HP PERMIT NUMBER: HP-0446-2023

PROPERTY ADDRESS: 1112 E. 17TH ST

DISTRICT: NORTH MAPLE RIDGE

APPLICANT: LARS ENGLE

REPRESENTATIVE: NONE

A. CASE ITEMS FOR CONSIDERATION
   1. Installation of solar panels

   Historic Preservation Permit Subcommittee Review Dates: April 18, 2023; May 4, 2023

B. BACKGROUND
   DATE OF CONSTRUCTION: 1919
   ZONED HISTORIC PRESERVATION: 1993; ORDINANCE AMENDMENT 2005
   NATIONAL REGISTER LISTING: MAPLE RIDGE HISTORIC RESIDENTIAL DISTRICT: 1983
   CONTRIBUTING STRUCTURE: No, but identified as contributing structure in 2023 survey of the
   Morningside Addition

   PREVIOUS ACTIONS: NONE FOUND

C. ISSUES AND CONSIDERATIONS
   1. Installation of solar panels

   Originally proposed was the installation of solar panels on the east, west, and south sides of
   the roof. The proposed panels would be mounted parallel to the roof. During the review of
   the application on April 18, 2023, the Historic Preservation Permit Subcommittee
   recommended that the applicant consider removing the more visible panels on the east and
   west sides of the roof and placing those panels instead on the detached garage and the flat
   portion of the roof on the west side of the residence. The applicant submitted a revised
   proposal incorporating the subcommittee’s suggestions.

   During the review of the application on May 4, 2023, the Historic Preservation Permit
   Subcommittee forwarded the application with a recommendation of approval with the
   condition that the panel or panels beneath and to the east of the chimney on the south side
   of the roof be moved to the flat roof or removed altogether. The applicant has provided two
   alternate proposals for consideration, both which accommodate the recommended
   condition of approval.

   2. Reference: Tulsa Zoning Code

   SECTION 70.070-F Standards and Review Criteria

   In its review of HP permit applications, the preservation commission must use the
   adopted design guidelines to evaluate the proposed work and must, to the greatest
   extent possible, strive to affect a fair balance between the purposes and intent of HP
district regulations and the desires and need of the property owner. In addition, the preservation commission must consider the following specific factors:
1. The degree to which the proposed work is consistent with the applicable design guidelines;
2. The degree to which the proposed work would destroy or alter all or part of the historic resource;
3. The degree to which the proposed work would serve to isolate the historic resource from its surroundings, or introduce visual elements that are out of character with the historic resource and its setting, or that would adversely affect the physical integrity of the resource;
4. The degree to which the proposed work is compatible with the significant characteristics of the historic resource; and
5. The purposes and intent of the HP district regulations and this zoning code.


**SECTION A – GUIDELINES FOR REHABILITATION OF EXISTING STRUCTURES**

**A.1 General Requirements**

Use the following guidelines as the basis for all exterior work:

A.1.1 Retain and preserve the existing historic architectural elements of your home.

A.1.2 If replacement of historic architectural elements is necessary, match the size, shape, pattern, texture, and directional orientation of the original historic elements.

A.1.3 Ensure that work is consistent with the architectural style and period details of your home.

A.1.4 Return the structure to its original historic appearance using physical or pictorial evidence, rather than conjectural designs.

**A.7 Awnings, Shutters, Mailboxes, Mechanical Systems, Etc.**

A.7.6 Install systems requiring exterior components, such as solar panels or devices, where they will have minimal impact, preferably at the rear of your house or yard or on an outbuilding. Install exterior components on a historic building in a manner that does not damage the historic roofing material or negatively impact the building’s historic character and is reversible. These considerations will be made on a case-by-case basis.

**SECTION E – GUIDELINES FOR NON-CONTRIBUTING STRUCTURES**

**E.1 General Requirements**

E.1.1 For the purposes of this chapter, non-contributing structures are those listed as not contributing to the historic character of the district due to age or architectural style in the National Register Nomination for the district.

E.1.2 Non-contributing structures will be considered products of their own time. Do not attempt to create a false appearance of the predominant character and architectural style of the rest of the district.

E.1.3 Follow Section A (Rehabilitation) and Section B (Additions) as they relate to the character-defining elements of the non-contributing structure.

E.1.4 Ensure that work on non-contributing structures does not detract from or diminish the historic character of the overall district.
1112 E. 17th St. – Present (view southwest)

1112 E. 17th St. – Present (view southeast)

1112 E. 17th St. – Present (view southeast)
13.6kW SOLAR SYSTEM

ADDRESSED TO:
Lars Engle
918 527 6091
lars-engle@utulsa.edu
1112 East 17th Street
Tulsa
Oklahoma 74120
United States

Prepared by Phillip Stayton on 19th April 2023
Last updated on 4th May 2023
Offer valid until 27th April 2023

CONTACT
Address
Starry Solar
6905 WWilshire Blvd.,
Oklahoma City OK 73132

Phone
Mobile: (405)205-5991
Office: (405)470-7723

Online
Email: philip@starrysolar.com
Website: https://starrysolar.com/
**Why Starry Solar?**

Starry Solar is a solar energy company that provides all your solar installations and backup solutions. We serve Oklahoma with our residential, commercial, and off-grid solar installations. Starry Solar has the expertise to handle any project, including solar batteries and well pumps. We provide on-grid, off-grid and hybrid solutions to homes, businesses, and more.

**We go above and beyond to prove why we are the best for Oklahomans!**

---

Scott & Luke were both born and raised in Oklahoma and it shows through their dedication to serving each client like family.

- **Truly local and only serve Oklahomans** - This allows us to keep our customer service at the highest level.
- **All in-house** - Each project is done by someone who deals directly with the owners allowing us to do much more and much more quickly.
- **Lifetime Workmanship Warranty** - Most solar company’s only warranty for the life of the product warranty, we go way beyond.
- **Bi-Annual cleanings** - We will clean and inspect your panels twice a year to keep your efficiency at its best. We always have and always will.
Version 1: One panel near chimney moved to flat roof
Version 1: One panel near chimney moved to flat roof

### SYSTEM DETAILS

- **System size:** 13.6 kWc (STC)
- **Estimated annual production:** 20,939 kWh
- **Solar panel:** 34 × 400W Hanwha Q CELLS Q PEAK DUO - Q PEAK DUO BLK MG11 400
  - 1692 mm × 1134 mm
  - Monocrystalline
  - [Datasheet](#)
- **Inverter:** 2 × Sol-Ark SOL-ARK-15K-15000W
  - Two phase
  - 97.2% maximum efficiency
  - [Datasheet](#), [Manual](#), [Warranty](#)
- **Solar offset:** 102.08%

### DAILY PRODUCTION PER MONTH

- **How much electricity will my system generate per day, on average?**

![Bar chart showing daily production per month]

### UTILITY COSTS

- **BEFORE SOLAR**
  - Average monthly bill: $220.33
  - Annual bill: $2,643.94
- **WITH SOLAR**
  - First year average
    - $68.34 ↓ 69%
  - Estimated annual savings: $1,823.91

Powered by Pylon Observer | 3.
FINANCIAL ANALYSIS

Your historical electricity bills were used to help size your solar system. Based upon the system size suggested, the expected electricity bill savings over a 25 year period are provided below.

In addition, the first-year electricity bill savings you can expect are provided together with a chart of the monthly solar system output you can expect.

**ANNUAL ELECTRICITY BILL OVER TIME**
- Electricity bill without solar
- Electricity bill with solar

**MONTHLY ELECTRICITY BILL COMPARISON**
- Electricity bill without solar
- Electricity bill with solar
ENVIRONMENTAL ANALYSIS

Your solar system will generate significant environmental benefits. These come primarily from avoided power plant emissions. Below is a summary of environmental benefits your solar system will provide.

**TREES PLANTED EQUIVALENT**
- 381 trees per year
- Each tree icon represents 40 trees

**AVOIED EQUIVALENT FUEL**
- 1671 gallons of fuel per year
- Each fuel can icon represents 169 gallons of fuel

**AVOIED COAL BURNT**
- 1504lbs of coal per year
- Each coal lump icon represents 1587 lbs of coal
**Version 1: One panel near chimney moved to flat roof**

### ASSUMED VALUES

<table>
<thead>
<tr>
<th>DC Array Power Tilt</th>
<th>Azimuth</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.2kW 33° 0°</td>
<td></td>
</tr>
<tr>
<td>0.8kW 33° 90°</td>
<td></td>
</tr>
<tr>
<td>1.6kW 33° 270°</td>
<td></td>
</tr>
</tbody>
</table>

Azimuth measured clockwise from South

- **System efficiency**: 95%
- **AC system size**: 12.92kW
- **Export limit**: No export limit

### Monthly electricity usage

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>kWh</td>
<td>1102 kWh</td>
<td>1655 kWh</td>
<td>915 kWh</td>
<td>586 kWh</td>
<td>1621 kWh</td>
<td>3099 kWh</td>
<td>4301 kWh</td>
<td>3042 kWh</td>
<td>1359 kWh</td>
<td>457 kWh</td>
<td>670 kWh</td>
<td>1463 kWh</td>
</tr>
</tbody>
</table>

### Utility rate inflation

5% per annum

### Self-consumption rate

80%

### Daily supply charge

$0.50

### Current electricity price

$0.12

### Feed-in Tariff

$0.04

### System lifetime

25 years

### PV degradation

Hanwha Q CELLS Q PEAK DUO
- Q PEAK DUO EUK M-G11+ 400
  - 98% for the first year
  - -0.3% per year to year 25

### Estimated DC shading loss

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
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<tbody>
<tr>
<td>%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
ASSUMPTIONS AND DISCLAIMER

1. The Standard Test Condition rating (STC) assumes a standard set of optimal operating conditions (25°C cell temperature, 1000 W/m² and an air mass of 1.5). The STC rating is most often used by manufacturers to classify the power output of PV modules. To calculate the system's energy production for any future year, the expected degradation in system performance is included (see “PV degradation” in table below).

2. Energy Output is calculated based on historical solar irradiance at the given location. A typical meteorological year is selected using statistical methods. Factors including panel tilt, orientation (azimuth), and system efficiency are taken into account.

3. Solar offset is the amount of energy your solar system is estimated to produce in a typical year divided by the amount of power your property is estimated to consume in a typical year.

4. Utility electricity price inflation is adjusted based on the given location.


6. System efficiency is estimated to account for losses caused by a variety of factors. These factors include intermittent shading, cable losses, dirt, scheduled downtime, manufacturer tolerances, inverter efficiency for DC to AC (this does not affect off-grid DC only systems), battery round trip efficiency, and other factors.

Note: The system design may change based on a detailed site audit. Estimated savings are based on past electrical usage and utility rates provided by the customer where applicable. Actual system production and savings will vary based on final system design, configuration, utility rates, applicable subsidies and your energy usage post-solar installation. Utility rates, charges, and fee structures imposed by your utility are not affected by this proposal and are subject to change in the future at the discretion of your utility. The production calculations in this report are based on historical climate data for the site location and represent typical estimates of future solar production.
Version 1: One panel near chimney moved to flat roof

WARRANTY

<table>
<thead>
<tr>
<th>Product</th>
<th>Type</th>
<th>Standard warranty</th>
<th>Downloads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamwha Q CELLS Q, PEAK DUO Q, PEAK DUO BLK MG11+ 400, 400W</td>
<td>Solar panel</td>
<td>25 years product, 25 years performance</td>
<td>Warranty file</td>
</tr>
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<td>Sol-Ark SOL-ARK-15K 15000W</td>
<td>Inverter</td>
<td>10 years</td>
<td></td>
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13.6kW SOLAR SYSTEM

ADRESSED TO:
Lars Engle
918-587-6094
lars-engle@ou.edu

1112 East 17th Street
Tulsa
Oklahoma 74120
United States

Prepared by Phillip Stayton on 4th May 2023
Offer valid until 27th April 2023

CONTACT
Address
Starry Solar
6905 W Wilshire Blvd.
Oklahoma City OK 73132

Phone
Mobile: (405)205-9991
Office: (405)470-7725

Online
Email: chllip@starrysolar.com
Website: https://starrysolar.com/
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Version 2: Two panels near chimney moved to flat roof
**SYSTEM DETAILS**

- **System size**: 13.6 kW<sub>DC</sub> (STC)
- **Estimated annual production**: 20,938 kWh

**Solar panel**
- 34 x 600W Hanwha Q.CELLS Q.PEAK DUO • Q.PEAK DUO BLK M- G11-400
- 1692 mm x 1134 mm • Monocrystalline • [Datasheet](#)

**Inverter**
- 2 x Sol-Ark SOL-ARK-15 K • 15000W
- Two phase • 97.5% maximum efficiency • [Datasheet] • [Manual] • [Warranty]

**Solar offset**
- 102.08%

---

**DAILY PRODUCTION PER MONTH**

How much electricity will my system generate per day, on average?

![Bar chart showing daily electricity generation](chart)

---

**UTILITY COSTS**

- **Before Solar**
  - Average monthly bill: $220.33
  - Annual bill: $2,643.94

- **With Solar**
  - First year average: $68.34 ↓ 69%
  - Estimated annual savings: $1,823.66

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- 15842 lbs of coal per year
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ASSUMED VALUES

- DC Array Power Tilt Azimuth
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  - 0.8kW  33° 90°
  - 1.6kW  33° 270°
  - Azimuth measured clockwise from South

- System efficiency^2
  95%

- AC system size
  12.92kW

- Export limit
  No export limit

- System lifetime
  25 year

- Monthly electricity usage
  - 1,102kWh (Jan)
  - 1,635kWh (Feb)
  - 913kWh (Mar)
  - 586kWh (Apr)
  - 1,621kWh (May)
  - 3,099kWh (Jun)
  - 4,301kWh (Jul)
  - 3,042kWh (Aug)
  - 1,599kWh (Sep)
  - 457kWh (Oct)
  - 670kWh (Nov)
  - 1,465kWh (Dec)

- Utility rate inflation
  5% per annum

- Self-consumption rate
  50%

- Daily supply charge
  $0.50

- Current electricity price
  $0.12

- Feed-in Tariff
  $0.04

- PV degradation
  Hanwha Q.CELLS Q.PEAK DUO
  Q.PEAK DUO BLK M-G114-400
  98% for the first year
  -0.5% per year to year 25

- Estimated DC shading loss
  - Jan 0.2%  Feb 0.2%
  - Mar 0.2%  Apr 0.1%
  - May 0%  Jun 0%
  - Jul 0%  Aug 0.1%
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  - Nov 0.3%  Dec 0.3%
Version 2: Two panels near chimney moved to flat roof

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2 Solar offset is the amount of energy your solar system is estimated to produce in a typical year divided by the amount of power your property is estimated to consume in a typical year.

4 Utility electricity price inflation is adjusted based on the given location.


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TULSA PRESERVATION COMMISSION

STAFF REPORT
Thursday, May 11, 2023
HP-0448-2023

HP PERMIT NUMBER: HP-0448-2023

PROPERTY ADDRESS: 1514 SOUTH GILLETTE AVENUE

DISTRICT: GILLETTE

APPLICANT: CHAD BRACHER

REPRESENTATIVE: NONE

A. CASE ITEMS FOR CONSIDERATION
   1. Construction of fence
      Project completed without an historic preservation permit
      Historic Preservation Permit Subcommittee Review Date: May 4, 2023

B. BACKGROUND
   DATE OF CONSTRUCTION: 1929
   ZONED HISTORIC PRESERVATION: 1989
   NATIONAL REGISTER LISTING: GILLETTE HISTORIC DISTRICT, 1982
   CONTRIBUTING STRUCTURE: YES, EVANS HOUSE
   PREVIOUS ACTIONS:
   COA – JUNE 11, 1993 – TPC APPROVAL
   Relocate driveway north of original driveway; tear out original driveway and plant lawn; abandon porte cochere as drive-thru

   HP-0207-2020 – AUGUST 4, 2020 – STAFF APPROVAL
   Repair and replacement in-kind of damaged beams

C. ISSUES AND CONSIDERATIONS
   1. Construction of fence
      i. In response to a report of activity at the site, staff conducted a site visit and found a fence had been constructed within the street yard along the north property line. Staff sent a letter of notification to the owner, who responded promptly with a complete application. The fence is an eight-foot (8'-0") tall wood privacy fence with a cap. During the review on May 4, 2023, the Historic Preservation Permit Subcommittee forwarded the application with a recommendation of approval.

      ii. Reference: Tulsa Zoning Code
          SECTION 70.070-F Standards and Review Criteria
          In its review of HP permit applications, the preservation commission must use the adopted design guidelines to evaluate the proposed work and must, to the greatest extent possible, strive to affect a fair balance between the purposes and intent of HP
district regulations and the desires and need of the property owner. In addition, the preservation commission must consider the following specific factors:

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2. The degree to which the proposed work would destroy or alter all or part of the historic resource;
3. The degree to which the proposed work would serve to isolate the historic resource from its surroundings, or introduce visual elements that are out of character with the historic resource and its setting, or that would adversely affect the physical integrity of the resource;
4. The degree to which the proposed work is compatible with the significant characteristics of the historic resource; and
5. The purposes and intent of the HP district regulations and this zoning code.

Reference: Unified Design Guidelines - Residential Structures

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A.1.3 Ensure that work is consistent with the architectural style and period details of your home.

A.1.4 Return the structure to its original historic appearance using physical or pictorial evidence, rather than conjectural designs.

SECTION G – GUIDELINES FOR LANDSCAPE FEATURES, PAVING, AND SIGNAGE

G.1 Landscape Features

G.1.1 Retain and preserve original historic walls, fencing, lighting, planters, and other landscape features through repair.

G.1.2 Removal of historic landscape features will be considered on a case-by-case basis. Removal of non-historic landscape features can be staff-approved.

G.1.3 Ensure that new landscape features are appropriate to the style of your home and consistent with the historic elements found along the same street and within the district.

G.1.4 Use fencing materials that are consistent with the historic fencing found along the same street and within the district. Chain-link fencing, wire fencing (12 gauge or less), vinyl fencing, or any fencing that blocks the view of structures is not allowed.

G.1.5 Use wall materials that are consistent with the historic walls found along the same street and within the district. Cinder block, segmental retaining wall systems, corrugated metal, and railroad ties are not allowed. Historically styled cast concrete block will be considered on a case-by-case basis.
1514 S. Gillette Ave. – 1981

1514 S. Gillette Ave. – 1981
Photo of fence – view northwest

Photo of fence – view southwest
ATTACHMENT A: SUBMITTAL MATERIALS

PROJECT DESCRIPTION
Give a detailed description and justification for each repair, alteration, new construction, or demolition planned. Include description and condition of affected existing materials. Attach additional pages as needed.

25' section of cedar fencing to replace shrubs (phloxies?) that finally died. This fence divides property from the business activity next door and blocks traffic & noise. It's along the driveway and does not block the house, and does not include any synthetic materials. Appropriate landscaping (flowers & native grass) will be included to beautify.

PROJECT CHECKLIST

___ Digital color photographs of each elevation of the site, building(s), and project area(s) provided by email or memory device only. **No external storage account invitations.**

___ Product brochures, color photographs, and/or material samples when new or replacement materials are proposed.

___ Site plan, no larger than 11x17, to scale with dimensions and north arrow showing location of structures and project area or landscape features in respect to building line, property line, and adjacent structures on all sides.

___ Elevation sketches or renderings to scale with dimensions showing location of work required for changes on exterior walls, additions, and new construction

___ Window Survey Form for proposed window repair or replacement (see Attachment B)

FOR ADDITIONS AND NEW CONSTRUCTION, THE FOLLOWING ARE REQUIRED IN ADDITION TO THE ABOVE:

___ Site Plan, Floor Plans, and Elevations should be at a scale of 1 inch = 20 feet, or greater

___ Architectural rendering (optional)

___ Legal description of the property as recorded on the deed

___ Location of all existing and proposed structure(s), with front and side setback distances indicated

___ Percentage of slope on lot

___ Location of existing and proposed retaining walls, sidewalks, and driveways with front and side setbacks indicated

___ An additional site plan showing approximate height, width and front setback of proposed project and all adjacent structures to show relationship to neighborhood

___ Floor plan to scale with dimensions required for additions and new construction

ATTACHMENT B: WINDOW SURVEY FORM (if applicable- see Window Repair and Replacement Guide)
TULSA PRESERVATION COMMISSION

STAFF REPORT
Thursday, May 11, 2023
HP-0450-2023

HP PERMIT NUMBER: HP-0450-2023

PROPERTY ADDRESS: 1807 SOUTH QUINCY AVENUE

DISTRICT: SWAN LAKE

APPLICANT: STEVEN JONES

REPRESENTATIVE: NONE

A. CASE ITEM FOR CONSIDERATION
   1. Construction of rail atop offset porch and porte-cochere

   Application to amend HP-0426-2023 denied by Tulsa Preservation Commission on April 25, 2023

   Historic Preservation Permit Subcommittee Review Date: May 4, 2023

B. BACKGROUND

   DATE OF CONSTRUCTION: CA. 1928
   ZONED HISTORIC PRESERVATION: 1994
   NATIONAL REGISTER LISTING: SWAN LAKE 1998; ADDITIONAL DOCUMENTATION 2009
   CONTRIBUTING STRUCTURE: NO

   PREVIOUS ACTIONS:
   HP-0386-2023 – TPC APPROVAL – AUGUST 23, 2022
   Replacement of siding
   Replacement of trim
   Removal of shutters with the condition that they be permanently removed

   HP-0426-2023 – TPC DENIAL – APRIL 25, 2023
   Construction of rail atop offset porch and porte-cochere according to the photograph submitted

C. ISSUES AND CONSIDERATIONS

   1. Construction of rail atop offset porch and porte-cochere
      i. Proposed is the construction of a rail atop the porch and porte-cochere on the west and south sides of the residence. According to the nomination of Swan Lake Historic District to the National Register of Historic Places, a wooden balustrade was previously present but had been removed by the time the nomination was completed. Several styles of rails, both wood and metal, were previously discussed by the applicant and Historic Preservation Permit Subcommittee. The applicant now proposes a wood rail thirty-six inches (3’-0”) tall. Square posts would be placed directly over the columns of the porch and porte-cochere. During the review of the application on May 4, 2023, the Historic Preservation Permit Subcommittee forwarded the application with a recommendation of approval.

      ii. Reference: Tulsa Zoning Code

      SECTION 70.070-F Standards and Review Criteria
      In its review of HP permit applications, the preservation commission must use the adopted design guidelines to evaluate the proposed work and must, to the greatest extent possible, strive to affect a fair balance between the purposes and intent of HP district regulations
and the desires and need of the property owner. In addition, the preservation commission must consider the following specific factors:
1. The degree to which the proposed work is consistent with the applicable design guidelines;
2. The degree to which the proposed work would destroy or alter all or part of the historic resource;
3. The degree to which the proposed work would serve to isolate the historic resource from its surroundings, or introduce visual elements that are out of character with the historic resource and its setting, or that would adversely affect the physical integrity of the resource;
4. The degree to which the proposed work is compatible with the significant characteristics of the historic resource; and
5. The purposes and intent of the HP district regulations and this zoning code.


SECTION A – GUIDELINES FOR REHABILITATION OF EXISTING STRUCTURES

A.1 General Requirements
A.1.1 Retain and preserve the existing historic architectural elements of your home.
A.1.2 If replacement of historic architectural elements is necessary, match the size, shape, pattern, texture, and directional orientation of the original historic elements.
A.1.3 Ensure that work is consistent with the architectural style and period details of your home.
A.1.4 Return the structure to its original historic appearance using physical or pictorial evidence, rather than conjectural designs.

A.6 Porches
A.6.1 Retain and preserve the original historic porch and its character-defining architectural features through repair.
A.6.2 Do not remove character-defining architectural features of your porch, including, but not limited to, ceiling, floor, piers, columns, railings, handrails, steps, bulkheads, skirt/stem wall, and decorative details, such as crown molding, trim, eave brackets, and exposed rafter tails.
A.6.3 If replacement of deteriorated porch elements is necessary, use materials that maintain the character of the structure and the size, shape, pattern, texture, dimensions, and directional orientation of the original historic features.
A.6.4 To return the home to its original historic appearance, use physical or pictorial evidence. If no evidence exists, select porch features which are consistent with the architectural style of your home. Return enclosed porches to original historic open design (which can be staff approved).
A.6.5 If adding a railing or other porch elements where none exists, select porch elements (columns, railing design, trim, etc.) which are consistent with the architectural style of your home.

SECTION E – GUIDELINES FOR NON-CONTRIBUTING STRUCTURES

E.1 General Requirements
E.1.1 For the purposes of this chapter, non-contributing structures are those listed as not contributing to the historic character of the district due to age or architectural style in the National Register Nomination for the district.
E.1.2 Non-contributing structures will be considered products of their own time. Do not attempt to create a false appearance of the predominant character and architectural style of the rest of the district.
E.1.3 Follow Section A (Rehabilitation) and Section B (Additions) as they relate to the character-defining elements of the non-contributing structure.
E.1.4 Ensure that work on non-contributing structures does not detract from or diminish the historic character of the overall district.
1807 South Quincy Avenue – Present
ATTACHMENT A: SUBMITTAL MATERIALS

PROJECT DESCRIPTION
Give a detailed description and justification for each repair, alteration, new construction, or demolition planned. Include description and condition of affected existing materials. Attach additional pages as needed.

**Instyle Railing above Front Porch Deck area like it was originally**

---

PROJECT CHECKLIST

_____ Digital color photographs of each elevation of the site, building(s), and project area(s) provided by email or memory device only. **No external storage account invitations.**

_____ Product brochures, color photographs, and/or material samples when new or replacement materials are proposed.

_____ Site plan, no larger than 11x17, to scale with dimensions and north arrow showing location of structures and project area or landscape features in respect to building line, property line, and adjacent structures on all sides.

_____ Elevation sketches or renderings to scale with dimensions showing location of work required for changes on exterior walls, additions, and new construction

_____ Window Survey Form for proposed window repair or replacement (see **Attachment B**)

FOR ADDITIONS AND NEW CONSTRUCTION, THE FOLLOWING ARE REQUIRED IN ADDITION TO THE ABOVE:

_____ Site Plan, Floor Plans, and Elevations should be at a scale of 1 inch = 20 feet, or greater

_____ Architectural rendering (optional)

_____ Legal description of the property as recorded on the deed

_____ Location of all existing and proposed structure(s), with front and side setback distances indicated

_____ Percentage of slope on lot

_____ Location of existing and proposed retaining walls, sidewalks, and driveways with front and side setbacks indicated

_____ An additional site plan showing approximate height, width and front setback of proposed project and all adjacent structures to show relationship to neighborhood

_____ Floor plan to scale with dimensions required for additions and new construction

ATTACHMENT B: [WINDOW SURVEY FORM](#) (if applicable- see [Window Repair and Replacement Guide](#))
Cedar rail assembly

Post attachment

45° rail attachment
TOP VIEW

740 N Denver
HP PERMIT NUMBER: HP-0432-2023

PROPERTY ADDRESS: 1117 SOUTH NORFOLK AVENUE

DISTRICT: TRACY PARK

APPLICANT: CARMEN WARDEN & JASON GOLTRY

REPRESENTATIVE: NONE

A. CASE ITEM FOR CONSIDERATION
   1. Construction of residence
      Historic Preservation Permit Subcommittee Review Dates: March 2, 2023; March 21, 2023; April 18, 2023; May 4, 2023

B. BACKGROUND
   DATE OF CONSTRUCTION: 1948 (house now demolished)
   ZONED HISTORIC PRESERVATION: 2023
   NATIONAL REGISTER LISTING: TRACY PARK HISTORIC DISTRICT: 1982
   CONTRIBUTING STRUCTURE: NO
   PREVIOUS ACTIONS:
      HP-0428-2023 – FEBRUARY 28, 2023 – TPC APPROVAL
      Demolition of residence

C. ISSUES AND CONSIDERATIONS
   1. Construction of residence
      Proposed is the construction of a Tudor Revival style residence. The Tulsa Preservation Commission approved the HP Permit application for the demolition of the existing residence on February 28, 2023. The proposed house features a garage attached to the rear of the residence by what is meant to appear as an enclosed breezeway.

      During the review of the application on March 2, 2023, the Historic Preservation Permit Subcommittee made several suggestions which addressed the garage, breezeway, wall materials, porch, windows, and other elements.

      During the review of the application on March 21, 2023, the Historic Preservation Permit Subcommittee made suggestions for revisions of the front roof line, the arches in the front porch, the window proportions and sills, and the garage and breezeway.

      During the review of the application on April 18, 2023, the Historic Preservation Permit Subcommittee suggested adjusting the placement of the breezeway, removing the brick wainscot from the breezeway, and adjusting the slope of the catslide roofs. The applicants revised their plans to incorporate those suggestions and have submitted additional product data.
During the review of the application on May 4, 2023, the Historic Preservation Permit Subcommittee forwarded the application with a recommendation of approval with the conditions that the Option 2 light fixture be selected and that additional product data on the porch rail be provided.

ii. Reference: *Tulsa Zoning Code*

**SECTION 70.070-F Standards and Review Criteria**
In its review of HP permit applications, the preservation commission must use the adopted design guidelines to evaluate the proposed work and must, to the greatest extent possible, strive to affect a fair balance between the purposes and intent of HP district regulations and the desires and need of the property owner. In addition, the preservation commission must consider the following specific factors:
1. The degree to which the proposed work is consistent with the applicable design guidelines;
2. The degree to which the proposed work would destroy or alter all or part of the historic resource;
3. The degree to which the proposed work would serve to isolate the historic resource from its surroundings, or introduce visual elements that are out of character with the historic resource and its setting, or that would adversely affect the physical integrity of the resource;
4. The degree to which the proposed work is compatible with the significant characteristics of the historic resource; and
5. The purposes and intent of the HP district regulations and this zoning code.

Reference: *Unified Design Guidelines - Residential Structures*

**SECTION C – GUIDELINES FOR NEW CONSTRUCTION**

**C.1 General Requirements**

C.1.1 Designs for new construction shall not duplicate existing structures within the district. Ensure that each new structure is unique within the district.

C.1.2 When designing new structures, provide consistency and continuity by drawing upon common characteristics of historic structures in the district, placing particular emphasis on the historic structures on the same street. These include but are not limited to porches, entries, roof pitch and form, and window and door styles.

C.1.3 Avoid mixing incongruous architectural styles: for example, Prairie-style windows on a Colonial Revival-inspired house.

C.1.4 Respect the scale, proportions, historic patterns, and relationships of both principal and accessory structures along the same street and within the district.

C.1.5 Maintain the established height of those structures along the same side of the street.

C.1.6 Establish the height of the floor (finished floor elevation) between the minimum and maximum finished floor elevation of those structures along the same side of the street.

**C.2 Building Site**

C.2.1 Match the front setback of the historic buildings along the same side of the street. When the front setback pattern of the historic structures on the same side of the street varies, locate the new structure between the minimum and maximum of the prevailing front setbacks.

C.2.2 Maintain the pattern and rhythm of the side yard setbacks of the other historic structures on the same side of the street.

C.2.3 Maintain the same orientation to the street as established by the historic structures on the same street.
C.2.4 Limit paving within the street yard to primary driveways and sidewalks. Curb cuts and new driveways through the street yard are strongly discouraged for properties with alley access.

C.2.5 On interior lots, limit the surface area of driveways and sidewalks to no more than 50% of the street yard lot area.

C.2.6 On corner lots, limit the surface area of driveways and sidewalks to no more than 30% of the street yard lot area.

C.3 Building Materials
C.3.1 Maintain the visual characteristics, scale, proportions, directional orientation, and rhythms that are created by the materials on existing historic structures in the district, in order to maintain the overall appearance and character of the district. Deviation from the materials on existing historic structures in the district will be considered on a case-by-case basis. The use of unfinished or clear-finished metals will be considered on a case-by-case basis.

C.4 Garages
C.4.1 Locate garages within the rear yard and detached from the primary residential structure. Detached buildings or structures, such as garages and sheds, not located in the street yard as defined in the Zoning Code are exempt from HP Permit review.

C.4.2 Adding a garage attached to the rear elevation of the primary residential structure will be considered on a case-by-case basis.

C.4.3 Permitted attached garages shall be located so that the front façade of the garage is not located forward of the rear wall of the primary structure.

C.4.4 Historically appropriate garage doors, such as carriage house doors, are encouraged.

C.5 Mechanical Systems, Etc.
C.5.1 Install engineering systems and their associated elements, such as, but not limited to, air conditioning and heating units, flues, conduits, cables, electrical equipment, ventilators, and louvers, on the side or rear façade of the structure.

C.5.2 Install utility meters on the side or rear façade of the house or underground in a subterranean vault. Above-ground installation of utility systems, such as pedestals and transformers, is prohibited in the street yard unless approved on a case-by-case basis.

C.5.3 Install systems requiring exterior components, such as solar panels or devices, where they will have minimal impact, preferably at the rear of your house or yard or on an outbuilding. Install exterior components on a historic building in a manner that does not damage the historic roofing material or negatively impact the building’s historic character and is reversible. These considerations will be made on a case-by-case basis.

C.5.4 Installation of radio or television antennas, including satellite dishes and similar devices, not visible from abutting streets, as determined by staff, is exempt from HP Permit review.

SECTION E – GUIDELINES FOR NON-CONTRIBUTING STRUCTURES
E.1 General Requirements
E.1.1 For the purposes of this chapter, non-contributing structures are those listed as not contributing to the historic character of the district due to age or architectural style in the National Register Nomination for the district.

E.1.2 Non-contributing structures will be considered products of their own time. Do not attempt to create a false appearance of the predominant character and architectural style of the rest of the district.
E.1.3 Follow Section A (Rehabilitation) and Section B (Additions) as they relate to the character-defining elements of the non-contributing structure.

E.1.4 Ensure that work on non-contributing structures does not detract from or diminish the historic character of the overall district.

Streetscape photo – 1982

House previously present (now demolished)
Photo showing height of nearby structures – Provided by applicant
GENERAL NOTES:

CONTRACTOR SHALL VISIT THE PROJECT SITE AND EXAMINE THE SITE IN CONSIDERATION OF PERFORMANCE OF THE WORK DESCRIBED IN THIS PLOT PLAN. ANY ITEM OF WORK AND MATERIAL NOT SPECIFIED IN THE DRAWINGS AND SPECIFICATIONS SHALL BE PERFORMED IN CONFORMITY WITH THE CODES AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE JURISDICTION TO JURISDICTION, TIMBER RIDGE DESIGNS CANNOT WARRANT COMPLIANCE WITH BOTH CODES AND REGULATIONS CAN DIFFER FROM JURISDICTION TO JURISDICTION, TIMBER RIDGE DESIGNS, TO MEET OTHERS.

CONTRACTORS SHALL EFFECT AND PERFORMANCE OF THIS WORK.

THE CONTRACTOR SHALL SECURE AND PAY FOR ALL OTHER PERMITS RELATED TO HIS WORK. THE CONTRACTOR HAS AUTHORITY TO DESIGNATE AND IDENTIFY WHETHER OR NOT A CONTRACTOR WISHES TO USE MATERIAL OR EQUIPMENT, AND NOT TO DESIGNATE AND IDENTIFY QUALITY OF MATERIALS OR EQUIPMENT OTHER THAN SPECIFIED PRIOR TO BIDDING AND DIRECTED TO THE DESIGNER IN WRITING OF ALLOWANCE WILL BE MADE IN THE STIPULATED, NO ADDITIONAL WORK IS STARTED. UNLESS EXPRESSLY CORRECTION BEFORE ANY PART OF THE WORK IS STARTED, UNLESS EXPRESSLY

THE DESIGNER FOR ADJUSTMENT CONDITIONS SHALL BE REFERRED TO THE DESIGNER IN WRITING OF ERRORS, AMBIGUITIES AND OMISSIONS IN PROCEEDING WITH WORK. ANY ERRORS, DISCREPANCIES IN WRITING BEFORE designs IN WRITING OF CONDITIONS AFFECTING THE WORK.

THE CONTRACTOR SHALL FURNISH ALL MATERIALS OR EQUIPMENT OTHER THAN MANUFACTURES: THE CONSTRUCTION OF THIS STRUCTURE OR EMPLOYEES FROM ANY CLAIMS OR APPLICATION. THE PURCHASER AND/OR CODE OR REGULATION. CONSULT YOUR BUILDING OUTLINE BUILDING OUTLINE

BUILDING: 1117 S. NORFOLK AVE TULSA, OK 74120

SIDEWALK - 133 SQ. FT.

SIDEWALK - 133 SQ. FT.

RETAINING WALL

120.1' 40'

125'

5.01'

6.01'

5.01'

14.09'

12.01'

40'

12.01'

34'

44.26'

9.22'

18'

S. NORFOLK AVE

CITY SIDEWALK

CITY SIDEWALK

E. 11TH PL.

SIDWALK - 133 SQ. FT.

DRIVEWAY 696 SQ. FT.

DRIVEWAY

RETAINING WALL

1217 S. NORFOLK AVE

555 SQ. FT.

155 SQ. FT. CVRD. REAR PORCH AREA

241 SQ. FT. CVRD. FRONT PORCH AREAS

602 SQ. FT. GARAGE FLOOR AREAS

1,286 SQ. FT. UPSTAIRS FLOOR AREA

9 FT.

6 FT. 8 IN.

9 FT.
GENERAL NOTES:

CONTRACTOR SHALL REVIEW THE PROJECT SITE AND ENSURE THAT IT IS INCORPORATED WITH THE SITE AND ENSURE THAT IT IS INCORPORATED FOR THE PROJECT.

DIMENSIONS DO NOT INCLUDE ANY ADDITIONAL WORK. ALL ADDITIONAL WORK WILL BE PERFORMED BY THE CONTRACTOR AS NEEDED.

ELECTRICAL, PLUMBING, AND MECHANICAL WORK MUST BE PERFORMED BY LICENSED PROFESSIONALS.

PUBLIC AUTHORITY BEARING ON THE PUBLIC POLICY OF THE STATE, COUNTY, AND CITY AT THE TIME IT WAS DESIGNED.

COMPLIANCE WITH ANY CODES AND REGULATIONS IN THE STATE, COUNTY, & CITY AT THE TIME IT WAS DESIGNED.

ELECTRICAL, MECHANICAL, AND PLUMBING WORK MUST BE PERFORMED BY LICENSED PROFESSIONALS.

ALL CHANGES IN THE CONTRACTOR'S WORK MUST BE APPROVED IN WRITING BEFORE COMMENCEMENT OF THE WORK.

 MANUFACTURER'S WORK AND MATERIALS:

NOT SPECIFIED. PRIOR WRITTEN APPROVAL MUST BE OBTAINED FROM MANUFACTURER."
GENERAL NOTES:

CONTRACTOR SHALL VISIT THE PROJECT SITE AND ENSURE IT IS READY TO ACCEPT THE CONTRACTOR, INCLUDING COMPLETION OF ALL THE FOLLOWING:

1. PREPARE THE SITE FOR ERECTION OF ROOFING, SIDING, AND OTHER MATERIALS.
2. INSPECTION OF THE SITE SHALL BE PERFORMANCE BY THE CONTRACTOR, INCLUDING THE FOLLOWING:
   a. CHECKING OF THE SITE FOR POSSIBLE WATER LEAKS OR OTHER DAMAGES.
   b. INSPECTING THE SITE FOR POSSIBLE POWER SUPPLIES OR ELECTRICAL OUTLETS.
   c. CHECKING THE SITE FOR POSSIBLE GAS LEAKS OR OTHER DAMAGES.

CONTRACTOR SHALL INSPECT THE PROJECT SITE, INCLUDING THE FOLLOWING:

1. PREPARE THE SITE FOR ERECTION OF ROOFING, SIDING, AND OTHER MATERIALS.
2. INSPECTION OF THE SITE SHALL BE PERFORMANCE BY THE CONTRACTOR, INCLUDING THE FOLLOWING:
   a. CHECKING OF THE SITE FOR POSSIBLE WATER LEAKS OR OTHER DAMAGES.
   b. INSPECTING THE SITE FOR POSSIBLE POWER SUPPLIES OR ELECTRICAL OUTLETS.
   c. CHECKING THE SITE FOR POSSIBLE GAS LEAKS OR OTHER DAMAGES.

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   a. CHECKING OF THE SITE FOR POSSIBLE WATER LEAKS OR OTHER DAMAGES.
   b. INSPECTING THE SITE FOR POSSIBLE POWER SUPPLIES OR ELECTRICAL OUTLETS.
   c. CHECKING THE SITE FOR POSSIBLE GAS LEAKS OR OTHER DAMAGES.
LAW SUITS THAT MAY ARISE DURING THE TIMBER RIDGE DESIGNS, ITS OWNER AND BUILDER OF THIS PLAN RELEASES APPLICATION. THE PURCHASER AND/OR PLANS FOR YOUR SPECIFIC SITE AND COMPLIANCE WITH ANY ORDER SPECIAL RIDGE DESIGNS CANNOT WARRANT JURISDICTION TO JURISDICTION, TIMBER ORDER INITIATED BY DESIGNER AND PROCESS: MAINTAIN PROPER INSURANCE.

ORDINANCES, RULES, REGULATIONS, CONTRACTOR SHALL GIVE ALL NOTICES PERMITS RELATED TO HIS WORK. THE CONTRACTOR SHALL GIVE ALL NOTICES TO THE OWNER AND SECURE AND PAY FOR THE BUILDER PERMIT. HOUSE, STORE, MARINE, THE CONTRACTOR SHALL SECURE AND PAY FOR ALL INSURANCE, AND NOT TO MAINTAIN PROPER INSURANCE. OWNER AND CONTRACTORS SHALL SEE TO THE OWNER AND CONTRACTORS SHALL SEE TO AN ANNUAL PREMIUM INSURANCE BUILDING.

DIRECTORS: ALL MANUFACTURERS WORK AND MATERIALS NOT SPECIFIED ARE TO BE SEEN TO THE OWNER AND CONTRACTORS SHALL SEE TO AN ANNUAL PREMIUM INSURANCE BUILDING.

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Front door. WoodCraft mahogany with speakeasy window, square top with radius panel. Oil rubbed bronze hardware.

Andersen 100 series single hung dark bronze 6 over 6 SDL composite.

Breezeway door. FiberCraft Craftsman 6 Lite SDL (to tie in with windows). Oil rubbed bronze hardware.

Covington brick.
Outdoor lights - 3 on garage, 1 near breezeway door, 2 on front porch.

Option 1

*Owens Corning asphalt shingles, Estate Gray*

Option 2
Ameristar Aegis II classic porch railings

Overhead Door Carriage House Model
303 Arched, walnut stain
Aegis II & Aegis Plus

FORERUNNER™ | ORNAMENTAL STEEL FENCE
The strength of *Aegis II*® & *Aegis Plus*® are rivaled only by the elegance of their profiles. Manufactured in both *industrial* & *commercial grades*, the Aegis steel products are designed for *strength & durability*. Balanced by the beauty of its design features, this family of Ameristar fence products matches the *level of security demanded* by your application but blends seamlessly into its surroundings with elevated *aesthetic appeal*. 

3 foot railing around porch between arched columns
Existing structures

13’ 6” to sidewalk

40’ to sidewalk

16’ to 1123

7’ 6” to 1120

28’

20’

GAR DET
480 sf
1434 SE Delaware, Bartlesville - built 1938

1504 Hillcrest, Bartlesville - built 1925
In 1908 Frank Lloyd Wright built the first attached garage in Chicago. Source:
“As the automobile became more accessible to the middle class, convenient access to the garage became more important. The first attached garages began appearing in the 1920s, and became more popular a decade later. These garages were often still located to the rear of the house.”

Source:
https://www.canr.msu.edu/news/how_attached_garages_changed_traditional_neighborhoods#:~:text=The%20first%20attached%20garages%20began,have%20an%20additional%20benefit%20of%20storage.
A MODERN LOOK
THAT’S EASY ON THE BUDGET.
PERFORMANCE

100 Series products simply perform like modern windows and doors should. They’re made from our proprietary Fibrex® material, which is extremely low maintenance and blocks thermal transfer 700 times better than aluminum to help your customers save money on heating and cooling costs.

ATTRACTIVE CORNER SEAMS
Low-visibility corner seams for a cleaner and more modern look.

COLORS THAT LAST
Durable factory-finished interiors and exteriors never need painting and won’t fade, flake, blister or peel,* even in extreme cold or heat.

ATTRACTIVE MATTE INTERIORS
Premium matte finish isn’t shiny like vinyl and is available in white, Sandtone, dark bronze and black.**

ENERGY EFFICIENT IN EVERY CLIMATE
Energy-efficient 100 Series products are available with options that make them ENERGY STAR® certified throughout the U.S. so they can help reduce heating and cooling bills.

Visit andersenwindows.com/energystar for more information and to verify that the product with your glass option is certified in your area.

EASY TO OPERATE FOR YEARS TO COME
All 100 Series products are tested to the extreme to deliver years* of smooth, reliable operation.

SUPERIOR WEATHER RESISTANCE
Our weather-resistant construction seals out drafts, wind and water so well that your reputation is protected whatever the weather.

QUALITY SO SOLID, THE WARRANTY IS TRANSFERABLE†
Many other window and door warranties end when a home is sold, but our coverage — 20 years on glass, 10 years on non-glass parts — transfers from each owner to the next. And because it’s not prorated, the coverage offers full benefits year after year, owner after owner. So it can add real value when you decide to sell your home.

DESIGNED FOR PERFORMANCE
100 Series products are designed to meet or exceed performance requirements in all 50 states! See pages 103-104 for details.

OWNER2OWNER LIMITED WARRANTY

* Visit andersenwindows.com/warranty for details.
** Products with Sandtone, dark bronze and black interiors have matching exteriors.
† See your local code official for code requirements in your area.
††005=54066 DPUP I/G +50/30 (AAMA/WDMA/CSA 101/L.S.2/A440-08 & -11). Optional PG50 performance grade upgrade is available for most sizes. For more information, visit andersenwindows.com/100Series.
*ENERGY STAR® is a registered trademark of the U.S. Environmental Protection Agency.
FIBREX® MATERIAL

Developed by Andersen, Fibrex material is a revolutionary structural composite material that blends the very best attributes of vinyl and wood. Fibrex material saves on natural resources because it’s composed of 40% reclaimed wood fiber by weight. Special polymer formulations surround and fill each wood fiber, enabling top performance. The result is a material that provides uncommon value and enhances the quality of any project. In use for over two decades in Andersen® products, Fibrex material has proven its strength and durability in all types of climates.

REVOLUTIONARY BUILDING MATERIAL

- Twice as strong as vinyl so weather tight seals stay weather tight
- Blocks thermal transfer nearly 700 times better than aluminum to help reduce heating and cooling bills
- Retains its stability and rigidity in all climates for exceptional durability
- Offers superior scratch resistance compared to painted vinyl*

ENVIRONMENTALLY RESPONSIBLE

- Since Andersen developed the highly sustainable Fibrex material, reuse of waste wood fiber has prevented the harvesting of nearly 90 million board feet of timber
- 100 Series products can help builders earn LEED® points in three key categories: Energy & Atmosphere, Materials & Resources and Indoor Environmental Quality
- 100 Series products meet or exceed California Section 01350 Specification, a California indoor emission standard — one of the toughest in the country
- Like all Andersen products, 100 Series products are designed to last** and help reduce future waste streams

*See how Andersen created Fibrex material at andersenwindows.com/fibrex.

**Visit andersenwindows.com/warranty for details.
NEW CONSTRUCTION

You’ll find a 100 Series window or door to match any project from commercial to residential — no matter the location. And with uniform sight lines, it’s easy to specify 100 Series products for the entire project.

- 3 ¼” (79) uniform sight lines allow for easy specification.
- An extension jamb attachment flange is available for easy application of extension jambs on the job site.
- Single-hung drywall pass-through windows have an upper sash that can be easily removed on the job site after the window is installed. With both sash removed, drywall can easily fit through upper floor windows.

FRAME TYPES: 1¾” Flange Setback or 1” Flange Setback With Stucco Key

For new construction, both frames have an integral installation flange that makes installation into a new opening easy and helps make sure the windows and doors are weathertight. For stucco exteriors, choose the frame with the stucco key to eliminate gaps that can result from the natural contraction of exterior stucco.

REMODELING & REPLACEMENT

Whether you’re adding or updating, Andersen® 100 Series windows and patio doors enhance any project with a variety of styles, shapes and colors, with custom sizing in ⅛” (3) increments. The no-flange frame options include pre-drilled, through-the-jamb installation holes and installation screws to save you time.

FRAME TYPES: No Flange or Insert

The no flange frame allows for full removal of an existing window in situations where the frame is rotten or damaged. The no flange window is then installed into the existing rough opening. The insert frame provides fast and easy window replacement when installing the window into an existing window frame without disturbing the interior or exterior trim, saving time and money. The exterior accessory kerf allows for convenient finishing of the window. An exterior sill extender is available to fill the gap at the sill. Exterior frame extenders and a head expander are also available.
EXTERIOR & INTERIOR COLORS

100 Series windows and patio doors come in five exterior colors, including dark bronze and black — colors that are darker and richer than those of most vinyl windows. The interiors feature a premium matte finish for an attractive appearance.

**EXTERIOR COLORS**

- White
- Sandtone
- Terratone
- Dark Bronze
- Black

**INTERIOR COLORS**

- White
- Sandtone
- Dark Bronze
- Black

*Products with Sandtone, dark bronze and black interiors have matching exteriors. Printing limitations prevent exact duplication of colors. See your Andersen supplier for actual color samples.*
HARDWARE

Casement & Awning Windows

Antique Brass | Black | Dark Bronze
Sandtone | Satin Nickel | White

Folding handles avoid interference with window treatments.

Single-Hung & Gliding Windows

Standard Lock
Optional Lift/Pull

Hardware color matches the window’s interior color. Shown in white.

Optional Metal Slim Line Lock

Antique Brass | Black | Dark Bronze
Sandtone | Satin Nickel | White

Both lock styles automatically engage when window is closed.

Bold name denotes finish shown.

Gliding Patio Doors

Exterior handle matches the door’s exterior color. Interior handle matches the door’s interior color. Dark bronze exterior and white interior shown.

Optional auxiliary foot lock is available to secure the gliding panel and provides an extra measure of security when the door is in a locked position. See page 92.

Bold name denotes finish shown.

TULSA

Antique Brass | Black
Bright Brass | Satin Nickel

AFTON

Exterior
Interior
Exterior
Interior

Printing limitations prevent exact replication of colors and finishes. See your Andersen supplier for actual color and finish samples.
GLASS OPTIONS

Andersen has the glass you need to get the performance you want, with options for every climate, project and customer. Check with your supplier for the selections that meet ENERGY STAR® requirements in your area.

<table>
<thead>
<tr>
<th>GLASS</th>
<th>ENERGY</th>
<th>LIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SmartSun with HeatLock® Coating</td>
<td>●●●●●</td>
<td>●●●●</td>
</tr>
<tr>
<td>Low-E</td>
<td>●●●●</td>
<td>●●●●●</td>
</tr>
<tr>
<td>Low-E with HeatLock Coating</td>
<td>●●●● (Ⅰ)</td>
<td>●●●●</td>
</tr>
<tr>
<td>Sun</td>
<td>●●●●</td>
<td>●●●●●</td>
</tr>
<tr>
<td>PassiveSun®</td>
<td>●● (Ⅰ)</td>
<td>●●●●</td>
</tr>
<tr>
<td>PassiveSun with HeatLock Coating</td>
<td>●●●●</td>
<td>●●●●</td>
</tr>
<tr>
<td>Clear Dual-Pane</td>
<td>● ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
</tbody>
</table>

Center of glass performance only. Ratings based on glass options as of January 2022. Visit andersenwindows.com/energystar for ENERGY STAR map and NRC total unit performance data.

HEATLOCK TECHNOLOGY

Applied to the room-side glass surface, HeatLock coating reflects heat back into the home for improved performance.

TIME-SAVING FILM

We protect our products during delivery and construction with translucent film on the glass that peels away for a virtually spotless window.

For more details on our glass options, visit andersenwindows.com/glass.

ADDITIONAL GLASS OPTIONS

Tempered safety glass is standard on patio doors and required for larger window sizes. Patterned glass lets in light while obscuring vision and adds a unique, decorative touch. Cascade and Reed patterns can be ordered with either a vertical or horizontal orientation.

GLASS SPACER OPTIONS

In addition to stainless steel glass spacers, black glass spacers are now available as a standard offering to provide another way to customize project designs and achieve a contemporary style. Black glass spacers blend in with the color of the window or door for a sleek design, or serve as a shadow line.

Add full divided light grilles, and the grille spacer bar between the glass will match the selected glass spacer color.

Cascade  Fern  Obscure
Reed  Satin Etch
Black  Stainless Steel

“ENERGY STAR” is a registered trademark of the U.S. Environmental Protection Agency.
GRILLE OPTIONS

Grilles for Andersen® 100 Series windows and patio doors are available in a wide variety of patterns to complement virtually any style of home. Plus, they have options for easy cleaning and architectural authenticity many vinyl windows can’t match.

**FINELIGHT™ GRILLES BETWEEN-THE-GLASS**

Make glass easy to clean and have an elegant, sculpted profile. Choose a two-sided color scheme to match both the interior and exterior of the window or patio door. Also available with exterior grilles to provide architectural style and detail.

Grille Bar Widths  Actual width shown.

\[ \frac{3}{4} " (19) \text{ width grille bar for windows.} \]

\[ 1" (25) \text{ width grille bar for patio doors.} \]

A 2 3/4" (57) width profile is available for most units to simulate a meeting rail or a multi-unit combination, such as a transom over a window or patio door.

**FULL DIVIDED LIGHT**

Permanently applied to the exterior and interior of the window, with a spacer between the glass.

**SIMULATED DIVIDED LIGHT**

Permanently applied to the exterior and interior of the window, with no spacer between the glass.

Grille Patterns

<table>
<thead>
<tr>
<th>Prairie A</th>
<th>Colonial</th>
<th>Tall</th>
<th>Short</th>
<th>Specified Equal Light*</th>
<th>Custom</th>
</tr>
</thead>
</table>

To see all of the standard patterns available for a specific window or door, refer to the detailed product sections in this product guide or contact your Andersen supplier.

INSECT SCREEN OPTIONS

Insect screens for venting windows have a fiberglass screen mesh. Optional TruScene® insect screens are made with a micro-fine stainless steel mesh, providing 50% greater clarity than our conventional insect screens. Insect screen frames for casement and awning windows are color matched to the product interior and for single-hung and gliding windows are matched to the product exterior.

Gliding insect screens for 2-panel gliding patio doors have a fiberglass screen mesh. Insect screen frames for doors are color matched to the product exterior.

*Specify number of same-size rectangles across or down. Dimensions in parentheses are in millimeters.
AN EASIER WAY TO BUILD BIGGER VIEWS

Our unique reinforced joining systems make it easier for you to design and install large window combinations in your projects. These systems use strong, fiberglass construction and can be joined at our factory, on the job site, or even within a rough opening — wherever works best for you. This way you can easily and confidently build bigger views for your customers.

Non-reinforced joining options include factory-joined combinations or field joining kits. For more information, visit andersenwindows.com/joining.

Reinforced Factory-Joined Combinations
Eliminate the need for job site assembly and receive fully joined, factory-assembled window combinations to fit rough openings up to 12’ (3658) x 8’ (2438) or 8’ (2438) x 12’ (3658).

Reinforced Easy Connect Joining System
Receive lighter, easier-to-handle, pre-assembled smaller combinations that join as you install them into the rough opening, making it easier to install large combinations. In fact, most contractors surveyed said they could reduce the number of installers by 50% using the Andersen Easy Connect Joining System.*

<table>
<thead>
<tr>
<th>ASSEMBLY</th>
<th>READY TO INSTALL</th>
<th>NUMBER OF INSTALLERS*</th>
<th>HALLMARK CERTIFIED**</th>
<th>TESTED To AAAMA 450</th>
<th>PERFORMANCE</th>
<th>COMBINATION SIZE LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REINFORCED FACTORY-JOINED COMBINATIONS</strong></td>
<td>FACTORY</td>
<td>•</td>
<td>MORE</td>
<td>•</td>
<td>•</td>
<td>EXTENSIVE UNIT COMBINATION SIZE OPTIONS AVAILABLE CERTIFIED TO PG50**</td>
</tr>
<tr>
<td><strong>REINFORCED JOINING KITS</strong></td>
<td>JOB SITE</td>
<td>•</td>
<td>MORE</td>
<td>•</td>
<td>•</td>
<td>EXTENSIVE UNIT COMBINATION SIZE OPTIONS AVAILABLE CERTIFIED TO PG50**</td>
</tr>
<tr>
<td><strong>REINFORCED FACTORY-PREPARED EASY CONNECT JOINING SYSTEM</strong></td>
<td>IN THE OPENING</td>
<td>•</td>
<td>FEWER</td>
<td>•</td>
<td>•</td>
<td>EXTENSIVE UNIT COMBINATION SIZE OPTIONS AVAILABLE CERTIFIED TO PG50**</td>
</tr>
<tr>
<td><strong>NON-REINFORCED FACTORY-JOINED COMBINATIONS</strong></td>
<td>FACTORY</td>
<td>•</td>
<td>MORE</td>
<td>•</td>
<td>•</td>
<td>EXTENSIVE UNIT COMBINATION SIZE OPTIONS AVAILABLE CERTIFIED UP TO PG50**</td>
</tr>
<tr>
<td><strong>NON-REINFORCED JOINING KITS</strong></td>
<td>JOB SITE</td>
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<td>•</td>
<td>EXTENSIVE UNIT COMBINATION SIZE OPTIONS AVAILABLE CERTIFIED UP TO PG50**</td>
</tr>
</tbody>
</table>

*69% of 156 builders/general contractors in a 2018 survey said they could reduce the number of installers by half using the Easy Connect Joining System when comparing the installation of a 12’ (3658) wide x 8’ (2438) high pre-assembled window combination unit with four 3’ (914) wide x 8’ (2438) high window combination units.

**When installed according to Andersen installation instructions.
Dimensions in parentheses are in millimeters.
**FEATURES**

**CASEMENT & AWNING**

**FRAME**
- A The frame is constructed with Fibrex® composite material. This construction produces a rigid frame.
- B Durable, low-maintenance finish won’t fade, flake, blister or peel.
- Concealed receiving brackets mounted on the hinge side of the frame keep the sash tightly secured within the window frame when closed.
- C Four frame options are available. See “Common Features” for details.

**SASH**
- D Fibrex® material construction provides long-lasting performance®.
The sash, finished with a durable capping, provides maximum protection and a matte, low-maintenance finish.
- E The dual weatherstrip system combines both an exterior weather strip design and a bulb weatherstrip seal between the sash and frame. The result is a long-lasting, energy-efficient barrier against wind, water and dust.

**GLASS**
- F A glazing bead and Silcare provide superior weather tightness and durability.
- G See “Common Features” for details.

**HARDWARE**

- Single-Action Casement Lock
  A single-action lock easily releases all concealed locking points on the casement sash. The color or finish of the lock hardware matches the handle.

**Awning Sash Locks**

- Awning sash locks provide an added measure of security and weather tightness. Awning hardware style and color options are compatible with 100 Series casement windows to ensure a consistent appearance when used in combination designs.

**SINGLE-HUNG**

**FRAME**
- A The frame is constructed with Fibrex® composite material. This construction produces a rigid frame.
- B A durable, side-loaded balancer provides for easy sash opening and closing. The lower sash can be removed without the use of tools.
- C Durable, low-maintenance finish won’t fade, flake, blister or peel.
- D Four frame options are available. See “Common Features” for details.
- E Weep holes are located on the exterior nose of the sill for proper water management.

**SASH**

- The lower sash has a meeting rail cover with a unique raised profile design, allowing the sash to be opened and closed easily.
- F Fibrex® material construction provides long-lasting performance®.
The sash, finished with a durable capping, provides maximum protection and a matte, low-maintenance finish.
- G Dual film weatherstrip provides a long-lasting, energy-efficient barrier against wind, water and dust.

**GLASS & SHAPE OPTIONS**

- Additional Sash
  - Reverse Cottage Sash
  - Arch
  - Single Hung

**COMMON FEATURES**

**FRAME**

Four frame options include:
- 1 3/4” (35) flange setback for siding applications. An integral rigid vinyl flange helps seal the unit to the structure.
- 1” (25) flange setback with stucco key. An integral rigid vinyl flange helps seal the unit to the structure.
- No-flange option for window replacement in an existing framed opening.
- Insert option for window replacement in an existing window frame.

**GLASS**

High-Performance options include:
- Low-E SmartSun® glass
- Low-E SmartSun HeatLock® glass
- Low-E glass
- Low-E HeatLock glass
- Low-E Sun glass
- Low-E PassiveSun® glass
- Low-E PassiveSun HeatLock glass

Tempered laminated and other glass options are available. Contact your Andersen supplier.

A removable translucent film helps shield the glass from damage during delivery and construction, and simplifies finishing at the job site.

**Patterned Glass**

Patterned glass options are available. See page 12 for more details.

**COLOR OPTIONS**

**EXTERIOR COLORS**

- White
- Sandtone
- Terratone
- Dark Bronze
- Black

**INTERIOR COLORS**

- White
- Sandtone
- Terratone
- Dark Bronze
- Black

*Visit andersenwindows.com/warranty for details.

**Products with Sandtone, dark bronze and black exteriors have matching interiors.**

Dimensions in parentheses are in millimeters.

Printing limitations prevent exact duplications of colors. See your Andersen supplier for actual color samples.
Arch Single-Hung Window Details – New Construction
Scale 1 1/2” (38) = 1'-0" (305) – 1:8

Horizontal Section
Arch Single-Hung

Vertical Section
Arch Single-Hung

* Drip cap is required to complete window installation as shown but may not be included with the window. Use of drip cap is recommended for proper installation.
* Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
* Minimum rough openings may need to be increased to allow for use of building wraps, flashing, sill paning, brackets, fasteners or other items. See Installation information on page 110.
* Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation instructions at andersenwindows.com.
* Dimensions in parentheses are in millimeters.
Arch Single-Hung Window Details – Replacement
Scale 1 1/2" (38) – 1'-0" (305) – 1:8

* Drop cap is required to complete window installation as shown but may not be included with the window. Use of drop cap is recommended for proper installation.
* Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
* Minimum rough openings may need to be increased to allow for use of building areas, flashing, sill panelling, brackets, fasteners or other items. See installation information on page 110.
* Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation instructions at andersenwindows.com.
* Dimensions in parentheses are in millimeters.

Horizontal Section
Arch Single-Hung - Existing Framed Opening

Vertical Section
Arch Single-Hung - Existing Framed Opening
Single-Hung Window Details – New Construction
Scale 1 1/4" (38) = 1'-0" (305) – 1:8

**Horizontal Section**
- Window Dimension Width
- Minimum Rough Opening
- Clear Opening

**Vertical Section**
- Window Dimension Height
- Minimum Rough Opening
- Clear Opening

**Integral**
- Two or Triple Single Hung
- Picture With Flanking Single Hung
- Transom Over Single Hung

* Drip cap is required to complete window installation as shown but may not be included with the window. Use of drip cap is recommended for proper installation.
* Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
* Minimum rough openings may need to be increased to allow for use of building wraps, flashing, sill flashing, brackets, fasteners or other items. See Installation Information on page 110.
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* Dimensions in parentheses are in millimeters.
Single-Hung Window Details – Replacement
Scale 1 1/2" (38) = 1'-0" (305) – 1:8

**Horizontal Section**
Existing Framed Opening

- Clear Opening: 1 1/4" (32)
- Jamb: 3 1/4" (79) Glass (79)
- 3 1/4" Insulated Glass (79)
- Window Dimension Width: 1/4" (6)
- Minimum Rough Opening: 1 1/4" (32)

**Vertical Section**
Existing Framed Opening

- Low-E Glass
- Andersen® Extension Jamb
- Attachment Flange (optional)
- Head
- Meeting Rail
- Insect Screen
- Sill
- Clear Opening
- Sill Stop to Subfloor Dimension
- 3 1/4" (32)

**Insert**
Existing Window Opening

- Clear Opening: 1 1/4" (32)
- Jamb: 3 1/4" (79) Glass (79)
- 3 1/4" Insulated Glass (79)
- Window Dimension Width: 1/4" (6)
- Minimum Rough Opening: 1 1/4" (32)

**Integration**

- Twin or Flanking Single-Hung
- Picture with Flanking Single-Hung
- Transom Over Single Hung

Installation accessories for insert frame shown on page 109.

See pages 84-87 for joining details.

- Drip-cap is required to complete window installation as shown but may not be included with the window. Use of drip cap is recommended for proper installation.
- Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
- Minimum rough-openings may need to be increased to allow for use of building wraps, flashing, sill panings, brackets, fasteners or other items. See Installation Information on page 110.
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