SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. ALL NAIL & BOLT HOLES SHALL BE ENGAGED, WITH MANUFACTURER-DESIGNATED FASTENERS.
4. CONNECTORS SHALL BE INSTALLED AT THE ENDS OF ALL JOISTS & BEAMS FRAMING INTO OTHER (SUPPORTING) MEMBERS (UNLESS OTHERWISE NOTED).
5. THE FOLLOWING CONNECTORS SHALL BE PROVIDED AND SHALL BE CONSIDERED THE MINIMUM:

MEMBER DESCRIPTION	CONNECTOR SERIES
SAWN-LUMBER JOISTS	U
I-JOISTS	IUS
MULTIPLE-JOIST/BEAMS	HUS
PSL & LVL BEAMS	LBV
LSL (GLU-LAM) BEAMS	HGUS
WOOD TRUSSES	BY TRUSS MANUFACTURER

BEAM SCHEDULE

CALL OUT IN PLAN	BEAM TO USE	SIMPSON HANGER
B26	(2) 2x6	HU26-2
B28	(2) 2x8	HU28-2
B210	(2) 2x10	HU210-2
B212	(2) 2x12	HU212-2
B36	(3) 2x6	HU26-3
B38	(3) 2x8	HU28-3
B310	(3) 2x10	HU210-3
B312	(3) 2x12	HU212-3
B410	3.5" x 9 1/4" APB	HGUS412
B411	3.5" x 11 1/4" APB	HGUS412
B412	3.5" x 11 7/8" APB	HGUS412
B414	3.5" x 14" APB	HGUS414
B416	3.5" x 16" APB	HGUS414
B418	3.5" x 18" APB	HGUS414
B611	5.5" x 11 1/4" APB	HGUS5.50/12
B612	5.5" x 11 7/8" APB	HGUS5.50/12
B614	5.5" x 14" APB	HGUS5.50/14
B616	5.5" x 16" APB	HGUS5.50/14
B618	5.5" x 18" APB	HGUS5.50/14
B711	7" x 11 1/4" APB	HGUS7.25/12
B712	7" x 11 7/8" APB	HGUS7.25/12
B714	7" x 14" APB	HGUS7.25/14
B716	7" x 16" APB	HGUS7.25/14
B718	7" x 18" APB	HGUS7.25/14

TYPICAL WOOD FRAMING DETAILS



CEILING JOISTS PERPENDICULAR TO RAFTERS

DETAIL KEYED NOTES

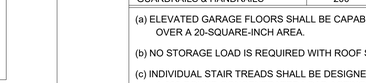
① RIDGE BEAM, HIP RAFTER, OR VALLEY RAFTER
DEPTH SHALL BE THE LARGER OF THE FOLLOWING:
A. ONE SIZE DEEPER THAN THE LARGEST RAFTER FRAMING INTO IT (2 x LUMBER)
B. DEPTH OF CUT END OF RAFTER.

② COLLAR TIES
2x4; LOCATED @ UPPER ONE THIRD (1/3) OF ROOF @ EVERY THIRD RAFTER OR 5'-0" (WHICHEVER SMALLER).

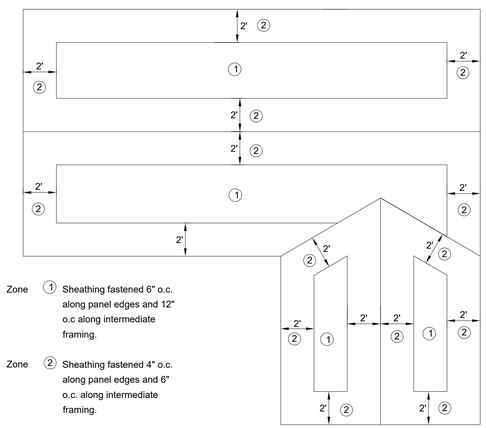
③ T-BRACE
A. RE: TYPICAL DETAILS BELOW
B. MAXIMUM SPACING AS FOLLOWS:
4'-0" @ 2x4 CONT. PURLIN
6'-0" @ RIDGE BEAM, HIP OR VALLEY RAFTER
C. BRACE SHALL BEAR ON AN INTERIOR WALL, BEAM OR STRONG-BACK (DOUBLE, 2 SIZES LARGER THAN JOIST) RE: FRAMING PLAN.

④ RAFTER, RIDGE, HIP & VALLEY RAFTER SPLICES
A. LOCATE SPLICE OVER A PURLIN, OR PROVIDE ADDITIONAL BRACE @ SPLICE
B. MINIMUM LAP = 12" NAIL W/4-16 NAILS.

TYPICAL ROOF T-BRACE DETAILS



BOLT CONNECTIONS AT PILING



ROOF SHEATHING ATTACHMENT

GENERAL NOTES: CODES & DESIGN LOADS

CODE:
INTERNATIONAL RESIDENTIAL CODE-2018

DESIGN LOADS:

1. ROOF LIVE LOADS 20 PSF
2. FLOOR LIVE LOADS

USE	LOAD (PSF)	USE	LOAD (PSF)
EXTERIOR BALCONIES	40	SLEEPING ROOMS	30
DECKS	40	OTHER ROOMS	40
FIRE ESCAPES	40	ATTIC W/ STORAGE	20 (b)
STAIRS	40 (c)	ATTIC W/O STORAGE	10 (b)
GUARDRAILS & HANDRAILS	200 (d)	GARAGE	50 (a)

(a) ELEVATED GARAGE FLOORS SHALL BE CAPABLE OF SUPPORTING A 2,000-POUND LOAD APPLIED OVER A 20-SQUARE-INCH AREA.

(b) NO STORAGE LOAD IS REQUIRED WITH ROOF SLOPES OF 3 IN 12, OR FLATTER.

(c) INDIVIDUAL STAIR TREADS SHALL BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OR A 300-POUND CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQUARE INCHES, WHICHEVER PRODUCES THE GREATER STRESSES.

(d) A SINGLE CONCENTRATED LOAD APPLIED IN ANY DIRECTION @ ANY POINT ALONG THE TOP.

3. WIND LOADS
ASCE STANDARD 7-16 ULTIMATE WIND SPEED FOR RISK CATEGORY II OF 150 MPH PER CODE (SEE ABOVE)

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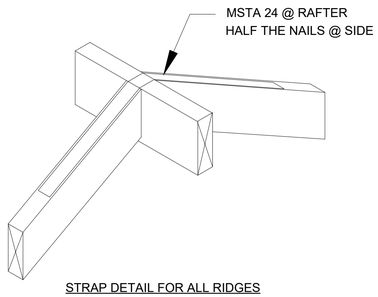
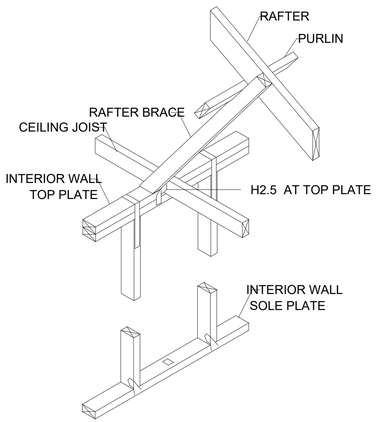
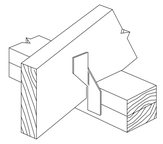


STRAP DETAIL FOR ALL RIDGES



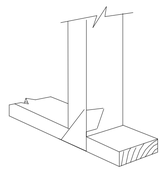
RAFTER DETAIL



H2.5 @ EACH RAFTER TO TOP PLATE

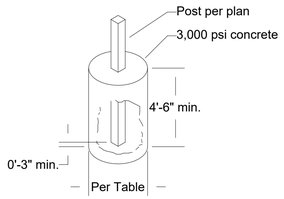
H2.5 @ EACH STUD TO TOP PLATE

H2.5 INSTALLATION AT @ RAFTER & TOP PLATE TO @ STUD



H2.5 @ EACH STUD TO PLATE

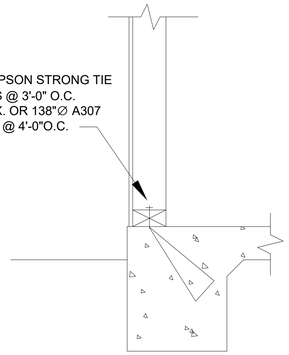
H2.5 INSTALLATION AT BASE PLATE



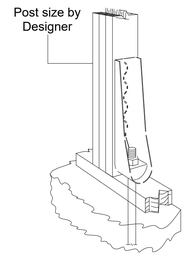
Post Size	Min. Hole ∅
4x4	12"
6x6	15"
8x8	18"
10x10	21"
12x12	24"

Non-driven Post Embeddment Detail

NOT TO SCALE



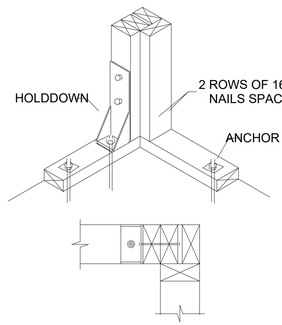
SLAB ON GRADE



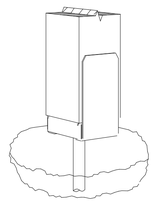
HDU5
(HDU2, HDU8, HDU11, and HDU14 similar)

HDU Hold-down Detail

NOT TO SCALE



TYPICAL CORNER FRAMING



ABU44
(ABU66, ABU88 similar)

Post Base Detail

NOT TO SCALE

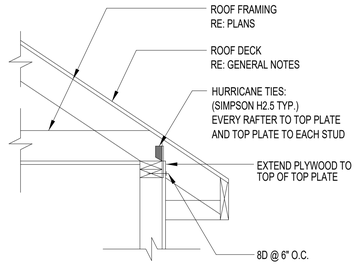
SHEAR WALL NOTES:

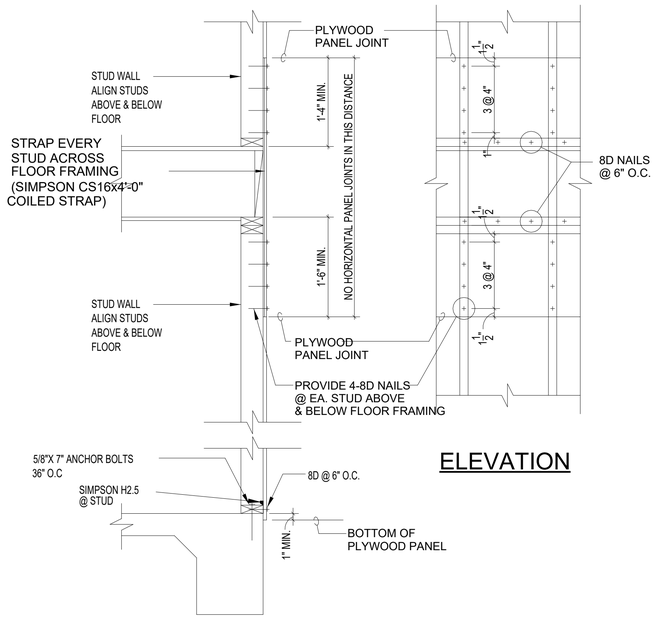
1. ALL EXTERIOR WALLS TO HAVE 19/32" APA RATED SHEATHING EXP 1 ALL AROUND W/NAILING PATTERN 8d AT 6" O.C. TYPE SW1 PER SHEAR WALL SCHEDULE
2. ½" DRYWALL WITH 5d COOLER NAILS AT 7" O.C. AT EDGES, W/UNBLOCKED CONSTRUCTION. PROVIDE THIS AS STANDARD CONSTRUCTION AT ALL WALLS.
3. PROVIDE BLOCKING AT ALL SHEATHING EDGES. PROVIDE DOUBLE STUDS OR 4X4 MEMBERS AT EACH END OF EACH SHEAR WALL WITH ONE PROPERLY NAILED HOLD DOWN ANCHOR AS NOTED ON PLAN. SEE HOLD DOWN ANCHOR SCHEDULE ON SHEAR WALL DETAIL SHEET. ALL HOLD DOWN ANCHORS SHALL BE SIMPSON.
4. PROVIDE ½"ø x 7" ANCHOR BOLTS AT 3'-0" O.C. MAX. AND AT LEAST 2 BOLTS IN THE MIDDLE OF EACH SHEAR WALL LONGER THAN 4'-0".
5. PROVIDE CONTINUOUS HURRICANE CLIPS FROM ROOF TO FOUNDATION AS SHOWN IN DETAIL NOTED ON STRUCTURAL DRAWINGS. CLIPS SHALL BE SIMPSON TYPE H2.5.
6. THE FLOOR DIAPHRAGM SHALL BE A MIN. OF ¾" APA STRUCTURAL GRADE PLYWOOD & ROOF DIAPHRAGM SHALL BE A MIN. OF 5/8" STRUCTURAL GRADE PLYWOOD. BOTH DIAPHRAGMS SHALL BE PLACED WITH 10d NAILS AT A MIN. OF 6" O.C. AT ALL EXTERIOR EDGES.
7. ALL SHEAR WALLS SHALL BE TIED TO THE DIAPHRAGMS BY 10d NAILS AT A MIN. SPACING OF 6" O.C.

8. SW12 - INDICATES SHEAR WALL TYPE AND MIN. REQUIRED LENGTH - SEE SCHEDULE BELOW.

SHEARWALL SCHEDULE

TYPE	SHEATHING/NAILING PATTERN
SW1	1 LAYER OF 19/32" APA RATED SHEATHING EXP 1 W/8d NAILS @ 6" O.C. AT ALL EDGES
SW2	1 LAYER OF 15/32" APA RATED SHEATHING EXP 1 W/8d NAILS @ 4" O.C. AT ALL EDGES
SW3	1 LAYER OF 15/32" APA RATED SHEATHING EXP 1 W/8d NAILS @ 3" O.C. AT ALL EDGES
SW4	2 LAYERS OF 15/32" APA RATED SHEATHING EXP 1 W/10d NAILS @ 6" O.C. AT ALL EDGES
SW5	2 LAYERS OF 15/32" APA RATED SHEATHING EXP 1 W/10d NAILS @ 4" O.C. AT ALL EDGES

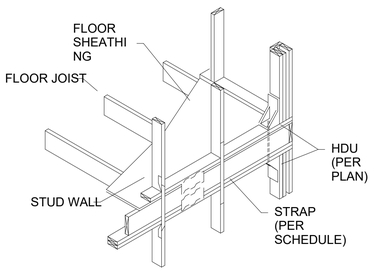




ELEVATION

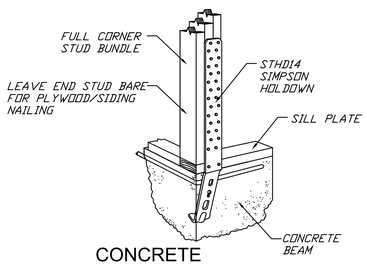
TYPICAL WIND STRAPPING DETAILS FOR A SLAB ON GRADE HOUSE

NOT TO SCALE



FLOOR CORNER HOLD-DOWN DETAIL

NOT TO SCALE



CONCRETE FOUNDATION HOLD-DOWN DETAIL

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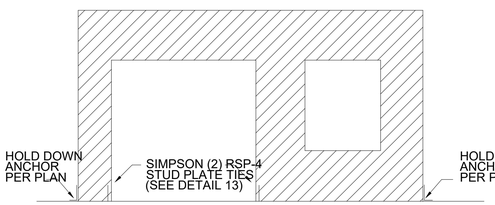
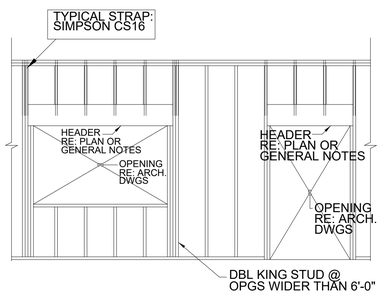
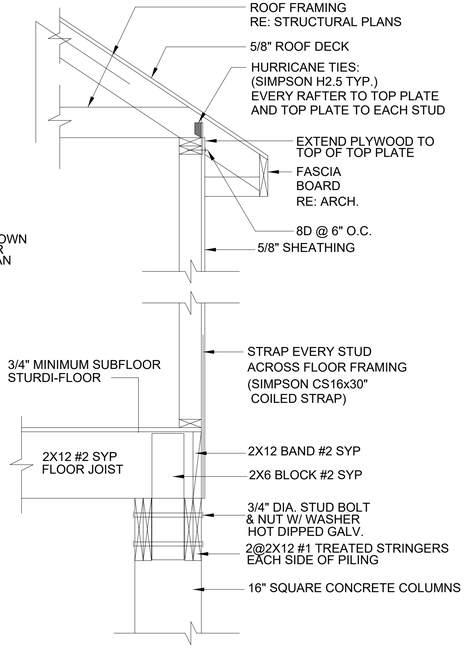


7 SHEAR WALL OPENING ELEVATION



TYPICAL STRAPPING @ EXTERIOR WALL OPENINGS



TYPICAL WIND STRAPPING PILE HOUSE

NOT TO SCALE

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11/25/23

PROJECT FOR: SINGLE STORY RESIDENCE

510 BLUEBONNET DR
LA MARQUE, TX 77568

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11/22/2023	EV

Drawn by: Author

Date: 7/27/2023

Job No.: ####

Sheet: F2

DECK LEDGER CONNECTION TO BAND JOIST [a, b] (Deck live load = 40 psf, deck dead load = 10 psf, snow load <= 40 psf)

CONNECTION DETAILS	JOIST SPAN						
	X<6'	6'-1" to 8'	8'-1" to 10'	10'-1" to 12'	12'-1" to 14'	14'-1" to 16'	16'-1" to 18'
	On-center spacing of fasteners						
1/2"Ø lag screw w/ 1/2" max. sheathing [c, d]	30"	23"	18"	15"	13"	11"	10"
1/2"Ø bolt w/ 1/2" max. sheathing [d]	36"	36"	34"	29"	24"	21"	19"
1/2"Ø bolt w/ 1" max. sheathing [e]	36"	36"	29"	24"	21"	18"	16"

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa

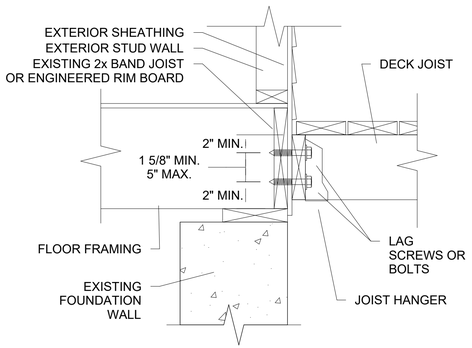
a. Ledgers shall be flashed in accordance with Section R703.4 to prevent water from contacting the house band joist.
b. Snow load shall not be assured to act concurrently with live load.
c. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
d. Sheathing shall be wood structural panel or solid sawn lumber.
e. Sheathing shall be permitted to be wood structural panel, gypsum board, lumber or foam sheathing. Up to 1/2" thickness of stacked washers shall be permitted to substitute for up to 1/2" of allowable sheathing thickness where combined with wood structural panel or lumber sheathing.

PLACEMENT OF LAG SCREWS AND BOLTS IN DECK LEDGERS AND BAND JOISTS

MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS				
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
Ledgers [a]	2" [d]	3/4"	2" [b]	1 5/8" [b]
Band Joist [c]	3/4"	2"	2"	1 5/8" [b]

For SI: 1 inch = 25.4 mm

a. Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.9.1.3(1).
b. Maximum 5 inches.
c. For engineered rim joists, the manufacturer's recommendations shall govern.
d. The minimum distance from bottom row of lag screws or bolts to the top edge of the ledger shall be in accordance with Figure R507.9.1.3(1).

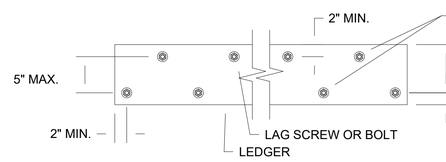


For SI: 1 inch = 25.4 mm

PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS

Ledger details.
Deck ledgers shall be a [min. 2x8] nominal, pressure-treated Southern pine... or approved, naturally durable, No. 2 grade or better lumber. Deck ledgers shall not support concentrated loads from beams or girders. Deck ledgers shall not be supported on stone or masonry veneer.

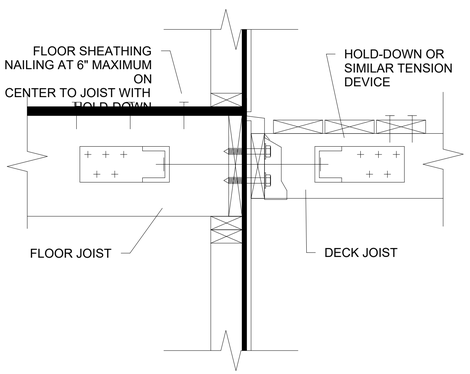
Lateral connection.
Lateral loads shall be transferred to the ground or to the structure capable of trnsmitting them to the ground. Where the lateral load connection is provided in accordance with Figure R507.9.2(1), hold-down tension devices shall be installed in not less than two locations per deck, within 24 inches (610 mm) of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds (6672 N). Where the lateral connections are provided in accordance with Figure R507.9.2(2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds (3336 N).



*DISTANCE SHALL BE PERMITTED TO BE REDUCED TO 4.5" IF LAG SCREWS ARE USED OR BOLT SPACING IS REDUCED TO THAT OF LAG SCREWS TO ATTACH 2x8 LEDGERS TO 2x8 BAND JOISTS.

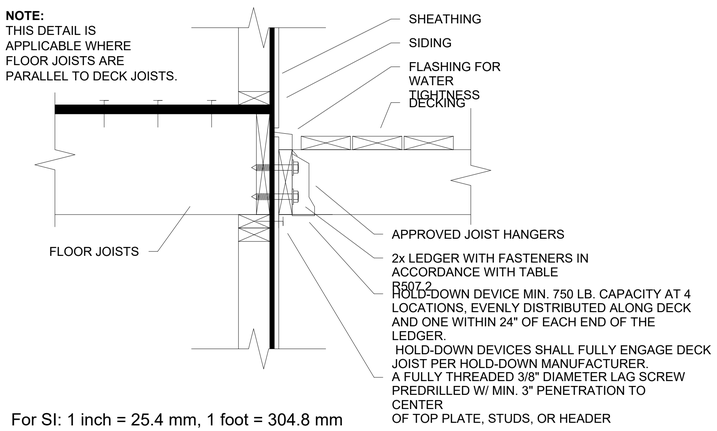
For SI: 1 inch = 25.4 mm

PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS



For SI: 1 inch = 25.4 mm

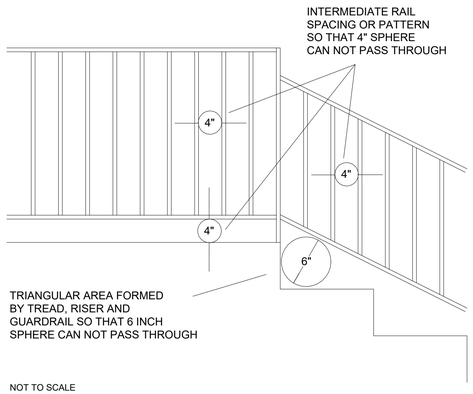
DECK ATTACHMENT FOR LATERAL LOADS



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

ATTACHMENT FOR LATERAL LOADS

THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPEDPLANE ADJOINING THE TREAD NOSINGS OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM.

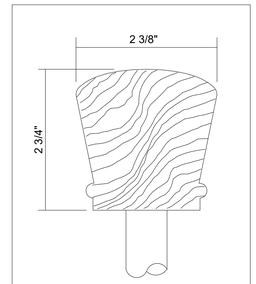


NOT TO SCALE

THE TOP OF HANDRAILS AND HANDRAIL EXTENSIONS SHALL BE PLACED NOT LESS THAN 34 INCHES OR MORE THAN 38 INCHES ABOVE THE NOSING OF TREADS AND LANDINGS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS AND, EXCEPT FOR PRIVATE STAIRWAYS, AT LEAST ONE HANDRAIL SHALL EXTEND IN THE DIRECTION OF THE STAIR RUN NOT LESS THAN 12 INCHES BEYOND THE TOP RISER OR LESS THAN 12 INCHES BEYOND THE BOTTOM RISER. ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS.

THE HANDGRIP PORTION OF HANDRAILS SHALL NOT BE LESS THAN 1 1/2 INCHES OR MORE THAN 2 INCHES IN CROSS-SECTIONAL DIMENSION OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. THE HANDGRIP PORTION OF HANDRAILS SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS.

HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2 INCHES BETWEEN THE WALL AND THE HANDRAIL.



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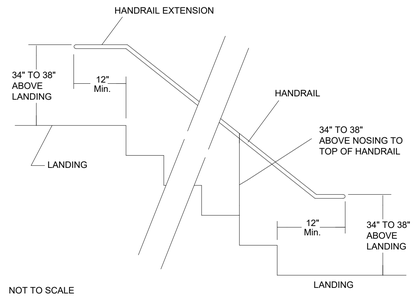

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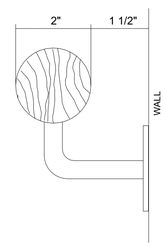

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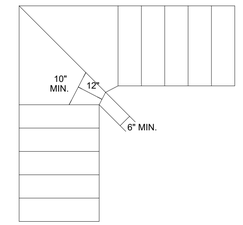
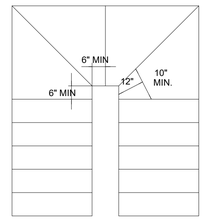
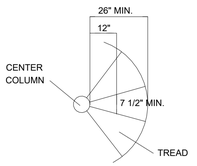
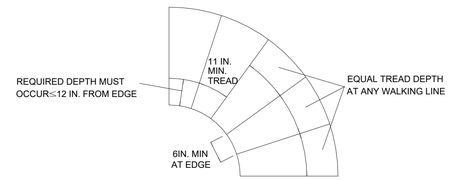




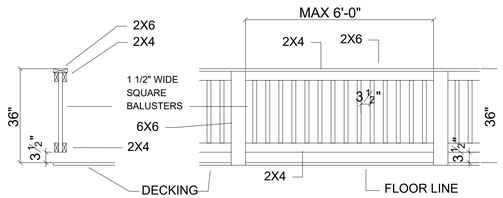
WINDERS



SPIRAL STAIR



CIRCULAR STAIRWAY



TYPICAL EXTERIOR RAILING DESIGN

NOT TO SCALE

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8/12/2023	EV
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11/22/2023	EV

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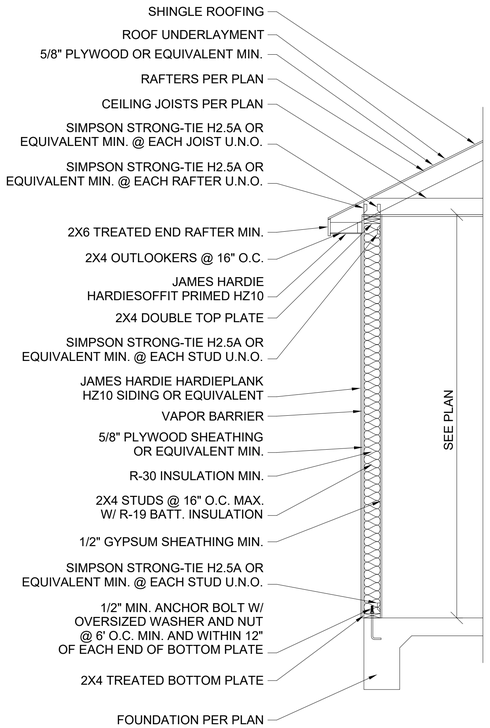
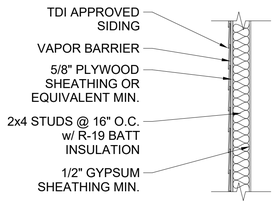


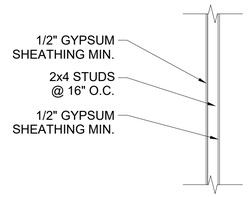
TYPICAL WALL SECTION

Scale: 1/2" = 1'-0"



TYPICAL EXTERIOR WALL DETAIL

Scale: 1/2" = 1'-0"



TYPICAL INTERIOR WALL DETAIL

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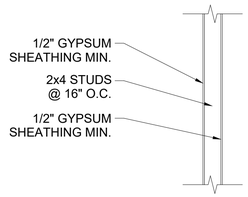

TYPICAL INTERIOR PLUMBING WALL DETAIL

Scale: 1/2" = 1'-0"

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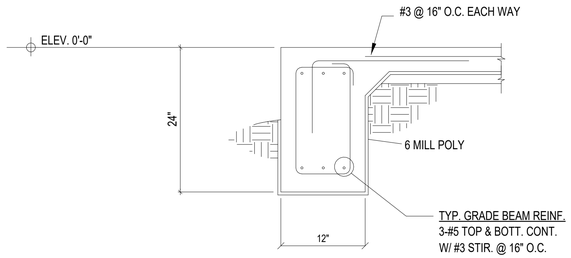
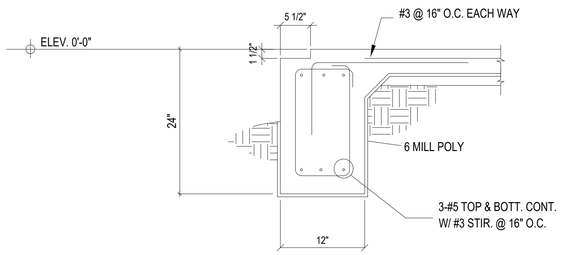
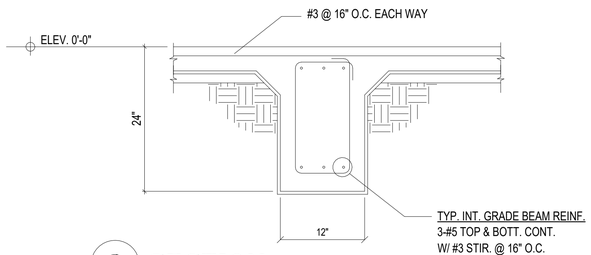


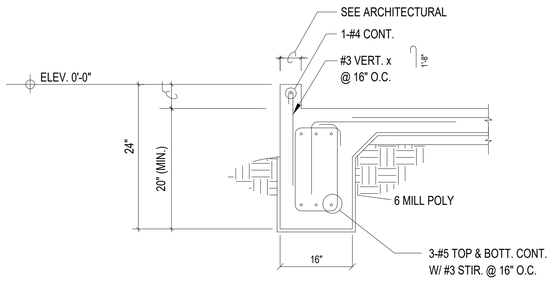
1 SECTION: TYPICAL EXT. GRADE BEAM NO BRICKLEDGE



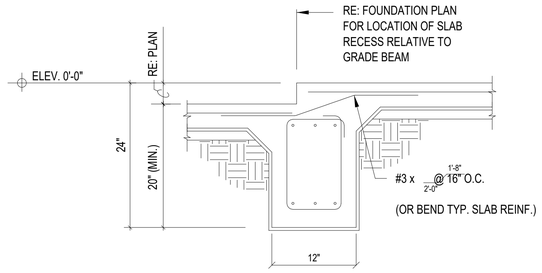
2 SECTION: TYPICAL EXT. GRADE BEAM W/BRICK LEDGE



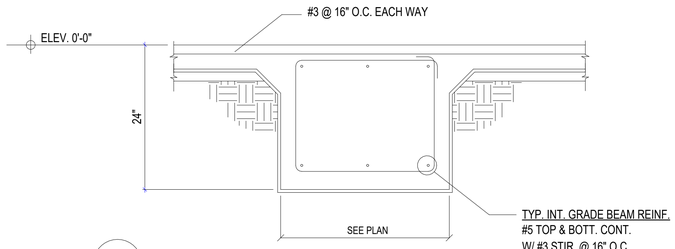
3 SECTION: TYPICAL INTERIOR GRADE BEAM



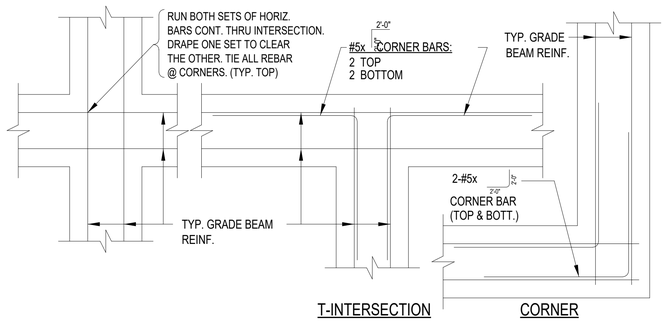
4 SECTION: TYPICAL GRADE BEAM @ STUD WALL CURB



5 SECTION: TYPICAL GRADE BEAM @ SLAB RECESS



6 SECTION: TYPICAL INTERIOR WIDENED GRADE BEAM



TYPICAL REINFORCEMENT DETAILS

FOUNDATION DESIGN IS BASED ON THE INTERNATIONAL BUILDING CODE'S PROVISIONS FOR ALLOWABLE FOUNDATION AND LATERAL PRESSURES IBC TABLE 1804.2: CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT (CL, ML, MH, AND CH)

SUBGRADE PREPARATION AND FILL:

1. STRIP AREAS WITHIN BUILDING LINES TO REMOVE ALL VEGETATION, TOP SOIL AND DEBRIS.
2. FOLLOWING STRIPPING, PROOF ROLL EXPOSED SUBGRADE TO IDENTIFY WEAK OR SOFT AREAS. SUCH ZONES SHALL BE REMOVED AND REPLACED WITH SELECT FILL.
3. GRADE AREA TO PREVENT PONDING OF WATER. DO NOT ALLOW EXPOSED SUBGRADE TO DRY.
4. ALL FILL SHALL BE SELECT MATERIALS FOLLOWS:
   CLEAN SANDY CLAY, FREE OF ORGANIC MATTER
   PLASTICITY INDEX (PI) : 7 TO 20 % LIQUID LIMIT: 28 TO 40 %
5. FILL SHALL BE PLACED IN MAXIMUM LOOSE LIFTS OF 8 INCHES AND COMPACTED TO AT LEAST 95% OF STANDARD PROCTOR (ASTM D698 MAXIMUM DRY DENSITY AT OR 2 PERCENTAGE POINTS ABOVE THE OPTIMUM MOISTURE CONTENT).
6. PROVIDE 4-8" LOOSE LIFTS OF COMPACTED FILL (TOTAL COMPACTED FILL THICKNESS = 24") AND 2" LEVELING SAND. (NOTE THAT EXISTING GRADE MAY HAVE TO BE CUT TO ACHIEVE THE COMPACTED FILL DEPTH SPECIFIED HEREIN.)
7. CONTRACTOR/ BUILDER SHALL AVOID, AS MUCH AS POSSIBLE, PLACEMENT OF GRADE BEAM TRENCH CUTTINGS UNDER SLAB AREAS. AS A MINIMUM, ALL PERIMETER GRADE BEAM TRENCH CUTTINGS SHALL BE DISPOSED OUTSIDE SLAB AREAS.
8. TESTING: ALL COMPACTED FILL SHALL BE TESTED BY A CERTIFIED TESTING AGENCY AT THE RATE OF ONE TEST PER 1,000 SQUARE FEET OF EACH LIFT.

SURFACE DRAINAGE:

THE FOLLOWING DRAINAGE PRECAUTIONS SHOULD BE OBSERVED DURING CONSTRUCTION AND AT ALL TIMES AFTER THE STRUCTURE HAS BEEN COMPLETED. BUILDER SHALL ADVISE OWNER OF THESE PRECAUTIONS.

1. BACKFILL AROUND THE STRUCTURE SHOULD BE A COHESIVE SOIL MATERIAL WHICH SHOULD BE MOISTENED AND COMPACTED TO AT LEAST NINETY (90) PERCENT OF STANDARD PROCTOR DENSITY. ANY COHESIONLESS SOIL MATERIAL ACCUMULATED AROUND THE PERIMETER OF THE STRUCTURE DURING CONSTRUCTION SHOULD BE REMOVED AND NOT ALLOWED TO BE MIXED WITH OR COVERED BY THE BACKFILL MATERIAL.
2. THE GROUND SURFACE SURROUNDING THE EXTERIOR OF THE STRUCTURE SHOULD BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE IN ALL DIRECTIONS FOR A MINIMUM DISTANCE OF FIVE (5) FEET (OR DISTANCE TO PROPERTY LINE, WHICHEVER IS LESS), WITH A MINIMUM OF FIVE (5) PERCENT (%) SLOPE. WATER SHOULD NOT BE ALLOWED TO POND NEXT TO THE STRUCTURE.
3. IN NO SUCH INSTANCE SHALL SURFACE DRAINAGE BE ALLOWED TO CROSS OVER ANY SIDE OR BACK PROPERTY LINES UNLESS A COMMON DRAINAGE AGREEMENT OR COMMON AREA AGREEMENT IS IN FORCE.
4. WHERE LANDSCAPING IS TO BE INSTALLED NEXT TO PERIMETER GRADE BEAMS, A MOISTURE BARRIER OR OTHER SUITABLE MEANS SHOULD BE INSTALLED TO PREVENT MOISTURE FROM ENTERING THE UNDERLYING CLAY SOILS.
5. ROOF DOWNSPOUTS AND DRAINS SHOULD DISCHARGE WELL AWAY FROM THE LIMITS OF THE FOUNDATIONS OR EDGE OF PERIMETER GRADE BEAMS.

CONCRETE:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE "ACI STANDARD BUILDING CODE REQUIREMENT FOR STRUCTURAL CONCRETE: (ACI 318-99)".
2. NORMAL WEIGHT CONCRETE (W = 145 PCF) WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH ($f'c$) = 3000 PSI.
3. CONCRETE SHOULD BE PLACED IN THE FOOTING EXCAVATIONS AS SOON AS POSSIBLE BUT NO LATER THAN THREE HOURS AFTER EXCAVATION TO MINIMIZE THE POSSIBILITY OF CAVING OF DRILLED PIERS.
4. CLEAN TOPS OF PIERS AND BOTTOM OF GRADE BEAM TRENCHES THOROUGHLY PRIOR TO PLACEMENT OF CONCRETE IN THE GRADE BEAMS.

REINFORCING STEEL:

1. BARS - CONFORM TO ASTM A-615-GRADE 60, DOWELS AND STIRRUPS - GRADE 40.
2. WELDED WIRE FABRIC - CONFORM TO ASTM A-185 OR A-409, FURNISHED IN FLAT SHEETS AND MUST BE SUPPORTED ON CHAIRS SPACED 4'-0" O.C. MAXIMUM EACH WAY.
3. DETAILING - CONFORM TO ACI DETAILING MANUAL, 315-80.
4. REINFORCING STEEL COVERAGE (PRIMARY REINFORCEMENT BARS) :
   FOOTINGS 3" BOTTOM AND SIDES
   GRADE BEAMS 1 1/2" TOP, 3" BOTTOM, 2" SIDES (2 1/2" SIDES IF EARTH FORMED)
   SLABS ON GRADE 1 1/4" TOP
   WALLS 1 1/2"
5. LAP CONTINUOUS REINFORCING STEEL 16" MINIMUM.
6. SLAB REINFORCEMENT SHALL BE SUPPORTED ON CHAIRS, @ A 4'-0" MAXIMUM SQUARE GRID.
7. GRADE BEAM BOTTOM REINFORCEMENT SHALL BE SUPPORTED ON CHAIRS @ 6'-0" MAXIMUM SPACING.

PIPING PENETRATIONS:

1. ALL PIPING PENETRATIONS THROUGH EXTERIOR GRADE BEAMS SHALL BE SLEEVED WITH SCHEDULE 40 PIPE.

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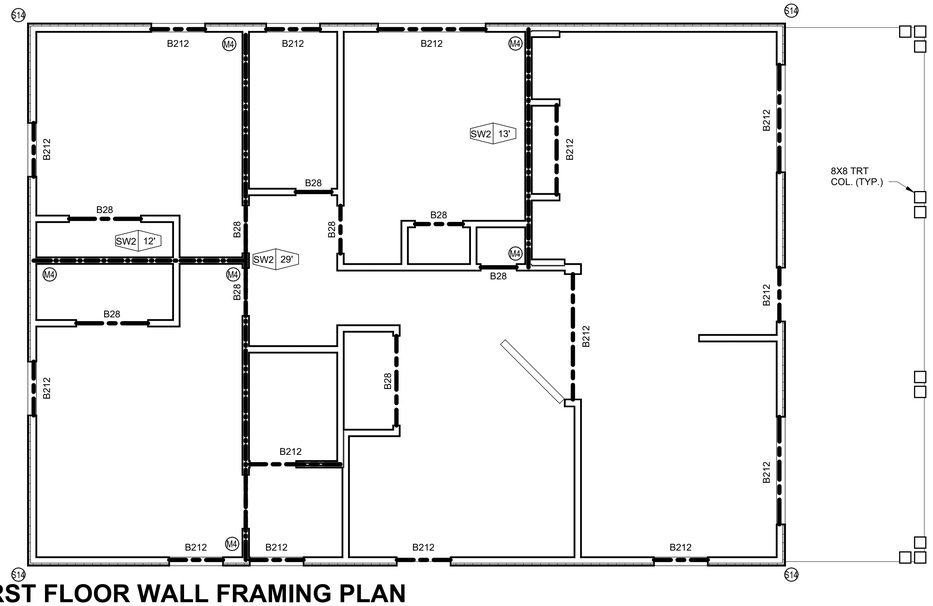
F-18126

11/25/23

PROJECT FOR: SINGLE STORY RESIDENCE
510 BLUEBONNET DR
LA MARQUE, TX 77568

Revisions	By
8/12/2023	EV
8/30/2023	EV
11/02/2023	EV
11/10/2023	EV
11/22/2023	EV

Drawn by: Author
Date: 7/27/2023
Job No.: ####
Sheet: FD1



FIRST FLOOR WALL FRAMING PLAN

Scale: 1/4" = 1'-0"

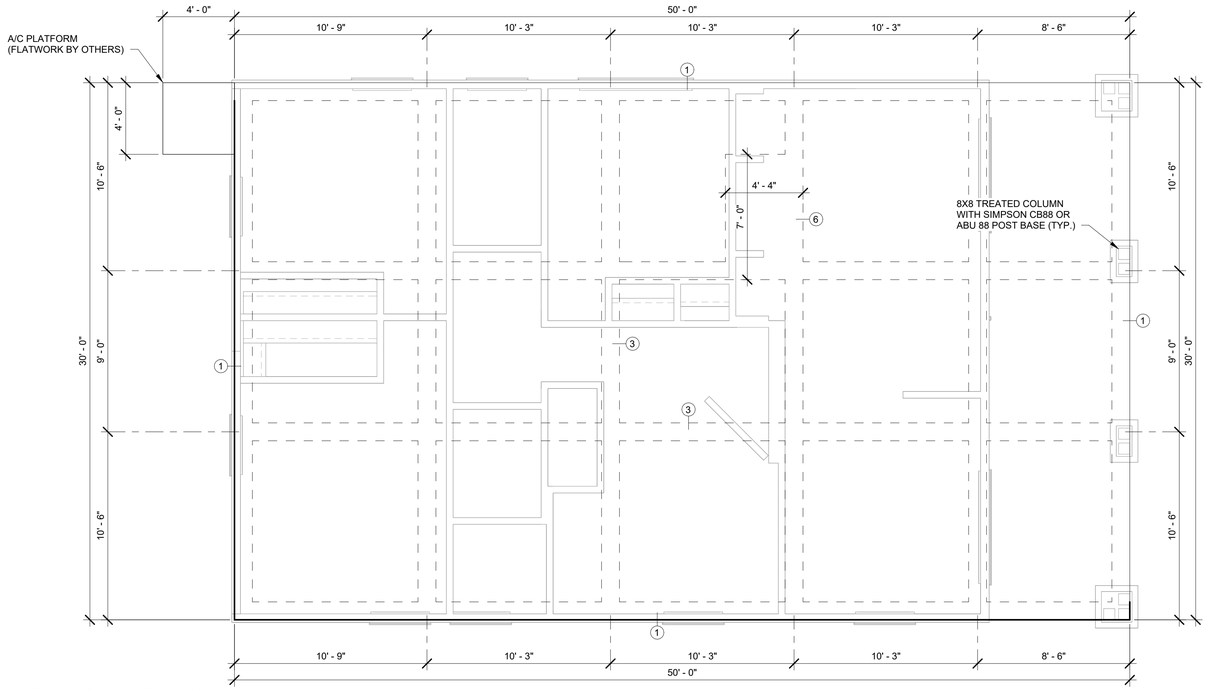
HOLD-DOWN LEGEND

- 4 — Simpson Strong-tie HDU4-SDS2.5 fastened to a minimum 2-stud pack above and if installed:
  - at foundation, fastened to concrete with 5/8" galv. anchor-bolt with minimum 7" embedment
  - between floors, fastened to 2-stud pack, 3x11.25 beam (built-up or solid), or piling, below floor diaphragm
- 5 — Simpson Strong-tie HDU5-SDS2.5 attached to a minimum 2-stud pack
  - at foundation, fastened to concrete with 5/8" galv. anchor-bolt with minimum 7" embedment
  - between floors, fastened to 2-stud pack, 3x15 beam (built-up or solid), or piling, below floor diaphragm
- 8 — Simpson Strong-tie HDU8-SDS2.5 attached to a minimum 3-stud pack
  - at foundation, fastened to concrete with 7/8" galv. anchor-bolt with minimum 7" embedment
  - between floors, fastened to 3-stud pack, 5.5x18 beam (built-up or solid), or piling, below floor diaphragm
- 11 — Simpson Strong-tie HDU11-SDS2.5 attached to a minimum 4-stud pack
  - at foundation, fastened to concrete with 1" galv. anchor-bolt with minimum 7" embedment
  - between floors, fastened to 4-stud pack, 5.5x24 beam (built-up or solid), or piling, below floor diaphragm
- 14 — Simpson Strong-tie HDU14-SDS2.5 attached to a minimum 5-stud pack
  - at foundation, fastened to concrete with 1" galv. anchor-bolt with minimum 7" embedment
  - between floors, fastened to 5-stud pack, 7x24 beam (built-up or solid), or piling, below floor diaphragm
- M4 — Simpson Strong-tie MSTC48B3 attached to 2-stud pack & minimum double 2x10 joist or 3.5x9.25 beam
- M6 — Simpson Strong-tie MSTC66B3Z attached to 2-stud pack & minimum triple 2x10 joist or 3.5x11.25 beam
- S14 — Simpson Strong-tie STHD14 embedded strap-tie holdown
- Simpson Strong-tie ABU66HDG for 6x6 posts, ABU88HDG for 8x8 posts over a minimum 2'x2'x3' concrete footing or embed post per Non-driven Post Embedment Detail on Sheet F3

Note: These are minimum requirements and can be substituted with a larger hold-down of different or same manufacturer without consulting the engineer provided that the larger hold-down is installed per manufacturer's installation instructions.

HEADER FRAMING NOTES:

1. ALL HEADERS SHALL BE #2 SYP.
2. BEAM SUPPORT DETAILS OR BEAM CONNECTION HANGERS, IF NOT GIVEN IN PLAN, SHALL BE AS PER THE HANGER MFR'S REQUIREMENTS.
3. ALL HEADERS SHALL BE A MINIMUM OF (2) 2x8 #2 SYP U.N.O.
4. PROVIDE A 11/2" MINIMUM BEARING EACH END FOR ALL 2 BEAMS AND HEADERS FOR OPENINGS LESS THAN 6'-0" AND 3" MINIMUM BEARING EACH END FOR ALL HEADERS AND BEAMS FOR OPENINGS 6'-0" AND GREATER U.N.O.



FOUNDATION PLAN

Scale: 1/4" = 1'-0"

SLAB NOTES:

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE "ACI STANDARD BUILDING CODE REQUIREMENT FOR STRUCTURAL CONCRETE: (ACI 318-99)".
2. NORMAL WEIGHT CONCRETE (W = 145 PCF) WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'C) = 3000 PSI.
3. 4" THICK 3000 P.S.I. CONCRETE REINFORCED W/ #3 @ 16" O.C. EA. WAY PLACED 1 1/2" DOWN FROM TOP OF SLAB OVER 6 MIL VAPOR BARRIER OVER 4" SELECT FILL COMPACTED TO 95%.

REINFORCING STEEL NOTES:

1. PROVIDE #5 CORNER BARS (2-TOP AND 2-BOTTOM) AT ALL CORNERS (SEE TYPICAL REINFORCEMENT DETAILS ON FD1)
2. REBAR TO CONFORM TO ASTM A-615-GRADE 60, DOWELS AND STIRRUPS - GRADE 40
3. WELDED WIRE FABRIC - CONFORM TO ASTM A-185 OR A-409, FURNISHED IN FLAT SHEETS AND MUST BE SUPPORTED ON CHAIRS AT 4'-0" O.C. MAXIMUM EACH WAY.
4. LAP CONTINUOUS REINFORCING STEEL MINIMUM 16 INCHES.
5. SLAB REINFORCEMENT SHALL BE SUPPORTED ON CHAIRS AT 4'-0" MAXIMUM SQUARE GRID.
6. GRADE BEAM BOTTOM REINFORCEMENT SHALL BE SUPPORTED ON CHAIRS AT 6'-0" MAXIMUM SPACING.

PILING NOTES:

1. PILING TO BE MINIMUM 12"X12"X20' TREATED WOOD PILING DRIVEN TO A DEPTH OF 10' BELOW NATURAL GRADE.
2. MINIMUM 6" CONCRETE FOOTING AROUND EACH PILING (REFER TO TYPICAL FOUNDATION DETAILS ON SHEET FD1).

PIPING PENETRATION NOTES:

1. ALL PIPING PENETRATIONS THROUGH EXTERIOR GRADE BEAMS SHALL BE SLEEVED WITH SCHEDULE 40 PIPE.

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11/25/23

PROJECT FOR: SINGLE STORY RESIDENCE
510 BLUEBONNET DR
LA MARQUE, TX 77568

Revisions	By
8/12/2023	EV
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Drawn by:	Author
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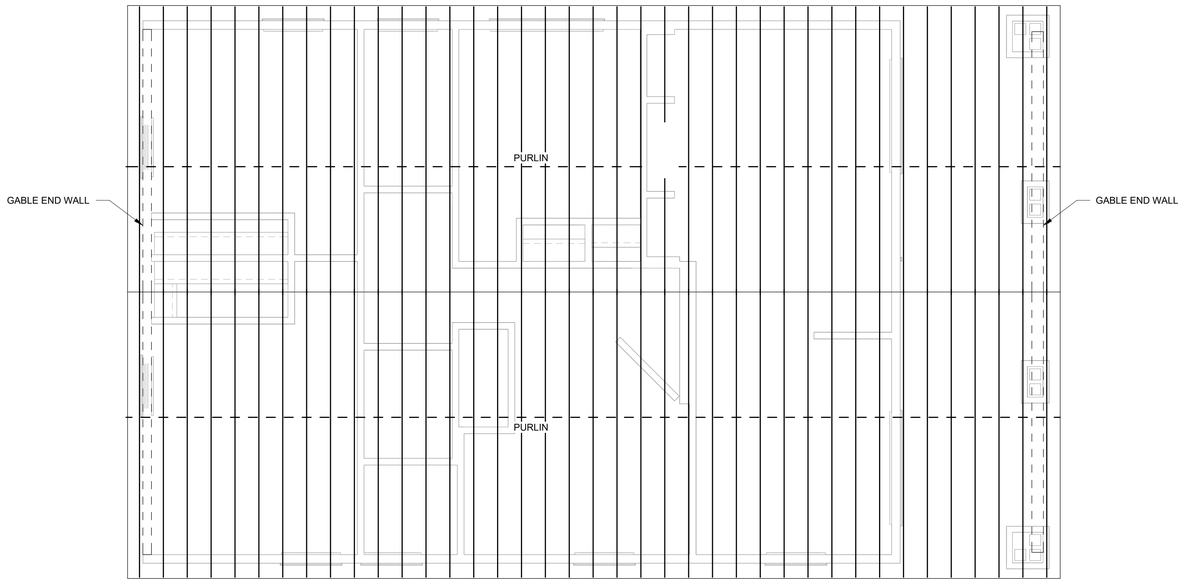
Sheet:	S1



ROOF FRAMING PLAN

Scale: 1/4" = 1'-0"

GENERAL ROOF NOTES:

1. TYP. SHEATHING SHALL BE 5/8" CDX PLYWOOD 32/16 APA RATED WITH 8d NAILS AT 6" O.C. AT EDGES; 12" O.C. FIELD.
2. 16" OVERHANG FROM FRAME TYP.
3. 16" OVERHANG TYP. FROM FRAME AT RAKES.
4. ATTIC VENTILATION: THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED.

RAFTER FRAMING NOTES:

1. ALL RAFTERS ARE 2X8, #2 S.Y.P. @ 16" O.C. UNLESS NOTED OTHERWISE.
2. MAXIMUM SPAN OF COMMON RAFTER TO BE 12'-0". DEAD LOAD = 10 P.S.F. AND LIVE LOAD = 20 P.S.F.
3. ALL HIPS, VALLEYS AND RIDGES TO BE ONE MILL SIZE LARGER THAN COMMON RAFTERS, UNLESS OTHERWISE NOTED.
4. DO NOT BRACE ROOF UPON CEILING JOISTS OR STRONGBACKS.
5. SEE TYPICAL DETAIL SHEET FOR FRAMING NOTES AND DETAILS.
6. BRACE PURLINS & RIDGES @ 4'-0" O.C. BRACE VALLEYS & HIPS UNDER 45° SLOPES @ 8'-0" O.C.
7. UNLESS NOTED OTHERWISE ON PLAN, DO NOT SUPPORT ANY CHIMNEY UPON RAFTERS. EXTEND WALLS OF CHIMNEY THROUGH THE RAFTERS TO BEAR UPON WALLS OR BEAMS BELOW. SURROUNDING RAFTERS TO BE SUPPORTED BY CHIMNEY WALLS.
8. INDICATES 2X6 PURLINS

FIRST FLOOR CEILING FRAMING PLAN

Scale: 1/4" = 1'-0"

CEILING FRAMING NOTES:

1. ALL CEILING JOISTS THIS LEVEL TO BE MINIMUM 2X8 #2 SYP @ 16" O.C., U.N.O.
2. ATTIC ACCESS TO BE DETERMINED BY OWNER/CONTRACTOR
3. ATTIC ACCESS LADDER TO BE FRAMED WITH DOUBLE 2X8'S MINIMUM, U.N.O.
4. ATTIC FRAMING UNDER MECHANICAL EQUIPMENT (LOCATION PER OWNER/CONTRACTOR) TO BE MINIMUM #2 2X8 SYP @ 16" O.C., U.N.O.
5. BEAM SUPPORT DETAILS OR BEAM CONNECTION HANGERS, IF NOT GIVEN IN PLAN, SHALL BE AS PER THE HANGER MFR'S REQUIREMENTS.
6. PROVIDE DOUBLE JOISTS UNDER EQUIPMENT AND WALLS ABOVE.
7. CEILING DEAD LOAD = 10 PSF; LIVE LOAD = 20 PSF.
8. REFER TO SHEET F1 FOR BEAM SIZES.
9. PROVIDE A 1 1/2" MINIMUM BEARING EACH END FOR ALL BEAMS (EXCEPT AS NOTED ABOVE) AND HEADERS FOR OPENINGS LESS THAN 6'-0" AND 3" MINIMUM BEARING EACH END FOR ALL HEADERS AND BEAMS FOR OPENINGS 6'-0" AND GREATER, U.N.O.
10. 5 1/2" OR 7" WIDE BEAMS TO REST FULLY ON EITHER MINIMUM 6" STUD WALL OR 6X6 POST BENEATH.

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11/25/23

PROJECT FOR: SINGLE STORY RESIDENCE

510 BLUEBONNET DR
LA MARQUE, TX 77568

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8/12/2023	EV
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11/10/2023	EV
11/22/2023	EV

Drawn by:	Author
Date:	7/27/2023
Job No.:	####
Sheet:	S2

GENERAL NOTES:

1. FIELD COORDINATE LOCATIONS OF ALL GRILLES WITH OTHER TRADES PRIOR TO ROUGH-IN. ENSURE ALL PROPER CLEARANCES ARE MAINTAINED, PER APPLICABLE CODE.
2. ALL DUCTS ARE DESIGNED PER ACCA MANUAL D, TO ENSURE THE LOAD REQUIREMENTS ARE MET, BASED ON ACCA MANUAL J CALCULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ZONE DAMPERS ARE INSTALLED APPROPRIATELY AND PROPERLY, TO ENSURE PROPER BALANCE OF SYSTEM.

First Floor HVAC Plan

1/4"=1'-0"

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Houston, TX 77062

Revisions

No.	Revision	Date
1	CD Set	11/15/23

Drawn	JCW
Check	SBP
Scale	as noted
Date	11/15/23
Job No.	23-573

Sheet
M1.01

First Floor HVAC Plan

Generated by RES*check-Web* Software

Compliance Certificate

Project 510 Bluebonnet Drive

Energy Code:	**2018 IECC**
Location:	**La Marque, Texas**
Construction Type:	**Single-family**
Project Type:	**New Construction**
Conditioned Floor Area:	**1,260 ft2**
Glazing Area	**21%**
Climate Zone:	**2 (1263 HDD)**
Permit Date:	
Permit Number:	

Construction Site:
510 Bluebonnet Drive
La Marque, Tx 77568

Owner/Agent:

Designer/Contractor:

Compliance: Passes using UA trade-off

Compliance: **3.5% Better Than Code** Maximum UA: **199** Your UA: **192** Maximum SHGC: **0.25** Your SHGC: **0.25**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.
It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Ceiling: Flat Ceiling or Scissor Truss	1,260	30.0	0.0	0.035	0.030	44	38
Wall: Wood Frame, 16" o.c.	1,074	13.0	0.0	0.082	0.084	70	72
Door: Glass Door (over 50% glazing) SHGC: 0.25	33			0.350	0.400	12	13
Window: Vinyl Frame SHGC: 0.25	189			0.350	0.400	66	76

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2018 IECC requirements in RES*check* Version : REScheck-Web and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Richard Tomlinson, PE — Name - Title

Richard D. Tomlinson — Signature

11/3/23 — Date

RES*check* Software Version : REScheck-Web

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 100.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
103.1, 103.2, 403.7 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
302.1, 403.7 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1 [FO11]2	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.9 [FO12]2	Snow- and ice-melting system controls installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2][1]	Glazing U-factor (area-weighted average).	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.3.2, 402.3.3, 402.5 [FR3][1]	Glazing SHGC value (area-weighted average).	SHGC:____	SHGC:____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.1.1 [FR23][1]	Air barrier and thermal barrier installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.3 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.5 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.1 [FR12][1]	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.2 [FR13][1]	Ducts, air handlers and filter boxes are sealed with joints/seams compliant with International Mechanical Code or International Residential Code, as applicable.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.5 [FR15][3]	Building cavities are not used as ducts or plenums.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.4 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.4.1 [FR24][1]	Protection of insulation on HVAC piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.5.3 [FR18][2]	Hot water pipes are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.6 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.1.1, 402.2.5, 402.2.6 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1][1]	Ceiling insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.1.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.2.3 [FI22][2]	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.2.4 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.4.1.2 [FI17][1]	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 =____	ACH 50 =____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.3 [FI27][1]	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.4 [FI4][1]	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.3.2.1 [FI24][1]	Air handler leakage designated by manufacturer at <=2% of design air flow.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.1.1 [FI9][2]	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.1.2 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.1 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6.1 [FI25]2	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits per Table R403.6.1.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.2 [FI26]2	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.1.1 [FI28]2	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.1.2 [FI29]2	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.2 [FI30]2	Demand recirculation water systems have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to <= 104ºF.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
403.5.4 [FI31]2	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
404.1 [FI6]1	90% or more of permanent fixtures have high efficacy lamps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
404.1.1 [FI23]3	Fuel gas lighting systems have no continuous pilot light.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
401.3 [FI7]2	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating systems have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2018 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	13.00
Below-Grade Wall	0.00
Floor	0.00
Ceiling / Roof	30.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.35	0.25
Door	0.35	0.25

Heating & Cooling Equipment	Efficiency
Heating System:_____	_____
Cooling System:_____	_____
Water Heater:_____	_____

Name: _____ **Date:**_____

Comments

Generated by RES*check-Web* Software

Compliance Certificate

Project 510 Bluebonnet Drive Residence - 23-573

Energy Code:	**2018 IECC**
Location:	**La Marque, Texas**
Construction Type:	**Single-family**
Project Type:	**New Construction**
Conditioned Floor Area:	**1,260 ft2**
Glazing Area	**18%**
Climate Zone:	**2 (1263 HDD)**
Permit Date:	
Permit Number:	

Construction Site:
510 Bluebonnet Drive
La Marque, TX 77568

Owner/Agent:
510 Bluebonnet Drive Residence
510 Bluebonnet Drive
La Marque, TX 77568

Designer/Contractor:
LoadCalcs
Lancaster, KY 40444
813-539-5118
info@lcalcs.com

Compliance: Passes using UA trade-off

Compliance: **0.0% Better Than Code** Maximum UA: **215** Your UA: **215** Maximum SHGC: **0.25** Your SHGC: **0.25**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.
It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Ceiling 1: Flat Ceiling or Scissor Truss	1,260	38.0	0.0	0.030	0.030	38	38
North Wall: Wood Frame, 16" o.c.	250	13.0	0.0	0.082	0.084	18	18
Window 1: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 2: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
East Wall: Wood Frame, 16" o.c.	378	13.0	0.0	0.082	0.084	27	27
Window 1: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 2: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 15: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 16: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	6			0.400	0.400	2	2
South Wall: Wood Frame, 16" o.c.	270	13.0	0.0	0.082	0.084	16	16
Window 1: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Window 2: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	20			0.400	0.400	8	8
Window 11: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 12: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 13: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
West Wall: Wood Frame, 16" o.c.	378	13.0	0.0	0.082	0.084	26	26
Window 1: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	6			0.400	0.400	2	2
Window 2: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	9			0.400	0.400	4	4
Window 3: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Window 4: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	19			0.400	0.400	8	8
Window 14: Vinyl/Fiberglass Frame:Single Pane SHGC: 0.25	15			0.400	0.400	6	6
Floor 1: Slab-On-Grade:Unheated Insulation depth: 0.0' Insulation position: No Insulation	1,260		0.0	0.730	0.730	0	0

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2018 IECC requirements in RES*check* Version : REScheck-Web and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Name - Title | Signature | Date

Project Notes:
Job Number: 23-573

RES*check* Software Version : REScheck-Web

Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.1, 103.2, 403.7 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
302.1, 403.7 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.2 [FO1][1]	Slab edge insulation R-value.	R-____ ☐ Unheated ☐ Heated	R-____ ☐ Unheated ☐ Heated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.2 [FO3][1]	Slab edge insulation depth/length.	____ ft	____ ft	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2.1 [FO11][2]	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.9 [FO12][2]	Snow- and ice-melting system controls installed.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2][1]	Glazing U-factor (area-weighted average).	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.3.2, 402.3.3, 402.5 [FR3][1]	Glazing SHGC value (area-weighted average).	SHGC:____	SHGC:____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.1 [FR23][1]	Air barrier and thermal barrier installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.3 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.5 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.1 [FR12][1]	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.2 [FR13][1]	Ducts, air handlers and filter boxes are sealed with joints/seams compliant with International Mechanical Code or International Residential Code, as applicable.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.5 [FR15][3]	Building cavities are not used as ducts or plenums.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4.1 [FR24][1]	Protection of insulation on HVAC piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.5.3 [FR18][2]	Hot water pipes are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.6 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.5, 402.2.6 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1][1]	Ceiling insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.1.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.3 [FI22][2]	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.4 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.2 [FI17][1]	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 =____	ACH 50 =____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.3 [FI27][1]	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.4 [FI4][1]	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.2.1 [FI24][1]	Air handler leakage designated by manufacturer at <=2% of design air flow.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.1 [FI9][2]	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.2 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6.1 [FI25][2]	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits per Table R403.6.1.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2 [FI26][2]	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1.1 [FI28][2]	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1.2 [FI29][2]	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.2 [FI30][2]	Demand recirculation water systems have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to <= 104ºF.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.4 [FI31][2]	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1 [FI6][1]	90% or more of permanent fixtures have high efficacy lamps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1.1 [FI23][3]	Fuel gas lighting systems have no continuous pilot light.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
401.3 [FI7][2]	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating systems have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2018 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	13.00
Below-Grade Wall	0.00
Floor	0.00
Ceiling / Roof	38.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.40	0.25
Door		

Heating & Cooling Equipment	Efficiency
Heating System:_____	_____
Cooling System:_____	_____
Water Heater:_____	_____

Name: _____ **Date:** _____

Comments

Manual S Compliance Report
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

Cooling Equipment

Design Conditions

Outdoor design DB:	96.3°F	Sensible gain:	29119	Btuh	Entering coil DB:	77.6°F
Outdoor design WB:	77.2°F	Latent gain:	3593	Btuh	Entering coil WB:	63.7°F
Indoor design DB:	75.0°F	Total gain:	32712	Btuh		
Indoor RH:	50%	Estimated airflow:	1259	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Carrier		Model:	25SPA542AC0300+FX4DNB049L	
Actual airflow:	1259	cfm			
Sensible capacity:	34104	Btuh	117% of load		
Latent capacity:	5378	Btuh	150% of load		
Total capacity:	39481	Btuh	121% of load	SHR:	86%

Heating Equipment

Design Conditions

Outdoor design DB:	33.5°F	Heat loss:	38364	Btuh	Entering coil DB:	68.8°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP					
Manufacturer:	Carrier		Model:	25SPA542AC0300+FX4DNB049L		
Actual airflow:	1259	cfm				
Output capacity:	34904	Btuh	91% of load		Capacity balance:	32 °F
Supplemental heat required:	3461	Btuh			Economic balance:	-99 °F

Backup equipment type:	Elec strip				
Manufacturer:	Carrier	Model:	KFCEH3101C15		
Actual airflow:	1259	cfm			
Output capacity:	15.0	kW	133% of load	Temp. rise:	37 °F

Meets all requirements of ACCA Manual S.

Load Short Form
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

Design Information

	Htg	Clg
Outside db (°F)	34	96
Inside db (°F)	70	75
Design TD (°F)	37	21
Daily range	-	L
Inside humidity (%)	50	50
Moisture difference (gr/lb)	32	46

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure /ACH /AVF	50 Pa / 5.0 / 945 cfm

HEATING EQUIPMENT

Make	Carrier
Trade	PERFORMANCE 15 SEER2 HP
Model	25SPA542AC0300
AHRI ref	209693244

Efficiency	7.8 HSPF2	
Heating input		
Heating output	42500	Btuh @ 47°F
Temperature rise	31	°F
Actual air flow	1259	cfm
Air flow factor	0.033	cfm/Btuh
Static pressure	0.60	in H2O
Space thermostat		

Capacity balance point = 32 °F

Backup: Carrier KFCEH3101C15
Input = 15 kW, Output = 51182 Btuh, 100 AFUE

COOLING EQUIPMENT

Make	Carrier
Trade	PERFORMANCE 15 SEER2 HP
Cond	25SPA542AC0300
Coil	FX4DNB049L
AHRI ref	209693244

Efficiency	12.5 EER2,15.2 SEER2	
Sensible cooling	33200	Btuh
Latent cooling	8300	Btuh
Total cooling	41500	Btuh
Actual air flow	1259	cfm
Air flow factor	0.043	cfm/Btuh
Static pressure	0.60	in H2O
Load sensible heat ratio	0.89	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Dining	147	5205	3702	171	160
Kitchen	156	4653	6282	153	272
Laundry	20	0	0	0	0
Bath 2	34	824	298	27	13
Bath	29	1053	1294	35	56
Bedroom	175	6400	3630	210	157
Wic	29	0	0	0	0
Wic 2	19	0	0	0	0
Bedroom 2	137	5173	3011	170	130
Hall Bath	49	1436	1213	47	52
Bedroom 3	134	3932	3829	129	166
Hallway	97	2131	523	70	23
Living Room	236	7557	5338	248	231

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Entire House	1260	38364	29119	1259	1259
Other equip loads		0	0		
Equip. @ 1.00 RSM			29119		
Latent cooling			3593		
TOTALS	1260	38364	32712	1259	1259

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Building Analysis
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

Design Conditions

Location:
Houston Hobby, TX, US
Elevation: 44 ft
Latitude: 30 °N

Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	34	96
Daily range (°F)	-	16 (L)
Wet bulb (°F)	-	77
Wind speed (mph)	15.0	7.5

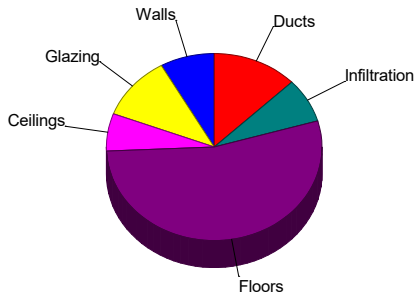
Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	70	75
Design TD (°F)	37	21
Relative humidity (%)	50	50
Moisture difference (gr/lb)	32.2	46.0

Infiltration:

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure /ACH /AVF	50 Pa / 5.0 / 945 cfm

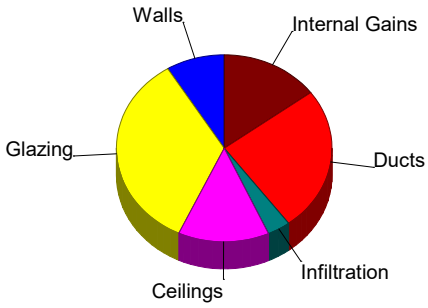
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	2.9	3130	8.2
Glazing	18.6	4243	11.1
Doors	0	0	0
Ceilings	2.0	2483	6.5
Floors	16.4	20650	53.8
Infiltration	2.3	2953	7.7
Ducts		4906	12.8
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	
Total		**38364**	**100.0**



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.4	2554	8.8
Glazing	43.9	9995	34.3
Doors	0	0	0
Ceilings	3.2	3974	13.6
Floors	0	0	0
Infiltration	0.8	1006	3.5
Ducts		7269	25.0
Ventilation		0	0
Internal gains		4320	14.8
Blower		0	0
Adjustments		0	
Total		**29119**	**100.0**



Latent Cooling Load = 3593 Btuh
Overall U-value = 0.367 Btuh/ft²-°F, Window / Floor Area = 18.1 %

Data entries checked.

LOADCALCS
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Component Constructions
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

Design Conditions

Location:
Houston Hobby, TX, US
Elevation: 44 ft
Latitude: 30 °N

Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	34	96
Daily range (°F)	-	16 (L)
Wet bulb (°F)	-	77
Wind speed (mph)	15.0	7.5

Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	70	75
Design TD (°F)	37	21
Relative humidity (%)	50	50
Moisture difference (gr/lb)	32.2	46.0

Infiltration:

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure /ACH /AVF	50 Pa / 5.0 / 945 cfm

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
Wood, R-13, Drywall	n	240	0.081	13.0	2.96	710	2.42	581
	e	286	0.081	13.0	2.96	845	2.42	692
	s	190	0.081	13.0	2.96	562	2.42	460
	w	314	0.081	13.0	2.96	929	2.42	761
	all	1030	0.081	13.0	2.96	3045	2.42	2494
Vinyl, R-19, Drywall	e	38	0.061	19.0	2.23	85	1.57	60
Partitions								
(none)								
Windows								
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = green grass (0.23); 1 ft overhang (5 ft window ht, 5.96 ft sep.); 6.85 ft head ht	n	15	0.510	0	18.6	279	20.1	302
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = green grass (0.23); 1 ft overhang (5 ft window ht, 7.56 ft sep.); 6.85 ft head ht	n	15	0.510	0	18.6	279	20.1	302
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = green grass (0.23); 1 ft overhang (3 ft window ht, 1.25 ft sep.); 6.85 ft head ht	e	9	0.510	0	18.6	168	61.8	557
	w	9	0.510	0	18.6	168	61.8	557
	all	18	0.510	0	18.6	335	61.8	1113
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = green grass (0.23); 1 ft overhang (5 ft window ht, 1.25 ft sep.); 6.85 ft head ht	e	45	0.510	0	18.6	838	61.8	2783
	w	30	0.510	0	18.6	558	61.8	1855
	all	75	0.510	0	18.6	1396	61.8	4638
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = new concrete (0.32); 8 ft overhang (5 ft window ht, 1.22 ft sep.); 6.85 ft head ht	s	60	0.510	0	18.6	1117	30.1	1807

1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = new concrete (0.32); 8 ft overhang (6.67 ft window ht, 1.4 ft sep.); 6.67 ft head ht	s	20	0.510	0	18.6	372	24.1	482
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = green grass (0.23); 1 ft overhang (2 ft window ht, 1.25 ft sep.); 6.85 ft head ht	w	6	0.510	0	18.6	112	61.8	371
1 glazing, clr glz, mtl no brk frm mat, 1/8" thk: 1 glazing, clr glz, mtl no brk frm mat, 1/8" thk; NFRC rated (SHGC=0.65); 50% blinds 45°, medium; foreground = new concrete (0.32); 1.5 ft overhang (6.67 ft window ht, 2 ft sep.); 7 ft head ht	w	19	0.510	0	18.6	352	51.9	981

Doors
(none)

Ceilings
Shingle, R-19, Drywall	1260	0.054	19.0	1.97	2483	3.15	3974

Floors
Slab on Grade	1260	0.898	0	16.4	20650	0	0

LOADCALCS
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Project Summary
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

Notes: It is the responsibility of the HVAC contractor to verify equipment being installed. Please review all documents accordingly.

Design Information

Weather: Houston Hobby, TX, US

Winter Design Conditions

Outside db	34	°F
Inside db	70	°F
Design TD	37	°F

Summer Design Conditions

Outside db	96	°F
Inside db	75	°F
Design TD	21	°F
Daily range	L	
Relative humidity	50	%
Moisture difference	46	gr/lb

Heating Summary

Structure	33459	Btuh
Ducts	4906	Btuh
Central vent (0 cfm) (none)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	38364	Btuh

Sensible Cooling Equipment Load Sizing

Structure	21850	Btuh
Ducts	7269	Btuh
Central vent (0 cfm) (none)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	y	
Rate/swing multiplier	1.00	
Equipment sensible load	29119	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure /ACH /AVF	50 Pa / 5.0 / 945 cfm

	Heating	Cooling
Area (ft²)	1260	1260
Volume (ft³)	11340	11340
Air changes/hour	0.39	0.23
Equiv. AVF (cfm)	74	43

Latent Cooling Equipment Load Sizing

Structure	2142	Btuh
Ducts	1451	Btuh
Central vent (0 cfm) (none)	0	Btuh
Equipment latent load	3593	Btuh
Equipment Total Load (Sen+Lat)	32712	Btuh
Req. total capacity at 0.80 SHR	3.0	ton

Heating Equipment Summary

Make	Carrier
Trade	PERFORMANCE 15 SEER2 HP
Model	25SPA542AC0300
AHRI ref	209693244

Efficiency	7.8 HSPF2	
Heating input		
Heating output	42500	Btuh @ 47°F
Temperature rise	31	°F
Actual air flow	1259	cfm
Air flow factor	0.033	cfm/Btuh
Static pressure	0.60	in H2O

Space thermostat
Capacity balance point = 32 °F

Backup: Carrier KFCEH3101C15
Input = 15 kW, Output = 51182 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Carrier
Trade	PERFORMANCE 15 SEER2 HP
Cond	25SPA542AC0300
Coil	FX4DNB049L
AHRI ref	209693244

Efficiency	12.5 EER2,15.2 SEER2	
Sensible cooling	33200	Btuh
Latent cooling	8300	Btuh
Total cooling	41500	Btuh
Actual air flow	1259	cfm
Air flow factor	0.043	cfm/Btuh
Static pressure	0.60	in H2O
Load sensible heat ratio	0.89	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

LOADCALCS
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Right-J® Worksheet
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Residen...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

		Entire House	Dining
1	Room name		
2	Exposed wall	144.0 ft	24.3 ft
3	Room height	9.0 ft	9.0 ft
4	Room dimensions		11.5 x 12.8 ft
5	Room area	1260.0 ft²	146.6 ft²

	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	270	240	710	581	0	0	0	0
.	├─G	1 glazing, dr glz,	0.510	n	18.61	20.11	15	0	279	302	0	0	0	0
.	└─G	1 glazing, dr glz,	0.510	n	18.61	20.11	15	0	279	302	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	47	38	85	60	0	0	0	0
11	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	9	0	168	557	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	331	286	845	692	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	45	0	838	2783	0	0	0	0
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	270	190	562	460	115	85	251	205
	├─G	1 glazing, dr glz,	0.510	s	18.61	30.11	60	60	1117	1807	30	30	558	903
	└─G	1 glazing, dr glz,	0.510	s	18.61	24.08	20	20	372	482	0	0	0	0
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	378	314	929	761	104	89	262	214
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	6	0	112	371	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	9	0	168	557	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	30	0	558	1855	15	0	279	928
	└─G	1 glazing, dr glz,	0.510	w	18.61	51.89	19	0	352	981	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	1260	1260	2483	3974	147	147	289	462
	F	Slab on Grade	0.898	-	16.39	0.00	1260	1260	20650	0	147	147	2403	0
6	c) AED excursion									0				-105
	Envelope loss/gain								30505	16523			4042	2608
12	a) Infiltration								2953	1006			497	169
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				4			920	0			0
		Appliances/other								3400				0
	Subtotal (lines 6 to 13)								33459	21850			4539	2777
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								33459	21850			4539	2777
15	Duct loads						15%	33%	4906	7269	15%	33%	666	924
	Total room load								38364	29119			5205	3702
	Air required (cfm)								1259	1259			171	160

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

LOADCALCS
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Right-J® Worksheet
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Residen...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

		Kitchen	Laundry
1	Room name		
2	Exposed wall	13.3 ft	0 ft
3	Room height	9.0 ft	9.0 ft
4	Room dimensions	heat/cool	heat/cool
		1.0 x 156.1 ft	3.3 x 6.0 ft
5	Room area	156.1 ft²	19.5 ft²

	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	0	0	0	0	0	0	0	0
.	├─G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	└─G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	0	0	0	0	0	0	0	0
11	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	s	18.61	30.11	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	s	18.61	24.08	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	119	94	279	229	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	6	0	112	371	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	w	18.61	51.89	19	0	352	981	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	156	156	308	492	20	20	38	61
	F	Slab on Grade	0.898	-	16.39	0.00	156	156	2558	0	20	20	320	0
6	c) AED excursion									69				-62
	Envelope loss/gain								3608	2141			358	-1
12	a) Infiltration								272	93			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				1			230	0			0
		Appliances/other								2000				500
	Subtotal (lines 6 to 13)								3879	4464			358	499
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								179	250			-358	-499
14	Subtotal								4058	4713			0	0
15	Duct loads						15%	33%	595	1568	15%	33%	0	0
	Total room load								4653	6282			0	0
	Air required (cfm)								153	272			0	0

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LOADCALCS
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Right-J® Worksheet
Entire House
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		Bath 2	Bath
1	Room name		
2	Exposed wall	0 ft	5.3 ft
3	Room height	9.0 ft heat/cool	9.0 ft heat/cool
4	Room dimensions	5.3 x 6.5 ft	5.3 x 5.5 ft
5	Room area	34.1 ft²	28.9 ft²

	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	0	0	0	0	0	0	0	0
.	G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	0	0	0	0	0	0	0	0
11	G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	s	18.61	30.11	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	s	18.61	24.08	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	0	0	0	0	47	38	113	93
	G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	9	0	168	557
	G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	w	18.61	51.89	0	0	0	0	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	34	34	67	108	29	29	57	91
	F	Slab on Grade	0.898	-	16.39	0.00	34	34	559	0	29	29	473	0
6	c) AED excursion									-12				194
	Envelope loss/gain								627	96			811	934
12	a) Infiltration								0	0			108	37
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								627	96			918	971
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								92	128			0	0
14	Subtotal								718	224			918	971
15	Duct loads						15%	33%	105	75	15%	33%	135	323
	Total room load								824	298			1053	1294
	Air required (cfm)								27	13			35	56

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

LOADCALCS
Affordable Meticulous Dependable

Right-J® Worksheet
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Residen...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

		Bedroom	Wic
1	Room name		
2	Exposed wall	25.5 ft	3.5 ft
3	Room height	9.0 ft	9.0 ft
4	Room dimensions	heat/cool	heat/cool
		1.0 x 175.1 ft	8.3 x 3.5 ft
5	Room area	175.1 ft²	28.9 ft²

	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	122	107	315	258	32	32	93	76
.	├─G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	└─G	1 glazing, dr glz,	0.510	n	18.61	20.11	15	0	279	302	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	0	0	0	0	0	0	0	0
11	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	s	18.61	30.11	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	s	18.61	24.08	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	108	93	275	225	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	15	0	279	928	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	w	18.61	51.89	0	0	0	0	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	175	175	345	552	29	29	57	91
	F	Slab on Grade	0.898	-	16.39	0.00	175	175	2870	0	29	29	473	0
6	c) AED excursion									110				-21
	Envelope loss/gain								4363	2375			623	146
12	a) Infiltration								523	178			72	24
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				0			0	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								4886	2553			695	171
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								695	171			-695	-171
14	Subtotal								5581	2724			0	0
15	Duct loads						15%	33%	818	906	15%	33%	0	0
	Total room load								6400	3630			0	0
	Air required (cfm)								210	157			0	0

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Right-J® Worksheet
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Residen...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

		Wic 2	Bedroom 2
1	Room name		
2	Exposed wall	2.3 ft	22.8 ft
3	Room height	9.0 ft	9.0 ft
4	Room dimensions	heat/cool	heat/cool
		8.3 x 2.3 ft	1.0 x 137.4 ft
5	Room area	18.6 ft²	137.4 ft²

	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	20	20	60	49	97	82	242	198
.	G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	15	0	279	302
.	G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	0	0	0	0	0	0	0	0
11	G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	0	0	0	0	108	93	275	225
	G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	15	0	279	928
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	s	18.61	30.11	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	s	18.61	24.08	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	G	1 glazing, dr glz,	0.510	w	18.61	51.89	0	0	0	0	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	19	19	37	59	137	137	271	433
	F	Slab on Grade	0.898	-	16.39	0.00	19	19	304	0	137	137	2252	0
6	c) AED excursion									-14				-95
	Envelope loss/gain								401	94			3598	1991
12	a) Infiltration								46	16			467	159
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				0			0	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								447	110			4065	2150
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								-447	-110			447	110
14	Subtotal								0	0			4512	2259
15	Duct loads						15%	33%	0	0	15%	33%	662	752
	Total room load								0	0			5173	3011
	Air required (cfm)								0	0			170	130

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

LOADCALCS
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Right-J® Worksheet
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Residen...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

		Hall Bath	Bedroom 3
1	Room name		
2	Exposed wall	5.3 ft	10.5 ft
3	Room height	9.0 ft	9.0 ft
4	Room dimensions	5.3 x 9.3 ft	1.0 x 134.3 ft
5	Room area	48.6 ft²	134.3 ft²

	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	0	0	0	0	0	0	0	0
.	├─G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	└─G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	47	38	85	60	0	0	0	0
11	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	9	0	168	557	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	0	0	0	0	95	65	191	156
	└─G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	30	0	558	1855
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	s	18.61	30.11	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	s	18.61	24.08	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├─G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	└─G	1 glazing, dr glz,	0.510	w	18.61	51.89	0	0	0	0	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	49	49	96	153	134	134	265	423
	F	Slab on Grade	0.898	-	16.39	0.00	49	49	796	0	134	134	2200	0
6	c) AED excursion									104				365
	Envelope loss/gain								1144	873			3214	2800
12	a) Infiltration								108	37			215	73
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				0			0	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								1252	910			3429	2873
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1252	910			3429	2873
15	Duct loads						15%	33%	184	303	15%	33%	503	956
	Total room load								1436	1213			3932	3829
	Air required (cfm)								47	52			129	166

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By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

1	Room name					Hallway				Living Room			
2	Exposed wall					0 ft				31.5 ft			
3	Room height					9.0 ft		heat/cool		9.0 ft		heat/cool	
4	Room dimensions						1.0 x 96.5 ft				1.0 x 235.5 ft		
5	Room area					96.5 ft²				235.5 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	Wood, R-13, Drywall	0.081	n	2.96	2.42	0	0	0	0	0	0	0	0
.	├──G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	└──G	1 glazing, dr glz,	0.510	n	18.61	20.11	0	0	0	0	0	0	0	0
.	W	Vinyl, R-19, Drywall	0.061	e	2.23	1.57	0	0	0	0	0	0	0	0
11	└──G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	e	2.96	2.42	0	0	0	0	128	128	379	311
	└──G	1 glazing, dr glz,	0.510	e	18.61	61.85	0	0	0	0	0	0	0	0
	W	Wood, R-13, Drywall	0.081	s	2.96	2.42	0	0	0	0	155	105	311	255
	├──G	1 glazing, dr glz,	0.510	s	18.61	30.11	0	0	0	0	30	30	558	903
	└──G	1 glazing, dr glz,	0.510	s	18.61	24.08	0	0	0	0	20	20	372	482
	W	Wood, R-13, Drywall	0.081	w	2.96	2.42	0	0	0	0	0	0	0	0
	├──G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├──G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	├──G	1 glazing, dr glz,	0.510	w	18.61	61.85	0	0	0	0	0	0	0	0
	└──G	1 glazing, dr glz,	0.510	w	18.61	51.89	0	0	0	0	0	0	0	0
	C	Shingle, R-19, Drywa	0.054	-	1.97	3.15	97	97	190	304	236	236	464	743
	F	Slab on Grade	0.898	-	16.39	0.00	97	97	1581	0	236	236	3859	0
6	c) AED excursion									-34				-498
	Envelope loss/gain								1772	271			5945	2195
12	a) Infiltration								0	0			646	220
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				0			0	3			690
		Appliances/other								0				900
	Subtotal (lines 6 to 13)								1772	271			6591	4005
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								87	121			0	0
14	Subtotal								1859	392			6591	4005
15	Duct loads						15%	33%	273	130	15%	33%	966	1333
	Total room load								2131	523			7557	5338
	Air required (cfm)								70	23			248	231

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Duct System Summary
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

	Heating	Cooling
External static pressure	0.60 in H2O	0.60 in H2O
Pressure losses	0.31 in H2O	0.31 in H2O
Available static pressure	0.29 in H2O	0.29 in H2O
Supply / return available pressure	0.201 / 0.089 in H2O	0.201 / 0.089 in H2O
Lowest friction rate	0.090 in/100ft	0.090 in/100ft
Actual air flow	1259 cfm	1259 cfm
Total effective length (TEL)	322 ft	

Supply Branch Detail Table

Name		Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Bath	c	1294	35	56	0.120	5.0	0x 0	VlFx	12.6	155.0	st5
Bath 2	h	824	27	13	0.122	4.0	0x 0	VlFx	9.9	155.0	st5
Bedroom	h	3200	105	78	0.121	7.0	0x 0	VlFx	10.8	155.0	st5
Bedroom 2	h	2587	85	65	0.104	7.0	0x 0	VlFx	23.9	170.0	st6
Bedroom 2-A	h	2587	85	65	0.101	7.0	0x 0	VlFx	24.0	175.0	st6
Bedroom 3	c	1915	65	83	0.103	6.0	0x 0	VlFx	25.2	170.0	st2
Bedroom 3-A	c	1915	65	83	0.105	6.0	0x 0	VlFx	26.5	165.0	st2
Bedroom-A	h	3200	105	78	0.116	7.0	0x 0	VlFx	12.9	160.0	st5
Dining	h	2602	85	80	0.092	7.0	0x 0	VlFx	32.8	185.0	st4
Dining-A	h	2602	85	80	0.092	7.0	0x 0	VlFx	28.4	190.0	st4
Hall Bath	c	1213	47	52	0.100	5.0	0x 0	VlFx	26.5	175.0	st6
Hallway	h	2131	70	23	0.109	6.0	0x 0	VlFx	18.8	165.0	st2
Kitchen	c	3141	76	136	0.121	8.0	0x 0	VlFx	15.8	150.0	st3
Kitchen-A	c	3141	76	136	0.121	8.0	0x 0	VlFx	16.8	150.0	st3
Living Room	h	3779	124	115	0.090	8.0	0x 0	VlFx	37.9	185.0	st4
Living Room-A	h	3779	124	115	0.091	8.0	0x 0	VlFx	29.9	190.0	st4

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2	Peak AVF	199	188	0.103	450	9.0	0 x 0	VinlFlx	st1
st3	Peak AVF	572	662	0.090	620	14.0	0 x 0	VinlFlx	st1
st4	Peak AVF	419	391	0.090	533	12.0	0 x 0	VinlFlx	st3
st1	Peak AVF	1259	1259	0.090	867	16.1	19 x 11	RectFbg	
st5	Peak AVF	272	226	0.116	498	10.0	0 x 0	VinlFlx	st1
st6	Peak AVF	217	183	0.100	491	9.0	0 x 0	VinlFlx	st1

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb3	0x 0	170	130	93.2	0.096	384	9.0	0x 0		VlFx	rt2
rb2	0x 0	272	226	98.7	0.090	498	10.0	0x 0		VlFx	rt2
rb4	0x 0	129	166	66.3	0.134	211	12.0	0x 0		VlFx	rt1
rb1	0x 0	689	737	41.3	0.216	468	17.0	0x 0		VlFx	rt1

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt2	Peak AVF	441	356	0.090	562	12.0	0 x 0	VinlFlx	rt1
rt1	Peak AVF	1259	1259	0.090	434	18.0	22 x 19	RectFbg	

LOADCALCS
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Static Pressure and Friction Rate
Entire House
LoadCalcs

Job: 510 Bluebonnet Drive Res...
Date: November 15, 2023
By: Jake Worley
Plan: 23-573

Lancaster, KY40444 Phone: 813-539-5118 Email: info@lcalcs.com Web: www.lcalcs.com

Project Information

For: 510 Bluebonnet Drive Residence
510 Bluebonnet Drive, La Marque, TX 77568

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.60	0.60
Pressure losses		
Coil	0.07	0.07
Heat exchanger	0	0
Supply diffusers	0.03	0.03
Return grilles	0.03	0.03
Filter	0.15	0.15
Humidifier	0	0
Balancing damper	0.03	0.03
Other device	0	0
Available static pressure	0.29	0.29

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	15	3
Measured length of trunk	23	6
Equivalent length of fittings	185	90
Total length	223	99
Total effective length		322

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.090	OK	0.090	OK
Return Ducts	0.090	OK	0.090	OK

Fitting Equivalent Length Details

Supply 4X=35, 11A=20, 11G=5, 11A=20, 11G=5, 11G=5, 2P2=60, 1A=35: TotalEL=185

Return 6O=10, 11M=20, 11G=5, 6C1=10, 11G=5, 5B=40: TotalEL=90

CITY OF LA MARQUE

"Gateway to the Gulf"

1130 1st St., La Marque, TX 77568

409-938-9219 Permits@CityOfLaMarque.Org

PERMIT APPLICATION

PROJECT ADDRESS:	**PERMIT #:**
510 Bluebonnet Dr. La Marque TX 77568	DATE: / /
ESTIMATED COST OR VALUE: $145,000.00	FEES DUE:$
	FEES PAID: / /

PROJECT DESCRIPTION: Building a single family home

DATE OF LAST RECORDED PLAT: METER SIZE: IMPACT FEE: $

PROPERTY ID #: 197991			PLAN REVIEW NEEDED ☑ YES ☐ NO	
LOT: 29A	BLOCK: 1	SUBDIVISION: Inter City Place		SECTION:
TOTAL SQFT: 1500	LIVING: 1260	PORCH: 240	GARAGE: no	STORIES: 1

PERMIT TYPE:

☑ RESIDENTIAL NEW ☐ RESIDENTIAL REPAIR/REMODEL ☐ ACCESSORY BUILDING / STRUCTURE

☐ COMMERCIAL NEW ☐ COMMERCIAL REPAIR/ REMODEL ☐ FENCE ☐ OTHER _____

☐ FLATWORK ☐ IRRIGATION ☐ LANDSCAPE ☐ BULK HEAD ☐ SIGN ☐ CIVIL ☐ ROOF ☐ POOL ☐ DRIVEWAY

APPLICANT INFORMATION: ☑ OWNER ☑ CONTRACTOR ☑ DEVELOPER	
APPLICANT NAME OR COMPANY: Mistry Bros. Investments & Holdings LLC	MAIN CONTACT NAME: Tony Mistry
STREET: 15026 Pleasant Valley Rd	PHONE: 361-655-8669
CITY, STATE, ZIP: Houston TX 77062	EMAIL: mistrybih@gmail.com
OWNER NAME: Mistry Bros Investments & Holdings LLC	GENERAL CONTRACTOR:
STREET: 15026 Pleasant Valley Rd	STREET: 15026 Pleasant Valley Rd
CITY, STATE, ZIP: Houston TX 77062	CITY, STATE, ZIP: Houston TX 77062
PHONE: 361-655-8669	PHONE: 361-655-8669
EMAIL: mistrybih@gmail.com	EMAIL: miostrybih@gmail.com

SUB-CONTRACTORS

ELECTRICAL: TBA	CONTACT NAME:	PHONE #
REGISTERED ☐ YES ☐ NO UPDATED COI ☐ YES ☐ NO	MASTER :	LICENSE #
PLUMBING: TBA	CONTACT NAME:	PHONE #
REGISTERED ☐ YES ☐ NO UPDATED COI ☐ YES ☐ NO	MASTER:	LICENSE #
MECHANICAL: TBA	CONTACT NAME:	PHONE #
REGISTERED ☐ YES ☐ NO UPDATED COI ☐ YES ☐ NO	MASTER:	LICENSE #

I hereby certify that I have read and examined this application and know the same to be true and correct. I have read and understand the codes and all provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other federal, state or local law regulating construction or the performance of construction. I certify that I am the design engineer of record and the structure, and all of the pilings, walls or columns used for structural support have been designed and anchored so as to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on the building components. Water loads include wave action, drag forces, and debris impact forces, in accordance with all city codes and ordinances. Signatures below constitute the agreement to hold the City of La Marque staff or representative harmless for any omissions or deficiency created by the above construction.

Signature of Owner _____ Date 10/27/23

Signature of Applicant _____ Date 10/27/23

Email Submission: Permits@CityOfLaMarque.org

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1130 1st St., La Marque, TX 77568
409-938-9219 Permits@CityOfLaMarque.Org

PERMIT APPLICATION

An Asbestos survey has been conducted in accordance with the Texas Asbestos Health Production Rules (TAHPR) and the National Emissions standards for Hazardous Air Pollutants (NESHAP) for the areas being demolished

☐ **yes** ☑ **No***

* If the answer is No, then as the owner/operator of the renovation/demolition site, I understand that it is my responsibility to have this asbestos survey conducted in accordance with Texas Asbestos Health Protection Rules (TAHPR) and the National Emission Standards for Hazardous Air Pollutants (NESHAP) prior to a renovation/demolition permit being issued by the City of La Marque.

1. ACKNOWLEDGEMENTS

Please read and initial below:

tm It is the owner's responsibility to ensure that the project conforms to the Texas Accessibility Standards and is certified prior to start of any construction project over $50,000. The City of La Marque does not certify that projects submitted for permits comply with the Architectural Barriers Act, Article 9102, and Texas Civil Statutes.

tm I hereby certify that I have read and examined this application and know the same to be true and correct.

tm I have read and understand the codes and all provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not.

tm The granting of a permit does not presume to give authority to violate or cancel the provisions of any other federal, state or local law regulating construction or the performance of construction.

tm Signatures below constitute the agreement to hold the City of La Marque staff or representative harmless for any omissions or deficiency created by the above construction.

tm I will not allow the subject property to be occupied until the City of La Marque has approved and completed all final inspections and issued a Certificate of Occupancy.

tm Additional federal, state, or local permits may be required.

tm WARNING: The flood hazard boundary maps and other flood date used by the City of La Marque Floodplain Administrator in evaluating flood hazards to proposed developments are considered reasonable and accurate for regulatory purposes and are based on the best available scientific and engineering data. On rare occasions greater floods can and will occur and flood heights may increase by man-made or natural causes. Issuance of an exemption certificate does not imply that developments outside the identified area of special flood hazards will be free from flooding or flood damage. Issuance of an exemption certificate shall not create liability on the part of the City of La Marque, the City of La Marque's Floodplain Administrator or any officer or employee of the City of La Marque, in the event flooding or flood damage does occur.

tm I Certify that I have checked the **zoning** of my property before the purchase of my permit.

BY SIGNING BELOW, I, Mistry Bros Investments & Holdings LLC **, THE HOME OWNER OF THE PROPERTY LOCATED AT** 508 Bluebonett Dr. **, WILL PERFORM ALL WORK PERMITTED.**

_____ 10/27/20
Homeowner Signature Date

X _____ X _____
Signature of Property Owner Signature of Applicant

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PERMIT APPLICATION

REQUIRED DOCUMENTS RESIDENTIAL / COMMERCIAL BUILDINGS (all items may not apply)

Refer to the City of La Marque Design Criteria Manual, City of La Marque Code of Ordinance at ds.cityoflamaque.org and the 2018 IBC for the most accurate and up to date requirements.

- [x] CONTRACTOR REGISTRATION
- [x] PLAN REVIEW APPLICATION
- [x] STAMPED DIGITAL CONSTRUCTION PLANS FOR BUILDING (2 set for residential, 2 set for commercial) MUST INCLUDE:
    1. SITE PLAN
    2. COVER SHEET
    3. EXTERIOR ELEVATION PLAN
    4. FLOOR PLAN
    5. STRUCTURAL PLANS (must show floor framing, ceiling framing, roof framing, headers, and beams)
    6. FOUNDATION PLAN
    7. ENGINEER'S FOUNDATION DESIGN LETTERS
    8. MASONARY ON WOOD DETAILS
    9. HURRICANE STRAPPING
    10. ELECTRICAL PLAN
    11. PLUMBING PLAN
    12. MECHANICAL PLAN
    13. PARKING PLAN
    14. DRAINAGE PLAN/CIVIL PLAN
    15. FIRE SYSTEM PLAN
- [x] ELECTRONIC CONTRUCTION PLANS
- [x] PLOT PLAN / SURVEY
- [ ] CERTIFIED ENERGY COMPLIANCE REPORT
- [ ] ELEVATION CERTIFICATE (also required at foundation inspection and final inspection for a total of 3)
- [x] DRAINAGE PLANS
- [ ] HOA APPROVAL (required for Omega Bay)
- [ ] POOL PLANS (2 electronic pdf files)
- [ ] NON- CONVERSION AGREEMENT
- [ ] AS BUILT DRAWINGS (Upon completion and final approval)

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PERMIT APPLICATION

WE WILL NEED THE FOLLOWING BEFORE ISSUING A PERMIT. (All items may not be applicable)

Refer to the City of La Marque Design Criteria Manual, City of La Marque Code of Ordinance at ds.cityoflamaque.org and the 2018 IBC for the most accurate and up to date requirements.

1. **Contractor registration** for all contractors must be listed and registered with the City of La Marque, Texas

2. **Construction documents** two copies of complete set of construction documents are required for plan review. Construction documents must have original seal, signature and date. No copies will be accepted. Construction documents must be submitted along with a completed permit application form.

3. **Plot plan** stamped by an engineer, or surveyor drawn to a scale of 1" = 20'. Site plans must show lot dimension, footprint of building and distance from building to property lines, platted building lines, driveways and all easements, and the addresses and legal description of the lot.
   Property Line requirements are as follows:

   Five (5) feet from each side of the property line.
   Ten (10) feet from the back of the property line
   Ten (10) feet from each side on corner lots.
   Twenty (20) feet from front property line.

4. **Floor plans** drawn to scale of ¼"=1'. Floor plans must show all dimensions, room names, size and types of windows, and doors, cabinets and fixtures and ceiling height.

5. **Exterior elevation plans** drawn to scale of ¼"=1'. Exterior elevation plans must show exterior materials windows and doors, roof slopes, chimneys, and overhangs.

6. **Foundation plans** (must be sealed by a State of Texas Licensed Engineer) drawn to scale of ¼"=1'. Foundation plans must show all dimensions, location and spacing of the beams, location of post-tension cables (if applicable), location and sizes of rebar (if applicable), concrete specifications, slab thickness, beam sizes and details, post tension cable details (if applicable), other notes and requirements by the Engineer, and the address and legal description of the lot.

7. **Engineer foundation design letter** must include a statement that the foundation has been designed specifically for soil conditions of listed lot and that the design is in accordance with the building code, must be sealed by the State of Texas Licensed Engineer that designed the foundation plans, and must show the address and legal description of the lot.

9. **Foundation detail** refer to the City of La Marque Design Criteria and City of La Marque Code of Ordinance at ds.cityoflamaque.org for the most accurate and up to date requirements.

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All building foundations must be inspected, and inspection tag must be present on the job site during any pour. Any violations will result in a stop work order being issued and the project building permit WILL BE REVOKED.

10. **Masonry or wood details**, all masonry and wood detail will have to be built to the International Residential Code details, and sealed by a State of Texas Licensed Engineer when applicable. All structure must be engineered to insure compliance with inland / wind zone requirements of 145 MPH with a "c" exposure as per the 2018 IBC.

11. **Hurricane strapping** and clipping is required on all new construction.

12. **Framing details** including all types, sizes and spans of lumber used during construction. 5/8 inch decking must be used on all roofs, (or ASB decking equal to five eights (5/8) inch may be used. Staples are not allowed to be used as fasteners for siding, roofing, decking, roof felt or for any type of roof shingles. Draft stopping (fire barriers) is required.

13. **Electrical plans** (may be combined with floor plans) drawn to a scale of ¼"=1'. Electrical Plans must show location of receptacles and other outlets, exhaust fans, smoke detectors, light fixtures, service equipment and panels. Hardwired smoke detectors must be placed in hallways leading to bedrooms, and in each bedroom.

14. **Plumbing plans** (may be combined with floor plans) drawn to a scale of ¼"=1'. Plumbing plans must show location of fixtures, water heaters and gas outlets. Water heater must be up to 2018 IPMC including *Temperature and pressure relief valves* draining to the outside.

15. **Certified Energy Compliance Report**.

16. **Elevation Certificate**. (final grade elevation will have to be on final before Certificate of Occupancy is issued)
    a) All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated to or above one foot above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).

17. **Parking plan**

18. **Drainage detail plan** required for any fill dirt, civil, new construction permits.

19. **New homes** require copy of application for water / sewer. The location of the electric meter and the gas meter must be approved by the utility entity in the jurisdiction.

20. **Omega Bay** all construction in Omega bay must be approved by the home owners association and a letter of approval must be submitted with application before plan review is commenced

21. **Structures in the flood plain** must sign a non-conversion agreement where applicable.

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22. **All homes** must have address affixed to the structure with a minimum of three (3) inch numbers before any utilities will be approved and turned on. In accordance with Sections 14-456 & 14-457 City of La Marque Ordinances.

23. **Fences** 1 electronic set of site plan showing the location of fence, height, and fence material.

24. **Irrigation system** 2 electronic sets of plans that show location of system, and backflow prevention device. Backflow Prevention Assembly Tested Certification Certificate.

25. **Pools** site plan showing the location of the pool and distance from property lines and house. Layout of the pool including depth and stampede approval from local utility service companies. All pool equipment must have back flow prevention installed by a Licensed Plumber and must have all electrical equipment including heaters installed by a Licensed Electrician.

26. **Accessory buildings** one story accessory structures that do not exceed 120 square feet are exempt from permits as per 2018 IRC 105.2**.** All others must present a plot plan showing the location of the accessory building and distance from the property lines and house. Foundation and building plans stamped by an engineer is required.

27. **Sidewalks** shall be a minimum 4" thick, 5' wide. Refer to the City of La Marque Design Criteria

28. **Driveways** shall be asphalt or reinforced concrete, and shall be installed from the existing pavement to the right-of-way line (property line), minimum. This applies to all types of new construction. It does not apply to property being actively used for agricultural purposes and designated with the agricultural-use exemption. Refer to the City of La Marque Design Criteria and City of La Marque Code of Ordinance at ds.cityoflamaque.org for the most accurate and up to date requirements.

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INSPECTIONS

The City of La Marque Inspections Office performs a combination of inspections each visit to the job site. The inspections shall be done in the order as followed:

1. Temporary Electrical Service Pole (T-Pole)
2. Ground Plumbing, Water Line and Sewer
3. Slab / Foundation
4. All rough-Ins (It is preferred to do all inspections on the same day at the same time)
    a. Framing
    b. Electrical Rough-In
    c. Plumbing Top-Out (internal gas lines must be holding pressure as well)
    d. Mechanical

    These inspections must be done prior to installation of insulation and sheetrock.
5. Meter Loop (Electrical Service transfer from temporary to permanent)
6. All Finals (It is preferred to do all inspections on the same day at the same time)
    a. Building
    b. Electrical
    c. Plumbing (yard line must be holding pressure)
    d. Mechanical

Also concrete or pavement on driveway must be complete, and address must be permanently installed on the building. After all finals have passed, you will need to call in for a Certificate of Occupancy inspection. Once this certificate is issued, you will be allowed to occupy the building. Gas and/or water service may be held until all final inspections have been completed and passed.

Inspections will only be done and recorded if the permit numbers and addresses are given at the same time that inspection is requested by calling the Permit Office at 409-938-9219.

* Temporary addresses of property must be visible from the street.

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NON-CONVERSION AGREEMENT
FOR STRUCTURES WITH ENCLOSURE IN THE 100-YEAR FLOODPLAIN- VELOCITY ZONE

(Attached & detached Garages, Sheds, Storage Rooms, all structures in Omega Bay) *Permits@CityOfLaMarque.Org*

Permit # _____

Property Owner _____

Address _____

Lowest Finished Floor Elevation at the site is: _____feet

In consideration for the granting of a Certificate of Occupancy for the above structure which has an enclosed area below the required Base Flood Elevation of _____feet, the Property Owner agrees to the following:

1. That the enclosed area, if permitted, shall be used solely for parking of vehicles, limited storage, or access to the building and will never be used for human habitation without first becoming fully compliant with the Floodplain Management Ordinance in effect at the time of conversion.
2. That all interior walls, ceiling, and floors below the Flood Protection Elevation shall be unfinished or constructed of flood resistant materials.
3. That mechanical, electrical, or plumbing devices shall not be installed below the required Base Flood Elevation.
4. The walls of the enclosed area below the Flood Protection Elevation shall be constructed with breakaway walls.
5. That any variation in construction beyond what is permitted shall constitute a violation and be abatable as such.
6. Additions to the enclosed space will require a building permit.
7 That this Non-conversion Agreement becomes part of Permit # _____and grants The City of La Marque, Texas the ability to inspect and enforce the provisions of this Agreement at any time.
8. That this Agreement shall run with the Property and shall be recorded with the deed to the above property. The Owner and the City acknowledge and agree that this Agreement is binding upon the City and the Owner and their respective successors, executors, heirs, and assigns, as applicable, for the term of this Agreement and constitutes a covenant running with the land. The Owner also agrees to pay for the fees for recording this agreement to the City as a condition of granting the Permit.

SIGN ONLY IN THE PRESENCE OF A NOTARY:

_____ _____
Owner's Signature Printed Name

STATE OF _____ §
§
COUNTY OF _____ §

This instrument was acknowledged before me on _____

_____
Notary Public's Signature

TX BBG CONSULTING, INC.

Project Address	510 Bluebonnet
Zoning	R-1
Plan Type	New Single Family
Proposed Use	**New Single-Family Residence**
Reviewer/Number	Julie Herrera

Plan review has been disapproved with the following comments:

1. Provide updated electrical plans showing the required carbon monoxide detectors and smoke alarms per the 2018 IRC.
2. Provide mechanical plans and Manual J report for all proposed mechanical work.
3. Provide Plumbing riser diagrams (DWV, Sewer, gas)
4. Provide energy compliance report (REScheck) in compliance with the 2018 IECC.