HISTORIC AND DESIGN REVIEW COMMISSION

September 04, 2019

HDRC CASE NO:	**2019-491**
ADDRESS:	527 E HUISACHE AVE 525 E HUISACHE AVE
LEGAL DESCRIPTION:	NCB 3090 BLK 6 LOT 26
ZONING:	MF-33,H
CITY COUNCIL DIST.:	1
DISTRICT:	Monte Vista Historic District
APPLICANT:	David Bogle/SYNCRO Studio
OWNER:	Grant Garbo
TYPE OF WORK:	Construction of a rear addition, site modifications, exterior modifications, window replacement
APPLICATION RECEIVED:	August 16, 2019
60-DAY REVIEW:	October 15, 2019
CASE MANAGER:	Stephanie Phillips

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Replace two existing casement windows with new composite sliding windows.
2. Install two new composite sliding windows on the west and east façade of the primary structure.
3. Install rounded skylights on the primary structure.
4. Construct a rear addition totaling approximately 860 square feet.
5. Perform hardscaping modifications, including the installation of a rear concrete parking pad, rear concrete walkway, and two rear porch slabs. The total added impervious coverage will measure approximately 850 square feet.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 2, Exterior Maintenance and Alterations

1. Materials: Woodwork
A. MAINTENANCE (PRESERVATION)
i. *Inspections*—Conduct semi-annual inspections of all exterior wood elements to verify condition and determine maintenance needs.
ii. *Cleaning*—Clean exterior surfaces annually with mild household cleaners and water. Avoid using high pressure power washing and any abrasive cleaning or striping methods that can damage the historic wood siding and detailing.
iii. *Paint preparation*—Remove peeling, flaking, or failing paint surfaces from historic woodwork using the gentlest means possible to protect the integrity of the historic wood surface. Acceptable methods for paint removal include scraping and sanding, thermal removal, and when necessary, mild chemical strippers. Sand blasting and water blasting should never be used to remove paint from any surface. Sand only to the next sound level of paint, not all the way to the wood, and address any moisture and deterioration issues before repainting.
iv. *Repainting*—Paint once the surface is clean and dry using a paint type that will adhere to the surface properly. See *General Paint Type Recommendations* in Preservation Brief #10 listed under Additional Resources for more information.
v. *Repair*—Repair deteriorated areas or refasten loose elements with an exterior wood filler, epoxy, or glue.
B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)
i. *Façade materials*—Avoid removing materials that are in good condition or that can be repaired in place. Consider exposing original wood siding if it is currently covered with vinyl or aluminum siding, stucco, or other materials that have not achieved historic significance.
ii. *Materials*—Use in-kind materials when possible or materials similar in size, scale, and character when exterior woodwork is beyond repair. Ensure replacement siding is installed to match the original pattern, including exposures. Do not introduce modern materials that can accelerate and hide deterioration of historic materials. Hardiboard and other cementitious materials are not recommended.
iii. *Replacement elements*—Replace wood elements in-kind as a replacement for existing wood siding, matching in profile, dimensions, material, and finish, when beyond repair.

6. Architectural Features: Doors, Windows, and Screens

A. MAINTENANCE (PRESERVATION)

i. *Openings*—Preserve existing window and door openings. Avoid enlarging or diminishing to fit stock sizes or air conditioning units. Avoid filling in historic door or window openings. Avoid creating new primary entrances or window openings on the primary façade or where visible from the public right-of-way.

ii. *Doors*—Preserve historic doors including hardware, fanlights, sidelights, pilasters, and entablatures.

iii. *Windows*—Preserve historic windows. When glass is broken, the color and clarity of replacement glass should match the original historic glass.

iv. *Screens and shutters*—Preserve historic window screens and shutters.

v. *Storm windows*—Install full-view storm windows on the interior of windows for improved energy efficiency. Storm window may be installed on the exterior so long as the visual impact is minimal and original architectural details are not obscured.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Doors*—Replace doors, hardware, fanlight, sidelights, pilasters, and entablatures in-kind when possible and when deteriorated beyond repair. When in-kind replacement is not feasible, ensure features match the size, material, and profile of the historic element.

ii. *New entrances*—Ensure that new entrances, when necessary to comply with other regulations, are compatible in size, scale, shape, proportion, material, and massing with historic entrances.

iii. *Glazed area*—Avoid installing interior floors or suspended ceilings that block the glazed area of historic windows.

iv. *Window design*—Install new windows to match the historic or existing windows in terms of size, type, configuration, material, form, appearance, and detail when original windows are deteriorated beyond repair.

v. *Muntins*—Use the exterior muntin pattern, profile, and size appropriate for the historic building when replacement windows are necessary. Do not use internal muntins sandwiched between layers of glass.

vi. *Replacement glass*—Use clear glass when replacement glass is necessary. Do not use tinted glass, reflective glass, opaque glass, and other non-traditional glass types unless it was used historically. When established by the architectural style of the building, patterned, leaded, or colored glass can be used.

vii. *Non-historic windows*—Replace non-historic incompatible windows with windows that are typical of the architectural style of the building.

viii. *Security bars*—Install security bars only on the interior of windows and doors.

ix. *Screens*—Utilize wood screen window frames matching in profile, size, and design of those historically found when the existing screens are deteriorated beyond repair. Ensure that the tint of replacement screens closely matches the original screens or those used historically.

x. *Shutters*—Incorporate shutters only where they existed historically and where appropriate to the architectural style of the house. Shutters should match the height and width of the opening and be mounted to be operational or appear to be operational. Do not mount shutters directly onto any historic wall material.

7. Architectural Features: Porches, Balconies, and Porte-Cocheres

A. MAINTENANCE (PRESERVATION)

i. *Existing porches, balconies, and porte-cocheres*—Preserve porches, balconies, and porte-cocheres. Do not add new porches, balconies, or porte-cocheres where not historically present.

ii. *Balusters*—Preserve existing balusters. When replacement is necessary, replace in-kind when possible or with balusters that match the originals in terms of materials, spacing, profile, dimension, finish, and height of the railing.

iii. *Floors*—Preserve original wood or concrete porch floors. Do not cover original porch floors of wood or concrete with carpet, tile, or other materials unless they were used historically.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Front porches*—Refrain from enclosing front porches. Approved screen panels should be simple in design as to not change the character of the structure or the historic fabric.

ii. *Side and rear porches*—Refrain from enclosing side and rear porches, particularly when connected to the main porch or balcony. Original architectural details should not be obscured by any screening or enclosure materials. Alterations to side and rear porches should result in a space that functions, and is visually interpreted as, a porch.

iii. *Replacement*—Replace in-kind porches, balconies, porte-cocheres, and related elements, such as ceilings, floors, and columns, when such features are deteriorated beyond repair. When in-kind replacement is not feasible, the design should be compatible in scale, massing, and detail while materials should match in color, texture, dimensions, and finish.

iv. *Adding elements*—Design replacement elements, such as stairs, to be simple so as to not distract from the historic

character of the building. Do not add new elements and details that create a false historic appearance.
v. *Reconstruction*—Reconstruct porches, balconies, and porte-cocheres based on accurate evidence of the original, such as photographs. If no such evidence exists, the design should be based on the architectural style of the building and historic patterns.

12. Increasing Energy Efficiency
A. MAINTENANCE (PRESERVATION)
i. *Historic elements*—Preserve elements of historic buildings that are energy efficient including awnings, porches, recessed entryways, overhangs, operable windows, and shutters.
B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)
i. *Weatherization*—Apply caulking and weather stripping to historic windows and doors to make them weather tight.
ii. *Thermal performance*—Improve thermal performance of windows, fanlights, and sidelights by applying UV film or new glazing that reduces heat gain from sunlight on south and west facing facades only if the historic character can be maintained. Do not use reflective or tinted films.
iii. *Windows*— Restore original windows to working order. Install compatible and energy-efficient replacement windows when existing windows are deteriorated beyond repair. Replacement windows must match the appearance, materials, size, design, proportion, and profile of the original historic windows.
iv. *Reopening*—Consider reopening an original opening that is presently blocked to add natural light and ventilation.
v. *Insulation*—Insulate unfinished spaces with appropriate insulation ensuring proper ventilation, such as attics, basements, and crawl spaces.
vi. *Shutters*—Reinstall functional shutters and awnings with elements similar in size and character where they existed historically.
vii. *Storm windows*—Install full-view storm windows on the interior of windows for improved energy efficiency.
viii. *Cool roofs*—Do not install white or ―cool‖ roofs when visible from the public right-of-way. White roofs are permitted on flat roofs and must be concealed with a parapet.
ix. *Roof vents*—Add roof vents for ventilation of attic heat. Locate new roof vents on rear roof pitches, out of view of the public right-of-way.
x. *Green Roofs*—Install green roofs when they are appropriate for historic commercial structures.

Historic Design Guidelines, Chapter 3,Guidelines for Additions
1. Massing and Form of Residential Additions
A. GENERAL
i. *Minimize visual impact*—Site residential additions at the side or rear of the building whenever possible to minimize views of the addition from the public right-of-way. An addition to the front of a building would be inappropriate.
ii. *Historic context*—Design new residential additions to be in keeping with the existing, historic context of the block. For example, a large, two-story addition on a block comprised of single-story homes would not be appropriate.
iii. *Similar roof form*—Utilize a similar roof pitch, form, overhang, and orientation as the historic structure for additions.
iv. *Transitions between old and new*—Utilize a setback or recessed area and a small change in detailing at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms.
B. SCALE, MASSING, AND FORM
i. *Subordinate to principal facade*—Design residential additions, including porches and balconies, to be subordinate to the principal façade of the original structure in terms of their scale and mass.
ii. *Rooftop additions*—Limit rooftop additions to rear facades to preserve the historic scale and form of the building from the street level and minimize visibility from the public right-of-way. Full-floor second story additions that obscure the form of the original structure are not appropriate.
iii. *Dormers*—Ensure dormers are compatible in size, scale, proportion, placement, and detail with the style of the house. Locate dormers only on non-primary facades (those not facing the public right-of-way) if not historically found within the district.
iv. *Footprint*—The building footprint should respond to the size of the lot. An appropriate yard to building ratio should be maintained for consistency within historic districts. Residential additions should not be so large as to double the existing building footprint, regardless of lot size.
v. Height—Generally, the height of new additions should be consistent with the height of the existing structure. The maximum height of new additions should be determined by examining the line-of-sight or visibility from the street. Addition height should never be so contrasting as to overwhelm or distract from the existing structure.

3. Materials and Textures

A. COMPLEMENTARY MATERIALS
i. *Complementary materials*—Use materials that match in type, color, and texture and include an offset or reveal to distinguish the addition from the historic structure whenever possible. Any new materials introduced to the site as a result of an addition must be compatible with the architectural style and materials of the original structure.
ii. *Metal roofs*—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alternations and Maintenance section for additional specifications regarding metal roofs.
iii. *Other roofing materials*—Match original roofs in terms of form and materials. For example, when adding on to a building with a clay tile roof, the addition should have a roof that is clay tile, synthetic clay tile, or a material that appears similar in color and dimension to the existing clay tile.
B. INAPPROPRIATE MATERIALS
i. *Imitation or synthetic materials*—Do not use imitation or synthetic materials, such as vinyl siding, brick or simulated stone veneer, plastic, or other materials not compatible with the architectural style and materials of the original structure.
C. REUSE OF HISTORIC MATERIALS
i. *Salvage*—Salvage and reuse historic materials, where possible, that will be covered or removed as a result of an addition.

4. Architectural Details
A. GENERAL
i. *Historic context*—Design additions to reflect their time while respecting the historic context. Consider character defining features and details of the original structure in the design of additions. These architectural details include roof form, porches, porticos, cornices, lintels, arches, quoins, chimneys, projecting bays, and the shapes of window and door openings.
ii. *Architectural details*—Incorporate architectural details that are in keeping with the architectural style of the original structure. Details should be simple in design and compliment the character of the original structure. Architectural details that are more ornate or elaborate than those found on the original structure should not be used to avoid drawing undue attention to the addition.
iii. *Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for additions. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the addition is new.

5. Mechanical Equipment and Roof Appurtenances
A. LOCATION AND SITING
i. *Visibility*—Do not locate utility boxes, air conditioners, rooftop mechanical equipment, skylights, satellite dishes, cable lines, and other roof appurtenances on primary facades, front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.
ii. *Service Areas*—Locate service areas towards the rear of the site to minimize visibility from the public right-of-way. Where service areas cannot be located at the rear of the property, compatible screens or buffers will be required.
B. SCREENING
i. *Building-mounted equipment*—Paint devices mounted on secondary facades and other exposed hardware, frames, and piping to match the color scheme of the primary structure or screen them with landscaping.
ii. *Freestanding equipment*—Screen service areas, air conditioning units, and other mechanical equipment from public view using a fence, hedge, or other enclosure.
iii. *Roof-mounted equipment*—Screen and set back devices mounted on the roof to avoid view from public right-of-way.

Historic Design Guidelines, Chapter 5, Guidelines for Site Elements
1. Topography
A. TOPOGRAPHIC FEATURES
i. *Historic topography*—Avoid significantly altering the topography of a property (i.e., extensive grading). Do not alter character-defining features such as berms or sloped front lawns that help define the character of the public right-of-way. Maintain the established lawn to help prevent erosion. If turf is replaced over time, new plant materials in these areas should be low-growing and suitable for the prevention of erosion.
ii. *New construction*—Match the historic topography of adjacent lots prevalent along the block face for new construction. Do not excavate raised lots to accommodate additional building height or an additional story for new construction.
iii. *New elements*—Minimize changes in topography resulting from new elements, like driveways and walkways, through appropriate siting and design. New site elements should work with, rather than change, character-defining topography when possible.

2. Fences and Walls

A. HISTORIC FENCES AND WALLS

i. *Preserve*—Retain historic fences and walls.

ii. *Repair and replacement*—Replace only deteriorated sections that are beyond repair. Match replacement materials (including mortar) to the color, texture, size, profile, and finish of the original.

iii. *Application of paint and cementitious coatings*—Do not paint historic masonry walls or cover them with stone facing or stucco or other cementitious coatings.

B. NEW FENCES AND WALLS

i. *Design*—New fences and walls should appear similar to those used historically within the district in terms of their scale, transparency, and character. Design of fence should respond to the design and materials of the house or main structure.

ii. *Location*—Avoid installing a fence or wall in a location where one did not historically exist, particularly within the front yard. The appropriateness of a front yard fence or wall is dependent on conditions within a specific historic district. New front yard fences or wall should not be introduced within historic districts that have not historically had them.

iii. *Height*—Limit the height of new fences and walls within the front yard to a maximum of four feet. The appropriateness of a front yard fence is dependent on conditions within a specific historic district. New front yard fences should not be introduced within historic districts that have not historically had them. If a taller fence or wall existed historically, additional height may be considered. The height of a new retaining wall should not exceed the height of the slope it retains.

iv. *Prohibited materials*—Do not use exposed concrete masonry units (CMU), Keystone or similar interlocking retaining wall systems, concrete block, vinyl fencing, or chain link fencing.

v. *Appropriate materials*—Construct new fences or walls of materials similar to fence materials historically used in the district. Select materials that are similar in scale, texture, color, and form as those historically used in the district, and that are compatible with the main structure. Screening incompatible uses—Review alternative fence heights and materials for appropriateness where residential properties are adjacent to commercial or other potentially incompatible uses.

C. PRIVACY FENCES AND WALLS

i. *Relationship to front facade*—Set privacy fences back from the front façade of the building, rather than aligning them with the front façade of the structure to reduce their visual prominence.

ii. *Location* – Do not use privacy fences in front yards.

3. Landscape Design

A. PLANTINGS

i. *Historic Gardens*— Maintain front yard gardens when appropriate within a specific historic district.

ii. *Historic Lawns*—Do not fully remove and replace traditional lawn areas with impervious hardscape. Limit the removal of lawn areas to mulched planting beds or pervious hardscapes in locations where they would historically be found, such as along fences, walkways, or drives. Low-growing plantings should be used in historic lawn areas; invasive or large-scale species should be avoided. Historic lawn areas should never be reduced by more than 50%.

iii. *Native xeric plant materials*—Select native and/or xeric plants that thrive in local conditions and reduce watering usage. See UDC Appendix E: San Antonio Recommended Plant List—All Suited to Xeriscape Planting Methods, for a list of appropriate materials and planting methods. Select plant materials with a similar character, growth habit, and light requirements as those being replaced.

iv. *Plant palettes*—If a varied plant palette is used, incorporate species of taller heights, such informal elements should be restrained to small areas of the front yard or to the rear or side yard so as not to obstruct views of or otherwise distract from the historic structure.

v. *Maintenance*—Maintain existing landscape features. Do not introduce landscape elements that will obscure the historic structure or are located as to retain moisture on walls or foundations (e.g., dense foundation plantings or vines) or as to cause damage.

B. ROCKS OR HARDSCAPE

i. *Impervious surfaces* —Do not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located.

ii. *Pervious and semi-pervious surfaces*—New pervious hardscapes should be limited to areas that are not highly visible, and should not be used as wholesale replacement for plantings. If used, small plantings should be incorporated into the design.

iii. *Rock mulch and gravel* - Do not use rock mulch or gravel as a wholesale replacement for lawn area. If used, plantings should be incorporated into the design.

C. MULCH
Organic mulch – Organic mulch should not be used as a wholesale replacement for plant material. Organic mulch with appropriate plantings should be incorporated in areas where appropriate such as beneath a tree canopy.
i. *Inorganic mulch* – Inorganic mulch should not be used in highly-visible areas and should never be used as a wholesale replacement for plant material. Inorganic mulch with appropriate plantings should be incorporated in areas where appropriate such as along a foundation wall where moisture retention is discouraged.
D. TREES
i. *Preservation*—Preserve and protect from damage existing mature trees and heritage trees. See UDC Section 35-523 (Tree Preservation) for specific requirements.
ii. *New Trees* – Select new trees based on site conditions. Avoid planting new trees in locations that could potentially cause damage to a historic structure or other historic elements. Species selection and planting procedure should be done in accordance with guidance from the City Arborist.
iii. *Maintenance* – Proper pruning encourages healthy growth and can extend the lifespan of trees. Avoid unnecessary or harmful pruning. A certified, licensed arborist is recommended for the pruning of mature trees and heritage trees.
4. Residential Streetscapes
A. PLANTING STRIPS
i. *Street trees*—Protect and encourage healthy street trees in planting strips. Replace damaged or dead trees with trees of a similar species, size, and growth habit as recommended by the City Arborist.

ii. *Lawns*—Maintain the use of traditional lawn in planting strips or low plantings where a consistent pattern has been retained along the block frontage. If mulch or gravel beds are used, low-growing plantings should be incorporated into the design.
iii. *Alternative materials*—Do not introduce impervious hardscape, raised planting beds, or other materials into planting strips where they were not historically found.
B. PARKWAYS AND PLANTED MEDIANS
i. *Historic plantings*—Maintain the park-like character of historic parkways and planted medians by preserving mature vegetation and retaining historic design elements. Replace damaged or dead plant materials with species of a like size, growth habit, and ornamental characteristics.
ii. *Hardscape*—Do not introduce new pavers, concrete, or other hardscape materials into parkways and planted medians where they were not historically found.

C. STREET ELEMENTS
i. *Site elements*—Preserve historic street lights, street markers, roundabouts, and other unique site elements found within the public right-of-way as street improvements and other public works projects are completed over time.
ii. *Historic paving materials*—Retain historic paving materials, such as brick pavers or colored paving, within the public right-of-way and repair in place with like materials.
5. Sidewalks, Walkways, Driveways, and Curbing
A. SIDEWALKS AND WALKWAYS
i. *Maintenance*—Repair minor cracking, settling, or jamming along sidewalks to prevent uneven surfaces. Retain and repair historic sidewalk and walkway paving materials—often brick or concrete—in place.
ii. *Replacement materials*—Replace those portions of sidewalks or walkways that are deteriorated beyond repair. Every effort should be made to match existing sidewalk color and material.
iii. *Width and alignment*—Follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree.
iv. *Stamped concrete*—Preserve stamped street names, business insignias, or other historic elements of sidewalks and walkways when replacement is necessary.
v. *ADA compliance*—Limit removal of historic sidewalk materials to the immediate intersection when ramps are added to address ADA requirements.
B. DRIVEWAYS
i. *Driveway configuration*—Retain and repair in place historic driveway configurations, such as ribbon drives. Incorporate a similar driveway configuration—materials, width, and design—to that historically found on the site. Historic driveways are typically no wider than 10 feet. Pervious paving surfaces may be considered where replacement is necessary to increase stormwater infiltration.
ii. *Curb cuts and ramps*—Maintain the width and configuration of original curb cuts when replacing historic driveways. Avoid introducing new curb cuts where not historically found.
C. CURBING

i. *Historic curbing*—Retain historic curbing wherever possible. Historic curbing in San Antonio is typically constructed of concrete with a curved or angular profile.
ii. *Replacement curbing*—Replace curbing in-kind when deteriorated beyond repair. Where in-kind replacement is not be feasible, use a comparable substitute that duplicates the color, texture, durability, and profile of the original. Retaining walls and curbing should not be added to the sidewalk design unless absolutely necessary.
7. Off-Street Parking
A. LOCATION
i. *Preferred location*—Place parking areas for non-residential and mixed-use structures at the rear of the site, behind primary structures to hide them from the public right-of-way. On corner lots, place parking areas behind the primary structure and set them back as far as possible from the side streets. Parking areas to the side of the primary structure are acceptable when location behind the structure is not feasible. See UDC Section 35-310 for district-specific standards.
ii. *Front*—Do not add off-street parking areas within the front yard setback as to not disrupt the continuity of the streetscape.
iii. *Access*—Design off-street parking areas to be accessed from alleys or secondary streets rather than from principal streets whenever possible.
B. DESIGN
i. *Screening*—Screen off-street parking areas with a landscape buffer, wall, or ornamental fence two to four feet high—or a combination of these methods. Landscape buffers are preferred due to their ability to absorb carbon dioxide. See UDC Section 35-510 for buffer requirements.
ii. *Materials*—Use permeable parking surfaces when possible to reduce run-off and flooding. See UDC Section 35-526(j) for specific standards.
iii. *Parking structures*—Design new parking structures to be similar in scale, materials, and rhythm of the surrounding historic district when new parking structures are necessary.

OHP Window Policy Document
Recommended stipulations for replacement: Individual sashes should be replaced where possible. Should a full window unit require replacement, inserts should
• Match the original materials;
• Maintain the original dimension and profile;
• Feature clear glass. Low-e or reflective coatings are not recommended for replacements;
• Maintain the original appearance of window trim or sill detail.
Windows used in new construction should:
• Maintain traditional dimensions and profiles;
• Be recessed within the window frame. Windows with a nailing strip are not recommended;
• Feature traditional materials or appearance. Wood windows are most appropriate. Double-hung, block frame windows that feature alternative materials may be considered on a case-by-case basis;
• Feature traditional trim and sill details. Paired windows should be separated by a wood mullion. The use of low-e glass is appropriate in new construction provided that hue and reflectivity are not drastically different from regular glass.

FINDINGS:

a. The primary structure located at 527 E Huisache is a 1-story duplex constructed in the 1950s. The structure does not appear on a 1951 Sanborn Map. The home features simplified Craftsman and Midcentury Modern influences, including a low-sloped gable roof with overhanging eaves and window screens with geometric proportions. The home is a contributing structure to the Monte Vista Historic District. The applicant is requesting final approval for window replacement, a rear addition, and site modifications.
b. DESIGN REVIEW COMMITTEE AND CASE HISTORY – The applicant met with the Design Review Committee (DRC) on August 27, 2019, to discuss the current request. The DRC was generally in favor of the scale of the addition but suggested integrating window sizes and proportions that are more consistent with examples on the structure and in the district. The DRC also viewed the proposed balance between impervious and pervious cover favorably. The applicant appeared before the Historic and Design Review Commission (HDRC) and the Design Review Committee (DRC) multiple times between October 4, 2017, and April 17, 2019, for a previous project that featured a different scope of work.
c. DEVELOPMENT PATTERN – The site is located roughly mid-block on the northern half of E Huisache Ave as bounded to the west by Kings Ct and the east by Stadium Dr. The southern boundary of Trinity University is located a block north on E Mulberry Ave. Based on Sanborn Maps, the area developed with rectangular street

grids and tend to be urban in character with narrow, deep lots with shallower setbacks and side yards. The stretch of E Huisache Ave between McCullough Ave and Stadium Dr features three prominent curvilinear streets, or "courts:" Carleton Ct, Queens Crescent St, and Kings Ct, which intersect with E Huisache. This portion of the district was originally platted in 1908 as Laurel Heights, with the court streets creating parks within the E Huisache right-of-way (originally named Hill Crest Ave). The development pattern along these rounded rights-of-way created several pie-shaped lots in addition to the more traditional rectilinear forms. Overall, despite some irregularity in shape, these lots feature a high degree of consistency in terms of setbacks and structure siting. These structures date primarily from the early 1900s to the mid-1930s and consist of a diversity of architectural styles, including Tudor Revival, Craftsman, and Spanish Eclectic. A few larger multifamily structures can be found on the larger lots along intersections. Positioned close to each other and close to the street, the variety of residences creates a lively streetscape with an intimate, pedestrian friendly scale. Overall, the houses were developed to be modest and consistent in footprint and featured rear accessory structures with deep backyards. The principal historic context relates to the 20th century development of San Antonio's northern then-suburbs.

d. WINDOW REPLACEMENT – The applicant has proposed to replace two existing casement windows on the east and west facades with new composite sliding windows. The Historic Design Guidelines state that existing original openings should be preserved on the historic structure. Staffs finds that the original casement windows should be restored and remain in place.
e. INSTALLATION OF NEW WINDOWS – The applicant has proposed to remove two small window openings on the east and west facades of the primary structure and install two new vertical sliding composite windows. Staff finds the general scale and proportionality to be appropriate for the midcentury structure and existing façade rhythm, but finds that new proposed windows should comply with the OHP window policy document and the stipulations listed in the recommendation.
f. SKYLIGHTS ON PRIMARY STRUCTURE – The applicant has proposed to install skylights on the primary structure. Based on the submitted elevations, the skylights will feature a round profile and will protrude from the existing plane of either side of the gable. The skylights will be visible from the street. According to the Historic Design Guidelines for Exterior Alterations, new roof vents or roof elements should be located on rear roof pitches, out of view of the public right-of-way. There is no precedent in the vicinity for the primary roofline of a historic property to feature projecting skylight or venting elements. Staff does not find the proposal consistent with the Guidelines.
g. MASSING AND FOOTPRINT – The applicant has proposed to construct a rear addition to the primary structure. According to the Historic Design Guidelines, additions should be located at the rear of the property whenever possible. Additionally, the Guidelines stipulate that additions should not double or exceed the size of the primary structure. The proposed addition measures a total of 893 square feet per the submitted plans. The existing structure is a total of 1,580 square feet. Staff finds the proposal consistent with the Guidelines for Additions.
h. ADDITION: ROOF – The existing rear elevation of the historic primary structure features a gable roof. The proposed addition features a single gable that continues the existing structure's roofline. The Historic Design Guidelines for Additions state that new additions should utilize a similar roof pitch, form, and orientation as the principal structure. Addition height should never be so contrasting as to overwhelm or distract from the existing structure. Staff finds the proposal consistent with the Guidelines.
i. ADDITION: ROOF MATERIAL – The applicant has proposed to install a new composition shingle roof on the addition to match the existing composition shingle roof on the primary structure. The addition's roof will tie into the existing structure's roof seamlessly. Staff finds the proposal consistent with the Guidelines.
j. SKYLIGHTS – The applicant has proposed to install skylights on the rear addition. Based on the submitted elevations, the skylights will feature a round profile and will protrude from the existing plane of either side of the gable. The skylights will be minimally visible from the street at the distance of the addition. According to the Historic Design Guidelines for Exterior Alterations, new roof vents or roof elements should be located on rear roof pitches, out of view of the public right-of-way. Staff finds the proposal for the addition portion consistent.
k. WINDOW AND DOOR REMOVAL – The proposed addition will require the removal of two existing casement windows and two aluminum sliding glass doors on the rear of the facade. Staff finds the proposal generally acceptable, but finds that the two casement windows could be reused on the primary structure if those existing on the sides and front façade are in poor condition.
l. NEW WINDOWS AND DOORS – The applicant has proposed to install a pair of French doors on the rear of the addition and several horizontal sliding windows on the east and west facades. Staff finds that the proposed horizontal windows are a departure from the verticality of the existing windows and from the OHP window policy document. Staff finds that new proposed windows should comply with the OHP window policy document and the stipulations listed in the recommendation.

m. MATERIALS: FAÇADE – The existing structure features asbestos lap siding with a wide exposed profile of approximately 12 inches. The applicant has proposed to remove the siding and install new lap fiber cement siding on the existing structure. Staff finds the proposal generally appropriate and finds that smooth boards and an exposure of no more than 8 inches should be used. The applicant has indicated that the addition will feature vertical fiber cement board siding with battens to distinguish the original structure from the addition. Staff finds the proposal generally consistent.
n. TRANSITIONS BETWEEN OLD AND NEW – The proposed addition will be inset on the west and east façades from the historic structure. As noted in finding m, the addition will feature a different façade material than the original structure to further differentiate the masses. According to Guideline 2.A.v for Additions, rear additions should utilize setbacks, a small change in detailing, or a detail at the seam of the historic structure and addition to provide a clear visual distinction between old and new building forms. The proposal generally meets this Guideline.
o. MECHANICAL EQUIPMENT – The applicant has indicated that ground mounted mechanical equipment will be located on the east façade of the rear addition towards the back of the lot. The applicant is responsible for appropriately screening these units per the Guidelines.
p. REAR PORCHES – The applicant has proposed to construct two shed porch overhangs at the rear of the structure. The overhangs will be supported by simple wood posts. The form of the porch overhangs closely respond to the shed overhangs on the front façade. Staff finds the proposal appropriate for the structure and eligible for administrative approval.
q. ARCHITECTURAL DETAILS – According to the Historic Design Guidelines for Additions, architectural details that are in keeping with the architectural style of the original structure should be incorporated. The proposed addition keeps with the Craftsman and Midcentury Modern influences of the historic home without detracting from its significance. Staff finds the proposed addition's architectural details generally consistent with the Guidelines.
r. REAR HARDSCAPING – The applicant has proposed to install rear hardscaping to accommodate a rear uncovered parking pad for two cars, a pedestrian walkway, and two rear porch pads. The total added coverage will be approximately 850 square feet. According to the Historic Design Guidelines, off street parking should be located at the side or rear of a structure whenever possible. There is also evidence of existing parking pads along the alley. Staff finds that the concept of a rear parking area is generally consistent with the Guidelines.
s. REAR VEHICULAR ACCESS – The applicant has proposed to install a new rear vehicular access configuration to provide access to the rear parking pads. The proposed parking configuration will extend approximately 25 feet. According to the Historic Design Guidelines, new vehicular access elements, including curb cuts or coverage, should not be introduced where historically found. If introduced, they should be consistent with historic curb cuts in the district. There is evidence of curb cuts that are wider than ten feet along the rear alley. Staff finds the proposal appropriate given the site-specific considerations.
t. LANDSCAPING – The applicant has provided a landscaping and hardscaping plan. The proposed landscaping includes the retention of existing sod in the front yard with the introduction of a few new trees. The plan also includes new trees at the rear of the lot. Staff finds the proposal generally appropriate.

RECOMMENDATION:

Item 1, Staff does not recommend approval of the replacement of the casement windows based on finding d.

Item 2, Staff recommends approval of the installation of the new windows on the primary structure based on finding e with the following stipulation:

i. That the applicant proposes windows that meet the following stipulations: meeting rails must be no taller than 1.25" and stiles no wider than 2.25". White manufacturer's color is not allowed, and color selection must be presented to staff. There should be a minimum of two inches in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. Window trim must feature traditional dimensions and architecturally appropriate sill detail. Window track components must be painted to match the window trim or concealed by a wood window screen set within the opening.

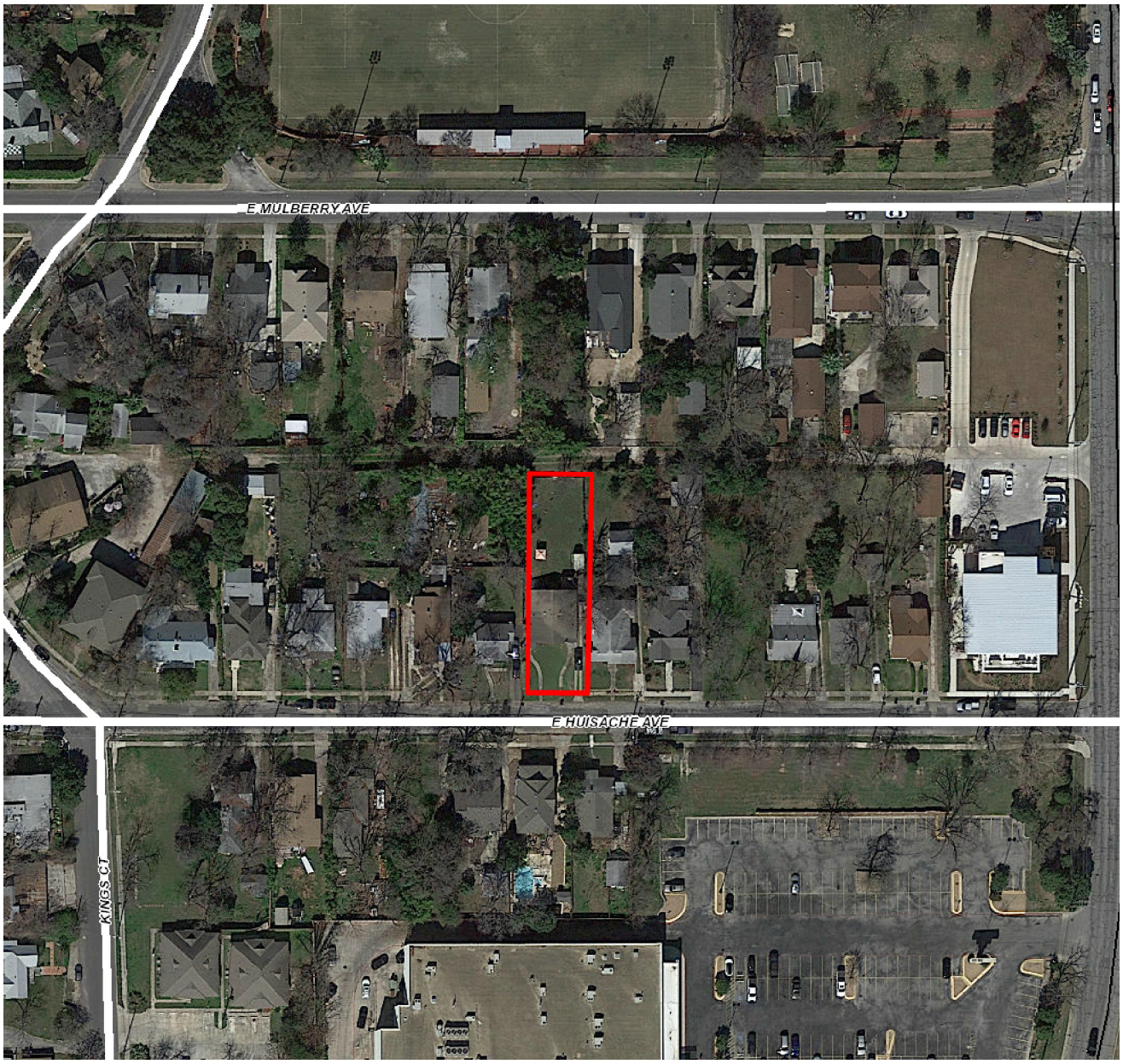
Item 3, Staff does not recommend the installation of rounded skylights on the primary structure based on finding f.

Item 4, Staff recommends approval of the rear addition based on findings with the following stipulations:

ii. That the applicant proposes vertical windows on the addition in lieu of the proposed horizontal windows as noted in finding l. The applicant is required to submit updated elevation drawings and specifications to staff for review and approval prior to the issuance of a Certificate of Appropriateness. The windows should comply with the following specifications: meeting rails must be no taller than 1.25" and stiles no wider than 2.25". White manufacturer's color is not allowed, and color selection must be presented to staff. There should be a minimum of two inches in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. Window trim must feature traditional dimensions and architecturally appropriate sill detail. Window track components must be painted to match the window trim or concealed by a wood window screen set within the opening.

iii. That the board and batten siding features boards that are twelve (12) inches wide with battens that are 1 – ½" wide.

Item 5, Staff recommends approval of the hardscaping and landscaping modifications based on findings r through t.



N

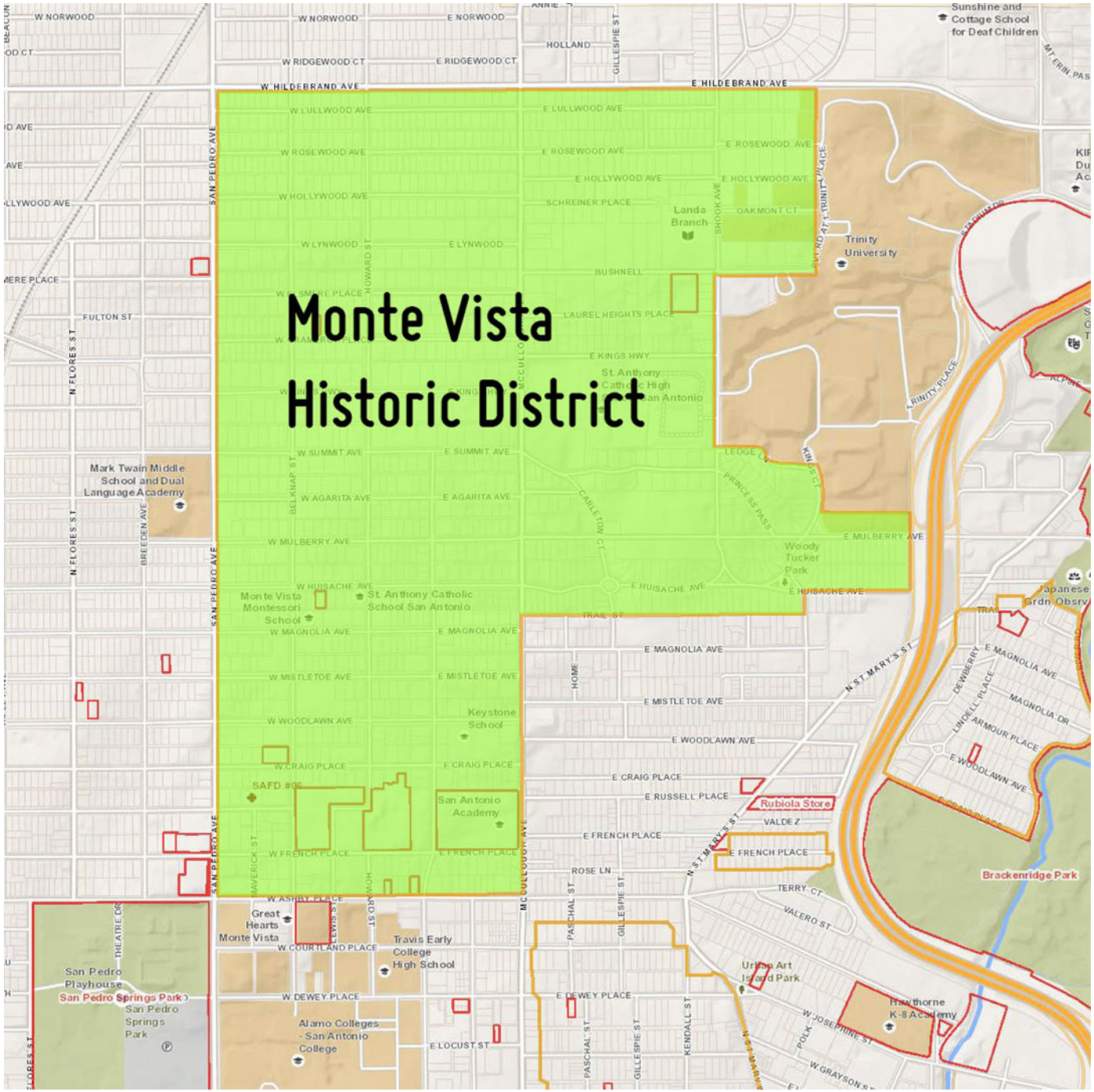
Flex Viewer

Powered by ArcGIS Server

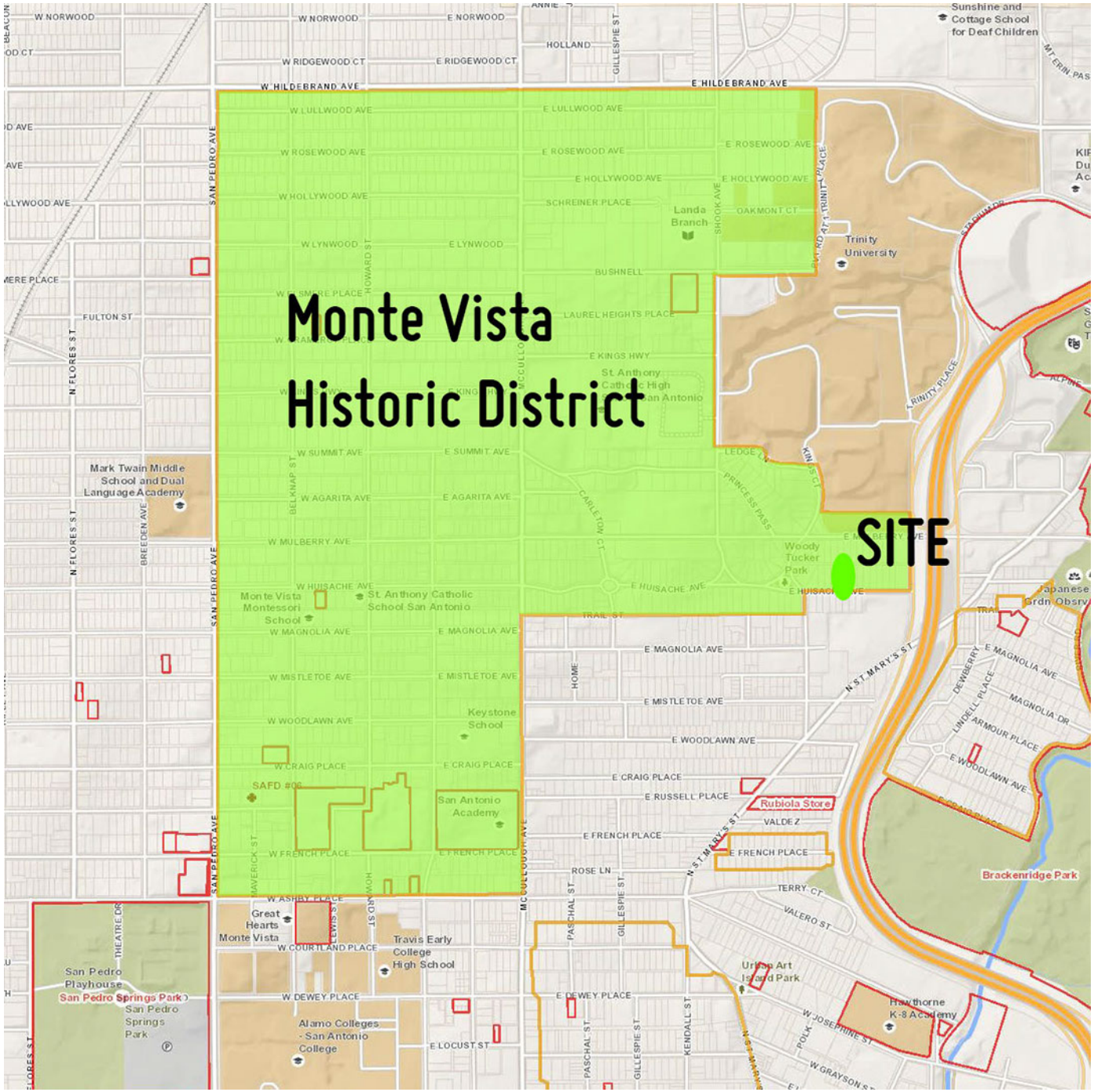
Printed:Sep 26, 2017


527 E Huisache Ave

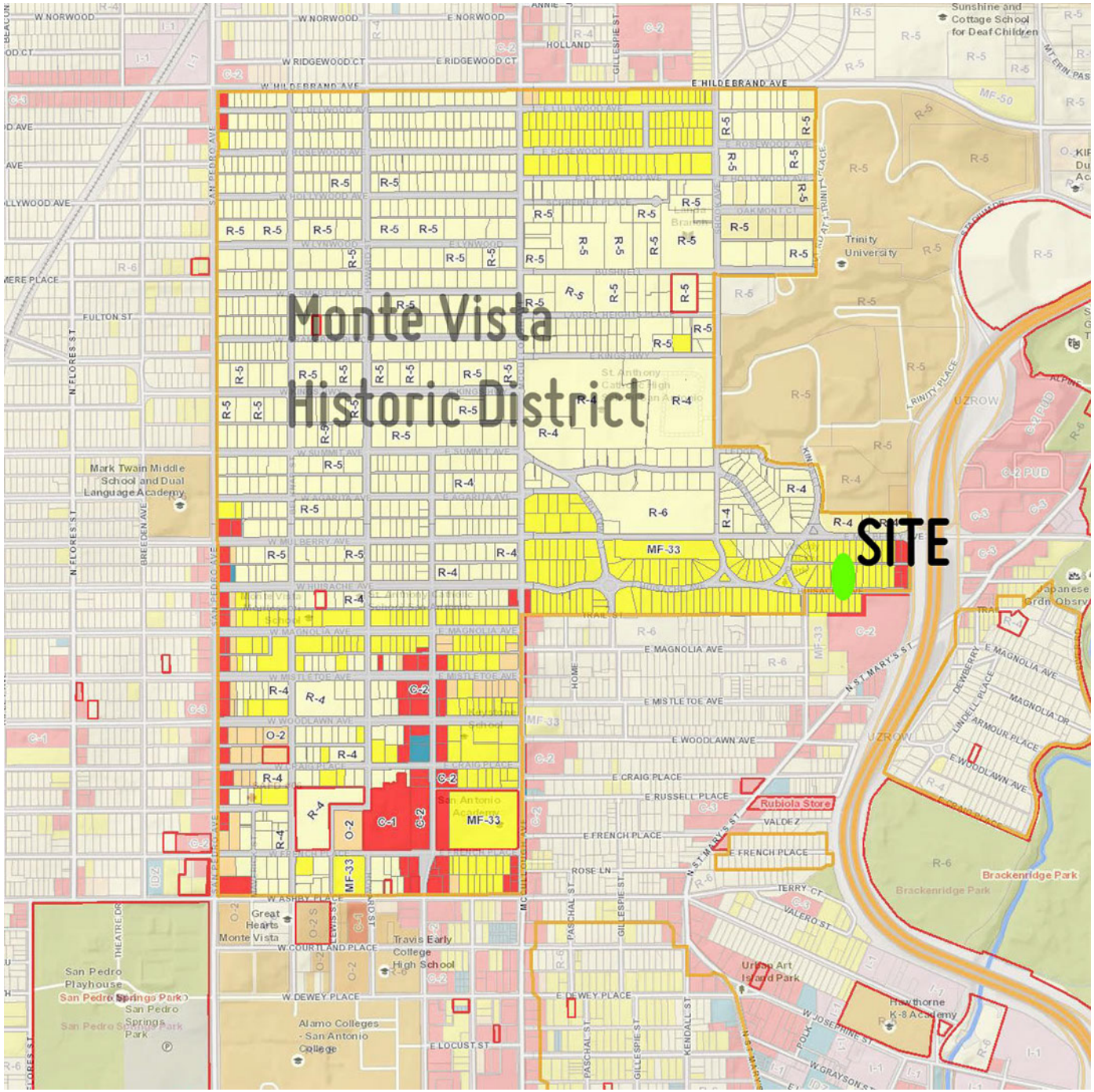
525 E Huisache - Location Maps



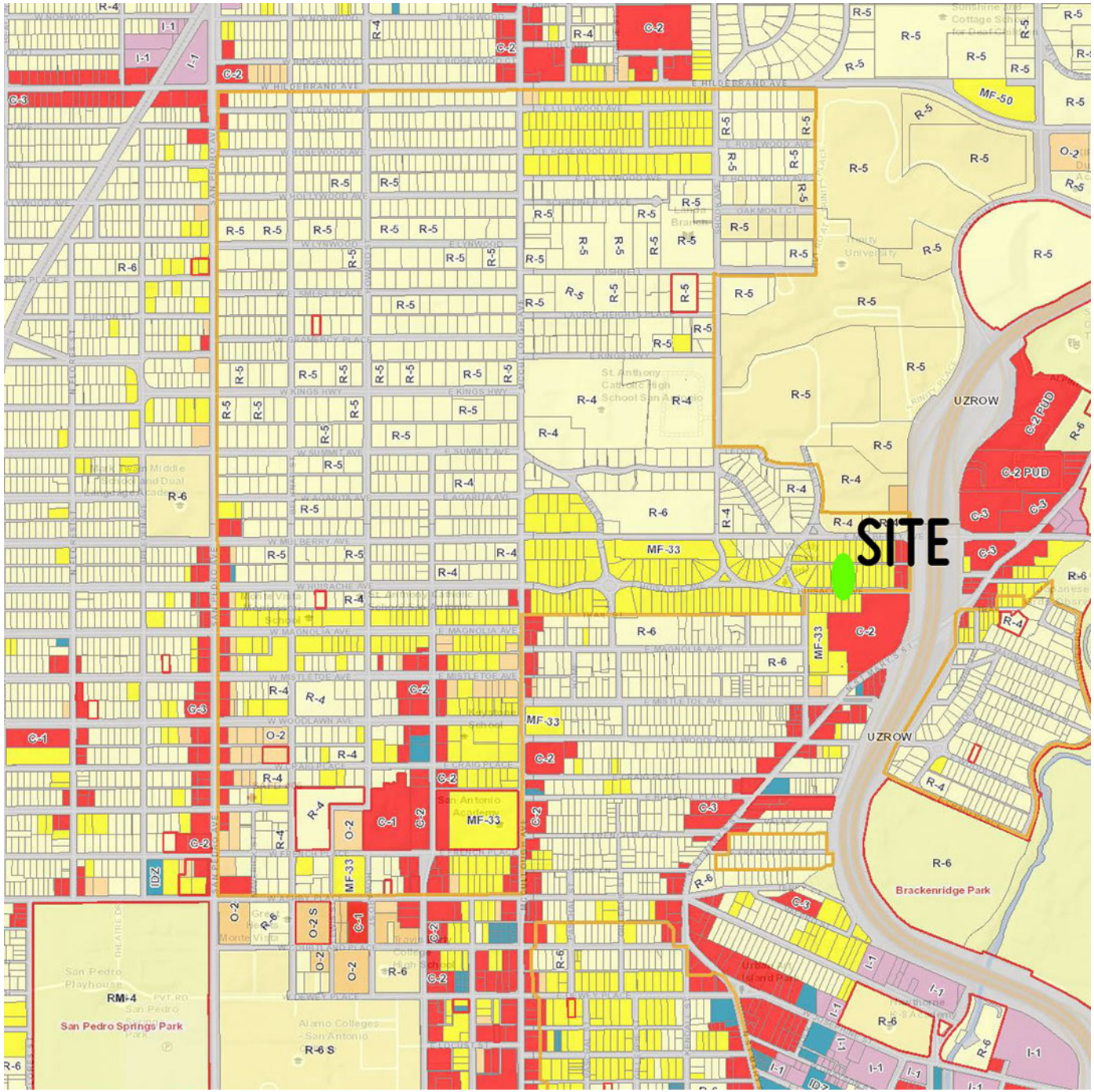
525 E Huisache - Location Maps



525 E Huisache - Location Maps

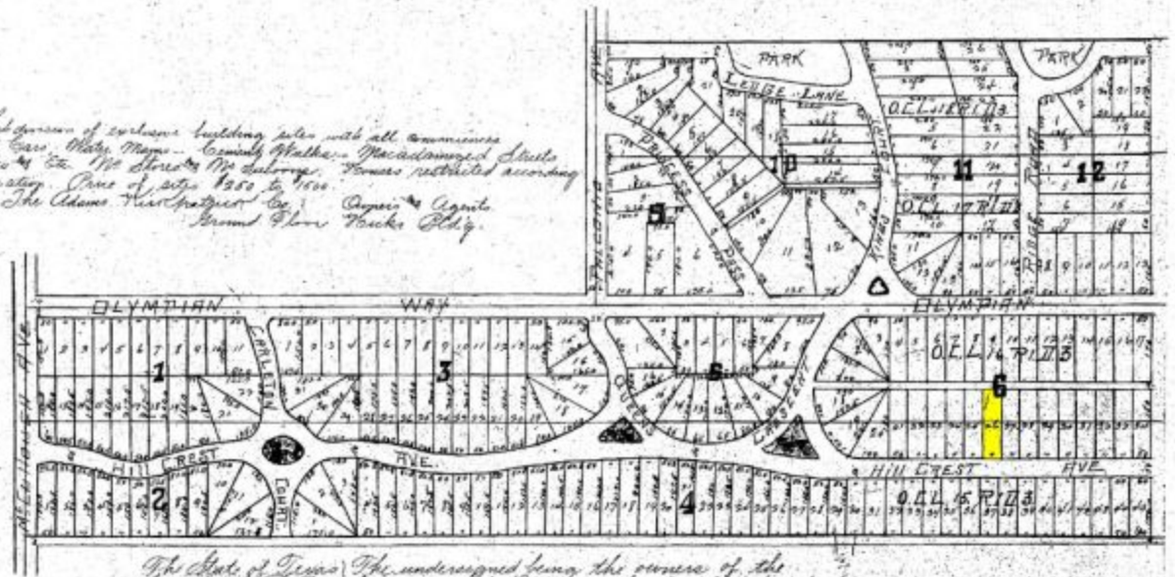


525 E Huisache - Location Maps



170

LAUREL HEIGHTS



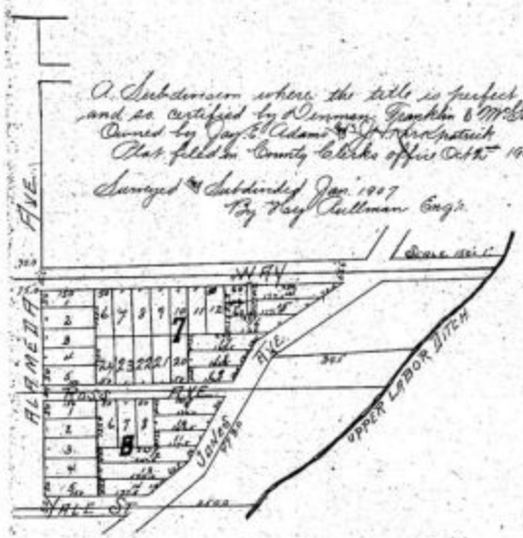
Sub-division of exclusive building sites with all conveniences Street Cars, Water Mains, Electric Walks, Macadamized Streets Parks &c. &c. No Stores No Saloons. Houses restricted according to low-class. Cost of sites $250 to $600.
The Adams Hill-Patrick Co. Agents Agents
Ground Floor Rocks Bldg.

The State of Texas } The undersigned being the owners of the
County of Bexar } foregoing Plat Dedicate as herein platted and shown, the Streets, Alleys for the free use and behoof of the public.
Adams & Hill-Patrick
By J.H. Hill-Patrick

Re-Plat In.
Vol. 9519
Pg. 10

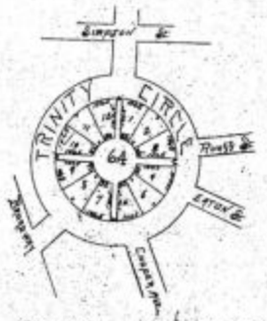
TERRACE

A Subdivision where the title is perfect and so certified by Dimmon, Franklin & McLean
Owned by Jay E. Adams & J.H. Hill-Patrick
Plat filed in County Clerks office Oct 3rd 1908
Surveyed & Subdivided Jan. 1907
By Hay Cullman Engr.



The State of Texas } Before me, August E. Hoppert a Notary Public
County of Bexar } in and for Bexar Co. Texas, on this day personally appeared J.H. Hill-Patrick of and for the firm of Adams & Hill-Patrick known to me to be the person whose name is subscribed to the foregoing Plat of "Laurel Heights Terrace" and acknowledged to me that he executed the same for the purposes and consideration therein expressed and in the capacity as therein stated. Given under my hand and Seal of Office this 30th day of Sept. A.D. 1908.
August E. Hoppert
Notary Public Bexar Co. Texas
Seal

Filed for Record Oct 3 1908 at 3:20 O'clock P.M.
Recorded & Indexed Oct 15 1908 at 5 O'clock P.M.
Frank A. Morton County Clerk
By A. [illegible] Deputy

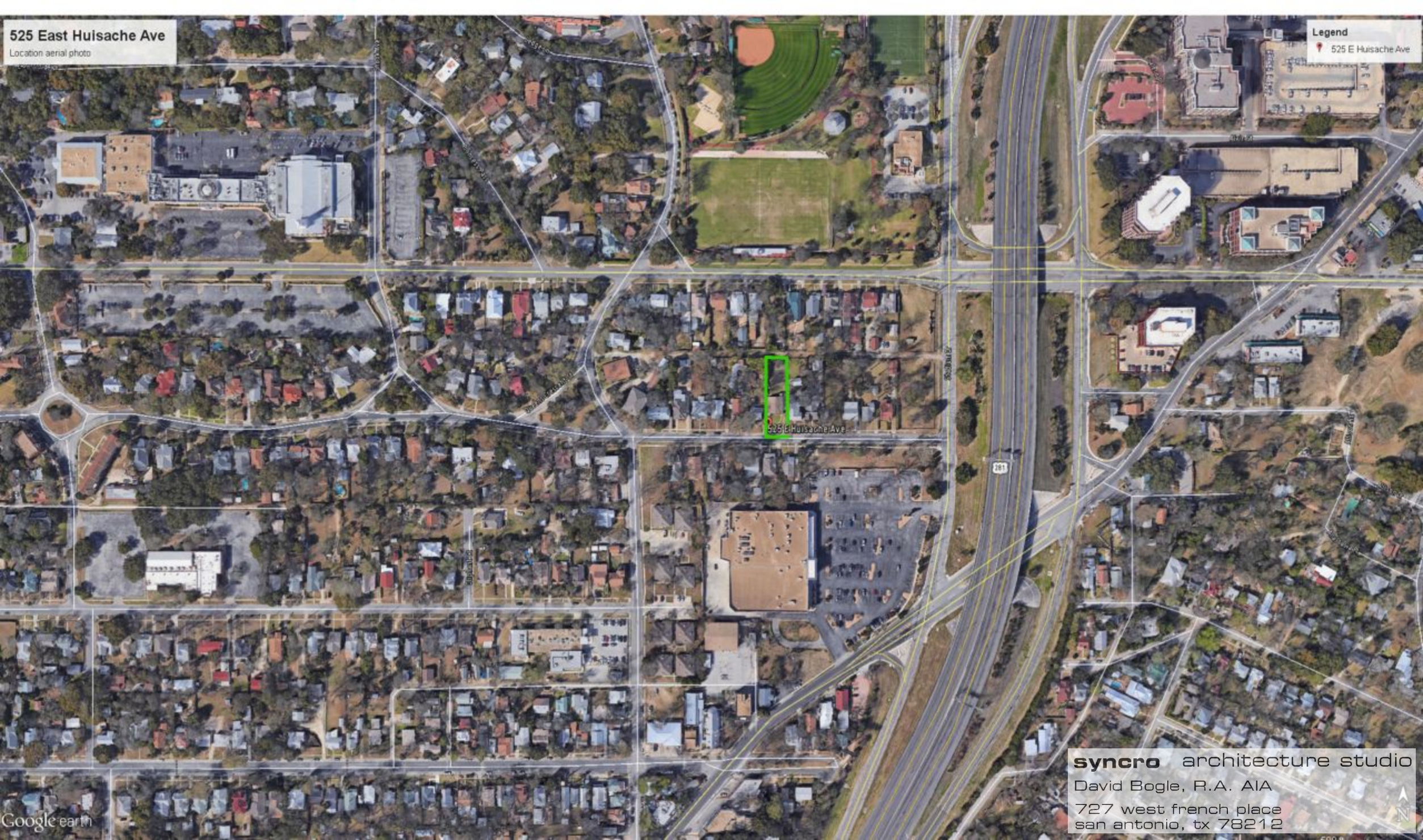


Plat showing re-subdivision of Block 64 Adams Heights
Surveyed by Hay Cullman Engr.
Scale 200'-1"
Adams Heights Company
By W. H. Tommey President

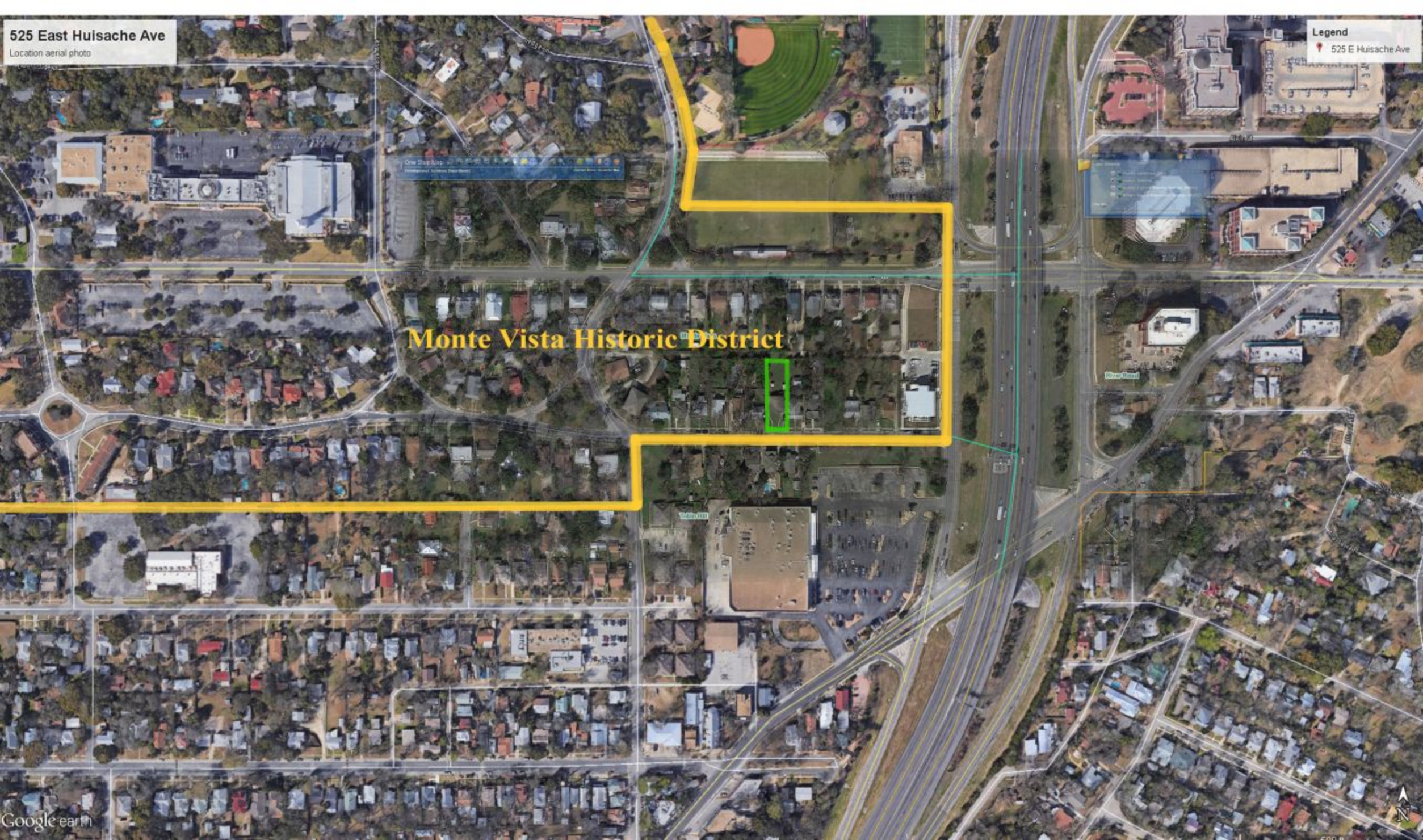
The State of Texas } Before me the undersigned authority on this day
County of Bexar } personally appeared W. H. Tommey President of the Adams Heights Company known to me to be the person whose name is subscribed to the foregoing Plat and acknowledged to me that he executed same for the purposes and consideration therein expressed and in the capacity therein stated as the act and deed of said Company for the purposes and consideration therein expressed. Given under my hand and seal of office this 28 day of July 1909. John H. Bozell Notary Public Bexar Co. Texas.
Seal

Filed for Record Feb 5th 1909 at 8 P.M.
Recorded & Indexed Feb 20 1909 at 4 P.M.
By Clerk Dep. Deputy
Frank A. Morton County Clerk
Bexar County Texas

Vacated See Vol. 9200 Pg 64



syncro architecture studio
David Bogle, R.A. AIA
727 west french place
san antonio, tx 78212


525 East Huisache Ave
Location aerial photo
Legend
525 E Huisache Ave
Monte Vista Historic District
Google earth


525 East Huisache Ave
Location aerial photo
Legend
525 E Huisache Ave
525-527 E Huisache Ave
Zoning, Parcel: MF-33
Zoning, block, vicinity: MF-33, Commercial
Google earth


525 East Huisache Ave
Location aerial photo
Legend
525 E Huisache Ave
River Road
Tobin Hill
525-527 E Huisache Ave
Zoning, Parcel: MF-33
Zoning, block, vicinity: MF-33, Commercial
Google earth

Non-Contributing

per National Register of Historic Places – Monte Vista Residential Historic District

Non-Contributing

per National Register of Historic Places – Monte Vista Residential Historic District

Non-Contributing

per National Register of Historic Places – Monte Vista Residential Historic District

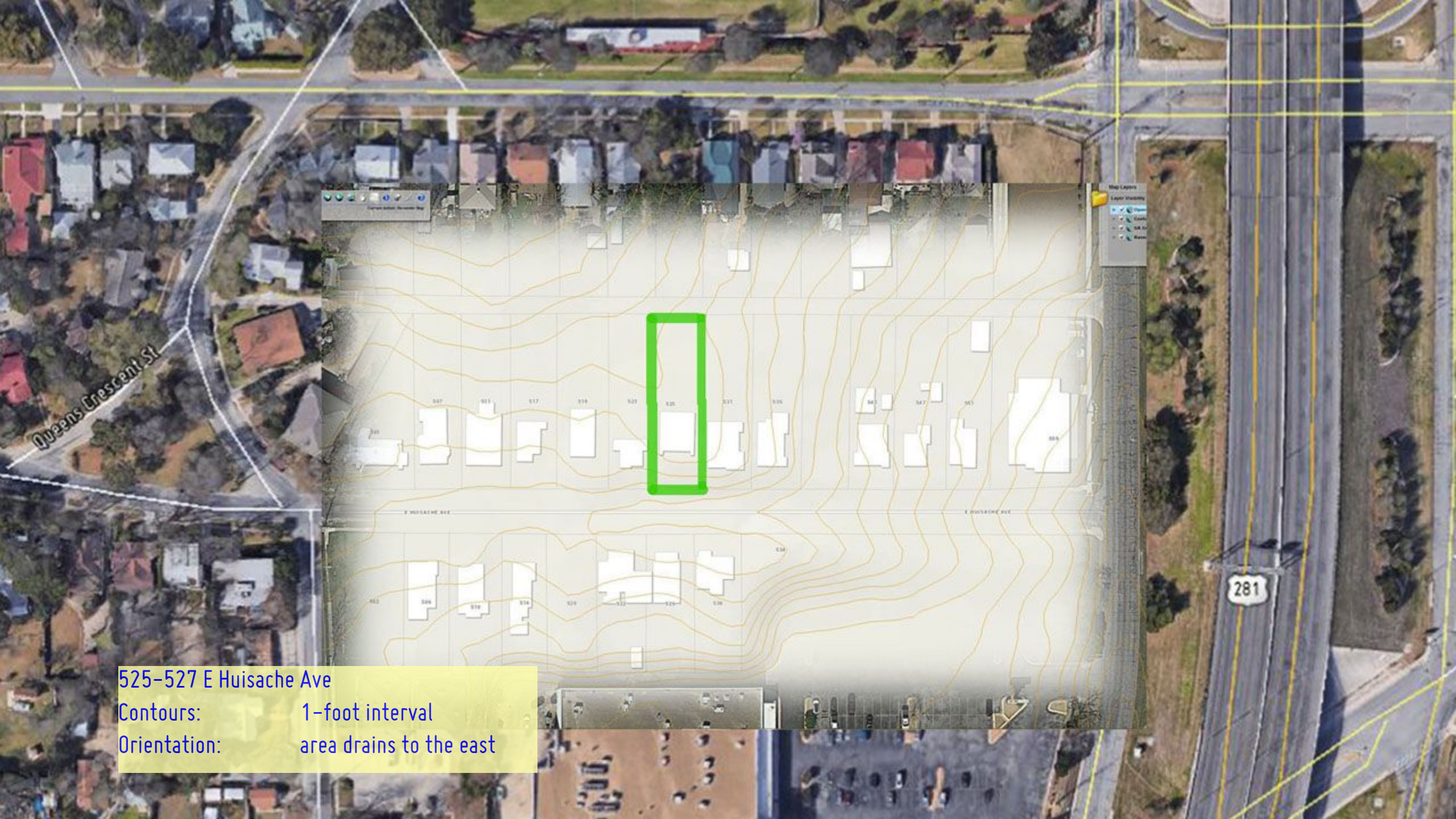
525-527 E Huisache Ave (highlighted on National Register map overlay above)

Property Type:	Residential/Duplex
Built:	Circa 1955
Stylistic Influence:	Contemporary
Category:	Non-Contributing (as shown on map overlay, above)

525-527 E Huisache Ave

Contours: 1-foot interval

Orientation: area drains to the east



525-527 E Huisache Ave

Contours: 1-foot interval

Orientation: area drains to the east


525-527 E Huisache Ave
View looking north, northwest
Google earth
© 2017 Google

525 E Huisache

525 E Huisache

525 E Huisache

525 E Huisache

525 E Huisache - rear yard

NOT for REGULATORY APPROVAL, PERMITTING or CONSTRUCTION

This sketch is for preliminary review of design intent.

LOT COVERAGE SURVEY DIAGRAM

SK - 22-r1

page 1 of 4

date: 22 February 2019

scala: Not to Scale

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727 west french place san antonio, tx 78212 v: (210) 733-3845 e: bogle@syncrostudio.com

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THROUGH LOT VEHICULAR ACCESS

SK - 22-r1

page 2 of 4

date: 22 February 2019

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This sketch is for preliminary review of design intent.

VEHICULAR ACCESS FROM ALLEY WITH TWO CAR OR GREATER WIDTH

SK - 22-r1

page 3 of 4

date: 22 February 2019

scala: Not to Scale

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Nearby Structures Impervious Coverage

#	street	Number	Roof Area	Lot Size	Roof Coverage	Impervious Pavement Area	Roof + pavement	(>/= 46% highlighted) Lot Coverage	vehicular through lot access pg 2 of 4	vehicular access through alley 2 cars or > width pg 3 of 4
1	Huisache	503	2,869.00	8,807	33%	1,642	4,511	51%		
2	Huisache	507	3,183.00	9,205	35%	1,923	5,106	55%		
3	Huisache	511	2,356.00	9,492	25%	145	2,501	26%		
4	Huisache	517	1,783.00	8,798	20%	695	2,478	28%		
5	Huisache	519	4,460.00	9,000	50%	1108.8	5,569	62%		
6	Huisache	523	1,737.00	9,000	19%	740.2	2,477	28%		
7	Huisache	531	3,211.00	9,000	36%	1,596	4,807	53%		
8	Huisache	535	2,997.00	9,000	33%	2,162	5,159	57%		✓
9	Huisache	543	2,048.00	8,770	23%	826	2,874	33%		
10	Huisache	547	1,843.00	9,058	20%	559	2,402	27%		
11	Huisache	551	2,285.00	9,169	25%	2,006	4,291	47%	✓	
12	Mulberry	500	1963	6,484	30%	371	2,334	36%		
13	Mulberry	502	2,049.00	9,734	21%	2,399	4,448	46%	✓	
14	Mulberry	504	3,405.00	8,657	39%	1,605	5,010	58%		
15	Mulberry	506	3,060.00	8,498	36%	1,018	4,078	48%		
16	Mulberry	508	1,864.00	8,740	21%	399	2,263	26%		
17	Mulberry	510	2,925.00	9,000	33%	2,189	5,114	57%		
18	Mulberry	512	2,801.00	9,000	31%	1240.9	4,042	45%	✓	✓
19	Mulberry	524	2,629.00	9,000	29%	2,100	4,729	53%	✓	✓
20	Mulberry	602	2,874.00	8,886	32%	2,367	5,241	59%		
21	Kings CT	418	2,505.00	6,046	41%	884	3,389	56%		
22	Kings CT	422	2,165.00	7,700	28%	159	2,324	30%		
20	Mulberry	618							✓	✓
			2,578.24	8,684	30%	1,332	3,944	45%	Average	

Nearby Multifamily Impervious Coverage

#	street	Number	Roof Area	Lot Size	Coverage	Impervious Pavement Area	Roof + pavement	Lot Coverage	vehicular through lot access	vehicular access through alley with 2 cars or > width
21	Mulberry	520/522	3,326.51	9,000	37%	1,236	4,563	51%	✓	✓
22	Mulberry	606	4,385.00	8,887	49%	3,408	7,793	88%		✓
23	Mulberry	608/610	2,242.50	8,371	27%	3,345	5,588	67%	✓	✓
24	Mulberry	612/614	2,590.00	8,917	29%	2,367.10	4,957	56%		
25	Kings CT	410	5,380.55	12,833	42%	4,378.00	9,759	76%		✓
26	Kings CT	414	3,289.65	8,761	38%	2,278	5,568	64%	✓	✓
			3,535.70	9,462	37%	2,835.35	6,371	67%	Average	

525 E Huisache Impervious Coverage

#	street	Number	Footprint	Lot Size	Coverage	Impervious Pavement Area	Roof + pavement	Lot Coverage		
27	Huisache	525	2,470	9,000	27%	1384	3,854	43%		✓

Visibility Study – Street 1

NOT for REGULATORY APPROVAL, PERMITTING, or CONSTRUCTION

XA8 - Visibility Study - Street 1

Scale As Indicated (Sheet Size: 22X34)

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san antonio, tx 78212

Residence on Huisache
Ohana Homes LLC
525 East Huisache St
San Antonio, TX
Progress
2019_AUG_29

Visibility Study – Street 2

NOT for REGULATORY APPROVAL, PERMITTING, or CONSTRUCTION

XA9 - Visibility Study - Street 2

Scale As Indicated (Sheet Size: 22X34)

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Residence on Huisache

Ohana Homes LLC

525 East Huisache St
San Antonio, TX

Progress

2019_AUG_29

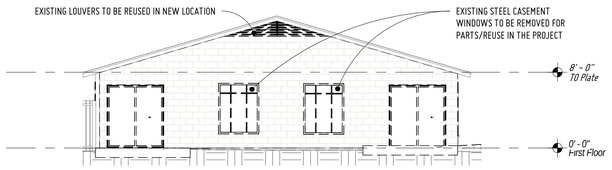
LEGEND – REMOVALS

EXISTING CONSTRUCTION TO REMAIN

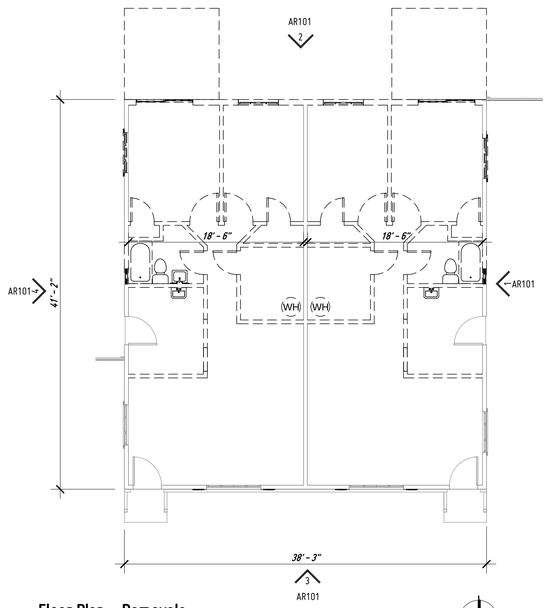
EXISTING CONSTRUCTION TO BE REMOVED

GENERAL NOTES – REMOVALS

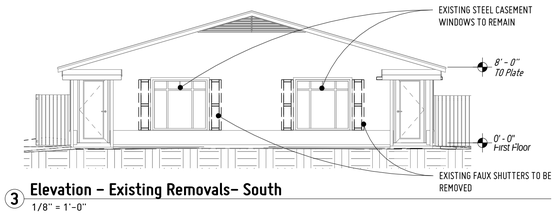
- Where no removal work is called out on the drawing, the existing materials shall remain intact.
- Remove all electrical wiring, equipment, and fixtures. salvage all light fixtures and return to Owner properly terminated where required. Repair and patch roof as appropriate matching surrounding materials. Ref. MEP for more info.
- Remove all plumbing fixtures, pipping and equipment. Salvage all plumbing fixtures and return to owner. Properly terminate all supply, waste and vent lines down to the existing concrete foundation. Repair and patch roof as appropriate, matching surrounding materials. Ref. MEP for more info.
- Remove mechanical equipment, duct work, diffusers, etc. Repair and patch roof as appropriate, matching surrounding materials. Ref. MEP for more info.
- Contractor shall coordinate the extent of removal with all trades prior to proceeding with the work.
- The general extent of removal work is shown on the drawings, It is not possible to show required removal, remodeling, and patching in every detail. The Contractor shall visit the project to determine the extent of demolition and remodel work, and to familiarize him/her self with the conditions under which the work will be performed, no additional compensation will be allowed for additional work required as a result of the work indicated herein or for patching required as a result of removal, remodeling or new work.



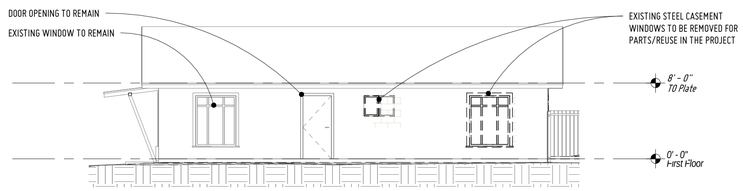
② **Elevation – Existing Removals– North1**
1/8" = 1'-0"



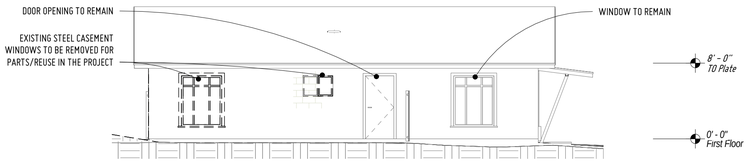
⑤ **Floor Plan – Removals**
1/8" = 1'-0"



③ **Elevation – Existing Removals– South**
1/8" = 1'-0"



① **Elevation – Existing Removals – East**
1/8" = 1'-0"



④ **Elevation – Existing Removals– West**
1/8" = 1'-0"

Residence on Huisache

525 East Huisache St
San Antonio, TX

Ohana Homes LLC

All dimensions and existing conditions shall be checked and verified by the Constructor before proceeding with the Work.

syncro
architecture studio

ARCHITECT:
SYNCRO architecture studio
David Bogle, R.A., AIA
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T: 210.733.3845
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M.E.P. ENGINEERING:
RGM Engineering
Roger G. Mendez, P.E.
6243 IH 10 West, Ste. 501
San Antonio, Texas 78201
T: 210.299.4522
E: roger@rgmengineering.net

REVISIONS

No.	Description	Date

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PERSONNEL

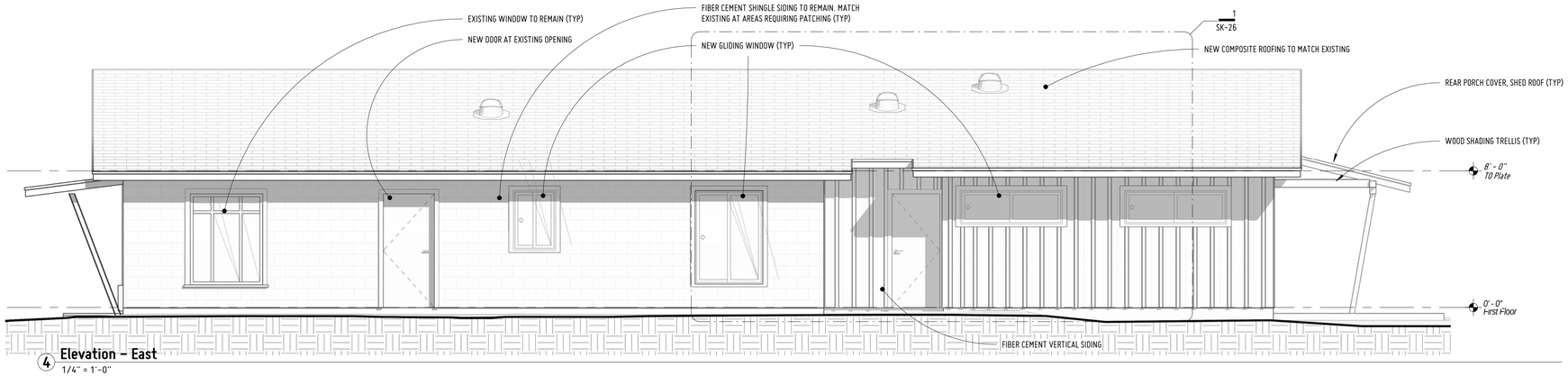
SCALE
Scale As indicated

DATE
2019_AUG_29

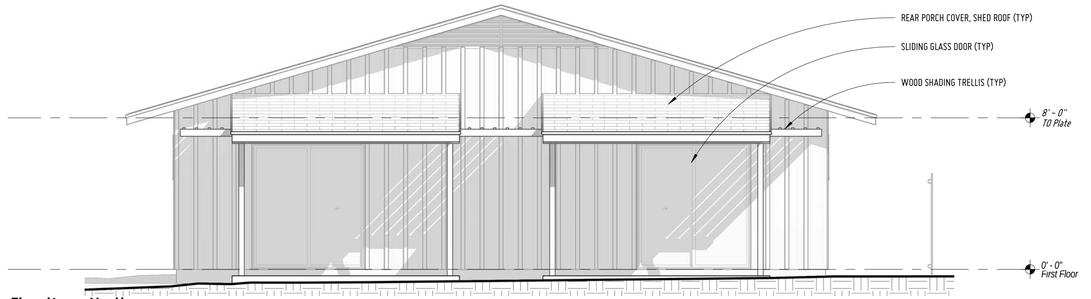
STATUS
Progress

TITLE
Existing Removals

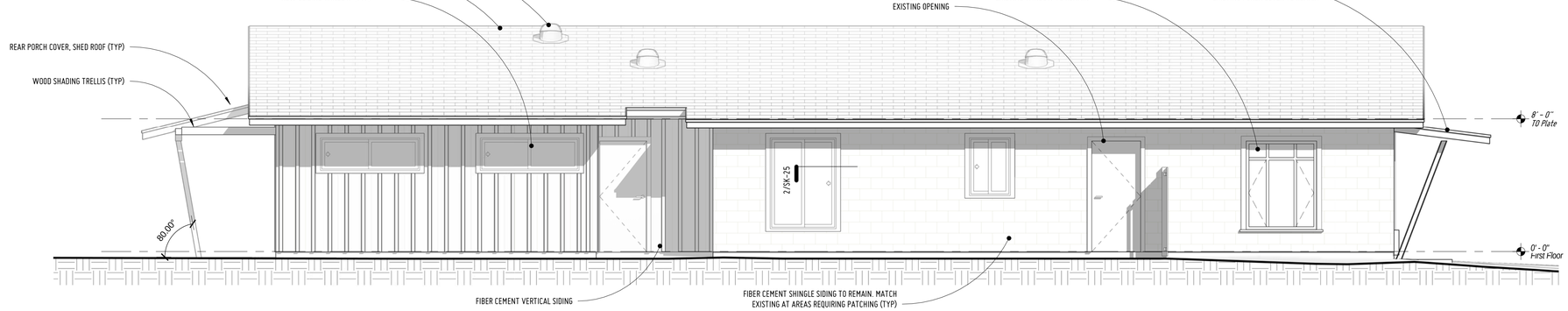
AR101



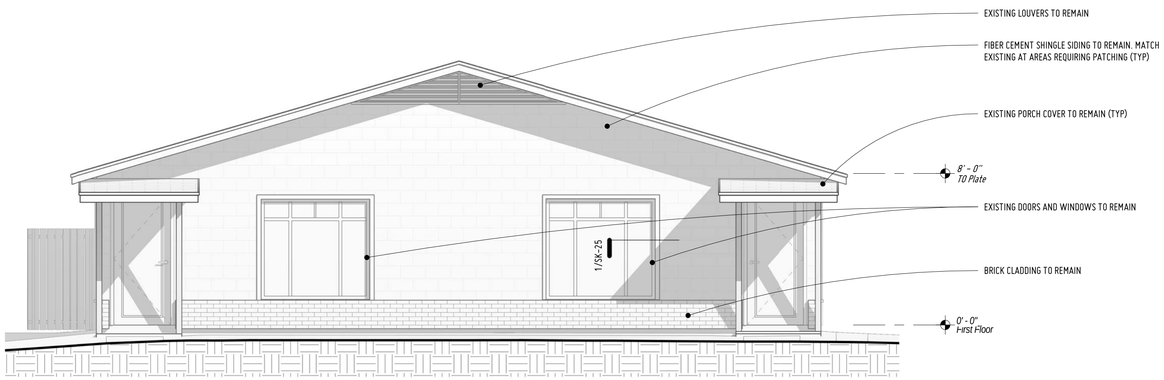
4 **Elevation – East**
1/4" = 1'-0"



3 **Elevation – North**
1/4" = 1'-0"



2 **Elevation – West**
1/4" = 1'-0"



1 **Elevation – South**
1/4" = 1'-0"

Residence on Huisache

525 East Huisache St
San Antonio, TX

Ohana Homes LLC

All dimensions and existing conditions shall be checked and verified by the Constructor before proceeding with the Work.

ARCHITECT:
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REVISIONS

No.	Description	Date

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PERSONNEL

Designed by	Drawn by	Checked by	Approved by
Designer	Author	Checker	Approver

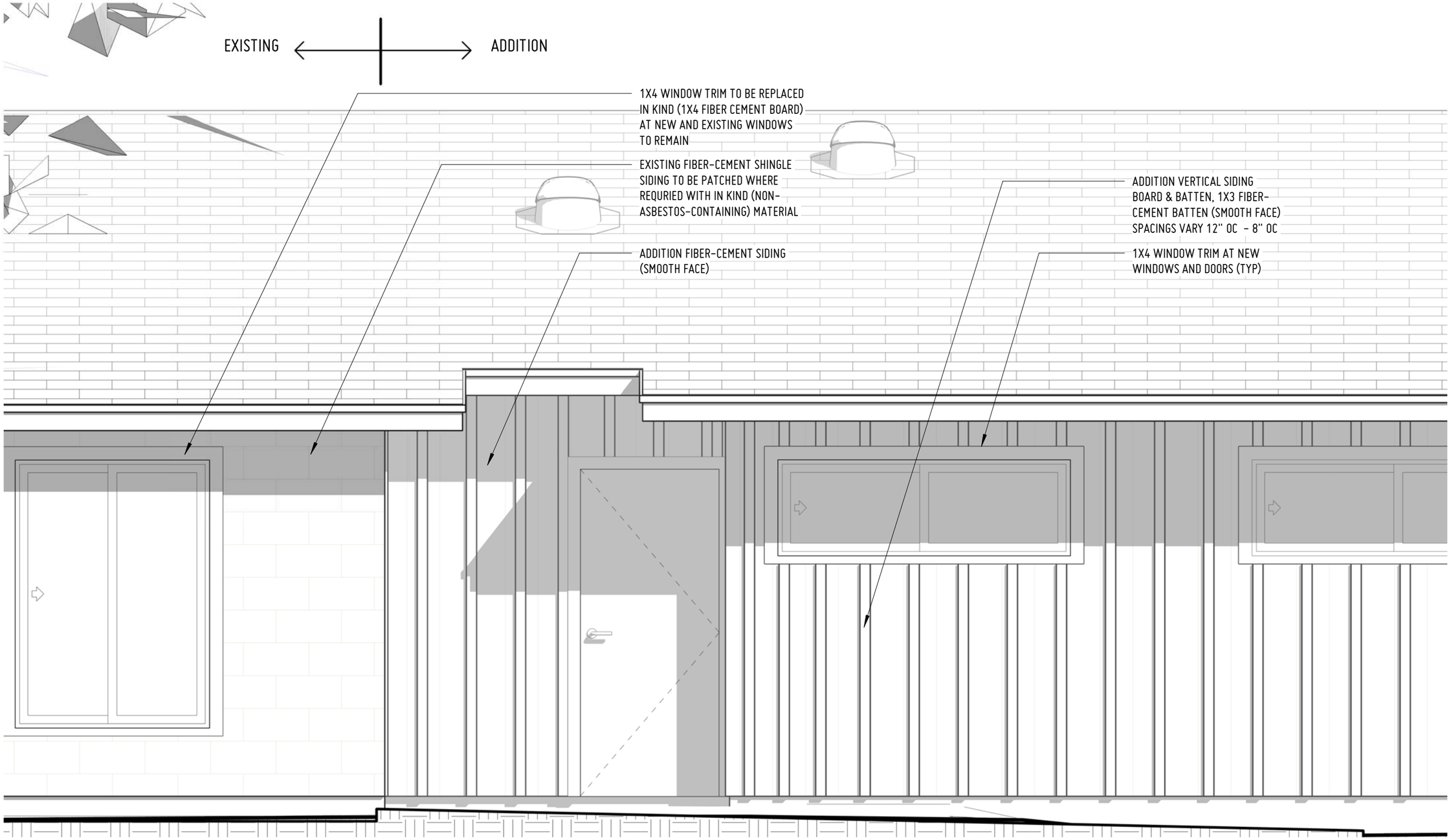
SCALE
Scale 1/4" = 1'-0"

DATE
2019_AUG_29

STATUS
Progress

TITLE
Exterior Elevations, Sections

A201



Partial Elevation - East

1/2" = 1'-0"

0 1 2 4 FT

NOT for REGULATORY APPROVAL, PERMITTING, or CONSTRUCTION

SK-26 - Materials, Facade

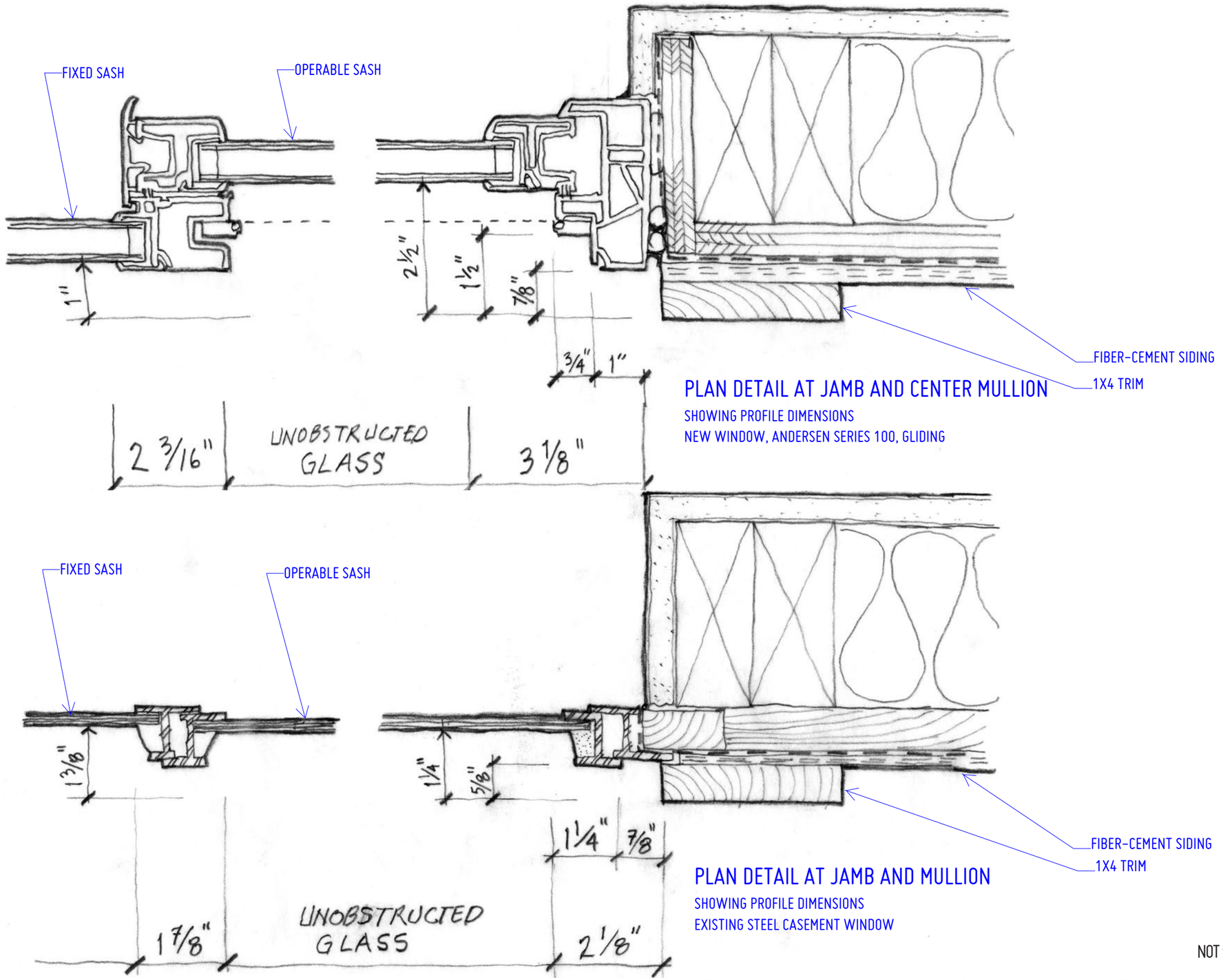
Scale As Indicated (Sheet Size: 11x17)

syncro architecture studio
David Bogle, R.A. AIA
727 west french place
san antonio, tx 78212

Residence on Huisache

Ohana Homes LLC
525 East Huisache St
San Antonio, TX

2019_AUG_29



PLAN DETAIL AT JAMB AND CENTER MULLION

SHOWING PROFILE DIMENSIONS
NEW WINDOW, ANDERSEN SERIES 100, GLIDING

PLAN DETAIL AT JAMB AND MULLION

SHOWING PROFILE DIMENSIONS
EXISTING STEEL CASEMENT WINDOW

NEW WINDOWS COMPATIBILITY WITH EXISTING FENESTRATION AND BUILDING DESIGN

525 EAST HUISACHE IS A MID-CENTURY BUILDING WITH EMPHASIZED GENERAL HORIZONTALITY AND CONTRAPUNTAL VERTICALITY OF FENESTRATION PROPORTIONS. THE EXISTING STEEL CASEMENT WINDOWS WILL BE KEPT IN PLACE ON THE FRONT AND TWO SIDES. EXISTING STEEL CASEMENT WINDOWS IN THE REAR WILL BE RELOCATED TO THE REAR FACADE OF THE BUILDING ADDITION.

NEW WINDOWS FOR THE ADDITION SHOULD BE COMPATIBILE IN PROPORTION OF OPENINGS/SASHES, MEMBER PROFILES, AND SHALLOW INSET / FLUSH APPEARANCE WITH THE FACADE. (PRECISELY MATCHING PRODUCTS ARE OBSOLETE DUE TO ECONOMY, MATERIAL AVAILABILITY AND ENERGY CONSERVATION CODES.)

THE NEW WINDOW, ANDERSEN SERIES 100, CASEMENT AND GLIDING, WAS CHOSEN FOR A NUMBER OF REASONS:

- PROPORTIONAL AND PROFILE COMPATIBILITY WITH THE MID-CENTURY STEEL FENESTRATION.
- FIBER-COMPOSITE IS MADE WITH 40% RECLAIMED WOOD.
- GLIDING VERSION CHOSEN FOR BEDROOMS SAFETY (EMERGENCY ESCAPE AND RESCUE OPENINGS, AND HAVING DOUBLE, VERTICALLY PROPORTIONED SASHES) ESPECIALLY BECAUSE OF ITS NARROW CENTER MULLION (2 3/16" VERSUS 3-1/8" OF THE CASEMENT VERSION)
- ENERGY CONSERVATION

COMPARATIVE PLAN DETAILS ARE SHOWN ON THIS SKETCH, SK-25, SHOWING EXISTING STEEL CASEMENT WINDOWS (LOWER LEFT) AND PROPSED COMPOSITE TYPICAL BEDROOM WINDOW (UPPER LEFT)

NOT for REGULATORY APPROVAL, PERMITTING or CONSTRUCTION

This sketch is for preliminary review of design intent.

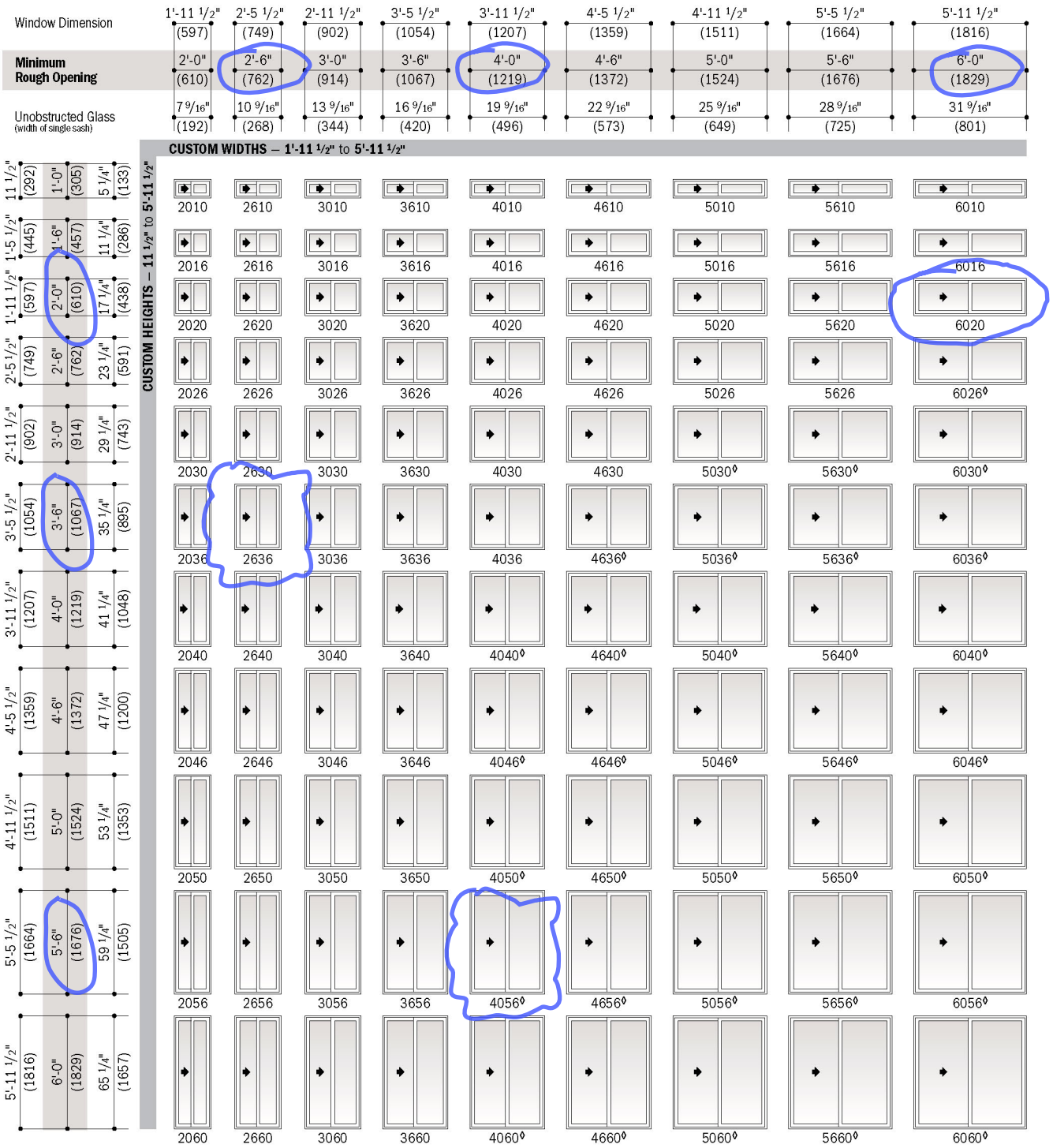
Ohana Homes Residence on Huisache Ave. - Window Details

syncro architecture studio - David Bogle, R.A., AIA
727 west french place san antonio, tx 78212 v: (210) 733-3845 e: bogle@syncrostudio.com

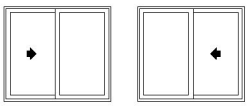
SK - 25
page 1 of 1
date: 04 March 2019
scala: half (6" = 1'-0")

Table of Gliding XO/OX Window Sizes

Scale 1/8" (3) = 1'-0" (305) – 1:96



Custom-size windows are available in 1/8" (3) increments.



Choose active left or right as viewed from the exterior. Two locks are standard on all heights greater than 4'-0" (1219).

- "Window Dimension" always refers to outside frame to frame dimension.
- **"Minimum Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items.**
- Dimensions in parentheses are in millimeters.

◊Meet or exceed clear opening area of 5.7 sq. ft. or .53 m², clear opening width of 20" (508) and clear opening height of 24" (610).

COLOR OPTIONS

EXTERIOR COLORS

Andersen® 100 Series products come in six exterior colors, including Cocoa Bean, Dark Bronze and Black — colors that are darker and richer than those of most vinyl windows.

White | Sandtone | Terratone

Cocoa Bean | Dark Bronze | Black

INTERIOR COLORS

100 Series windows and doors feature an attractive matte finish inside. This gives you the ability to select the exterior color without compromising options for interior decoration.

White | Sandtone | Dark Bronze* | Black*

*Dark Bronze and Black interiors are only available with Dark Bronze and Black exteriors respectively.
Printing limitations prevent exact color duplication. See your Andersen supplier for actual color samples.

PREFORMANCE STANDARDS

The Window and Door Manufacturers Association (WDMA), the American Architectural Manufacturers Association (AAMA) and the Canadian Standards Association (CSA) jointly release the North American Fenestration Standard/Specification for Windows, Doors and Skylights (NAFS-11) where "-11" refers to the most recent publication year of 2011. NAFS is also referred to as AAMA/WDMA/CSA 101/I.S.2/A440, which is how the International Code Council (ICC) lists this standard in the 2012 and 2015 International Residential Code (IRC) and International Building Code (IBC) as the means to indicate the window, door or skylights design pressure rating used to determine compliance to the jobsite design pressure requirements.

A product only achieves a "Performance Grade" or "PG" rating when it complies with all of the NAFS performance requirements such as ease of operation, air infiltration resistance, resistance to water penetration and resistance to forced entry, etc.. A "Design Pressure Rating" or "DP" rating only depicts the design and structural load performance.

Performance Classes

The NAFS Standard/Specification defines requirements for four performance classes. Performance classes are designated R, LC, CW, and AW. This classification system provides for several levels of performance. Product selection is always based on the performance and building code requirements of the particular project.

Elements of Performance Grade (PG) Designations

In order to qualify for a given performance grade (PG), test specimens need to pass all required performance tests for the following, in addition to all required auxiliary (durability) and applicable material/component tests (not shown here) for the applicable product type and desired performance class:

(a) Operating force (if applicable): Maximum operating force vary by product type and performance class.

(b) Air leakage resistance: Tested in accordance with ASTM E283 at a test pressure of 1.57 psf. Allowable air infiltration for R, LC and CW class designations is 0.3 cubic feet per minute per square foot of frame (cfm/ft^2).

(c) Water penetration resistance: Tested in accordance with ASTM E547 with the specified test pressure applied per NAFS-11. Test consists of four cycles. Each cycle consists of five minutes with pressure applied and one minute with the pressure released, during which the water spray is continuously applied. Water spray shall be uniformly applied at a constant rate of 5 U.S. gal/ft^2 · hr.

(d) Uniform load deflection test: Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. The test specimen shall be evaluated for deflection during each load, for permanent damage after each load and for any effects on the normal operation of the specimen. *Starting with the 2008 version of NAFS, design pressure (DP) will only represent the "uniform load deflection test".*

(e) Uniform load structural test: Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. After loads are removed there shall be no permanent deformation in excess of 0.4% of its span and no damage to the unit, which would make it inoperable.

(f) Forced-entry resistance (if applicable): Tested in accordance with ASTM F588 (windows), F476 (swinging doors) and F842 (sliding doors) at a performance level 10 rating.

Performance Grades (PG) & Corresponding Test Pressures (psf)

Performance Class/ Performance Grade		Air Infiltration Test Pressure		Maximum Allowable Air Infiltration/ Exfiltration Rate		Water Penetration Resistance Test Pressure		Design Pressure		Structual Test Pressure	
R	LC	Pa	psf	L/s·m^2	cfm/ft^2	Pa	psf	Pa	psf	Pa	psf
15	-	75	1.57	1.5	0.30	140	2.92	720	15.04	1080	22.56
20	-	75	1.57	1.5	0.30	150	3.13	960	20.05	1440	30.08
25	25	75	1.57	1.5	0.30	180	3.76	1200	25.06	1800	37.59
30	30	75	1.57	1.5	0.30	220	4.59	1440	30.08	2160	45.11
35	35	75	1.57	1.5	0.30	260	5.43	1680	35.09	2520	52.63
40	40	75	1.57	1.5	0.30	290	6.06	1920	40.10	2880	60.15
45	45	75	1.57	1.5	0.30	330	6.89	2160	45.11	3240	67.67
50	50	75	1.57	1.5	0.30	360	7.52	2400	50.13	3600	75.19
55	55	75	1.57	1.5	0.30	400	8.35	2640	55.14	3960	82.71
60	60	75	1.57	1.5	0.30	440	9.19	2880	60.15	4320	90.23
65	65	75	1.57	1.5	0.30	470	9.82	3120	65.16	4680	97.74
70	70	75	1.57	1.5	0.30	510	10.65	3360	70.18	5040	105.26
75	75	75	1.57	1.5	0.30	540	11.28	3600	75.19	5400	112.78
80	80	75	1.57	1.5	0.30	580	12.11	3840	80.20	5760	120.30
85	85	75	1.57	1.5	0.30	580	12.11	4080	85.21	6120	127.82
90	90	75	1.57	1.5	0.30	580	12.11	4320	90.23	6480	135.34
95	95	75	1.57	1.5	0.30	580	12.11	4560	95.24	6840	142.86
100	100	75	1.57	1.5	0.30	580	12.11	4800	100.25	7200	150.38

HALLMARK CERTIFICATION

The Window and Door Manufacturers Association (WDMA) sponsored Hallmark Certification Program provides manufacturers with certification to the AAMA/WDMA/CSA 101/I.S.2/A440-11 Standard and is designed to provide builders, architects, specifiers and consumers with an easily recognizable means of identifying products that have been manufactured and tested in accordance with NAFS (AAMA/WDMA/CSA 101/I.S.2/A440) industry standards and other applicable performance standards. Conformance is determined by periodic in-plant inspections by a third-party administrator. Inspections include auditing licensee quality control procedures and processes, and a review to confirm products are manufactured in accordance with the appropriate performance standards. Periodic testing of representative product constructions and components by an independent testing laboratory is also required. When all of the program requirements are met, the licensee is authorized to use the WDMA Hallmark registered logo on their Certification Label as a means of identifying products and their performance ratings.

Products successfully obtaining Hallmark Certification will be labeled with a 3-part code, which includes performance class, performance grade and size tested. In addition to this mandatory requirement you are allowed to list the design pressure on a separate line.

WINDOW & DOOR MANUFACTURERS ASSOCIATION WDMA Hallmark Certified www.wdma.com	Andersen Corporation 100 SERIES CASEMENT WINDOW Manufacturer stipulates certification as indicated below.
STANDARD	**RATING**
AAMA/WDMA/CSA 101/I.S.2/A440-11	CLASS LC(1) – PG40(2) – SIZE TESTED 71.5 X 71.5 in.(3) DP+40/-45(4)
AAMA/WDMA/CSA 101/I.S.2/A440-08	CLASS LC(1) – PG40(2) – SIZE TESTED 71.5 X 71.5 in.(3) DP+40/-45(4)

(1) – Performance Class

(2) – Performance Grade

(3) – Size Tested

(4) – Design Pressure

In the example above, the performance class is LC, the performance grade (PG) is 40 pounds per square foot (psf) and the size tested is 71.5" x 71.5". What this means to the specifier is, based on the performance grade chart, the laboratory tested air infiltration was less than 0.3 cfm/ft^2 (test pressure is always 1.57 psf and the allowable airflow is 0.3 cfm/ft^2), the product tested successfully resisted a laboratory water penetration test at a test pressure of 6.0 psf, the product tested successfully withstood a laboratory positive test pressure of 60 psf, a laboratory negative test pressure of 67 psf and the product tested passed the laboratory requirements for operational force and forced entry resistance. Based on this test, all products smaller in both width and height can be labeled with this product performance rating.

IMPORTANT

Building codes prescribe design pressure based on a variety of criteria (i.e. windspeed zone, building height, building type, jobsite exposure, etc.). Design pressures derived from Performance Grade (PG) test requirements should be used to determine compliance to building code required design pressures. Structural test pressures, which are tested at 1.5 times the design pressure, should **not** be used for determining design pressure code compliance. In the example above, a PG 40 performance grade rating, which passes a 40 psf design pressure, should be used for determining code compliance, not the structural test pressure of 60 psf.

If you need further details about how Andersen® products perform to this standard, contact your Andersen supplier.

If you need further information about the AAMA/WDMA/CSA 101/I.S.2/A440-11 standard or the Hallmark Certification Program please contact: WDMA, 330 N. Wabash Avenue Suite 2000, Chicago, IL 60611 Phone: 312-673-4828 Web: wdma.com

Where designated, Andersen products are tested, certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.

PRODUCT PERFORMANCE

Performance Grade, Air Infiltration and Sound Transmission Ratings — 100 Series Windows and Patio Doors

*For current performance information please visit **andersenwindows.com**.*

Andersen® Product	AAMA/WDMA/CSA 101/I.S.2/A440 Performance Grade (PG)	+/- Corresponding Design Pressure (DP)	STANDARD GLASS		STC UPGRADE GLASS		Air Infiltration CFM/FT²
			Sound Transmission Class (STC)	Outdoor/Indoor Transmission Class (OITC)	Sound Transmission Class (STC)	Outdoor/Indoor Transmission Class (OITC)	
Casement Windows							
Single & Twin (venting/stationary)	Class LC-PG40 Size Tested 71.5" x 71.5"	+40/-40	30	25	33	28	< 0.2
Picture with Flanking Casements	Class LC-PG40 Size Tested 143.5" x 71.5"	+40/-40	-	-	-	-	< 0.2
Awning Windows							
Single & Twin (venting/stationary)	Class LC-PG40 Size Tested 47.5" x 95.5"	+40/-40	30	25	33	28	< 0.2
Picture over Awning	Class LC-PG40 Size Tested 47.5" x 95.5"	+40/-40	-	-	-	-	< 0.2
Single-Hung Windows							
Arch Single-Hung	Class LC-PG30 Size Tested 41.5" x 95.0"	+30/-30	-	-	-	-	< 0.2
Single-Hung	Class LC-PG30 Size Tested 47.5" x 89.5"	+30/-30	25	21	32	26	< 0.2
Twin & Triple Single-Hung	Class LC-PG30 Size Tested 143.5" x 71.5"	+30/-30	-	-	-	-	< 0.2
Transom over Single-Hung	Class LC-PG30 Size Tested 47.5" x 95.5"	+30/-30	-	-	-	-	< 0.2
Picture with Flanking Single-Hungs	Class LC-PG30 Size Tested 143.5" x 71.5"	+30/-30	-	-	-	-	< 0.2
Gliding Windows							
Gliding - XO/OX (active-stationary or stationary-active)	Class LC-PG30 Size Tested 71.5" x 71.5"	+30/-30	25	21	32	27	< 0.2
Picture over Gliding - XO/OX	Class LC-PG30 Size Tested 143.5" x 71.5"	+30/-30	-	-	-	-	< 0.2
Gliding - XOX (active-stationary-active)	Class LC-PG30 Size Tested 107.5" x 83.5"	+30/-30	-	-	-	-	< 0.2
Picture over Gliding - XOX	Class LC-PG30 Size Tested 59.5" x 83.5"	+30/-30	-	-	-	-	< 0.2
Picture, Transom & Specialty Windows	Class LC-PG40 Size Tested 95.5" x 84.3"	+40/-40	29	24	32	27	< 0.2
Gliding Patio Doors	Class LC-PG30 Size Tested 95.3" x 95.5"	+30/-30	28	23	29	26	< 0.2
Patio Door Transoms	Class LC-PG30 Size Tested 95.3" x 23.3"	+30/-30	29	24	31	26	< 0.2
Patio Door Sidelights	Class LC-PG30 Size Tested 47.3" x 95.3"	+30/-30	29	24	31	26	< 0.2

- "Performance Grade (PG)" ratings may vary from tested performance rating for larger or smaller units of a particular type.
- "Sound Transmission Class (STC)" & "Outdoor/Indoor Transmission Class (OITC)" ratings are for individual units based on independent tests and represent entire unit.
- This data is accurate as of February 2018. Due to ongoing product changes, updated test results, or new industry standards, this data may change over time.
- Where designated, Andersen products are certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.
- Contact your Andersen supplier for more information.

Center of Glass Performance Data — 100 Series Windows and Patio Doors

*For current performance information please visit **andersenwindows.com**.*

Andersen® Product and Glass Type	VT[1]	SC[2]	SHGC[3]	RHG[4]	Fading		%RH @ center[7]	IGST[8]
					Tuv[5]	Tdw[6]		
High-Performance Low-E Glass								
Casement, Awning, Single-Hung and Gliding Windows	72%	0.48	0.41	98.2	16%	33%	61%	55.7
Picture, Transom & Specialty Windows	72%	0.47	0.41	97.5	16%	33%	60%	55.3
Gliding Patio Doors	72%	0.47	0.41	97.5	16%	33%	60%	55.3
Patio Door Sidelights & Transoms	72%	0.47	0.41	97.5	16%	33%	60%	55.3
High-Performance Low-E SmartSun™ Glass								
Casement, Awning, Single-Hung and Gliding Windows	65%	0.31	0.27	65.6	5%	21%	62%	56.1
Picture, Transom & Specialty Windows	65%	0.31	0.27	64.9	5%	21%	61%	55.7
Gliding Patio Doors	65%	0.31	0.27	64.9	5%	21%	61%	55.7
Patio Door Sidelights & Transoms	65%	0.31	0.27	64.9	5%	21%	61%	55.7
Dual-Pane Glass								
Casement, Awning, Single-Hung and Gliding Windows	82%	0.89	0.78	186	58%	61%	39%	43.7
Picture, Transom & Specialty Windows	82%	0.89	0.78	186	58%	61%	39%	43.6
Gliding Patio Doors	82%	0.89	0.78	186	58%	61%	39%	43.6
Patio Door Sidelights & Transoms	82%	0.89	0.78	186	58%	61%	39%	43.6

- "Low-E SmartSun" is an Andersen trademark for a type of "Low-E" glass.
- Based on NFRC testing/simulation conditions using Windows v7 .4.6.0 and NFRC validated spectral data. 0°F outside temperature, 70°F inside temperature and a 15 mph wind.

1) Visible Transmittance (VT) measures how much light comes through the glass. The higher the value, from 0 to 1, the more daylight the glass lets in. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum. 2) Shading Coefficient defines the amount of heat gain through the glass compared to a single lite of clear $^{1}/_{8}$" (3 mm) glass. 3) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the glass. 4) Relative Heat Gain is the amount of heat gain through a glazing incorporating U-Factor and Solar Heat Gain Coefficient. 5) Transmission Ultra-Violet Energy (TUV). The transmission of short-wave energy in the 300-380 nanometer portion of the solar spectrum. The energy can cause fabric fading. 6) Transmission Damage Function (TDW). The transmission of UV and visible light energy in the 300-600 nanometer portion of the solar spectrum. The value includes both the UV and visible light energy that can cause fabric fading. This rating has also been referred to as the Krochmann Damage Function. This rating better predicts fading potential than UV transmission alone. The lower the Damage Function rating, the less transmission of short-wave energy through the glass that can potentially cause fabric fading. Fabric type is also a key component of fading potential. 7) Percent relative humidity before condensation occurs at the center of glass, taken using center of glass temperature. 8) Inside glass surface temperatures are taken at the center of glass.

- This data is accurate as of October 2016. Due to ongoing product changes, updated test results, or new industry standards, this data may change over time. Contact your Andersen supplier for current performance information or upgrade options.
- Contact your Andersen supplier or visit andersenwindows.com/nfrc for center of glass performance data on windows with laminated glass, patterned glass, tempered glass and products ordered with capillary breather tubes.

Andersen® NFRC Certified Total Unit Performance

*For current performance information please visit **andersenwindows.com**.*

Andersen® Product	High-Performance Glass Type		U-Factor[1]	SHGC[2]	VT[3]
100 Series Casement Windows AND-N-84 2.2 mm glass	HP Low-E	Without Grilles	0.27	0.28	0.48
		Simulated Divided Light Grilles	0.27	0.26	0.43
		Finelight™ Grilles	0.27	0.26	0.43
		Finelight with Exterior Applied Grilles	0.27	0.26	0.43
		Full Divided Light Grilles	0.28	0.26	0.43
	HP Low-E w/HeatLock™	Without Grilles	0.24	0.28	0.47
		Simulated Divided Light Grilles	0.24	0.25	0.42
		Finelight™ Grilles	0.24	0.25	0.42
		Finelight with Exterior Applied Grilles	0.24	0.25	0.42
		Full Divided Light Grilles	0.25	0.25	0.42
	HP Low-E SmartSun™	Without Grilles	0.27	0.19	0.43
		Simulated Divided Light Grilles	0.27	0.17	0.39
		Finelight™ Grilles	0.27	0.17	0.39
		Finelight with Exterior Applied Grilles	0.27	0.17	0.39
		Full Divided Light Grilles	0.28	0.17	0.39
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.24	0.18	0.42
		Simulated Divided Light Grilles	0.24	0.17	0.38
		Finelight™ Grilles	0.24	0.17	0.38
		Finelight with Exterior Applied Grilles	0.24	0.17	0.38
		Full Divided Light Grilles	0.25	0.17	0.38
	Dual-Pane	Without Grilles	0.41	0.53	0.55
		Simulated Divided Light Grilles	0.41	0.48	0.49
		Finelight™ Grilles	0.41	0.48	0.49
		Finelight with Exterior Applied Grilles	0.41	0.48	0.49
		Full Divided Light Grilles	0.42	0.48	0.49
100 Series Awning Windows AND-N-85 2.2 mm glass	HP Low-E	Without Grilles	0.28	0.28	0.48
		Simulated Divided Light Grilles	0.28	0.26	0.43
		Finelight™ Grilles	0.28	0.26	0.43
		Finelight with Exterior Applied Grilles	0.28	0.26	0.43
		Full Divided Light Grilles	0.28	0.26	0.43
	HP Low-E w/HeatLock™	Without Grilles	0.25	0.28	0.47
		Simulated Divided Light Grilles	0.25	0.25	0.42
		Finelight™ Grilles	0.25	0.25	0.42
		Finelight with Exterior Applied Grilles	0.25	0.25	0.42
		Full Divided Light Grilles	0.26	0.25	0.42
	HP Low-E SmartSun™	Without Grilles	0.27	0.19	0.43
		Simulated Divided Light Grilles	0.27	0.17	0.39
		Finelight™ Grilles	0.27	0.17	0.39
		Finelight with Exterior Applied Grilles	0.27	0.17	0.39
		Full Divided Light Grilles	0.28	0.17	0.39
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.24	0.18	0.42
		Simulated Divided Light Grilles	0.24	0.17	0.38
		Finelight™ Grilles	0.24	0.17	0.38
		Finelight with Exterior Applied Grilles	0.24	0.17	0.38
		Full Divided Light Grilles	0.25	0.17	0.38
	Dual-Pane	Without Grilles	0.42	0.53	0.55
		Simulated Divided Light Grilles	0.42	0.48	0.49
		Finelight™ Grilles	0.42	0.48	0.49
		Finelight with Exterior Applied Grilles	0.42	0.48	0.49
		Full Divided Light Grilles	0.42	0.48	0.49
100 Series Single-Hung Windows AND-N-80 2.2 mm glass	HP Low-E	Without Grilles	0.30	0.32	0.54
		Simulated Divided Light Grilles	0.30	0.28	0.48
		Finelight™ Grilles	0.30	0.28	0.48
		Finelight with Exterior Applied Grilles	0.30	0.28	0.48
		Full Divided Light Grilles	0.31	0.28	0.48
	HP Low-E w/HeatLock™	Without Grilles	0.26	0.31	0.53
		Simulated Divided Light Grilles	0.26	0.28	0.47
		Finelight™ Grilles	0.26	0.28	0.47
		Finelight with Exterior Applied Grilles	0.26	0.28	0.47
		Full Divided Light Grilles	0.28	0.28	0.47
	HP Low-E SmartSun™	Without Grilles	0.29	0.21	0.49
		Simulated Divided Light Grilles	0.29	0.19	0.43
		Finelight™ Grilles	0.29	0.19	0.43
		Finelight with Exterior Applied Grilles	0.29	0.19	0.43
		Full Divided Light Grilles	0.30	0.19	0.43
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.25	0.20	0.47
		Simulated Divided Light Grilles	0.25	0.19	0.42
		Finelight™ Grilles	0.25	0.19	0.42
		Finelight with Exterior Applied Grilles	0.25	0.19	0.42
		Full Divided Light Grilles	0.27	0.19	0.42
	Dual-Pane	Without Grilles	0.46	0.59	0.62
		Simulated Divided Light Grilles	0.46	0.53	0.55
		Finelight™ Grilles	0.46	0.53	0.55
		Finelight with Exterior Applied Grilles	0.46	0.53	0.55
		Full Divided Light Grilles	0.46	0.53	0.55

Andersen® NFRC Certified Total Unit Performance

*For current performance information please visit **andersenwindows.com**.*

Andersen® Product	High-Performance Glass Type		U-Factor[1]	SHGC[2]	VT[3]
100 Series Gliding Windows AND-N-81 2.2 mm glass	HP Low-E	Without Grilles	0.30	0.32	0.54
		Simulated Divided Light Grilles	0.30	0.28	0.48
		Finelight™ Grilles	0.30	0.28	0.48
		Finelight with Exterior Applied Grilles	0.30	0.28	0.48
		Full Divided Light Grilles	0.31	0.28	0.48
	HP Low-E w/HeatLock™	Without Grilles	0.26	0.31	0.53
		Simulated Divided Light Grilles	0.26	0.28	0.47
		Finelight™ Grilles	0.26	0.28	0.47
		Finelight with Exterior Applied Grilles	0.26	0.28	0.47
		Full Divided Light Grilles	0.28	0.28	0.47
	HP Low-E SmartSun™	Without Grilles	0.29	0.21	0.49
		Simulated Divided Light Grilles	0.29	0.19	0.43
		Finelight™ Grilles	0.29	0.19	0.43
		Finelight with Exterior Applied Grilles	0.29	0.19	0.43
		Full Divided Light Grilles	0.30	0.19	0.43
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.26	0.20	0.47
		Simulated Divided Light Grilles	0.26	0.19	0.42
		Finelight™ Grilles	0.26	0.19	0.42
		Finelight with Exterior Applied Grilles	0.26	0.19	0.42
		Full Divided Light Grilles	0.27	0.19	0.42
	Dual-Pane	Without Grilles	0.46	0.60	0.62
		Simulated Divided Light Grilles	0.46	0.53	0.55
		Finelight™ Grilles	0.46	0.53	0.55
		Finelight with Exterior Applied Grilles	0.46	0.53	0.55
		Full Divided Light Grilles	0.46	0.53	0.55
100 Series Picture & Specialty Windows AND-N-82 3.0 mm glass	HP Low-E	Without Grilles	0.28	0.33	0.56
		Simulated Divided Light Grilles	0.28	0.29	0.50
		Finelight™ Grilles	0.28	0.29	0.50
		Finelight with Exterior Applied Grilles	0.28	0.29	0.50
		Full Divided Light Grilles	0.29	0.29	0.50
	HP Low-E w/HeatLock™	Without Grilles	0.24	0.32	0.55
		Simulated Divided Light Grilles	0.24	0.29	0.49
		Finelight™ Grilles	0.24	0.29	0.49
		Finelight with Exterior Applied Grilles	0.24	0.29	0.49
		Full Divided Light Grilles	0.25	0.29	0.49
	HP Low-E SmartSun™	Without Grilles	0.27	0.22	0.50
		Simulated Divided Light Grilles	0.27	0.20	0.45
		Finelight™ Grilles	0.27	0.20	0.45
		Finelight with Exterior Applied Grilles	0.27	0.20	0.45
		Full Divided Light Grilles	0.28	0.20	0.45
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.23	0.21	0.49
		Simulated Divided Light Grilles	0.23	0.19	0.44
		Finelight™ Grilles	0.23	0.19	0.44
		Finelight with Exterior Applied Grilles	0.23	0.19	0.44
		Full Divided Light Grilles	0.25	0.19	0.44
	Dual-Pane	Without Grilles	0.45	0.61	0.64
		Simulated Divided Light Grilles	0.45	0.55	0.57
		Finelight™ Grilles	0.45	0.55	0.57
		Finelight with Exterior Applied Grilles	0.45	0.55	0.57
		Full Divided Light Grilles	0.45	0.55	0.57
100 Series Transom Windows AND-N-83 3.0 mm glass	HP Low-E	Without Grilles	0.29	0.33	0.56
		Simulated Divided Light Grilles	0.29	0.30	0.50
		Finelight™ Grilles	0.29	0.30	0.50
		Finelight with Exterior Applied Grilles	0.29	0.30	0.50
		Full Divided Light Grilles	0.30	0.30	0.50
	HP Low-E w/HeatLock™	Without Grilles	0.25	0.32	0.55
		Simulated Divided Light Grilles	0.25	0.29	0.49
		Finelight™ Grilles	0.25	0.29	0.49
		Finelight with Exterior Applied Grilles	0.25	0.29	0.49
		Full Divided Light Grilles	0.27	0.29	0.49
	HP Low-E SmartSun™	Without Grilles	0.28	0.22	0.50
		Simulated Divided Light Grilles	0.28	0.20	0.45
		Finelight™ Grilles	0.28	0.20	0.45
		Finelight with Exterior Applied Grilles	0.28	0.20	0.45
		Full Divided Light Grilles	0.30	0.20	0.45
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.24	0.21	0.49
		Simulated Divided Light Grilles	0.24	0.19	0.44
		Finelight™ Grilles	0.24	0.19	0.44
		Finelight with Exterior Applied Grilles	0.24	0.19	0.44
		Full Divided Light Grilles	0.26	0.19	0.44
	Dual-Pane	Without Grilles	0.46	0.61	0.64
		Simulated Divided Light Grilles	0.46	0.55	0.57
		Finelight™ Grilles	0.46	0.55	0.57
		Finelight with Exterior Applied Grilles	0.46	0.55	0.57
		Full Divided Light Grilles	0.46	0.55	0.57

• This data is accurate as of October 2016. Due to ongoing product changes, updated test results, or new industry standards or requirements, this data may change over time. Ratings are for sizes specified by NFRC for testing and certification. Ratings may vary depending on use of tempered glass, different grille options, glass for high altitudes, etc.

continued on next page

PRODUCT PERFORMANCE

Andersen® NFRC Certified Total Unit Performance *(continued)*

*For current performance information please visit **andersenwindows.com**.*

Andersen® Product	High-Performance Glass Type		U-Factor[1]	SHGC[2]	VT[3]
100 Series Gliding Patio Doors AND-N-100 3.1 mm glass	HP Low-E	Without Grilles	0.30	0.32	0.55
		Simulated Divided Light Grilles	0.30	0.25	0.42
		Finelight™ Grilles	0.30	0.29	0.48
		Finelight with Exterior Applied Grilles	0.30	0.25	0.42
		Full Divided Light Grilles	0.31	0.25	0.42
	HP Low-E w/HeatLock™	Without Grilles	0.25	0.32	0.54
		Simulated Divided Light Grilles	0.25	0.25	0.41
		Finelight™ Grilles	0.25	0.28	0.47
		Finelight with Exterior Applied Grilles	0.25	0.25	0.41
		Full Divided Light Grilles	0.28	0.25	0.41
	HP Low-E SmartSun™	Without Grilles	0.29	0.21	0.50
		Simulated Divided Light Grilles	0.29	0.17	0.38
		Finelight™ Grilles	0.29	0.19	0.44
		Finelight with Exterior Applied Grilles	0.29	0.17	0.38
		Full Divided Light Grilles	0.30	0.17	0.38
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.25	0.21	0.49
		Simulated Divided Light Grilles	0.25	0.17	0.37
		Finelight™ Grilles	0.25	0.19	0.43
		Finelight with Exterior Applied Grilles	0.25	0.17	0.37
		Full Divided Light Grilles	0.27	0.17	0.37
	Dual-Pane	Without Grilles	0.46	0.60	0.63
		Simulated Divided Light Grilles	0.46	0.46	0.48
		Finelight™ Grilles	0.46	0.53	0.55
		Finelight with Exterior Applied Grilles	0.46	0.46	0.48
		Full Divided Light Grilles	0.46	0.46	0.48
100 Series Patio Door Transoms AND-N-98 3.0 mm glass	HP Low-E	Without Grilles	0.32	0.25	0.43
		Simulated Divided Light Grilles	0.32	0.20	0.34
		Finelight™ Grilles	0.32	0.23	0.38
		Finelight with Exterior Applied Grilles	0.32	0.20	0.34
		Full Divided Light Grilles	0.32	0.20	0.34
	HP Low-E w/HeatLock™	Without Grilles	0.29	0.25	0.42
		Simulated Divided Light Grilles	0.29	0.20	0.33
		Finelight™ Grilles	0.29	0.22	0.37
		Finelight with Exterior Applied Grilles	0.29	0.20	0.33
		Full Divided Light Grilles	0.30	0.20	0.33
	HP Low-E SmartSun™	Without Grilles	0.31	0.17	0.38
		Simulated Divided Light Grilles	0.31	0.14	0.30
		Finelight™ Grilles	0.31	0.15	0.34
		Finelight with Exterior Applied Grilles	0.31	0.14	0.30
		Full Divided Light Grilles	0.32	0.14	0.30
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.28	0.17	0.37
		Simulated Divided Light Grilles	0.28	0.14	0.29
		Finelight™ Grilles	0.28	0.15	0.33
		Finelight with Exterior Applied Grilles	0.28	0.14	0.29
		Full Divided Light Grilles	0.29	0.14	0.29
	Dual-Pane	Without Grilles	0.45	0.47	0.49
		Simulated Divided Light Grilles	0.45	0.38	0.38
		Finelight™ Grilles	0.45	0.42	0.43
		Finelight with Exterior Applied Grilles	0.45	0.38	0.38
		Full Divided Light Grilles	0.44	0.38	0.38
100 Series Patio Door Sidelights AND-N-97 3.0 mm glass	HP Low-E	Without Grilles	0.31	0.25	0.43
		Simulated Divided Light Grilles	0.31	0.21	0.34
		Finelight™ Grilles	0.31	0.23	0.38
		Finelight with Exterior Applied Grilles	0.31	0.21	0.34
		Full Divided Light Grilles	0.32	0.21	0.34
	HP Low-E w/HeatLock™	Without Grilles	0.28	0.25	0.42
		Simulated Divided Light Grilles	0.28	0.20	0.33
		Finelight™ Grilles	0.28	0.22	0.37
		Finelight with Exterior Applied Grilles	0.28	0.20	0.33
		Full Divided Light Grilles	0.29	0.20	0.33
	HP Low-E SmartSun™	Without Grilles	0.31	0.17	0.38
		Simulated Divided Light Grilles	0.31	0.14	0.30
		Finelight™ Grilles	0.31	0.15	0.34
		Finelight with Exterior Applied Grilles	0.31	0.14	0.30
		Full Divided Light Grilles	0.31	0.14	0.30
	Low-E SmartSun™ w/HeatLock™	Without Grilles	0.27	0.17	0.38
		Simulated Divided Light Grilles	0.27	0.14	0.30
		Finelight™ Grilles	0.27	0.15	0.33
		Finelight with Exterior Applied Grilles	0.27	0.14	0.30
		Full Divided Light Grilles	0.29	0.14	0.30
	Dual-Pane	Without Grilles	0.44	0.47	0.49
		Simulated Divided Light Grilles	0.44	0.38	0.39
		Finelight™ Grilles	0.44	0.42	0.44
		Finelight with Exterior Applied Grilles	0.44	0.38	0.39
		Full Divided Light Grilles	0.43	0.38	0.39

Andersen® Products Total Unit Recycled Content Percentages

*For current performance information please visit **andersenwindows.com**.*

Andersen® Product	NFRC Rated Window Size	% Pre-Consumer Recycled Content
100 Series Windows and Patio Doors		
Casement Windows	24" (610) x 59" (1499)	23%
Awning Windows	59" (1499) x 24" (610)	24%
Single-Hung Windows	47" (1194) x 59" (1499)	20%
Gliding Windows	59" (1499) x 47" (1194)	21%
Picture Windows	47" (1194) x 59" (1499)	18%
Gliding Patio Doors	79" (2007) x 79" (2007)	14%
Patio Door Sidelights	24" (610) x 79" (2007)	18%
Patio Door Transoms	79" (2007) x 24" (610)	21%

- "% Pre-Consumer Recycled Content" is verified by SCS Global Services (SCS) to meet I.S.O 14021 standards based on NFRC sizing. Actual recycled content dependent on product size.
- Dimensions in parentheses are in millimeters.

- "SmartSun" and "HeatLock" are Andersen trademarks for "Low-E" glass.

1) U-Factor defines the amount of heat loss through the total unit in BTU/hr/ft².°F. The lower the value, the less heat is lost through the entire product. Window values represent non-tempered glass. Use of tempered glass can increase U-Factor ratings. See andersenwindows.com/nfrc for specific performance values. Door values represent tempered glass. 2) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product. 3) Visible Transmittance (VT) measures how much light comes through a product (glass and frame). The higher the value, from 0 to 1, the more daylight the product lets in over the product's total unit area. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.

- NFRC ratings are based on modeling by a third-party agency as validated by an independent test lab in compliance with NFRC program and procedural requirements.
- This data is accurate as of October 2016. Due to ongoing product changes, updated test results, or new industry standards or requirements, this data may change over time. Ratings are for sizes specified by NFRC for testing and certification. Ratings may vary depending on unit size, use of tempered glass, different grille options, glass for high altitudes, etc.
- Values are for single units with given pane thickness and 3/4" (19mm) grilles for windows and 1" (25mm) grilles for door products.

Andersen® windows and doors can make significant contributions to the success of sustainable design strategies.

As a charter member of the U.S. Green Building Council, we are active supporters of certified green buildings. Our products may assist customers in pursuing green building programs, such as Leadership in Energy and Environmental Design (LEED®), the National Green Building Standard, Green Globes, GreenStar and more.

Below you will find a high-level overview of how our products may assist project teams with pursuing LEED v4 or the NAHB National Green Building Standard rating systems. More detailed credit summaries, as well as information about how Andersen products can support earlier versions of LEED certification (e.g., **LEED v3** or **LEED 2008**), are available at **andersenwindows.com**.

LEED v4 FOR BUILDING DESIGN AND CONSTRUCTION: NEW CONSTRUCTION AND MAJOR RENOVATIONS

Andersen windows and patio doors may assist project teams in pursuing the following credits in the **LEED v4 BD+C**: **New Construction** rating system.

Integrative Process Credit

Energy & Atmosphere

- Minimum energy performance prerequisite
- Optimize energy performance credit
- Renewable energy production credit
- Green power and carbon offsets credit

Materials & Resources

- Construction and demolition waste management planning credit
- Building product disclosure and optimization - sourcing of raw materials credit
- Construction and demolition waste management credit

Indoor Environmental Quality

- Minimum indoor air quality performance prerequisite
- Minimum acoustic performance prerequisite – schools
- Enhanced indoor air quality strategies credit
- Low-emitting materials credit
- Thermal comfort credit
- Daylight credit
- Quality views credit
- Acoustic performance credit (option 2)

LEED v4 FOR BUILDING DESIGN AND CONSTRUCTION: HOMES AND MULTIFAMILY MIDRISE

Andersen windows and patio doors may assist project teams in pursuing the following credits in the **LEED v4 BD+C**: **Homes** rating system.

Energy & Atmosphere

- Minimum energy performance prerequisite
- Education of the homeowner, tenant or building prerequisite
- Annual energy use credit
- Building orientation for passive solar credit
- Air Infiltration credit
- Windows credit

Materials & Resources

- Durability management prerequisite
- Environmentally preferable products credit
- Construction waste management credit

Indoor Environmental Quality

- Ventilation prerequisite
- Low-emitting products credit

NAHB NATIONAL GREEN BUILDING STANDARD

The NAHB National Green Building Standard, now called the ICC 700-2015 National Green Building Standard, is ANSI (American National Standards Institute) approved, and was written in collaboration with the International Code Council, and is a comprehensive green building rating system. Each category contains multiple credit point standards for a project team to consider during design, construction, and function of the building. The credit points are then compiled in order to achieve one of four levels of certification: Bronze, Silver, Gold or Emerald. Andersen windows and patio doors may assist your project strategy in the following NAHB National Green Building Standard credits:

Site Design & Development

Lot Design, Preparation & Development

Resource Efficiency

- Windows and doors not requiring paint or stain
- Flashing details
- Construction materials recycled off-site
- Wood-based products from certified forestry
- Innovative practices

Energy Efficiency

- Minimum energy requirements (mandatory)
- Fenestration (mandatory)
- Better energy requirements - performance path
- Better fenestration
- Additional practices - daylighting through roof
- Additional practices - renewable energy

Water Efficiency

Indoor Environmental Quality

- Pollutant source control - formaldehyde
- Pollutant source control - interior architectural coatings
- Pollutant source control - interior adhesives and sealants

Operation, Maintenance & Building Owner Education

- Homeowner's binder
- Building construction manual

Based on ICC 700-2015 National Green Building Standard.

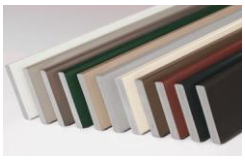
INSTALLATION ACCESSORIES

Listed are optional accessories available for the installation of Andersen® windows and doors. You'll also find key considerations regarding the use and installation of every Andersen product. Keep the instruction guidelines and safety information in mind when considering the installation and use of any Andersen product. Should you have any questions, contact your local Andersen supplier. Thank you for considering and using Andersen products.

CONTINUOUS DRIP CAP
Heavy 24-gauge corrosion-resistant aluminum construction in two profiles to match frames. Available in 6' (1829), 10' (3048) and 12'–7 1/8" (3848) lengths and in matching colors.

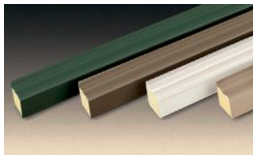
COLOR-MATCHED SEALANT
Color-matched sealant is available in Andersen exterior colors. This high-quality sealant can be used during the installation of all Andersen products.

FIBREX® TRIM BOARD



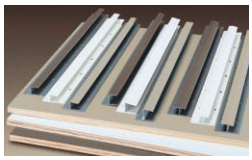
Andersen offers a 3 1/2" (89) wide by 3/4" (19) thick cellular Fibrex trim board in 10' (3048) lengths. Available in 11 colors, this solid trim board can be cut or ripped to size and can be fastened using nails or screws.

AUXILIARY CASING



Auxiliary casing is made of cellular Fibrex material. Available in White, Canvas, Sandtone, Terratone, Forest Green, Dark Bronze and Black colors. Dimensions are 1 3/16" (30) by 1 13/16" (30) in 150" (3810) lengths.

VINYL CHANNELS AND LAMINATED BOARD



Rigid vinyl "J," "h" and "H" channel and vinyl laminated board.

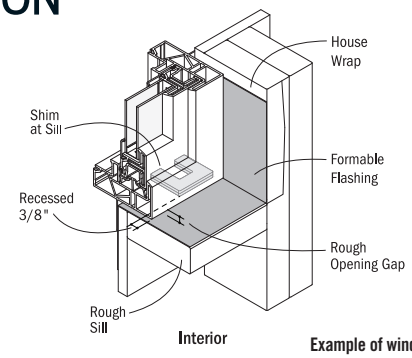
	COLOR	LENGTH	DEPTH	WIDTH
Fibrex Trim Board	11 colors	120" (3048)	3/4" (19)	3 1/2" (89)
Auxiliary Casing	6 colors	150" (3810)	1 3/16" (30)	1 3/16" (30)
Vinyl Laminated Board	W,S,T	96" (2438)	1/2" (13)	24" (610)
	W	96" (2438) & 120 (3048)	1/2" (13)	48" (1219)
Rigid Vinyl "H" Channel	W	84" (2134) & 150" (3810)	3/4" (19)	1" (25)
	S,T	84" (2134) & 150" (3810)	3/4" (19)	3/4" (19)
Rigid Vinyl "h" Channel	W,S,T	150" (3810)	1/2" (13)	1" (25)
Rigid Vinyl "J" Channel	W,S,T	150" (3810)	1/2" (13)	3/4" (19)

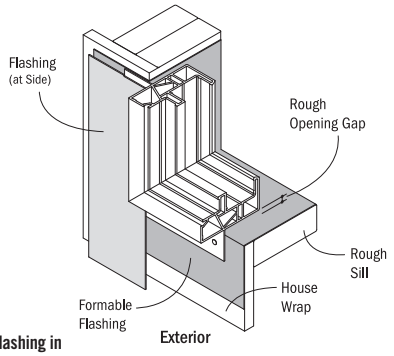
COIL STOCK
Andersen aluminum coil stock can be ordered in 11 colors. Made from .018-thick aluminum, coil stock is available in 24" (610) x 50" (15240) rolls. Color-matched 1 1/4" (32) stainless steel trim nails are also available and can be ordered in 1 lb or .454 kg boxes.

INSTALLATION INFORMATION

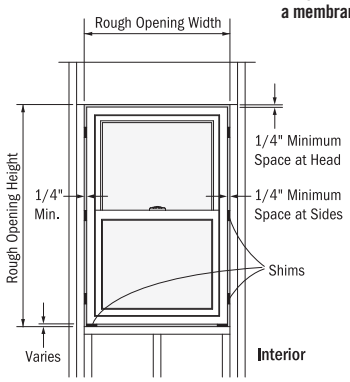
ROUGH OPENINGS
The purpose of a rough opening is to allow for proper spacing between the window or patio door unit and the building structure. The space is required for locating, leveling and squaring the unit during installation and to provide an area for insulation. A rough opening that is incorrectly sized may affect unit operation and may not allow for adequate fastening of the unit to the building structure. Andersen minimum rough opening dimensions are provided as a guideline to help determine the minimum amount of space needed between the window or patio door and the building structure. See appropriate product sections for rough opening guidelines for each product.

Keep in mind that rough opening dimensions may need to be altered from published guidelines, depending on installation methods, joining methods, replacement methods, etc. For example, flashing systems can reduce the amount of available rough opening space and should be factored in when calculating rough opening dimensions. The use of support or joining materials will encroach on the rough opening and may require additional rough opening space between the unit and the building structure, depending on the thickness of the flashing system and joining materials used. To facilitate drainage, the sill plate should never slope toward the interior. For challenging environments and other information, refer to EEBA's (Energy and Environmental Building Association) Water Management Guide (**www.eeba.org**).

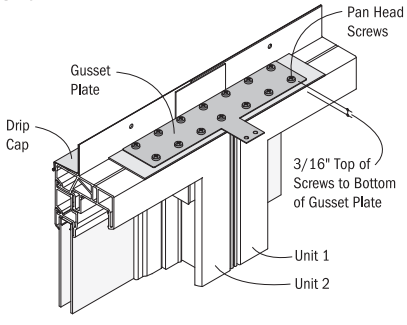




Example of window sill flashing in a membrane drainage system.



Example of window unit installed using Andersen published minimum rough opening dimensions.



Example of two units joined together with the use of gusset plates and pan head screws that will require additional rough opening space. Rough opening for joined units must be a minimum of 3/4" (19) plus the overall joined window dimensions.

IMPORTANCE OF PROPER INSTALLATION
Proper installation and maintenance of Andersen products is essential to attain optimum performance and operation. Installation instructions that provide guidelines for proper installation are typically provided with Andersen products. They are also available by visiting **andersenwindows.com**. Remember that every installation is different, and Andersen strongly recommends consultation with the local supplier or an experienced contractor, architect or structural engineer prior to the installation of any Andersen product. The method of attachment for Andersen products, fastener selection and code compliance is the responsibility of the architect, building owner, contractor, installer and/or consumer. For more complete installation details, visit **andersenwindows.com** or see your Andersen supplier.

• Dimensions in parentheses are in millimeters.

GENERAL NOTES

When ordering, make certain you specify, then verify, the exact product, unit dimensions, configuration requirements, color and options you desire on each window or patio door. Before installing the product, we suggest you verify that it includes the features and options you ordered. Visit **andersenwindows.com** for product installation and joining guides. Printing limitations prohibit exact color duplication of products. View actual samples for building specifications. Andersen Corporation reserves the right to change details, specifications or sizes without notice. The customer assumes all risk of alterations made to Andersen® products.

CODES

Appropriate selection of Andersen products that conform to all applicable laws, ordinances, building codes and safety requirements is the sole responsibility of the architect, designer, building owner and/or contractor. Check with your local building code officials for specific information. Unit wind load, performance grade and energy performance information is provided on pages 89-95. For up-to-date product performance information, visit **andersenwindows.com**. The performance of any building system depends on the design and construction of the building system in its entirety, which should meet building code requirements, as well as address product and material limitations and local environment and climate.

DRIP CAPS

Drip caps are a specific type of flashing or trim that is used at the head of a window or door to direct water from the drainage plane out beyond the face of the unit.

FLASHING

Flashing is an important element in a building's water management system. It is used to shed and direct water to the building exterior or to the drainage plane. Flashing materials are typically applied starting from the bottom and working upward, with each successive layer overlapping the previous one in shingle fashion. Water infiltration problems in any type of building can be reduced by properly flashing and/or sealing around all building openings, including windows and doors.

USE OF SHIMS

Shims are often used along the side jambs of windows and doors to center the unit in the rough opening and to position it plumb, level and square. In addition, shims are always required for windows only under the sill at the side jambs to lift it off the rough sill. Shims also enable a straight frame for proper weatherstrip contact and unit operation. If not placed properly, unit performance and operation can be affected. Use waterproof shims capable of supporting the weight of the product. When using tapered shims, use them in pairs with the tapers opposing each other to avoid tilting the unit or twisting (rotating) of the jambs.

SEALANTS

Sealants are elastic materials used to block the passage of water and/or air while allowing movement between the two sides of the joint. A sealant should bond tightly and be able to expand and contract to accommodate joint movement without cracking or tearing away from the substrate. Surfaces must be clean, dry and sound for adequate sealant adhesion. Choose a sealant that is compatible with, and that will adhere adequately to, all building materials used in the window and patio door area. Proper sealant joint design is based upon the expected movement of adjacent materials and the movement capability of the sealant. A general rule of thumb is that the depth of the sealant joint should be equal to half the width (D= W/2), but generally not less than 1/4" (6) or more than 1/2" (13). Foam-plastic backer rod can be used to limit the depth of the sealant joint, to provide a backstop for tooling the sealant without damage to the bond. It also acts as a bond breaker to help minimize stress in the sealant. Sealants should be maintained seasonally and repaired and/or replaced as needed.

GENERAL INSTALLATION GUIDELINES

1. Read and follow the installation guide in its entirety.
2. Decide whether you are integrating to a surface barrier or a membrane drainage system before installing the product. The appropriate method for your installation may vary based on building design, application and industry practices.
3. Make certain the drainage plane is continuous (proper overlaps to shed water, taped seams, etc.).
4. Andersen products should be installed only in the vertical position.
5. Check the rough opening to make sure it is sized properly, is square and is level.
6. Install the window plumb.
7. Install the window level.
8. Install the window square. Diagonal measurements should be within 1/8" (3).
9. Follow installation instructions to properly locate shims and to make sure that units are plumb, level and square. Shims are always required under the window jambs at the sill and along the jambs on the sides.
10. Check for squareness of unit before final anchoring of the product into the wall.
11. Anchor window as directed with appropriate fasteners.
12. Integrate the window into the drainage plane of the wall using quality flashing and sealing materials. All flashing materials should be properly overlapped to shed water.
13. Allow 1/4" (6) minimum space for a sealant joint around perimeter of unit between exterior finish materials and unit.
14. Insulate and seal the interior cavity between the window frame and the rough opening.
15. Check unit operation before application of interior trim.

EXTERIOR PAINTING/SEALING OF ANDERSEN® PRODUCTS

The exterior of some Andersen products may be painted or stained. However, improper painting and staining may cause damage to vinyl, aluminum and other exterior materials.

CAUTIONS

1. Do not apply any type of film to insulating glass. Thermal stress and glass damage can result. Andersen Corporation is not responsible for product performance when films are applied to Andersen products.
2. The use of removable insulating materials such as insulated window coverings, shutters and other shading devices may also cause thermal stress conditions and/or deformation of protective vinyl. In addition, excessive condensation may result, which can have a deteriorating effect on the window or patio door unit(s) involved. Andersen Corporation is not responsible for product performance when these kinds of materials or devices are applied to or used in conjunction with Andersen products.
3. In wall construction utilizing brick facades, leave adequate clearance between sill, jambs and brick for sealing and dimensional change of framework.
4. Acid solutions commonly used to wash brick and other masonry materials will damage glass, fasteners, hardware and metal flashing. Protect unit and follow cleaning product instructions carefully. Damage caused by acid solution is not covered under the Andersen limited warranty.
5. Andersen windows may be combined in ribbons or stacks if each unit is positively secured to structural elements on opposing sides and if the proper joining system is used. See page 89 for more information.

SAFETY GLASS

Unless specifically ordered, Andersen windows are not made with safety glass and, if broken, the glass could fragment, causing injury. Andersen windows may be ordered with tempered glass which may reduce the likelihood of injury when broken. All Andersen patio doors are made with tempered glass. Differences in appearance between tempered and non-tempered glass can be expected. Slight visual distortions may be noticeable and occur normally as a result of the tempering process. Building codes require safety glass in locations adjacent to or near doors and other locations.

WINDOW AND PATIO DOOR SAFETY

Windows may provide a secondary avenue of escape or rescue in an emergency, such as a fire. Every family should develop an escape plan and make sure family members know how to escape from the home in an emergency. In your plan, include two ways to escape from every room in case one way is blocked by fire or smoke, and make sure you have a designated meeting place outside. A window or a door is an alternate means of escape or rescue. Practice your plan until each member of the family understands it and is able to escape without assistance. Remember, you may not be able to reach children during a fire emergency. Teach children – even very young children – that they must escape from a fire in the home and never hide from the fire or from emergency personnel.

LOOKOUT FOR KIDS® PROGRAM

The Consumer Product Safety Commission has said: "Keep children away from open windows to prevent falls. Don't depend on insect screens to keep the child from falling out of the window. They are designed to keep insects out, not children in. Avoid placing furniture near windows to keep children from climbing to a window seat or sill." In an effort to educate consumers about the potential for child falls from windows, Andersen Corporation created the LookOut For Kids Program. It combines a window and door safety brochure and specific product instructions to help make window and door safety an important priority for consumers. For more information on child safety, write:

Andersen Corporation
LookOut For Kids Program
100 Fourth Avenue North
Bayport, MN 55003
Call: 1-800-313-8889 Email: **lofk@andersencorp.com**

LOOK OUT! for kids®

• Dimensions in parentheses are in millimeters.

Residence on Huisache

INTRODUCTION

The Project is an Addition (rear) and Remodeling of the existing 1950's duplex (two-family) residence. The Project's VISION is to update and enlarge the living areas of the building with compatible features, primarily a compatible rear addition of approximately half the floor area of the original, existing structure.

The existing structure is classified as NON-CONTRIBUTING by the National Register document that established the Monte Vista Historic District. (see National Register Pages, attached) The construction occurred outside the Period of Significance for the District.

The site is located at the edge of Monte Vista Historic District, in the eastern panhandle near 281 on Huisache Ave. The edge condition also occurs at the site because the boundary of the District passes in front of the house, along Huisache Ave. Across the street is not designated Historic.

Nevertheless, the Design Approach is to reinforce the existing character of the property by taking cues from the positive qualities of the existing craftsman-influenced, mid-century minimalist duplex in two (2) primary interventions:

1) construct a rear addition to house new bathrooms, core services and rear-facing bedrooms, which allows

2) remodel the interior to enlarge living areas within the front portion of the building.

This application is a requesting final approval.

HDRC Application

August 16, 2019

DESCRIPTION of WORK

525 East Huisache Avenue (a.k.a., 527 E. Huisache) is a wood-framed, single-story, two-family (side-by-side duplex) structure with the two front doors facing the street. The building is set back approximately 50 feet from the street (curb), which is approximately 15 feet further than the adjacent houses and most of the structures along this block of East Huisache.

The building appears to be original construction dating from early 1950's, and is characterized by the 3-1/2 in 12 moderately-sloped and single-gabled roof, two (2) shed porch covering roofs with angled 4x4 columns/posts and exposed 4x4 beam and 2x6 roof rafters and eave boards. Fiber-cement composition shingle siding makes up the majority of the exterior wall finish, except for an 18" high rustic-faced Roman brick wainscot on the front façade (poor condition.) From the brick proportion to the roof slope and large louvered attic vents, the building presents an emphasized horizontality typical of mid-century residential design.

The Project is an Addition/Remodel. Site development, building massing and materials of exterior alterations will be distinct from the existing structure, yet will be complementary and will not occlude the original building's dominance of the site. A rear addition will expand the building envelope to accommodate the interior program. Two, rear porch additions are proposed to provide outdoor amenity space for the residents.

Rear Building Addition: The addition to the rear, north side of the building will barely be visible from the street. A setback to 5' from the western property line will be used, which offsets from the existing structure's west façade by about 2'. Additionally, a 6 foot-wide, additional-1-foot-deep niche on each side separates the new addition from the existing. Similarly, the east side is offset from the existing building west façade. The addition is more narrow than the front, existing structure. The roof planes will be aligned with the existing structure's roof, and will follow the same slope and orientation of its gable. The roof eave has a notch at the recessed niche to distinguish the new/addition roof from the existing roof area.

Rear Porch Addition: An overall lightness of structure is proposed for the new porch roofs, with a compatible sloped shed roof similar to the existing front porches. New columns and porch roof framing will relate strongly to the existing porch construction in visual terms through similar configuration of members, though slightly larger members may be required to meet current structural engineering code.

Front Façade: Restoration with existing materials, or in-kind materials where damaged assemblies require repair. Existing faux shutters will be removed.

HISTORIC DESIGN GUIDELINES – Compliance Notes District Description

Development ca. 1890 – ca. 1930

…"differing properties are knitted together by rich array of landscape and streetscape features such as uniform rows of trees, parks, sidewalks, walls, and fences."

3. Guidelines for Additions

1. Massing and Form of Residential Additions

A. GENERAL

i. Minimize visual impact—The residential addition is sited at the side or rear of the building to minimize views of the addition from the public right-of-way. (See Visibility Studies.)

ii. Historic context—The new residential addition has been designed to be in keeping with the existing, historic context of the block. As a single-story addition on a block comprised of primarily single-story homes the addition is appropriate. Rear addition has been designed in keeping with the design character of the existing structure.

iii. Similar roof form—The Addition and new rear porch covers use identical roof pitch, form, eave/facia, and orientation as the existing historic structure. Porch addition relates to existing porch covers, and is the least imposing form (shed roof) relating to existing mid-century form. Same roof pitch (3 ½:12), in plane, will be used for the rear addition. Similar roof pitch as existing shed porch roofs will be used on the rear porches.

iv. Transitions between old and new—The proposal utilizes a niche, a setback and a small change in detailing at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms. The new rear porch framing will be similar in size and configurations, but will be slightly larger, both in scale with the larger roof form and to comply with current structural building code requirements. Clear visual distinction will be apparent on close examination of the structure, while casual observation likely will allow a "wholeness" to be the overall impression.

B. SCALE, MASSING, AND FORM

iv. Footprint—The building footprint respond to the size of the lot. An appropriate yard to building ratio is maintained for compatibility. The residential addition is not so large as to more than double the existing building footprint; and it is in line with nearby properties on the lot. The design is responsive to size of lot and has an appropriate Building to Lot Ratio (38% building to lot size proposed) consistent with existing nearby multifamily structures/lots
Rear addition adds approximately half of the existing footprint, yet remains practically out of sight from the street.

v. Height—The height of the new additions is the same as, and therefore consistent with, the height of the existing structure. (See Visibility Studies.) The addition height does not overwhelm or distract from the existing structure.

3. Materials and Textures
   A. COMPLEMENTARY MATERIALS
   i. Complementary materials—The proposal uses materials that match in type, color, and texture and include an offset or reveal to distinguish the addition from the historic structure. Any new materials introduced to the site are compatible with the architectural style and materials of the original structure.

   iii. Other roofing materials—The design matches original roofs in terms of form and materials.

C. REUSE OF HISTORIC MATERIALS
   i. Salvage—The Project will salvage and reuse historic materials, where possible, that will be covered or removed as a result of an addition. The existing, serviceable steel casement windows, where they are required to be removed, for example, will be reused in the project.

4. Architecture Details
   A. GENERAL
   i. Historic context—The addition has been designed to reflect its time while respecting the historic context. Character-defining features and details of the original structure are used in the design of additions. These architectural details include roof form, eaves, siding, and the shapes and proportions of window and door openings.

   ii. Architectural details—The Project design incorporates architectural details that are in keeping with the architectural style of the original structure. Details are simple in design and compliment the character of the original structure. Architectural details that are more ornate or elaborate than those found on the original structure are avoided so as not to drawing undue attention to the addition.

   iii. Contemporary interpretations—The project design integrates contemporary interpretations of traditional designs and details for additions. Use of vertical siding, contemporary window moldings will provide visual interest while helping to convey the fact that the addition is new.
5. Mechanical Equipment and Roof Appurtenances
   A. LOCATION AND SITING
   i. Visibility—Mechanical equipment, such as air conditioners, rooftop mechanical equipment, etc, are not located on primary facade, on front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.

   ii. Service Areas—Service areas are located towards the rear of the site to minimize visibility from the public right-of-way.

   B. SCREENING
   ii. Freestanding equipment—Service areas, air conditioning units, and other mechanical equipment are screened from public view by the existing building, hedge, or other enclosure.

6. Designing for Energy Efficiency
    A. BUILDING DESIGN
        i. Energy efficiency—The addition and alteration construction is designed to comply with energy efficiency code requirements.

        ii. Materials—Green building materials, such as recycled, locally-sourced and low maintenance materials will be used whenever possible.

        iii. Building elements—The Project incorporates building features that allow for natural environmental control – such as operable windows for cross ventilation, and natural daylighting from windows and skylights.

4. Guidelines for New Construction

n/a

5. Guidelines for Site Elements

3. Landscape Design
    A. PLANTINGS
    ii. Historic Lawns—The front traditional lawn area is not being replaced with impervious hardscape. The design limits the removal of lawn areas to mulched planting beds or pervious hardscapes in historically found locations, such as along fences, walkways, or drives. Low-growing plantings are proposed to be used in some of the historic front lawn area for low maintenance; also, from a water conservation standpoint, less grass/turf means less water, fuel, and chemical use. Invasive or large-scale species have been avoided. The front historic lawn areas are not to be reduced by more than 50%. Irrigation will be provided with a compliant irrigation design.

    B. ROCKS AND HARDSCAPE
        i. Impervious surfaces—The Project does not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located, except at the rear as required by the program and CoSA DSD Engineering.

        ii. Pervious and semi-pervious gravel—New pervious and semi-pervious gravel is not proposed.

5. Sidewalks, Walkways, Driveways, and Curbing
    A. SIDEWALKS AND WALKWAYS
    i. Maintenance—If required by DSD, the project will include installation of new sidewalk on the public RoW, where it does not currently exist. Project retains and repairs existing historic walkways in the front yard where possible.

    ii. Replacement materials—Every effort will be made to match existing sidewalk color and material.

    B. DRIVEWAYS

i. Driveway configuration—The Project retains and repairs in place the historic driveway configuration - a ribbon drive.

7. Off-Street Parking

A. LOCATION

i. Preferred location—Parking areas are located at the rear of the site, behind primary structures to hide them from the public right-of-way.

ii. Front—No off-street parking areas have been added within the front yard setback as to not disrupt the continuity of the streetscape.

v. Access—Off-street parking areas have been designed to be accessed from alleys or secondary streets rather than from principal streets.

B. DESIGN

i. Screening—Off-street parking areas are screened using a combination of methods. A landscape buffer is used where possible, due to its ability to absorb carbon dioxide.

ii. Materials—The project uses concrete parking surface for ease of maintenance and cost-effectiveness.

8. Americans with Disabilities Act (ADA) Compliance

Project does not require ADA Compliance

EARTHWORK NOTES:

1. PREPARE SUBGRADE BY EXCAVATION OR EMBANKMENT FOR BUILDING SLABS, WALKS AND PAVEMENTS. EXCAVATION AND BACKFILL FOR UNDERGROUND UTILITIES AND DRAINAGE FILL COURSE FOR SUPPORT OF BUILDING SLABS ARE INCLUDED IN THIS ITEM.
2. EXECUTION:
   ALL EXCAVATION, BACKFILL AND COMPACTION SHALL BE PERFORMED AS SHOWN IN THE PLANS AND APPLICABLE GEOTECHNICAL REPORT FOR THE SITE.
3. EXCESS MATERIAL RESULTING FROM EXCAVATION OPERATIONS IS THE PROPERTY OF THE EXCAVATION CONTRACTOR. APPROPRIATE DISPOSAL SHALL BE AT SAID CONTRACTOR'S EXPENSE.
4. ALL EXCAVATION SHALL BE PERFORMED AS DIRECTED IN THE PLANS AND IN COMPLIANCE WITH OSHA STANDARDS.
5. OWNER WILL ENGAGE, AT THE OWNER'S COST, SOIL TESTING AND INSPECTION SERVICE IN ACCORDANCE WITH MATERIAL TESTING SPECIFICATION TO VERIFY COMPLIANCE WITH THE PLANS & SPECIFICATIONS. REPLACEMENT AND RETESTING OF DEFICIENT WORK SHALL BE DONE BY EXCAVATION CONTRACTOR AT NO ADDITIONAL COMPENSATION.
6. DATA ON SUBSURFACE CONDITIONS, IF AVAILABLE, WILL BE MADE AVAILABLE TO THE CONTRACTOR BY THE OWNER AS REQUESTED. THE OWNER MAKES NO WARRANTY AS TO THE CORRECTNESS OF THESE REPORTS PREPARED BY OUTSIDE CONSULTANTS. THE CONTRACTOR MAY, AT HIS OWN EXPENSE, PERFORM ADDITIONAL TEST BORINGS.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL AFFECTED UTILITY COMPANIES. THIS SHALL INCLUDE LOCATION OF FACILITIES, PROTECTION DURING CONSTRUCTION, DAMAGE REPAIRS AND DISRUPTION OF SERVICE.
8. THE EXCAVATION IS UNCLASSIFIED, AND CONTRACTOR SHALL PERFORM EXCAVATION TO THE ELEVATIONS INDICATED IN THE PLANS, REGARDLESS OF CHARACTER OF MATERIAL WITH NO ADDITIONAL COMPENSATION FROM THE OWNER. USE OF EXPLOSIVE IS PROHIBITED.
9. CONTRACTOR IS RESPONSIBLE FOR PROVIDING BARRICADES REQUIRED TO WARN AND/OR PREVENT ACCESS TO CONSTRUCTION AREA.
10. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ADJACENT FACILITIES FROM DAMAGE.
11. EARTHWORK SHALL BE PERFORMED IN COMPLIANCE WITH LANDSCAPE PROTECTION REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (CITY, COUNTY, TXDOT, ETC.).
12. OVER-EXCAVATION IS UNCOMPENSABLE, AND SHALL BE BACKFILLED AND COMPACTED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COMPENSATION.
13. CONTRACTOR SHALL PROVIDE ALL LABOR AND EQUIPMENT NECESSARY TO PROPERLY DEWATER EXCAVATION AREAS – AS REQUIRED.
14. EXCAVATED MATERIAL SHALL BE STOCKPILED WHERE DIRECTED IN THE PLANS. STOCKPILE SHALL BE MAINTAINED IN COMPLIANCE WITH ALL RELEVANT POLLUTION PREVENTION PLANS.
15. EARTHWORK SHALL BE PERFORMED TO THE TOLERANCES SHOWN IN THE PLANS AND/OR SPECIFIED IN THE APPLICABLE GEOTECHNICAL REPORT FOR THE PROJECT.
16. TRENCHES SHALL BE BACKFILLED ONLY AFTER INSPECTION AND APPROVAL OF THE TESTING LAB. BACKFILL MATERIAL AND PROCEDURES FOR TRENCHES SHALL BE IN COMPLIANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION 1993 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, ITEM 400 – EXCAVATION AND BACKFILL FOR STRUCTURES.

PORTLAND CEMENT CONCRETE PAVEMENT NOTES:

1. DESIGN MIX SUBMITTALS SHALL BE PROVIDED FOR REVIEW BY THE GEOTECHNICAL AND/OR CIVIL ENGINEER AT LEAST 14 DAYS PRIOR TO PLACEMENT.
2. DO NOT UNLOAD OR USE ANY HEAVY CONSTRUCTION EQUIPMENT OR HAVE VEHICLES OF ANY KIND ON NEW CONCRETE FOR AT LEAST 21 DAYS AFTER CONCRETE IS POURED. IT IS THE RECOMMENDATION OF THE ENGINEER THAT CONCRETE PAVEMENT COMMENCE FROM THE WEST SIDE TOWARDS THE EAST SIDE TO REDUCE POTENTIAL OF ANY PREMATURE LOADING TYPE DAMAGE TO CONCRETE PAVEMENT.
3. GENERAL CONTRACTOR OR APPLICABLE SUB-CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK SUCH THAT UTILITIES ARE INSTALLED PRIOR TO PAVEMENT BASE BEING INSTALLED OR ELSE LOCATE AND PLACE LINES FOR PROPOSED UNDERGROUND UTILITIES.
4. ALL CONCRETE WORK SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF ACI 330. FLY ASH CAN BE USED IN MIX DESIGNS WHERE SUITABLE UNLESS OTHERWISE NOTED.
5. ALL WORK SHALL CONFORM TO THE RECOMMENDATIONS PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER: TERRACON CONSULTANTS, INC. PROJECT #90155135 DATED 6-29-2015 AND/OR ANY SUPPLEMENTAL LETTERS OR AMENDMENTS FROM GEOTECHNICAL ENGINEER.
6. FURNISH AND INSTALL THE PORTLAND CEMENT CONCRETE PAVING AND PREPARED BASE COURSE TO THE EXTENT SHOWN ON THE DRAWINGS. THESE AREAS ALSO INCLUDE CURBS, GUTTERS, WALKS AND PAVING AGGREGATE.
7. EXECUTION:
   ALL CONCRETE ITEMS SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE DIVISION 3 SECTIONS FOR CONCRETE MIX DESIGN, SAMPLING AND TESTING, CURING AND QUALITY CONTROL, AND AS HEREIN SPECIFIED.
8. UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, CONCRETE AREAS SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2014 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES:
   * ITEM 247 – FLEXIBLE BASE
   * ITEM 360 – CONCRETE PAVING
   * ITEM 421 – HYDRAULIC CEMENT CONCRETE
   * ITEM 529 – CONCRETE CURBS, GUTTER AND COMBINED CURB AND GUTTER
   * ITEM 531 – SIDEWALKS
9. UNLESS OTHERWISE SHOWN ON THE PLANS OR RECOMMENDED BY THE GEOTECHNICAL ENGINEER, DESIGN MIX SHALL PRODUCE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
   A. COMPRESSIVE STRENGTH: 4000 PSI FOR PAVEMENTS AND 3000 PSI FOR ALL OTHER FLATWORK, MINIMUM AT 28 DAYS.
   B. SLUMP RANGE: 4" TO 6"
   C. AIR CONTENT: 3 TO 5%

   FORMS WILL BE SET TO GRADE LINES WITHIN THE FOLLOWING TOLERANCES:
   A. TOP OF FORMS NOT MORE THAN 1/8" IN 10'.
   B. VERTICAL FACE ON LONGITUDINAL AXIS, NOT MORE THAN 1/4" IN 10'.
10. LOCATE, PLACE AND SUPPORT REINFORCEMENT AS SPECIFIED IN THE APPLICABLE GEOTECHNICAL REPORT AND/OR CIVIL PLANS AND UNLESS OTHERWISE DIRECTED, IN COMPLIANCE WITH TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION ITEM 440.
11. JOINTS SHALL BE PLACED IN ANY PROPOSED CONCRETE PAVEMENT AND CURBING AS RECOMMENDED IN THE APPLICABLE GEOTECHNICAL STUDY FOR THIS PROJECT. IF A GEOTECHNICAL STUDY WAS NOT PERFORMED OR IF DESIGN IS NOT INCLUDED IN CIVIL PLANS, THE JOINT LAYOUT AND DESIGN SHALL CONFORM TO THE AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA) TECHNICAL PUBLICATION 150 61.01P, TABLE Z AND FIGURE 13.
12. ALL CONCRETE PAVING AND FLATWORK SHALL BE CURED IN CONFORMANCE WITH CURRENT AMERICAN CONCRETE PAVEMENT ASSOCIATION GUIDELINES.

STORM SEWER NOTES:

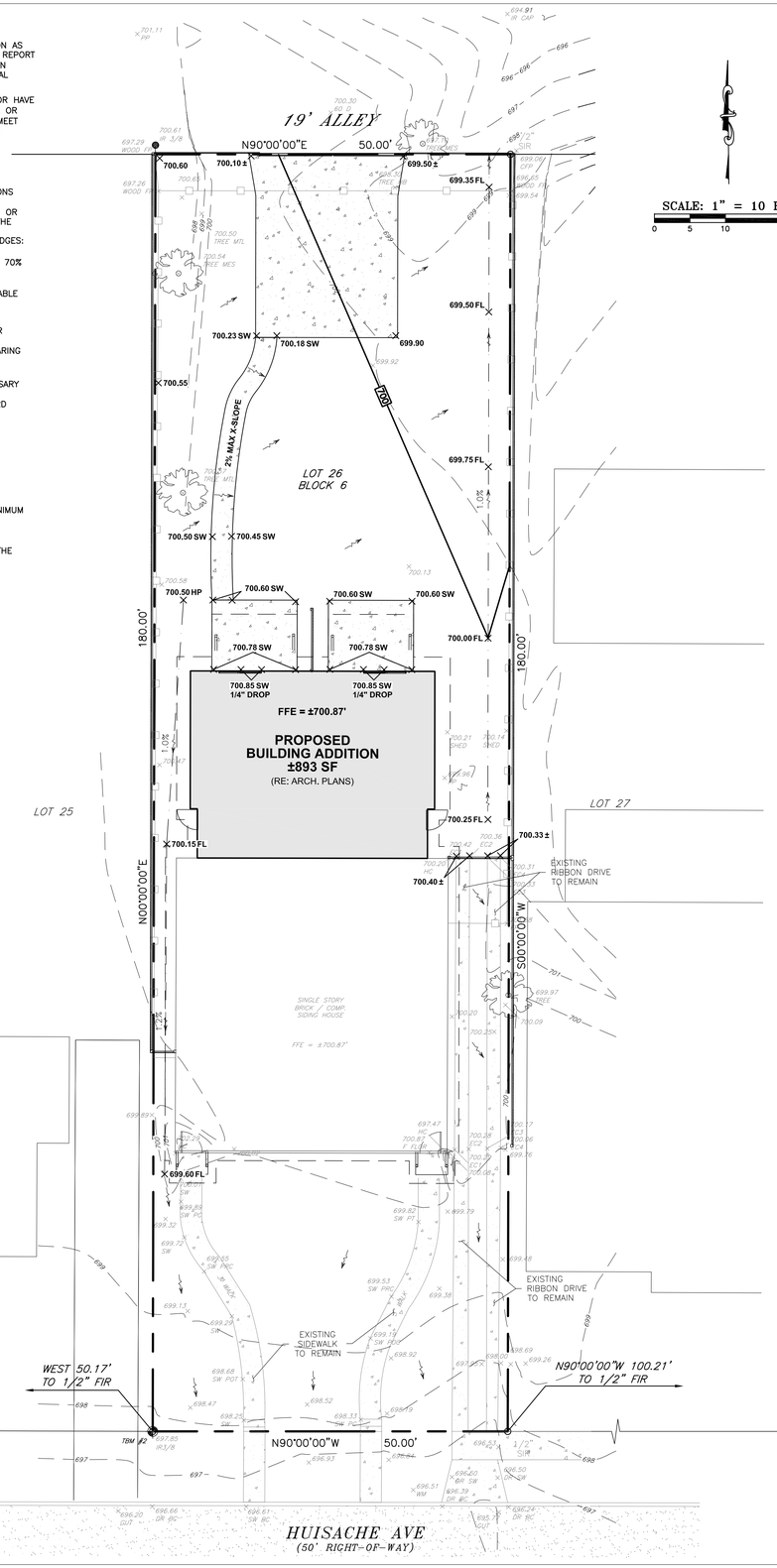
1. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. (SEE SITE INFORMATION SHEET FOR UTILITY CONTACTS)
2. VERIFY ALL EXISTING INVERTS AND RIM ELEVATIONS PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITH ANY DISCREPANCIES.
3. COMPLETE OR COORDINATE ADJUSTMENT OF OTHER UTILITIES IN ORDER TO CONSTRUCT STORM SEWER TO ELEVATIONS PROVIDED.
4. THE FOLLOWING STORM SEWER PIPES ARE ALLOWABLE (WITH MANUFACTURER'S SPECIFICATIONS FOR BACKFILL FOLLOWED):
   A. 12" THRU 48" RCP, D-LOAD DESIGN
   B. 6" THRU 12" PVC, SDR 35 OR SCH. 40
   C. 12" THRU 18" GALVANIZED CORRUGATED METAL (2-2/3"x1/2" CORRUGATED)
   D. 12" THRU 48" "ULTRAFLO" SPIRAL RIB PIPE (AASHTO M-36 TYPE I.R. WITH GALVANIZED STEEL AS PER AASHTO M-218)
   E. 6" THRU 36", HDPE
5. ALL STORM SEWER INLETS/STRUCTURES SHALL BE PRE-CAST.
6. GRATE INLETS LOCATED IN THE PEDESTRIAN ACCESS ROUTE OR HIGH TRAFFIC AREAS SHALL BE ADA COMPLIANT.
7. ALL STORM SEWER PIPE LOCATED BENEATH ASPHALT OR CONCRETE PAVING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS TO ENSURE H-20 TRAFFIC LOADING.

HOT MIX ASPHALT PAVEMENT NOTES:

1. PROVIDE NECESSARY LABOR AND MATERIALS TO INSTALL THE HOT MIX ASPHALT PAVING IN LOCATION AS SHOWN ON THE PLANS, USING DESIGN & SPECIFICATIONS FROM PROJECT SPECIFIC GEOTECHNICAL REPORT (BY OTHERS). REFER TO GEOTECHNICAL REPORT FOR ALL ASPECTS OF ASPHALT PAVEMENT DESIGN INCLUDING BUT NOT LIMITED TO: SUBGRADE PREPARATION, AGGREGATE, ASPHALT MATERIALS, MINERAL FILLER, PRIME COAT, TACK COAT AND FINAL ASPHALT PAVING SURFACE.
2. ALL ASPHALT MUST MEET A RETAINED STRENGTH OF AT LEAST 70% ON THE TXDOT 531-C TEST OR HAVE ALL LIMESTONE AGGREGATE. IF SILICEOUS AGGREGATES (WHICH INCLUDE GRAVEL, CRUSHED GRAVEL OR GRANITE) ARE USED, ADD HYDRATED LIME (AT LEAST 1%) OR ANTI-STRIP AGENT TO THE MIX TO MEET THE RETAINED STRENGTH REQUIREMENTS. THE MIXTURE MUST BE DESIGNED FOR 97% OF OPTIMUM LABORATORY DENSITY. ASPHALT GRADE SHALL BE PG 64-22.
3. EXECUTION:
   A. START OF THIS WORK ITEM INDICATES ACCEPTANCE BY THE CONTRACTOR OF THE SUBGRADE PREPARATION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE FINAL RESULTS.
   B. CONTRACTOR SHALL ESTABLISH AND MAINTAIN REFERENCE POINTS TO HOLD PROPER ELEVATIONS AND GRADES. ALL PAVEMENT SHOULD BE WITHIN 0.5 INCH OF PROPOSED GRADES.
   C. UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, MATERIALS AND INSTALLATION OF SUCH SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION 2014 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES:
      * ITEM 247 – FLEXIBLE BASE, GRADE 1 OR 2.
      * ITEM 340 – HOT MIX ASPHALTIC CONCRETE PAVEMENT. HMAC SHOULD ACHIEVE AT LEAST 70% STRENGTH WHEN TESTED IN ACCORDANCE WITH TEX 531-C.
4. IN PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:
   * HMAC SURFACE COURSE: 1/4", PLUS OR MINUS
   * SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS, USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE SMOOTHNESS WILL NOT BE ACCEPTABLE IS THE WEARING COURSE SURFACE EXCEEDING 3/16".
5. THE INITIAL QUALITY CONTROL TESTING SHALL BE PERFORMED AT THE OWNER'S COST. ANY NECESSARY REPAIRS OR REPLACEMENTS, ALONG WITH ADDITIONAL TESTING, SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. TESTING PROCEDURES SHALL BE IN COMPLIANCE WITH OWNER'S STANDARD SPECIFICATION FOR MATERIAL TESTING.
6. CONTRACTOR SHALL ENSURE THE FOLLOWING:
   A. TESTING LAB TO VERIFY THICKNESS OF BASE MATERIAL INSTALLED.
   B. VERIFY APPROVED MIX DESIGN MATCHES DELIVERY TICKETS IN FIELD.
   C. RECORD ARRIVAL TIMES OF TRUCKS AND MIX TEMPERATURE UPON ARRIVAL RECORD LIST OF EQUIPMENT USED TO LAY AND COMPACT ASPHALT.
   D. RECORD AIR TEMPERATURE & MIX TEMPERATURE AT TIME OF LAYDOWN.
   E. GEO-TECH ENGINEER OF RECORD TO MAKE MIN. OF THREE SITE VISITS.
   F. ASPHALT JOB MIX FORMULA APPROVED IN ADVANCE (WITH ACCOMPANYING LAB TEST DATA) MINIMUM 21 DAYS PRIOR TO PAVING. THIS INCLUDES VERIFYING THE AGGREGATE MEETS ITEM 340 REQUIREMENTS AND ALL OTHER SPECIFICATIONS REQUIREMENTS.
7. HMAC SURFACE COURSE SHALL BE ORIENTED SUCH THAT JOINTS OR SEAMS ARE PARALLEL WITH THE DIRECTION OF TRAFFIC.

TRENCH EXCAVATION SAFETY PROTECTION:

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS, AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS, AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, CURRENT O.S.H.A. STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH CURRENT O.S.H.A. STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.



SCALE: 1" = 10 FT
0 5 10 20

LEGEND

- PROPERTY LINE
- 652 — EXISTING CONTOUR LINE -- IN FEET
- × 651.90 — EXISTING SPOT ELEVATION (IN FEET)
- SS(CT) — EXISTING CONC. CURB
- W(PVC) — EXISTING SANITARY SEWER LINE (MATERIAL)
- OE — EXISTING WATER LINE (MATERIAL)
- UE — EXISTING OVERHEAD ELECTRIC
- G — EXISTING UNDERGROUND ELECTRIC
- UT — EXISTING ELECTRIC GUY WIRE
- C — EXISTING UNDERGROUND TELEPHONE
- EXISTING GAS LINE
- EXISTING WOOD FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING / PROPOSED FIRE HYDRANT
- EXISTING / PROPOSED UTILITY POLE
- EXISTING LIGHT POLE
- WV — EXISTING WATER VALVE
- WM — EXISTING WATER METER
- GV — EXISTING GAS VALVE
- CO — EXISTING CLEAN OUT
- SSMH — EXISTING SANITARY SEWER MANHOLE
- STMH — EXISTING STORM DRAIN MANHOLE
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING TREE
- PROPOSED CONCRETE
- ACCESSIBLE AREA (2% MAXIMUM SLOPE ANY DIRECTION)
- DRAINAGE FLOW ARROWS (GRADE TO DRAIN)
- 10 — PROPOSED CONTOUR -- IN FEET
- × 712.00 — PROPOSED SPOT ELEVATIONS (IN FEET)
- MATCH EXISTING GRADE

GRADING NOTES:

1. ALL SIDEWALKS, STRIPED PEDESTRIAN WALKS, OR ANY OTHER PEDESTRIAN PATH OF TRAVEL SHALL BE 2% MAX CROSS SLOPE.
2. CHANGE IN DIRECTIONS AT ANY PEDESTRIAN ROUTE, ACCESSIBLE OR OTHERWISE, SHALL BE BE AT 2% MAX SLOPE ANY DIRECTION.
3. ACCESSIBLE PARKING SPACES AND ASSOCIATED ACCESS AISLES SHALL BE 2% MAX SLOPE IN ANY DIRECTION.
4. DWELLING UNIT PORCH LANDINGS SHALL BE 2% MAX SLOPE IN ANY DIRECTION.
5. ANY CHANGE IN LEVEL EXPERIENCED FROM ONE GROUND/FLOOR SURFACE TO AN ADJOINING GROUND/FLOOR SURFACE, SUCH AS ENTRY FROM DWELLING UNIT PORCHES ACROSS THRESHOLD AND INTO THE DWELLING UNIT, SHALL BE LIMITED TO 1/4" (OR 1/2" IF BEVELED 1:2).
6. CURB RAMPS MUST NOT EXCEED THE MAXIMUM SLOPE OF 1V:12H (8.33%) SLOPE SO RAMP LENGTH CAN EXCEED 6 FEET TO TRANSITION A MAXIMUM 6" HIGH DROP/CURB.
7. SEE LANDSCAPE AND IRRIGATION PLANS FOR ALL PROPOSED LANDSCAPE AND FINISHED NATURAL GROUND AREAS. IF LANDSCAPE PLANS ARE NOT PROVIDED, CONTRACTOR SHALL RESOD EXISTING GRASS AREAS AND/OR RESTORE EXISTING LANDSCAPE AREAS.
8. CONTRACTOR AND SUBCONTRACTORS SHALL CONTRACT WITH SURVEYOR TO VERIFY PROJECT ELEVATIONS AND BENCHMARK ELEVATION(S) PRIOR TO CONSTRUCTION. "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH VERTICAL AND HORIZONTAL ALIGNMENT. ALL FINISHED EARTHEN GRADES SHALL NOT EXCEED 3:1 (H:V) SLOPE.

!!! CALL BEFORE YOU DIG !!!
CONTRACTOR TO LOCATE EXISTING UTILITIES PRIOR TO WORK. ANY CONFLICT WITH EXISTING UTILITIES SHALL BE REMEDIED BETWEEN SAID CONFLICTING UTILITY AND CONTRACTOR. ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONFLICTS IMMEDIATELY UPON DISCOVERY OF CONFLICT (LETTER, FAX, EMAIL).
TEXAS ONE CALL PARTICIPANTS REQUESTS 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST – STOP AND CALL
TEXAS ONE CALL SYSTEM
(800) 245-4545 OR
www.onecalltexas.com

RECEIVED
By David Bogle at 12:13 pm, Aug 16, 2019

Residence on Huisache

Ohana Homes, LLC
525 East Huisache St
San Antonio, TX

All dimensions and existing conditions shall be checked and verified by the Constructor before proceeding with the Work.

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THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER HE AUTHORITY OF
MICHAEL P. SEPEDA, P.E.
(TX# 94950)
ADA CONSULTING GROUP, INC.
TBPE FIRM No. F-3512
08-16-19
DATE
IT IS NOT TO BE USED FOR CONSTRUCTION OR PERMITTING PURPOSES.

ADA CONSULTING GROUP, INC.
221 W. Rhapsody, Ste. 102 San Antonio, TX 78216
(210) 340-5670 FAX: (210) 340-5728
A TEXAS REGISTERED ENGINEERING FIRM (REGISTRATION No. F-003512)

REVISIONS

No.	Description	Date

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PERSONNEL

Designed by	Drawn by	Checked by	Approved by
MPS	AL	MPS	MPS

SCALE
1" = 10'

DATE
2019_APR_11

STATUS
Progress

TITLE
Grading and Drainage Plan

C2

Visibility Study – Street 1

XA8 - Visibility Study - Street 1
Scale As Indicated (Sheet Size: 22X34)

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Residence on Huisache
Ohana Homes LLC
525 East Huisache St
San Antonio, TX
Progress
2019_AUG_16

Visibility Study – Street 2

XA9 - Visibility Study - Street 2
Scale As Indicated (Sheet Size: 22X34)

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Residence on Huisache
Ohana Homes LLC
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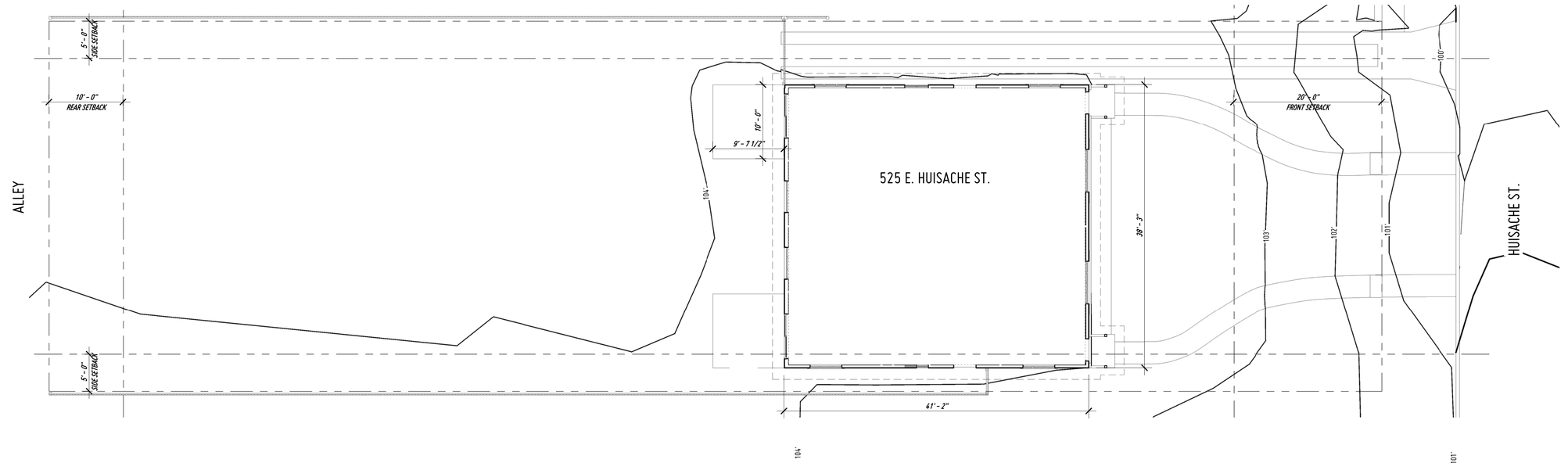
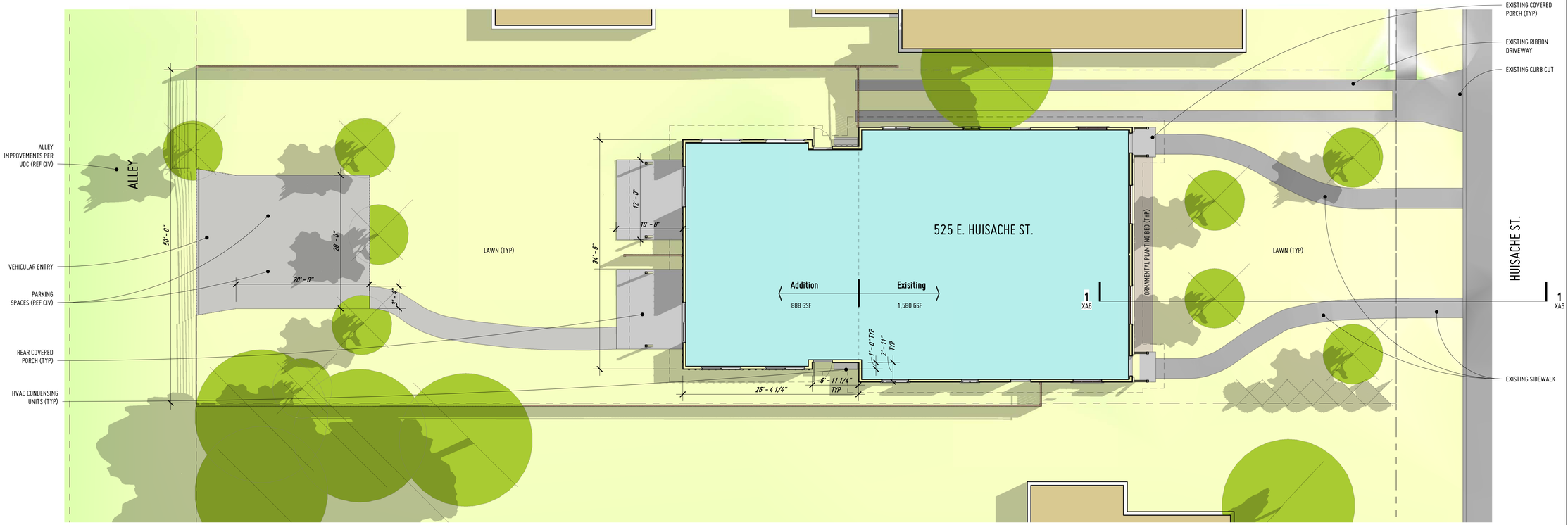
San Antonio, TX
Progress
2019_AUG_16



2 **Site Plan – Architectural, Existing**
1/8" = 1'-0"



1 **Site Plan – Architectural – Option 14**
1/8" = 1'-0"

Residence on Huisache

525 East Huisache St
San Antonio, TX

Ohana Homes LLC

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REVISIONS

No.	Description	Date

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PERSONNEL

SCALE
Scale 1/8" = 1'-0"

DATE
2019_AUG_16

STATUS
Progress

TITLE
Site Plans

AS101

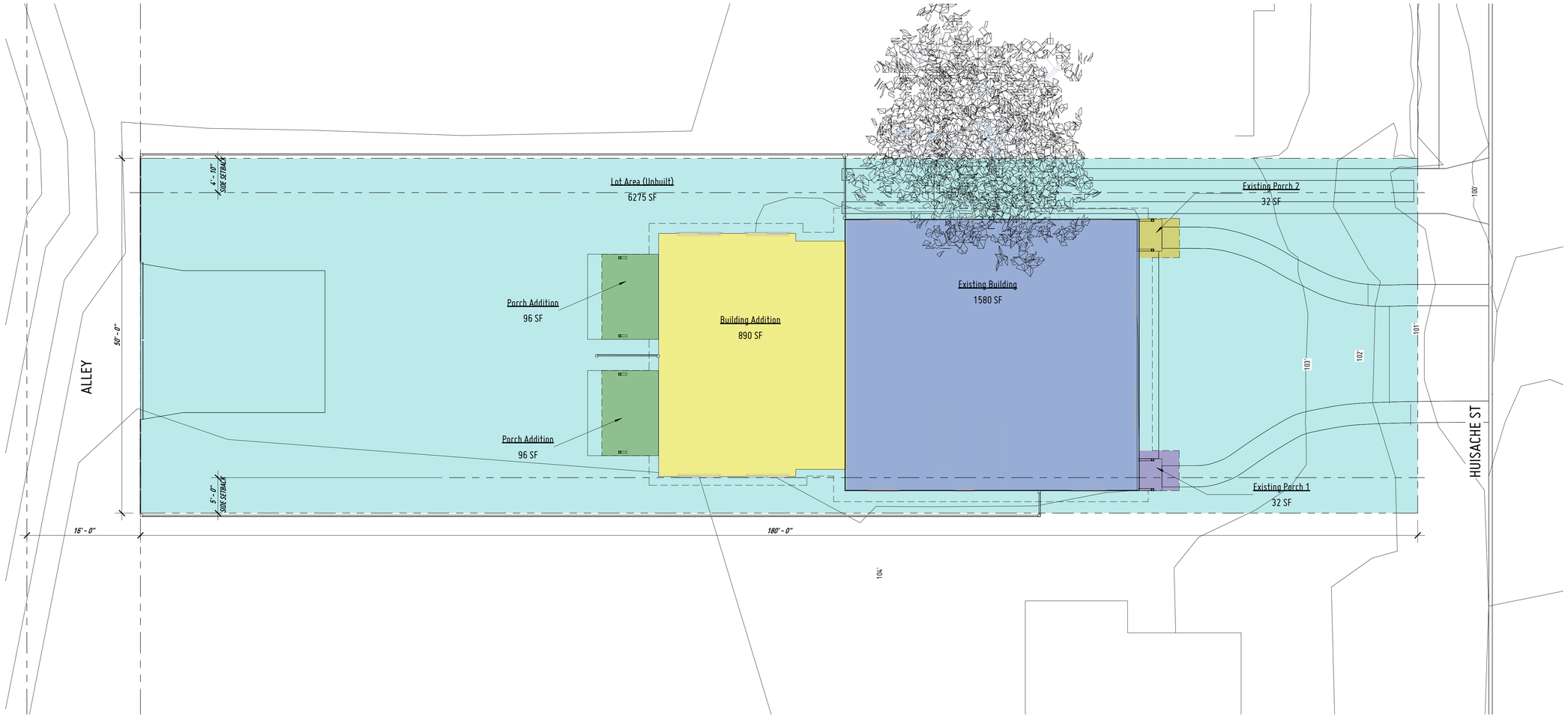
EXISTING BUILDING AREAS

Name	Area	Calculated Area
Existing		
Existing Building	1580 SF	1580 SF
Existing Porch 2	32 SF	16 SF
Existing Porch 1	32 SF	16 SF
Existing Area		1612 SF

ADDITION BUILDING AREAS

Name	Area	Calculated Area
Addition		
Building Addition	890 SF	890 SF
Porch Addition	96 SF	96 SF
Porch Addition	96 SF	96 SF
Addition Area		1082 SF
Total Building Area		2694 SF

* Calculated Porch Areas = 1/2 Porch Covered Area



1 **Building Areas**
1/8" = 1'-0"

XA2 - Building Areas
Scale As Indicated (Sheet Size: 22X34)

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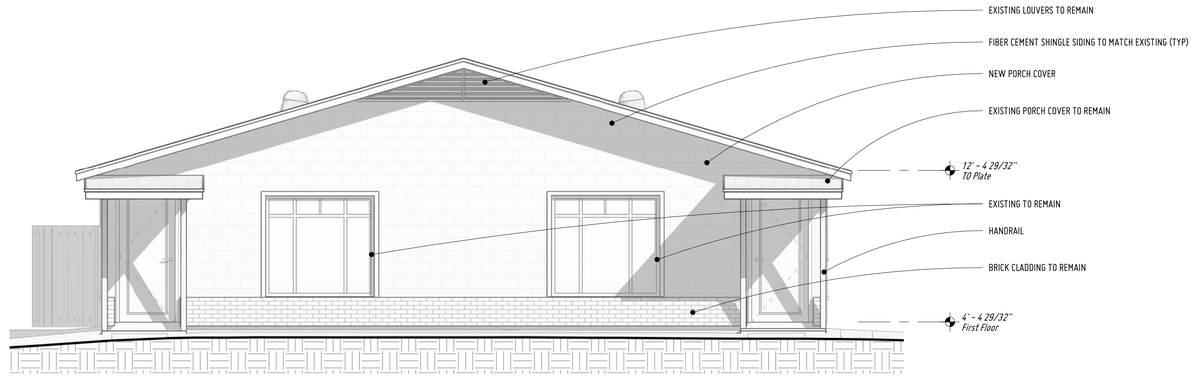
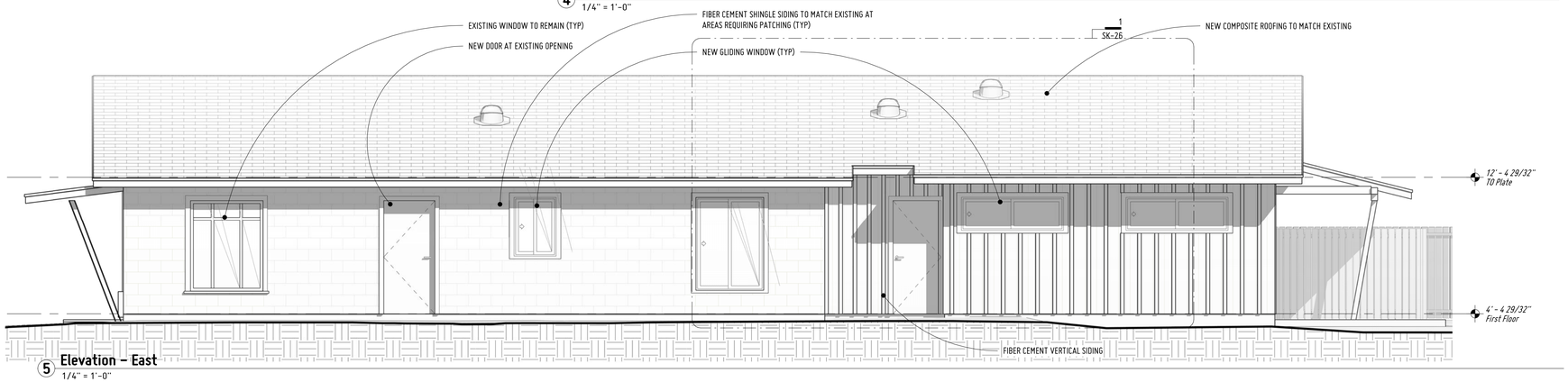
0 4 12 20 40 FT

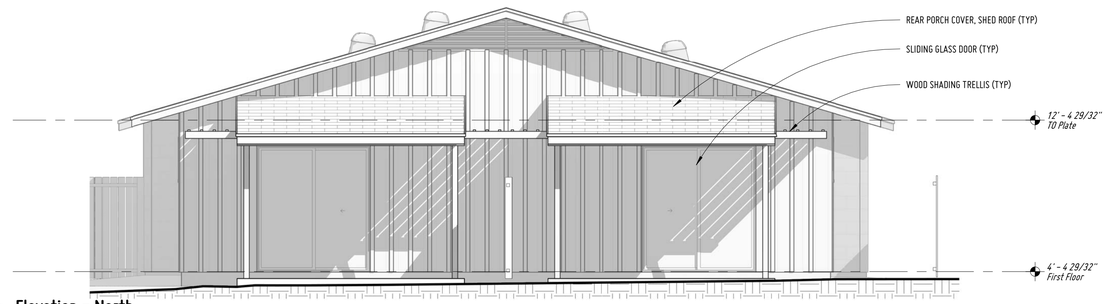
Residence on Huisache
Ohana Homes LLC
525 East Huisache St
San Antonio, TX
Progress
2019_AUG_16



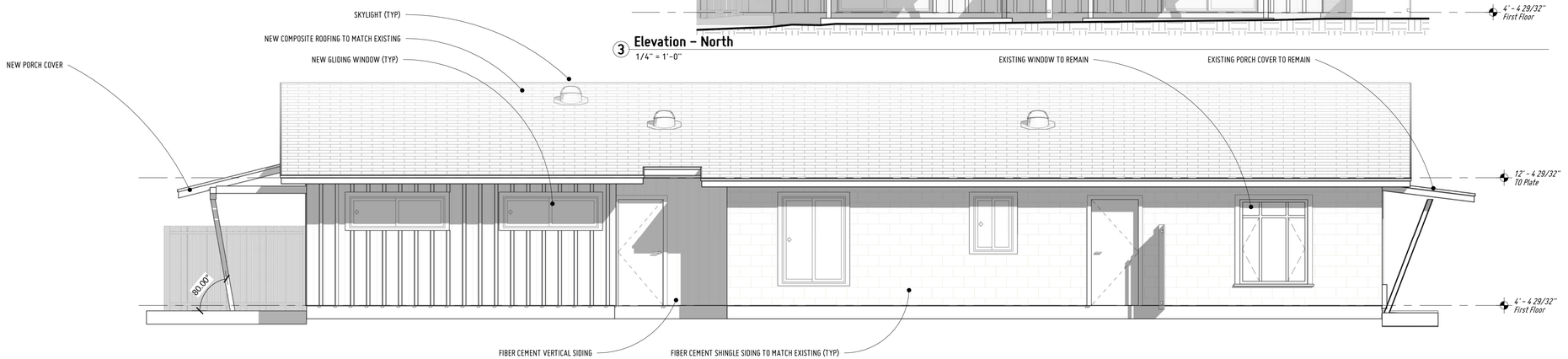
4 Elevation – South
1/4" = 1'-0"



5 Elevation – East
1/4" = 1'-0"



3 Elevation – North
1/4" = 1'-0"



1 Elevation – West
1/4" = 1'-0"

Residence on Huisache

525 East Huisache St
San Antonio, TX

Ohana Homes LLC

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REVISIONS

No.	Description	Date

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PERSONNEL

Designed by	Drawn by	Checked by	Approved by
Designer	Author	Checker	Approver

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

DATE
2019_AUG_16

STATUS
Progress

TITLE
Exterior Elevations, Sections

A201

LEGEND – REMOVALS

EXISTING CONSTRUCTION TO REMAIN

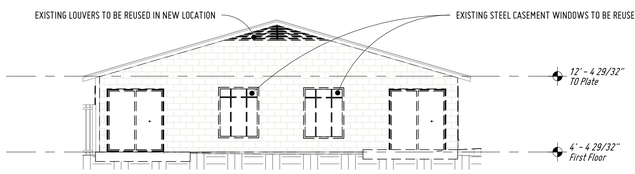
EXISTING CONSTRUCTION TO BE REMOVED

KEYNOTES

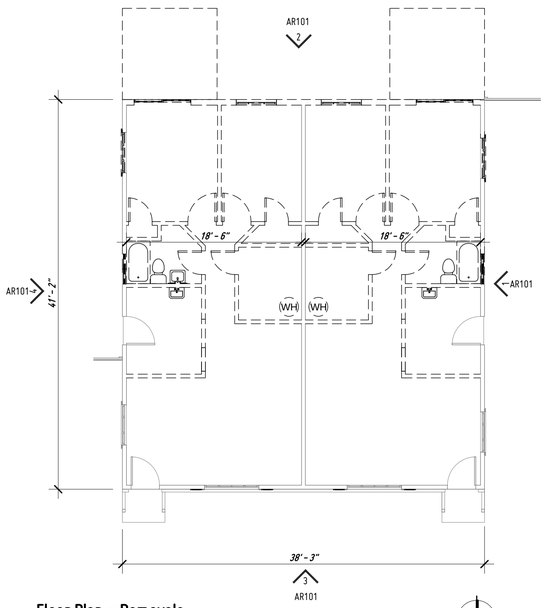
Key Value | Keynote Text

GENERAL NOTES – REMOVALS

- Where no removal work is called out on the drawing, the existing materials shall remain intact.
- Remove all electrical wiring, equipment, and fixtures. salvage all light fixtures and return to Owner properly terminated where required. Repair and patch roof as appropriate matching surrounding materials. Ref. MEP for more info.
- Remove all plumbing fixtures, pipping and equipment. Salvage all plumbing fixtures and return to owner. Properly terminate all supply, waste and vent lines down to the existing concrete foundation. Repair and patch roof as appropriate, matching surrounding materials. Ref. MEP for more info.
- Remove mechanical equipment, duct work, diffusers, etc. Repair and patch roof as appropriate, matching surrounding materials. Ref. MEP for more info.
- Contractor shall coordinate the extent of removal with all trades prior to proceeding with the work.
- The general extent of removal work is shown on the drawings, It is not possible to show required removal, remodeling, and patching in every detail. The Contractor shall visit the project to determine the extent of demolition and remodel work, and to familiarize him/her self with the conditions under which the work will be performed, no additional compensation will be allowed for additional work required as a result of the work indicated herein or for patching required as a result of removal, remodeling or new work.

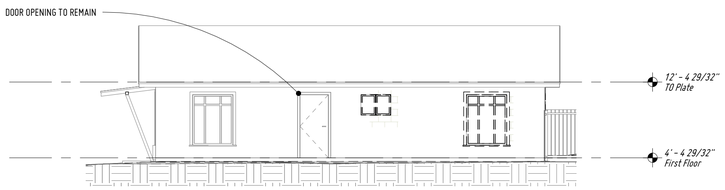


② **Elevation – Existing Removals– North1**
1/8" = 1'-0"



⑤ **Floor Plan – Removals**
1/8" = 1'-0"

③ **Elevation – Existing Removals– South**
1/8" = 1'-0"



① **Elevation – Existing Removals – East**
1/8" = 1'-0"

④ **Elevation – Existing Removals– West**
1/8" = 1'-0"

Residence on Huisache

525 East Huisache St
San Antonio, TX

Ohana Homes LLC

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REVISIONS

No.	Description	Date

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PERSONNEL

Designed by	Drawn by	Checked by	Approved by
Designer	Author	Checker	Approver

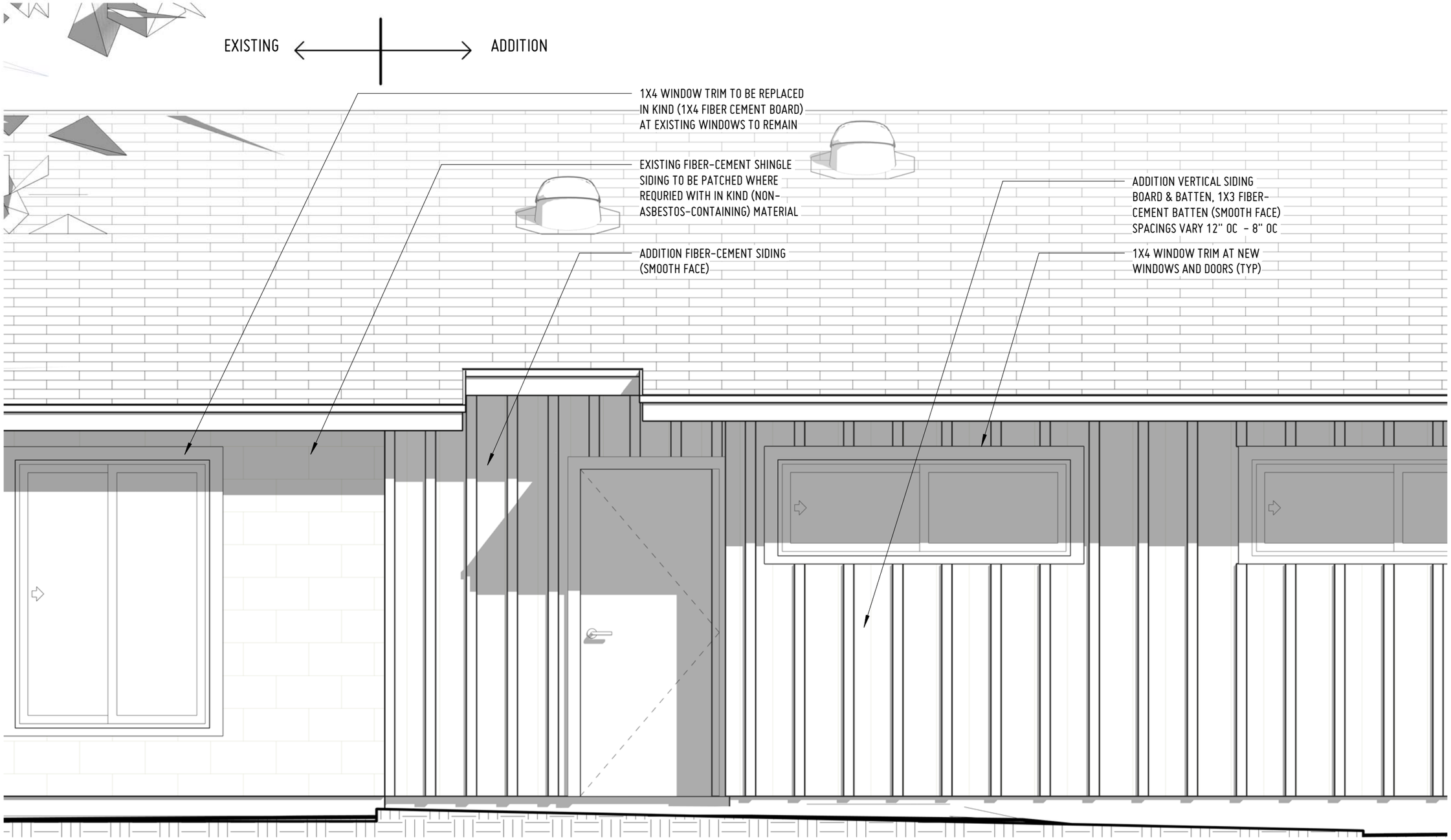
SCALE
Scale As indicated

DATE
2019_AUG_16

STATUS
Progress

TITLE
Existing Removals

AR101



Partial Elevation - East

1/2" = 1'-0"

0 1 2 4 FT

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SK-26 - Materials, Facade

Scale As Indicated (Sheet Size: 11x17)

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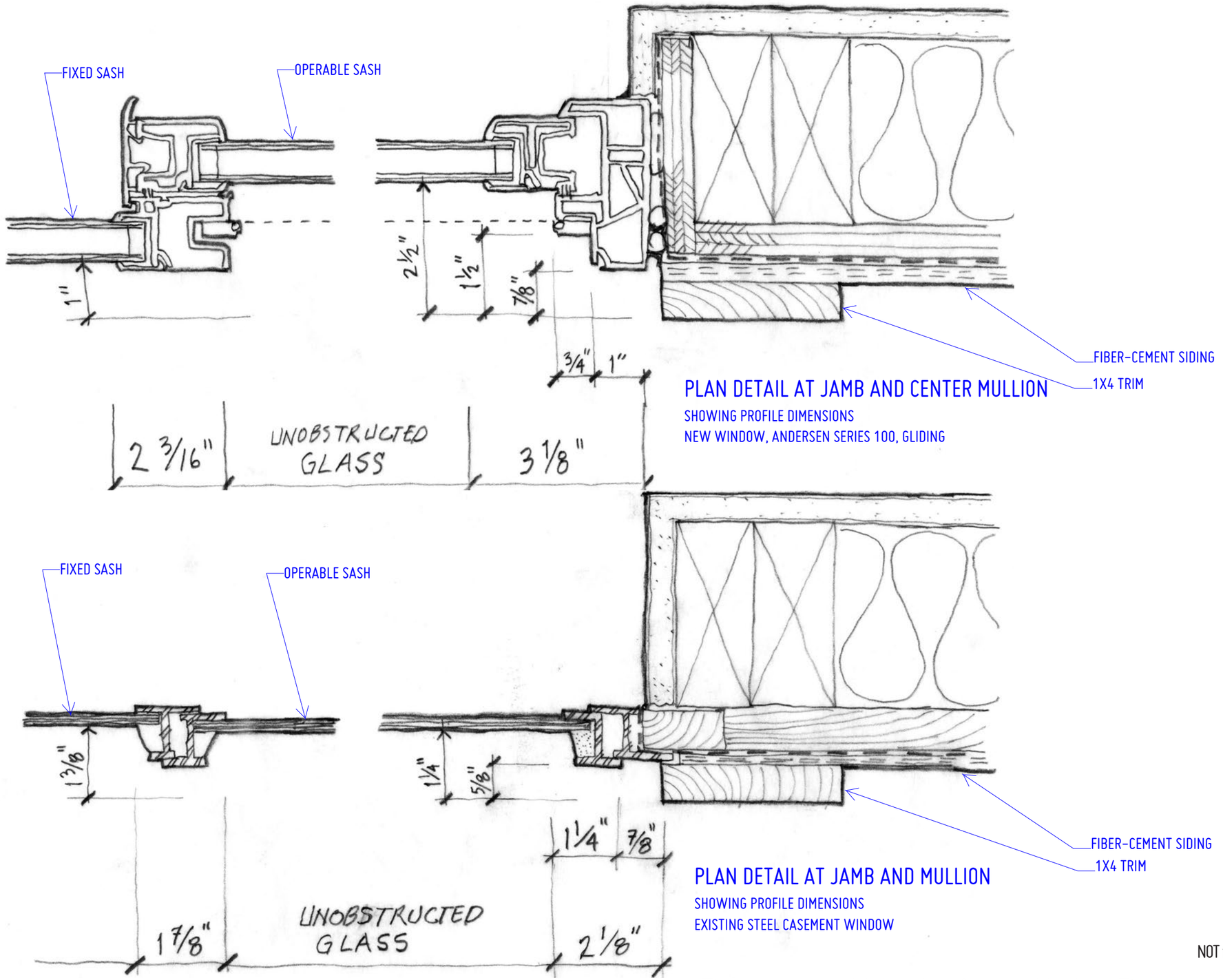
Residence on Huisache

Ohana Homes LLC
525 East Huisache St
San Antonio, TX

2019_AUG_16



PLAN DETAIL AT JAMB AND CENTER MULLION

SHOWING PROFILE DIMENSIONS
NEW WINDOW, ANDERSEN SERIES 100, GLIDING

PLAN DETAIL AT JAMB AND MULLION

SHOWING PROFILE DIMENSIONS
EXISTING STEEL CASEMENT WINDOW

NEW WINDOWS COMPATIBILITY WITH EXISTING FENESTRATION AND BUILDING DESIGN

525 EAST HUISACHE IS A MID-CENTURY BUILDING WITH EMPHASIZED GENERAL HORIZONTALITY AND CONTRAPUNTAL VERTICALITY OF FENESTRATION PROPORTIONS. THE EXISTING STEEL CASEMENT WINDOWS WILL BE KEPT IN PLACE ON THE FRONT AND TWO SIDES. EXISTING STEEL CASEMENT WINDOWS IN THE REAR WILL BE RELOCATED TO THE REAR FACADE OF THE BUILDING ADDITION.

NEW WINDOWS FOR THE ADDITION SHOULD BE COMPATIBILE IN PROPORTION OF OPENINGS/SASHES, MEMBER PROFILES, AND SHALLOW INSET / FLUSH APPEARANCE WITH THE FACADE. (PRECISELY MATCHING PRODUCTS ARE OBSOLETE DUE TO ECONOMY, MATERIAL AVAILABILITY AND ENERGY CONSERVATION CODES.)

THE NEW WINDOW, ANDERSEN SERIES 100, CASEMENT AND GLIDING, WAS CHOSEN FOR A NUMBER OF REASONS:

- PROPORTIONAL AND PROFILE COMPATIBILITY WITH THE MID-CENTURY STEEL FENESTRATION.
- FIBER-COMPOSITE IS MADE WITH 40% RECLAIMED WOOD.
- GLIDING VERSION CHOSEN FOR BEDROOMS SAFETY (EMERGENCY ESCAPE AND RESCUE OPENINGS, AND HAVING DOUBLE, VERTICALLY PROPORTIONED SASHES) ESPECIALLY BECAUSE OF ITS NARROW CENTER MULLION (2 3/16" VERSUS 3-1/8" OF THE CASEMENT VERSION)
- ENERGY CONSERVATION

COMPARATIVE PLAN DETAILS ARE SHOWN ON THIS SKETCH, SK-25, SHOWING EXISTING STEEL CASEMENT WINDOWS (LOWER LEFT) AND PROPSED COMPOSITE TYPICAL BEDROOM WINDOW (UPPER LEFT)

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This sketch is for preliminary review of design intent.

Ohana Homes Residence on Huisache Ave. - Window Details

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SK - 25
page 1 of 1
date: 04 March 2019
scala: half (6" = 1'-0")