



COMMUNITY DEVELOPMENT

333 Broadalbin Street SW, PO Box 490, Albany, Oregon 97321-0144 | BUILDING & PLANNING 541-917-7550

Staff Report

Historic Review of Exterior Alterations

HI-06-24

May 29, 2024

Summary

This staff report evaluates a Historic Review of Exterior Alterations for a residential structure on a developed lot within the Monteith National Register Historic District (Attachment A). The applicant proposes installing solar panels on the historic home.

Application Information

Review Body:	Landmarks Commission (Type III review)
Staff Report Prepared By:	Alyssa Schrems, Planner II
Property Owner/Applicant:	James Anderson
Address/Location:	310 7th Avenue SW, Albany, OR 97321
Map/Tax Lot:	Linn County Tax Assessor's Map No. 11S-03W-07BB-12800
Zoning:	Hackleman Monteith (HM) District (Monteith National Register Historic District)
Total Land Area:	8,710 square feet
Existing Land Use:	Single Unit Residential
Neighborhood:	Central Albany
Surrounding Zoning:	North: HM- Hackleman Monteith East: HM- Hackleman Monteith South: HM- Hackleman Monteith West: HM- Hackleman Monteith
Surrounding Uses:	North: Residential, Single Unit East: Residential, Single Unit South: Residential, Single Unit West: Residential, Single Unit
Prior History:	HI-13-23: Historic Review of Exterior Alterations to replace existing vinyl windows on the sleeping porch with wooden windows.

Notice Information

On May 15, 2024, a notice of public hearing was mailed to property owners within 100 feet of the subject property. On May 24, 2024, notice of public hearing was posted on the subject site. As of May 28, 2024, no public testimony has been received.

Analysis of Development Code Criteria

Historic Review of Exterior Alterations Generally (ADC 7.120)

Albany Development Code (ADC) review criteria for Historic Review of Exterior Alterations Generally (ADC 7.120) are addressed in this report for the proposed development. The criteria must be satisfied to grant approval for this application. Code criteria are written in **bold** followed by findings, conclusions, and conditions of approval where conditions are necessary to meet the review criteria.

Exterior Alteration Criteria (ADC 7.100-7.165)

Section 7.150 of the ADC, Article 7, establishes the following review criteria in **bold** for Historic Review of Exterior Alterations applications. For applications other than the use of substitute materials, the review body must find that one of the following criteria has been met in order to approve an alteration request.

1. **The proposed alteration will cause the structure to more closely approximate the historical character, appearance, or material composition of the original structure than the existing structure; OR**
2. **The proposed alteration is compatible with the historic characteristics of the area and with the existing structure in massing, size, scale, materials, and architectural features.**

ADC 7.150 further provides the review body will use the Secretary of the Interior's Standards for Rehabilitation as guidelines in determining whether the proposed alteration meets the review criteria.

Secretary of Interior's Standards for Rehabilitation – (ADC 7.160)

The following standards are to be applied to rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. **A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.**
2. **The historic character of a property shall be retained and preserved. The removal of historic material or alteration of features and spaces that characterize a property shall be avoided.**
3. **Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.**
4. **Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.**
5. **Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.**
6. **Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.**
7. **Chemical or physical treatments, such as sandblasting, that cause damage to historic material shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.**
8. **Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.**
9. **New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.**
10. **New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.**

The analysis includes findings related to the Exterior Alterations review criteria in ADC 7.150, followed by the evaluation of the applicable Secretary of Interior Standards in ADC 7.160. Staff conclusions are presented after the findings.

Findings of Fact

- 1.1 Location and Historic Character of the Area. The subject property is located at 310 7th Avenue SW in the Hackleman Monteith (HM) zoning district within the Monteith National Register Historic District. The surrounding properties are in the HM zoning district. Surrounding properties are developed with single dwelling unit residences.
- 1.2 Historic Rating. The subject building is rated as a Historic Contributing resource in the Monteith National Register Historic District.
- 1.3 History and Architectural Style. The nomination form lists the architectural style of the building as Colonial (Attachment B).
- 1.4 Prior Alterations. Sleeping porch windows were changed to vinyl previously. The property owner applied to replace them with wood windows in 2023.
- 1.5 Proposed Exterior Alterations. The applicant proposes to install 27 roof mounted solar panels on the south roof elevation, with the related service being located on the east side of the house near the existing main service panel.

The applicant states that the panels will be low-profile and provided with an installation packet as part of the application (Attachment C.1). While the panels will be visible from the street, they will match the angle of the roof. The solar panels will also be removable, non-permanent structures.

Based on the facts provided, the addition of solar panels will not change the historic character, appearance, or material composition of the existing structure. Based on these facts, criterion ADC 7.150(2) is met.

- 1.6 Building Use (ADC 7.160(1)). The building's original use was a single unit house. The building is still used as a dwelling and the applicant does not propose to change the use as part of this application.

Only minimal exterior alterations are needed in association with the proposed use, which is consistent with ADC 7.160(1).

- 1.7 Historic Character (ADC 7.160(2)). The house was constructed in 1925 in the Colonial style. Distinctive features of the house include a slanted oriel window with stained glass and stick work (Attachment B).

The applicant states that the panels and hardware for the solar panels will be removable and that no historic material will be removed. There will be no alteration of any features or spaces that characterize the property as historic. Based on these facts, criterion ADC 7.160(2) is met.

- 1.8 Historic Record & Changes (ADC 7.160(3) and (4)). The house is designed in the Colonial style. The applicant proposes installing solar panels onto the roof with removable hardware in order to generate energy. No conjectural features or architectural elements are proposed in addition to the solar panels. Based on these facts, criterion ADC 7.160(3) and (4) are met.

- 1.9 Distinctive Characteristics (ADC 7.160(5)). The applicant states that there will be no changes to any features, finishes, construction techniques, or examples of craftsmanship with the addition of the solar panels. No changes are proposed to the roof pitch. Based on these facts, criterion ADC 7.160(5) is met.

- 1.10 Deteriorated Features (ADC 7.160(6)). The applicant states that there are no existing deteriorated historic features. Since there are no deteriorated historic features and the applicant is proposing to add solar panels and not change any existing features, criterion ADC 7.160(6) is satisfied.

- 1.11 Use of Chemical or Physical Treatments (ADC 7.160(7)). The applicant does not propose any chemical or physical treatments in relation to the installation of the solar panels and further states that cleaning of solar panels only requires soap and water. Based on these facts, criterion ADC 7.160(7) is met.

- 1.12 Significant Archaeological Resources (ADC 7.160(8)). The applicant states there are no known archeological resources located at or near this site. Based on these facts, this criterion appears to be met.
- 1.13 Historic Materials (ADC 7.160(9)). The applicant states that the project will not destroy any historic materials or make any changes to the massing, size, scale, or architectural features of the property. The removable solar panels will be set parallel with the existing roof and will not affect the profile or roofline of the structure. Based on these facts, the criterion in ADC 7.160(9) is met.
- 1.14 New Additions (ADC 7.160(10)). The applicant states they are not proposing any new additions or adjacent or related new construction. Solar panels will be installed with removable hardware and can conceivably be returned to its original form if a future property owner desired to remove the solar panels. Based on these facts, the criterion in ADC 7.160(10) is met.

Conclusions

- 1.1 The proposed exterior alterations will be compatible with the historic characteristics of the area and with the existing structure in massing, size, scale, materials, and architectural features.
- 1.2 The proposed alteration is consistent with the Secretary of the Interior's Standards in ADC 7.160.

Overall Conclusions

This proposal seeks to complete exterior alterations to add solar panels to the south roof of the house.

Staff finds all applicable criteria are met for the exterior alterations.

Options and Recommendations

The Landmarks Commission has three options with respect to the subject application:

- Option 1: Approve the request as proposed;
- Option 2: Approve the request with conditions of approval;
- Option 3: Deny the request.

Based on the discussion above, staff recommends the Landmarks Commission pursue Option 2 and approve the Exterior Alteration request with conditions. If the Landmarks Commission accepts this recommendation, the following motion is suggested.

Motion

I move to approve the exterior alterations including conditions of approval as noted in the staff report for application planning file no. HI-06-24. This motion is based on the findings and conclusions in the May 29, 2024, staff report and findings in support of the application made by the Landmarks Commission during deliberations on this matter.

Conditions of Approval

- Condition 1 **Exterior Alterations** – The proposed exterior alterations shall be performed and completed as specified in the staff report and application as submitted. Deviations from these descriptions may require additional review.

Attachments

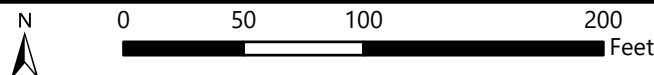
- A. Location Map
- B. Historic Resource Survey
- C. Applicant's Submittal

Acronyms

ADC	Albany Development Code
DMU	Downtown Mixed Use
HM	Hackleman Monteith District



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310 7th Ave SW

OREGON INVENTORY OF HISTORIC PROPERTIES
HISTORIC RESOURCE SURVEY - ALBANY
HISTORIC DISTRICT

Attachment B.1

COUNTY: Linn

HISTORIC NAME: None	ORIGINAL USE: Residence
COMMON NAME: None	CURRENT USE: Residence
ADDRESS: 310 7th Ave. SW	CONDITION: Good
ADDITIONAL ADDRESS: NONE	INTEGRITY: Good MOVED? N
CITY: Albany	DATE OF CONSTRUCTION: c.1925
OWNER: Glenn A Hubert	THEME 20th Century Architecture
CATAGORY: Building	STYLE: Colonial
LOCATION Monteith Historic District	ARCHITECT UNKNOWN
MAP NO: 11S03W07BB TAX LOT: 12800	BUILDER: UNKNOWN
BLOCK: 53 LOT N/A	QUADRANGLE Albany ASSESSMENT: N
ADDITION NAME: Original Platt	ORIGINAL RATING: Compatible
PIN NO: 11S03W07BB12800 ZONING HM	CURRENT RATING: Historic Contributing

PLAN TYPE/SHAPE: Irregular	NO. OF STORIES: 2.5
FOUNDATION MAT.: Concrete	BASEMENT N
ROOF FORM/MAT.: Side gable	PORCH: Gable

STRUCTURAL FRAMING: Wood

PRIMARY WINDOW TYPE: 6/1 double hung

EXTERIOR SURFACING MATERIALS: Wide lap siding

DECORATIVE FEATURES:

3 gabled dormers with eave returns, pedimented gable porch, fan lights 3rd floor E&W sides, 1st story flanking wings on E&W, fan light & side lights at front door, dentil cornice on porch gable, shutters, ext.chimney W.

EXTERIOR ALTERATIONS/ADDITIONS:

None

NOTEWORTHY LANDSCAPE FEATURES:

None

ADDITIONAL INFO:

None

INTERIOR FEATURES:

None

LOCAL INVENTORY NO.: M.115

SHPO INVENTORY NO.: None

CASE FILE NUMBER: None

OREGON INVENTORY OF HISTORIC PROPERTIES
HISTORIC RESOURCE SURVEY -ALBANY
MONTEITH HISTORIC DISTRICT -PAGE TWO

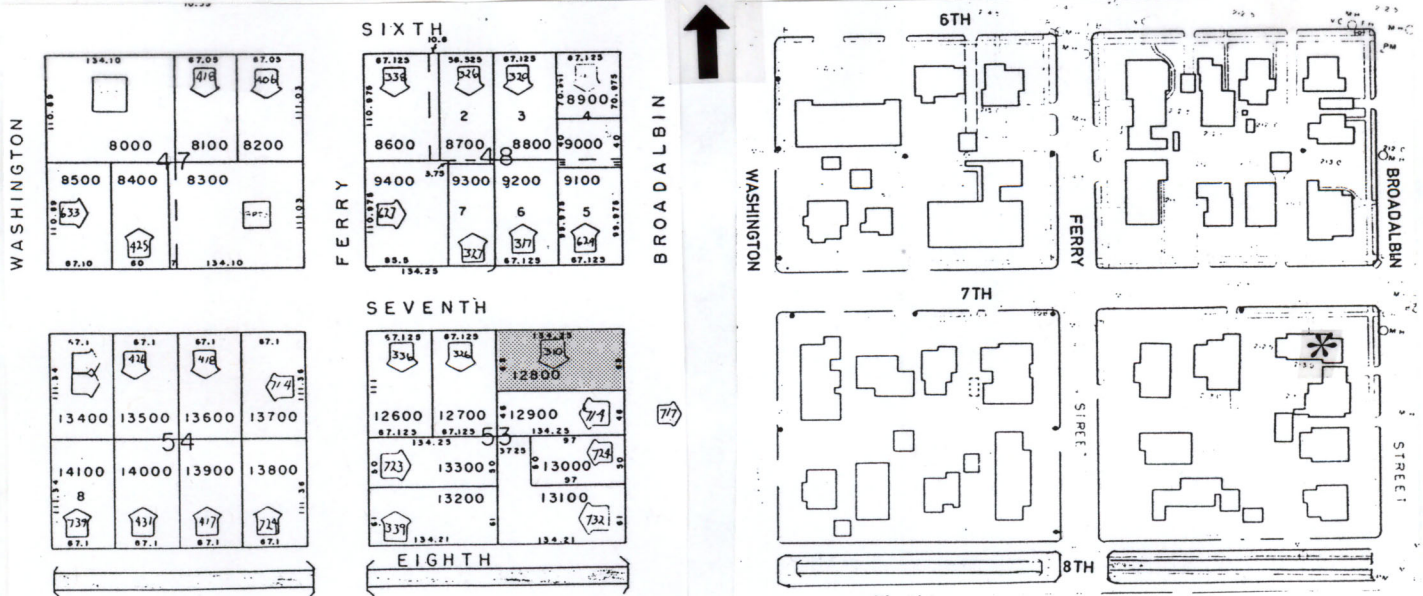
NAME: Jack Rohrbough
ADDRESS: 310 Seventh Ave. S.W.
QUADRANGLE: Albany

T/R/S: T11-R3W-S07
MAP NO.:11-3W-7BB
TAX LOT: 12800



NEGATIVE NO.: H-4

SLIDE NO.: MS.115



GRAPHIC & PHOTO SOURCES: Albany Community Development Planning Division & Tanya Neel.

**OREGON INVENTORY OF HISTORIC PROPERTIES
HISTORIC RESOURCE SURVEY
ALBANY**

Attachment B.3

COUNTY : Linn

HISTORIC NAME :	ORIGINAL USE : Residence
COMMON NAME :	CURRENT USE : Residence
ADDRESS : 310 7th Ave. SW	CONDITION : Good
CITY : Albany	INTEGRITY : Good MOVED : N
OWNER : Jack Rohrbough	DATE OF CONSTRUCTION : c.1925
CATAGORY : Building	THEME : 20th Century Architecture
LOCATION : Monteith Historic District	STYLE : "Colonial"
ASSOCIATED FEATURES : 0	ARCHITECT :
MAP NO : 11-3W-07BB TAX LOT : 12800	BUILDER :
BLOCK : 53 LOT :	QUADRANGLE : Albany
ADDITION NAME : Original Platt	LOCAL RANKING : Secondary
PIN NO : 11S03W07BB12800 ZONING : HM	SPECIAL ASSESSMENT : N

PLAN TYPE/SHAPE : Irregular	NO. OF STORIES : 2.5
FOUNDATION MAT.: Concrete	BASEMENT : N
ROOF FORM MAT. : Side gable	PORCH : Gable
STRUCTURAL FRAMING : Wood	
PRIMARY WINDOW TYPE : 6/1 double hung	
EXTERIOR SURFACING MATERIALS: PRIMARY EXT : Wide lap siding	DECORATIVE : None
DECORATIVE : 3 gabled dormers with eave returns, pedimented gable porch, fan lights 3rd floor E&W sides, 1st story flanking wings on E&W, fan light & side lights at front door, dentil cornice on porch gable, shutters, ext.chimney W.	
EXTERIOR ALTERATIONS/ADDITIONS : None	
LANDSCAPE FEATURES : None	
OTHER : None	

RECORDED BY : Roz Keeney	DATE : 08/96
LOCAL INVENTORY NO. : M.115	SHPO INVENTORY NO. :
CASE FILE NO. :	

OREGON INVENTORY OF HISTORIC PROPERTIES
HISTORIC RESOURCE SURVEY - ALBANY
HISTORIC DISTRICT

Attachment B.4

COUNTY: Linn

NAME: Glenn A Hubert
ADDRESS: 310 7th Ave. SW
QUADRANGLE Albany

PIN 11S03W07BB12800
MAP 11S03W07BB
TAX LOT: 12800

SQ FT:

G/P SOURCES:

EID FOOTPRINT: N

OTHER INFO:

ADA ACCESS (Y/N): N

PARKING (Y/N): N PARKING SPACES: 0

ELEVATOR (Y/N): N

PARAPET (Y/N): N

SEISMIC (Y/N): N

HISTORIC PHOTO: N

NEGATIVE NO.: H-04

SLIDE NO.:

RECORDED BY: Roz Keeney

DATE: 08/96

LOCAL INVENTORY NO.: M.115

SHPO INVENTORY NO.: None

CASE FILE NUMBER: None

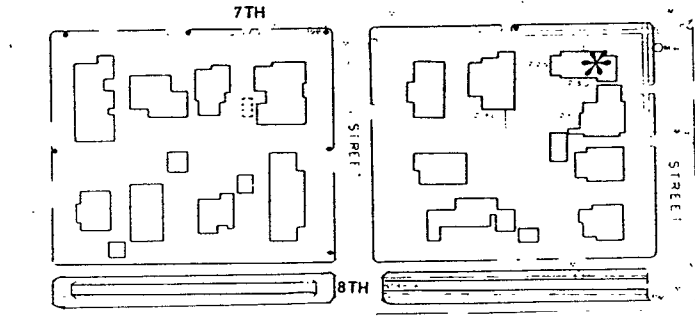
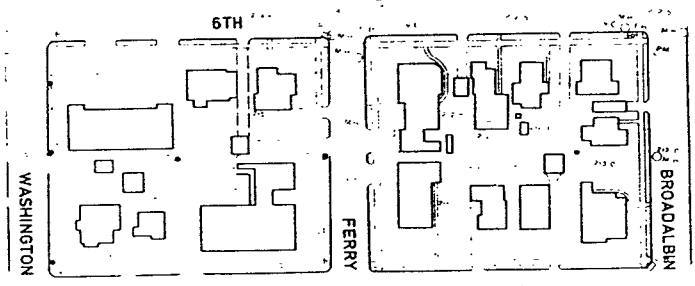
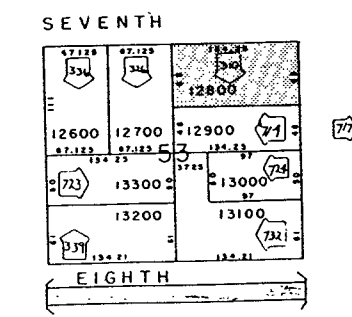
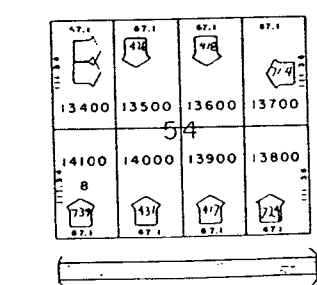
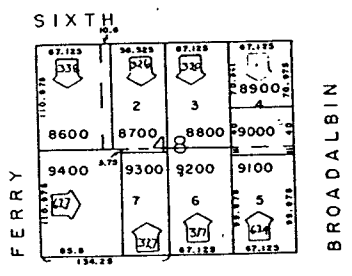
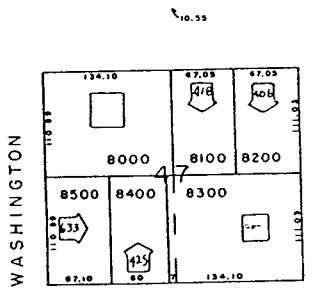
224. 310 Seventh Avenue SW
Significance: Compatible
Use: Residence

Frances
Present Owner: Max/Rohrbough Attachment B.5
310 Seventh Avenue SW
Tax Lot: 11-3W-7BB-12800

Description:

Large two story wood frame residence with gable roof and triple windowed dormer facing the front. Has five, six over one windows on upper level with shutters and four, six over one windows on ground level. Has extensions on sides with sun porches. Gabled portico over entrance and two exterior chimneys on ends of main building.

310 7th



Linn County Tax Data File

Tax lot #..... 11S03W07BB12800
Tax acct #..... 0092326
Site address.. 310 7TH AVE SW

In-City? Y

Owner..... ROHRBOUGH, JACK D
Address-1..... ROHRBOUGH, KEITH J
Address-2..... ZITO, MARY S ETAL
Address-3..... C/O MAX H & FRANCES H ROHRBOUGH
Address-4..... 310 7TH AVE SW
Address-5..... ALBANY, OR 97321-2359

Property class... 1011 Tax Code #1...0801
Stat class..... 550 Tax Code #2...0000

Land market value... 20,030
Imp. market value... 113,580

Of course, since Sears's big general merchandise catalogs were already selling everything needed to furnish a house—from beds and chairs to toilets, sinks, and kitchen ranges—the sales of all these items would increase too!

Kushel's boss, Richard Sears—himself no slouch at merchandising—recognized the plan's potential immediately and so did the buying public. Sears's reputation for quality, low prices, and reliability, carefully nurtured since the company's founding in 1886, was like money in the bank for its customers. The company's first, 44-page *Book of Modern Homes and Building Plans*, issued in 1908, brought an immediate and enthusiastic response.

Kushel wasn't the only or even the first person to come up with a scheme to sell houses by catalog and ship them by rail. In 1906 the North American Construction Company (soon to become known as the makers of "Aladdin Houses" and "Readi-Cuts") of Bay City, Michigan, had begun selling rail-shipped precut buildings—small cottages, garages, and boathouses—out of a mail-order plan book. It wasn't until about 1911 that Sears included framing lumber in its package, and the company didn't begin to offer precut and factory-fitted lumber until 1914. Before then, the lumber still had to be cut to fit at the building site. Montgomery Ward, Sears's foremost catalog competitor in general merchandise, was even slower to jump on the bandwagon, waiting until 1910 to sell house plans from a catalog and 1918 for ready-cut houses. Sears and its competitors all depended on rail service, which by the early 20th century covered most of the continent, and regional lumber mills where the wood could be centrally processed.

In 1911, Sears added an irresistible new twist. The company decided not just to sell house-building packages, but to finance them as well. The nation's booming population was straining the seams of a tight housing market, yet the huge and fast-growing middle and working classes (many members of which were recent European immigrants) had been largely ignored by a conservative banking community. If Sears could offer reasonable interest rates and low down payments, the market seemed endless. Although the financing package initially included only building materials, it soon expanded to cover the building lot.

Not only were the terms easy—a down payment of 25 percent of the cost of house and lot, as little as 6 percent interest for 5 years, or a higher rate for up to 15 years—but the application form contained no questions about race, ethnicity, gender, or even finances. Thousands of formerly ineligible buyers were absorbed into the new-home market.

Catalogs by Category

There is a tendency to think of the "Sears House" as a monolithic entity, but there were actually many different Sears catalogs that offered houses and auxiliary buildings, such as garages. Others continued to sell just lumber and building parts, which had been a Sears staple. Distinctions among the buildings offered, the quality of the materials, and the construction methods used can be confusing.

On one level was what Sears called a house kit. For these, Sears provided building plans and specifications, along with the lumber and any other materials needed. The shipment included everything from nails, screws, and paint to prebuilt building parts, such as staircases and dining nooks. It did not include masonry, such as bricks and cement blocks, which would be cheaper to procure locally than to send by rail. The lumber was cut to size at the building site before being assembled by a local builder.

Ready-Cut The true Ready-Cut House package, first offered about 1914, included plans, specifications, and detailed assembly instructions, along with precut and factory-fitted lumber and all other building materials except masonry. The lumber was stamped with the Sears name and numbered on the ends of the boards to correspond to numbers on the floor plans, so that mistakes in assembly were less likely-though far from impossible, as many extant Sears houses testify by their otherwise inexplicable deviations. Sears estimated that using their precut and fitted lumber could save 40 percent on labor costs.

In theory, really handy homeowners could-and some did-put together their own Sears houses with only the aid of the instruction manual. More often, the actual construction was left to-or at least required considerable help from-a local builder. Over the 30-year lifespan of the Modern Homes program, the various service systems within the house-such as plumbing, electricity, and heating-became more complex, so that owners were more likely to call in trade specialists. At any rate, Sears always furnished estimates of the finished cost of the house, including labor (not part of the Sears package).

Honor Bilt Among Ready-Cut Houses, the Honor Bilt line (apparently established about 1918) was the standard setter. Honor Bilts used high-quality materials and heavy framing. They had double floors (a subfloor and a 13/16" thick finish floor of maple or oak), oak wall paneling, doors, trim, and cabinets, three coats of exterior paint, and higher-grade hardware.

Sears encouraged Honor Bilt buyers to specify the more deluxe bathroom "outfits"-sets of tubs, sinks, and toilets-and kitchen sinks, all of which were optional and separately priced. Electrical systems, water heaters, and furnaces were also separate options. The Honor Bilts were generally larger, more elaborate houses than the ones that Sears called "Standard Bilts."

In a few cases, Honor Bilts were not precut. Sears furnished wood lath for plaster walls, but not the plaster. Alternatively, customers could opt for "sheet plaster" (gypsum board, an early form of wallboard) at considerably greater expense. For roofing, they could choose between red cedar shingles or the costlier "Oriental Asphalt" shingles, which came with a 17-year guarantee.

Standard Bilts Less expensive than the Honor Bilt and of correspondingly lower quality was the Standard Built House (also known as Econo Bilt or Lighter-Built). The lightly framed Standard Bilts were most often used for summer cottages, hunting cabins, and very small dwellings, and were generally recommended for

warm-weather situations. Some designs were offered in both Honor Bilt and Standard Built versions. Sears advised potential buyers that, because the Standard BUILTS had only a single layer of flooring and the walls were not plastered, they were harder to heat than Honor BILTS. Nonetheless, these little light-weights sometimes turn up even today as year-round residences. They were usually not pre-cut or fitted.

Simplex The Simplex was a prefabricated, panelized, one-storey building that could easily be taken apart. Demountable and portable, it was most often used for garages, summer cottages and cabins, and small, utilitarian buildings that the owner might wish to move from place to place. There are separate Simplex catalogs dating from as early as 1911.

What Styles When?

Modern Homes catalogs were issued most years (apparently sometimes twice a year) from 1908 until 1940, although there are a few years for which no catalogs are presently known. In the beginning, Modern Homes designs were assigned numbers rather than names, but soon titles—often suggesting a style provenance—began to accompany the attractive illustrations. Sears knew its audience well and its designs were those most popular at the time. The styles were deliberately conservative rather than innovative.

Beginning with a simplified Queen Anne, Modern Homes styles ranged from Arts & Crafts bungalows and Foursquares in the 1910s and '20s, through the various European revivals of vaguely French, English, and Spanish (usually Mission) styles in the 1920s, to the Colonial Revivals, Cape Cods, and Dutch Colonials found mostly in the 1920s and '30s.

Modern Homes catalogs often carried designs well past what is generally considered their peak years. Bungalows, for instance, were among the most frequently built of all of Sears house types (and along with the Colonial Revival and the Cape Cod cottage the longest-lived), appearing in every catalog from 1908 onward. As late as 1939 the "Winona," which first appeared in 1916, is shown with another, rather stodgy five-room example, the "Plymouth," which first appeared in 1934.

Although most designs were conservative, there were some large and elegant surprises. One of the most elaborate (described in the 1918 and 1921 catalogs as bearing "a close resemblance" to Henry Wadsworth Longfellow's Cambridge, Massachusetts, residence) is the three-storey, eight-room neo-Georgian "Magnolia," with its two-storey columned portico, porte-cochere, and sleeping porches. The "Aurora" and the "Carlton," both of which appear in 1918, are sophisticated Prairie School designs, and the flat-roofed "Bryant" is in the International style. The 1933 to 1939 catalogs feature several early split-levels, including the "Concord."

Sears's later catalogs included a number of Sears-built exhibition houses, including two reproductions of Mount Vernon (one for a 1931 exposition in Paris and one for a Washington Bicentennial celebration in Brooklyn); a reproduction of New York City's Federal Hall, the first capitol of the United States (also for the

Washington Bicentennial); a "dream home" for Warner Brothers (erected in Pittsburgh, Pennsylvania); and a fully furnished model house exhibited at the 1933 Century of Progress World's Fair in Chicago.

Insider Information

Sears prided itself on offering floor plans that were both efficient and attractive, maximizing the usability of very limited space. The smaller houses sometimes combined living and dining rooms, while the smallest made do with a built-in eating nook or the kitchen table.

Most of the houses had two or three bedrooms, although some had four or even five. The majority had only one bathroom, and some, especially in the early 20th century, had none, since many rural and even some suburban areas lacked piped-in water and sewers or septic fields. By the 1930s, though, quite a few of the larger houses had two (or even two and a half bathrooms) or a full bath and a "powder room." Buyers had their choice of two different "outfits," depending on their tastes and pocketbooks and on the requirements of the bathroom layout. Kitchen sinks were included in the specifications.

The Sears house was often equipped with the most sought after conveniences of its time, from built-in china cabinets, mirrored closet doors, dining nooks and kitchen cupboards, to built-in ironing boards, telephone niches, and medicine cabinets. Some of these amenities came as part of the package, while others were options.

Sears houses were often built in multiples, creating entire homogeneous neighborhoods. A number of these still exist, many in industrial towns. One of the best known Sears house locations is in Carlinville, Illinois, where Standard Oil of Indiana built a million-dollar development of 192 Honor Bilt houses for employees of Schoper coal mine (156 intended for miners and other workers, an additional 28 nearby and somewhat more deluxe meant for supervisors). The five- and six-room houses of what became known as the Standard Addition, which included many bungalows and Foursquares, cost roughly \$3,600 to \$4,600 and were regarded as unusually fine examples of worker housing.

On the other end of the socioeconomic scale are places like Cheverly, Maryland, or Crescent Hills in Hopewell, Virginia, both affluent neighborhoods of "strictly high-class [Sears] homes" built by private developers in the 1920s. (Hopewell also has a large group of Aladdin houses built during World War I for workers at the DuPont Corporation's gun-cotton factory there.)

The Modern Homes mortgage program peaked in the late 1920s but showed increasing signs of strain as the full effects of the Great Depression hit. Sears withdrew from the Modern Homes and mortgage loan market in 1934, but was selling houses again a year later, after the establishment of the Federal Housing Administration and its federally insured mortgages fueled a brief upsurge in the housing market. The Modern Homes program was finally defeated by tens of millions of dollars in mortgage defaults, as well as pre-

World War II shortages of building materials. The last Modern Homes catalog was issued in 1940.

By the time the Modern Homes project folded for good, Sears houses were a staple of the American landscape. Frank Kushel continued to head the Modern Homes program until the end, by which time he was still hardly any better known than he had been in 1906. And Frank Lloyd Wright? Interestingly enough, Wright—who always had a strong interest in designing houses for Everyman—entered the pre-cut home market himself when he produced a number of designs for prefabricated houses, American System-Built Houses, for the Richards Company of Milwaukee between 1911 and 1916.

Why It Isn't Always Easy to Know If You Have a Sears House

One of the most frustrating aspects of owning what seems to be a Sears house is the difficulty in finding proof of its provenance. Sometimes the origins of a house that nearly, or, for that matter, exactly, matches a catalog illustration can't be traced beyond all doubt.

The first problem is that in more than 32 years of catalog sales, Sears offered 447 different designs, according to the "Sears Archives." Because most of the houses are small and simple in style, they often resemble those found in the catalogs of other ready-cut companies—or even from enterprising local copycat builders.

Then, too, Sears encouraged potential buyers to customize their designs with the aid of Sears's architectural department—flip a floor plan; change a roofline; add or subtract a room; a porch, or a window; use a different entry detail, etc. Or, the houses may have been altered during construction, either inadvertently or by the owner. And because these were often small "starter" houses, many were altered and added to long after construction.

Another mystery: While many Sears pre-cut and fitted wood pieces (rafters, beams, sills, lintels, woodwork, and mouldings) are stamped with the Sears name and/or numbered for ease of assembly, sometimes there are no markings to be found. This could be because Sears encouraged customers to buy lumber locally if it was cheaper than shipping from a Sears mill. Sears door and cabinet hardware, lighting and plumbing fixtures, and other building parts were also marked but might have been bought for a non-Sears house.

Finally, although Sears houses consistently display certain construction details (five-piece eaves brackets, front porches, and small attic windows, for instance) so do other well-designed ready-cut and conventional houses of the period. So unless the paperwork (mortgage agreement, floor plans, materials list, correspondence, building permits listing Sears as the "architect") or a credible family or neighborhood oral history exists, it may be hard to know where the house originated—though it's always fun to keep digging.

Still Curious?

If you're burning for more information, you can log on to the Sears Archive's popular Modern Homes Web site (www.modernhomes.com), where users are invited to register their Sears houses and ask questions. (Typical queries: "How can I tell whether my house is a Sears model?" and "Where can I get authentic reproduction Sears furniture for my 1920s Sears house?") All 447 designs are listed, along with the years in which they were produced, and many are illustrated. (More illustrations will be added as time goes on.) The text pages are printable.

The classic study of Sears houses is *Houses by Mail: A Guide to Houses from Sears, Roebuck and Company* by Katherine Cole Stevenson and H. Ward Jandl, published in 1986. The most recent is *The Houses That Sears Built: Everything You Ever Wanted to Know about Sears Catalog Homes* by Rosemary Thornton, which came out in March 2002. □

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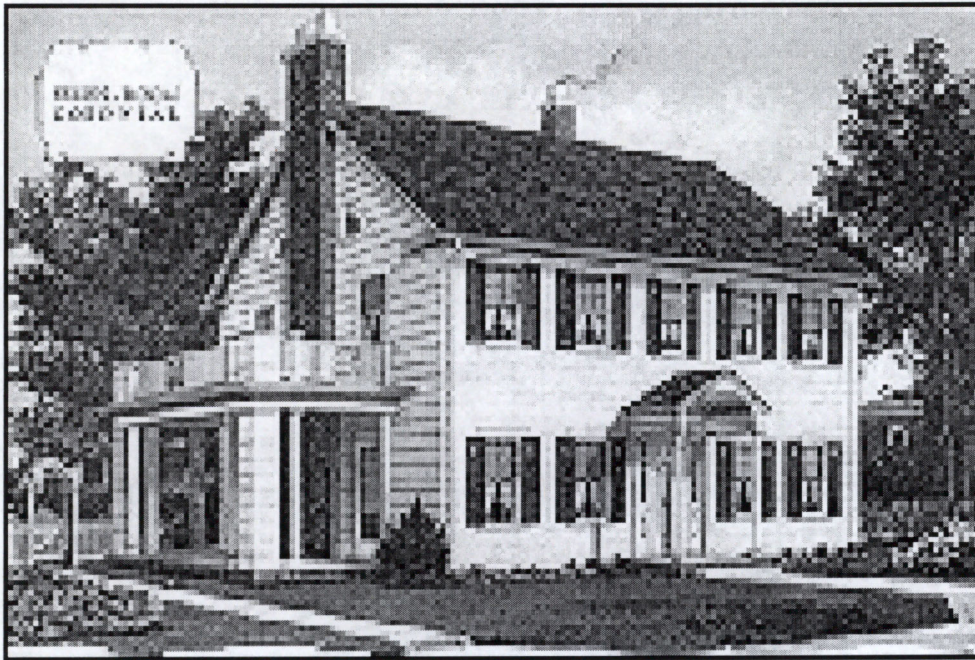
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main
story

The Story on Sears

Houses by rail and mail.

By Shirley Maxwell and James C. Massey

Remember Frank W. Kushel? No? Well, you're not alone. And more's the pity, we might add, for the uncelebrated Mr. Kushel may have had as much impact on American housing as his famous contemporary, Frank Lloyd Wright.

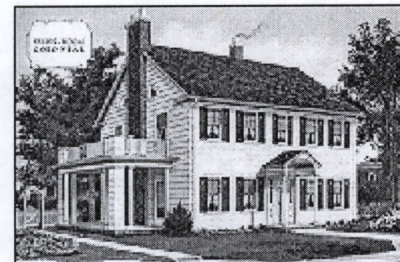
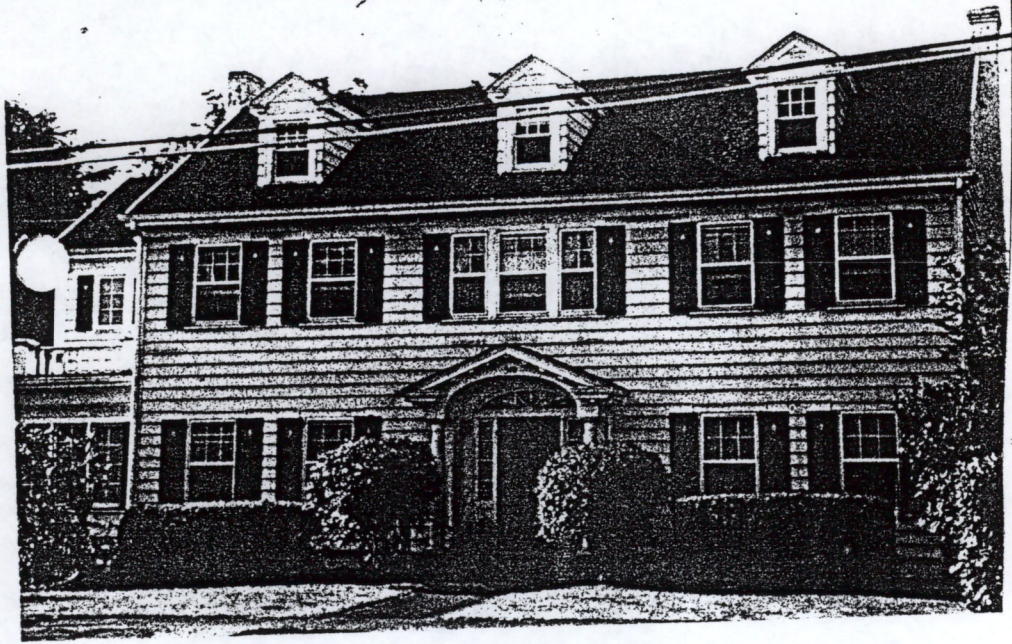


Illustration Courtesy of James C. Massey Archive

Kushel wasn't an architect. He was a merchandising genius credited with inventing Sears, Roebuck and Company's Modern Homes program, which provided well designed, well constructed, economical shelter for perhaps 75,000 American families between 1908 and 1940. Today, buyers are still snapping up vintage Sears houses just as eagerly as they did 80 years ago.

Kushel was managing Sears's china department in 1906 when he was given the dismal task of overseeing the dismantling of the catalog company's unwieldy, money-losing building materials department. Sales were down, and there was too much inventory sitting in expensive warehouses. It seemed time to unload the lot.

Then, hmmm . . . Kushel had an idea. He was convinced that the building supplies could be sold at a profit if storage could be centralized and the goods distributed more rationally-and if there was a little extra incentive for buying them. Instead of abandoning the sale of millwork and other building parts, why not change the way these goods were sold? What if customers could pick a plan for their dream house from a Sears catalog? Then, instead of selling building materials in random bits and pieces, Sears could market them in a coordinated package-one containing exactly what was needed to build a particular house and shipped directly to the railroad station nearest the building site. One order could include everything-nails and screws, paint and roof shingles, windows and doors, woodwork, staircases, and mantelpieces.



310 w 7th
(Rohrbaugh

(

310 7th
W face (R)
H-5



310 7th
E face ④
H-3





A. Meter Main with breakers for solar
B. AC shutoff within 10 feet of meter
C. Micro Inverters under solar

Minimum 3' border on bottom of array if roof is 2/12 pitch or less. 1' on top, 3' on sides.
Std. truss construction.
Plans meet 2019/2021 OSSC Section 3111. All attachments less than 3' from the roof edge will be every 2', otherwise every 4'

ANDERSON RESIDENCE SOLAR ADEQUACY CHECK

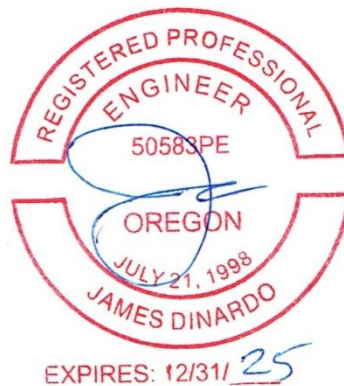
310 SW 7TH AVE
ALBANY, OREGON 97321

FEBRUARY 26, 2024
JOB# 23-0270

STRUCTURAL CALCULATIONS
BY

STABILITY 
ENGINEERING INC.

P.O. BOX 2646 · CORVALLIS, OREGON 97339
P: 541.223.5360 F: 541.223-5278
INFO@STABILITYENGINEERS.COM



CALCULATIONS

1-3

23-0843-

310 SW 7th
SOLAR

J. D. NARDO
Attachment C.3

→ CHECKING EXISTING ROOF FOR ADDITION OF SOLAR PANELS.

PANEL WT → 2.15 PSF

- HOME BUILT IN 1924
- R.S OLD GROWTH 2X4 RAFTERS

DEAD LOAD OF ROOF W/ SOLAR PANELS

- ROOFING - COMP = 3 PSF
- R.S 2X4 @ 24" O.C = 1 PSF
- 1 X 8 FLAT @ 12" O.C = 1.5 PSF
- 1/2" SHEATHING = 1.5 PSF
- INSULATION 4" = 1.5 PSF
- 1 X CEILING = 2.3 PSF
- MISC = 1.5 PSF
- SOLAR PANELS = 2.15 PSF

13.45 PSF

→ SEE ATTACHED - FRAMING ADEQUATE

Location: Existing rafters with solar panels
Roof Rafter

[2015 International Building Code(2015 NDS)]
2.0 IN x 4.0 IN x 17.0 FT (10 + 7) @ 24 O.C.
Select Structural - Douglas-Fir-Larch - Dry Use
Section Adequate By: 0.2%
Controlling Factor: Deflection



James DiNardo, PE
Stability Engineering inc
P.O. Box 2646
Corvallis, Oregon 97339

<u>DEFLECTIONS</u>	<u>Left</u>	<u>Center</u>
Live Load	0.52 IN L/276	0.15 IN L/695
Dead Load	0.28 in	-0.02 in
Total Load	0.80 IN L/180	0.15 IN L/662
Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180		

<u>REACTIONS</u>	<u>A</u>	<u>B</u>	<u>C</u>
Live Load	213 lb	545 lb	157 lb
Dead Load	130 lb	354 lb	68 lb
Total Load	343 lb	899 lb	225 lb
Uplift (1.5 F.S)	0 lb	0 lb	-7 lb
Bearing Length	0.27 in	0.72 in	0.18 in

<u>SUPPORT LOADS</u>	<u>A</u>	<u>B</u>	<u>C</u>
Live Load	107 plf	273 plf	79 plf
Dead Load	65 plf	177 plf	34 plf
Total Load	172 plf	450 plf	113 plf

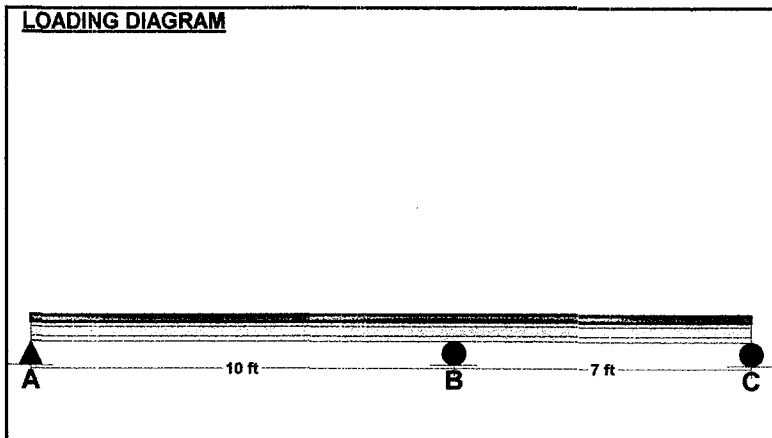
MATERIAL PROPERTIES
Select Structural - Douglas-Fir-Larch

	<u>Base Values</u>	<u>Adjusted</u>
Bending Stress:	Fb = 1500 psi Cd=1.15 CF=1.50 Cr=1.15	Fb' = 2976 psi
Shear Stress:	Fv = 180 psi Cd=1.15	Fv' = 207 psi
Modulus of Elasticity:	E = 1900 ksi	E' = 1900 ksi
Comp. \perp to Grain:	Fc \perp = 625 psi	Fc \perp ' = 625 psi

Controlling Moment: -814 ft-lb
10.001 Ft from left support of span 1 (Left Span)
Created by combining all dead loads and live loads on span(s) 1, 2

Controlling Shear: -411 lb
9.985 Ft from left support of span 1 (Left Span)
Created by combining all dead loads and live loads on span(s) 1, 2

<u>Comparisons with required sections:</u>	<u>Req'd</u>	<u>Provided</u>
Section Modulus:	3.28 in3	5.33 in3
Area (Shear):	2.98 in2	8 in2
Moment of Inertia (deflection):	10.64 in4	10.67 in4
Moment:	-814 ft-lb	1323 ft-lb
Shear:	-411 lb	1104 lb



RAFTER DATA

	<u>Left</u>	<u>Interior</u>
Span Length	10 ft	7 ft
Rafter Pitch	8 :12	
Roof sheathing applied to top of joists-top of rafters fully braced.		
Sheathing/sheetrock applied to bottom of joists-bottom of rafters fully braced.		
Roof Duration Factor	1.15	
Peak Notch Depth	0.00	
Base Notch Depth	0.00	

RAFTER LOADING

Uniform Roof Loading

Roof Live Load:	LL =	25 psf
Roof Dead Load:	DL =	13.5 psf

Slope Adjusted Spans And Loads

Left Span:	L-adj =	12.02 ft
Interior Span:	L-adj =	8.41 ft
Eave Span:	L-Eave-adj =	0 ft
Left Live Load:	wL-adj =	35 plf
Interior Live Load:	wL-adj =	35 plf
Eave Live Load:	wL-Eave-adj =	NaN plf
Left Dead Load:	wD-adj =	22 plf
Interior Dead Load:	wD-adj =	22 plf
Eave Dead Load:	wD-Eave-adj =	NaN plf
Left Total Load:	wT-adj =	57 plf
Interior Total Load:	wT-adj =	57 plf
Eave Total Load:	wT-Eave-adj =	NaN plf

Project: 23-0843 - 310 SW 7th-Solar

Location: end section-unoccupied
Collar Tie

[2015 International Building Code(2015 NDS)]

2.0 IN x 4.0 IN x 6.0 FT @ 24 O.C.

Select Structural - Douglas-Fir-Larch - Dry Use

1.5 x 3.5 Solid Sawn Lumber with minimum Ft = 575

Section Adequate By: 139.0%

Controlling Factor: Shear



James DiNardo, PE
Stability Engineering inc
P.O. Box 2646
Corvallis, Oregon 97339

Attachment C.5

page

3
of

StruCalc Version 10.0.1.6

3/5/2024 2:04:27 PM

DEFLECTIONS		Center
Live Load	0.12	IN L/693
Dead Load	0.07	in
Total Load	0.19	IN L/450
Live Load Deflection Criteria: L/240 Total Load Deflection Criteria: L/180		

RAFTER REACTIONS		
	LOADS	REACTIONS
Lower Live Load @ A & B	181 plf	361 lb
Lower Dead Load @ A & B	98 plf	195 lb
Lower Total Load @ A & B	278 plf	556 lb
Collar Tie Tension		416 lb

RAFTER SUPPORT DATA	
	B
Bearing Length	0.44 in

RAFTER DATA		Interior
Span Length	6	ft
Unbraced Length-Bottom	7.21	ft
Rafter Pitch	8	:12
Collar Tie Location	4.25	ft
Roof Duration Factor	1.15	
Peak Notch Depth	0.00	
Base Notch Depth	0.00	

RAFTER LOADING		
Uniform Floor Loading		
Roof Live Load: LL =	25	psf
Roof Dead Load: DL =	13.5	psf
Slope Adjusted Spans And Loads		
Interior Span: L-adj =	7.21	ft
Eave Span: L-Eave-adj =	0	ft
Rafter Live Load: wL-adj =	35	plf
Eave Live Load: wL-Eave-adj =	35	plf
Rafter Dead Load: wD-adj =	22	plf
Rafter Total Load: wT-adj =	57	plf
Eave Total Load: wT-Eave-adj =	57	plf

MATERIAL PROPERTIES

	Base Values	Adjusted
Bending Stress:	Fb = 1500 psi	Fb' = 2976 psi
	Cd=1.15 CF=1.50 Cr=1.15	
Shear Stress:	Fv = 180 psi	Fv' = 207 psi
	Cd=1.15	
Modulus of Elasticity:	E = 1900 ksi	E' = 1900 ksi
Comp. ⊥ to Grain:	Fc ⊥ = 625 psi	Fc ⊥' = 625 psi

Controlling Moment: 416 ft-lb
3.004 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Controlling Shear: -462 lb
5.824 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	Req'd	Provided
Section Modulus:	1.68 in3	5.33 in3
Area (Shear):	3.35 in2	8 in2
Moment of Inertia (deflection):	4.27 in4	10.67 in4
Moment:	416 ft-lb	1323 ft-lb
Shear:	-462 lb	1104 lb

COLLAR TIE DESIGN

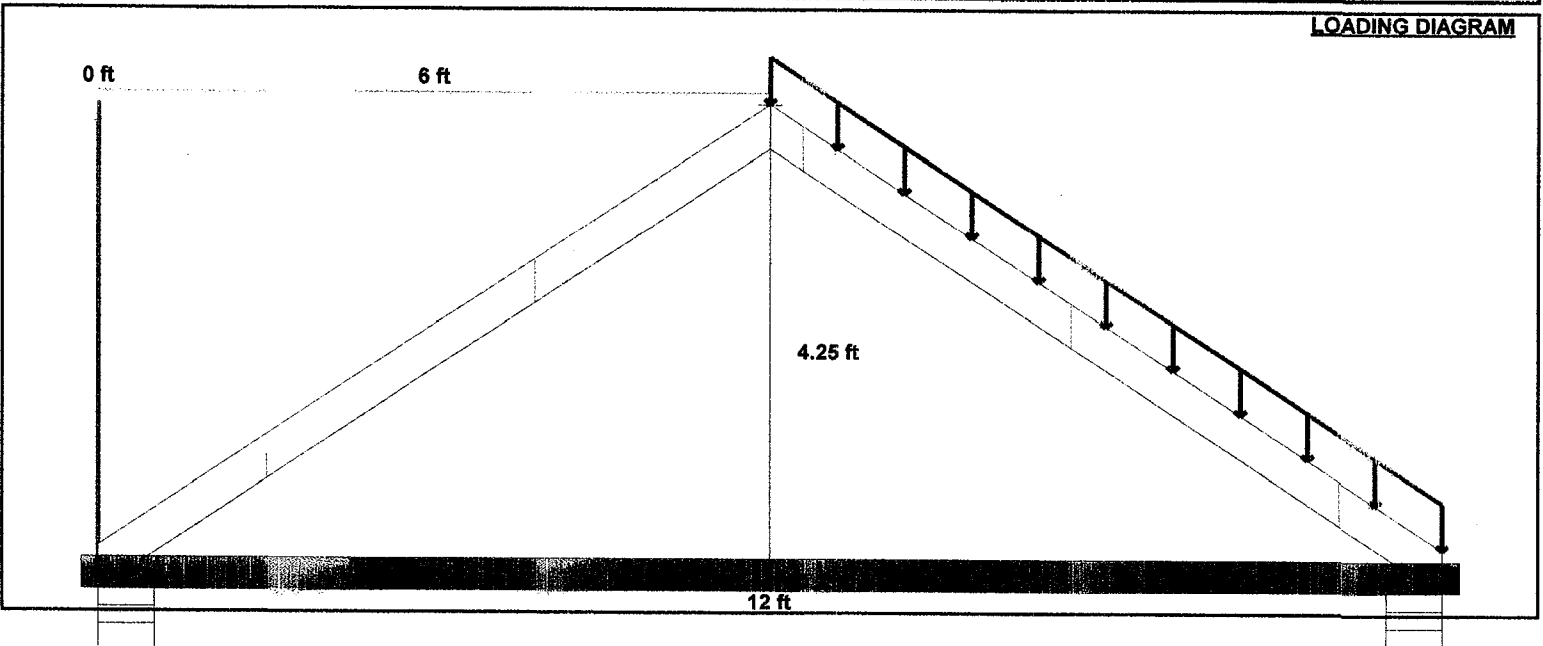
1.5 x 3.5 Solid Sawn Lumber with minimum Ft = 575

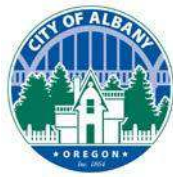
	Base Values	Adjusted
Tension Parallel to Grain	Ft = 575 psi	Ft' = 992 psi
	Cd=1.15 Cf=0.00	

Collar Tie Location	4.25 ft
Collar Tie Tension	416 lb
Collar Tie Capacity	5207 lb

Nailing Required @ Both Ends

16d Common	3 Nails
16d Sinker	4 Nails
16d Box	4 Nails





COMMUNITY DEVELOPMENT

333 Broadalbin Street SW, PO Box 490, Albany, Oregon 97321-0144 | BUILDING 541-917-7553 | PLANNING 541-917-7550

PLANNING APPLICATION

APPLICANT/OWNER & AUTHORIZING SIGNATURES

To be included with ALL City of Albany planning submittals
Send completed application and checklist(s) to eplans@cityofalbany.net

- Adjustment (AD)
- Alternative Setback
- Annexation (AN)
- Comprehensive Plan Amendment CP
 - Map Amendment
 - Map Amendment; concurrent w/zoning
 - Text Amendment
- Conditional Use - Type II or III (circle one)
 - Existing Building: expand or modify
 - New Construction
 - Home Business (Type III only)
- Development Code Text Amendment (DC)
- Floodplain Development Permit (FP)
- Historic Review (HI)
 - Exterior Alteration (Type I or III)
 - New Construction (Type III or I-L)
 - Demolition or Moving (Type III)
 - Substitute Materials (Type III)
- Interpretation of Code (CI)
 - Quasi-Judicial (Type II)
 - Legislative (Type IV)
- Land Division (check all that apply)
 - Partition (PA)
 - Tentative Plat (Type I-L or III)
 - Final Plat (Type I)
 - Subdivision (SD)
 - Tentative Plat (Type III)
 - Final Plat (Type I)
 - Tentative Re-plat Type I-L (RLD)
- Modification – Approved Site Plan or Conditional Use
- Natural Resource Boundary Refinement
- Natural Resource Impact Review (NR)
- Non-Conforming Use (MN)
- Planned Development (PD)
 - Preliminary (Type III)
 - Final (Type I)
- Property Line Adjustment (PLA)
- Site Plan Review (SPR)
 - Accessory Building
 - Change of Use, Temporary or Minor Developments
- Manufactured Home Park
- Modify Existing Development
- New or Existing Parking Area Expansion
- New Construction
- Tree Felling
- Temporary Placement (TP)
- Urban Growth Boundary (UGB)
- Vacation (VC)
 - Public Street or Alley
 - Public Easements
 - Variance (VR)
 - Willamette Greenway Use (WG)
- Zoning Map Amendment (ZC)
 - Quasi-Judicial (Type IV)
 - Legislative (Type IV)
- Other Required (check all that apply)
 - Design Standards
 - Hillside Development
 - Mitigation
 - Parking/Parking Lot
 - Traffic Report
 - Other _____

Location/Description of Subject Property(ies)

Site Address(es): 310 7th Ave SW, Albany, Or 97321

Assessor's Map No(s): _____ Tax Lot No(s): _____

Comprehensive Plan designation: _____ Zoning designation: _____

Size of subject property(ies): _____ Related Land Use Cases: _____

Project Description: Rooftop solar

Historic Overlay Natural Resource Overlay District Floodplain or Floodway Overlay

Applicant Information (mailed)

Name: James Anderson Signature: James Anderson

Mailing Address: 310 7th Ave SW Date: 11/23/20

City: Albany State: Or Zip: 97321

Phone #: 801-499-6575 Fax #: _____ Email: james.r.anderson@utah.edu

File #(s): _____ Date Fee & Application Received: _____

Pre-App File #(s): _____ Pre-App Meeting Date: _____

Amount Paid: _____ Received By: _____

Property Owner Information (must be signed)

Same as Applicant

Name: James Anderson Signature: James Anderson
Mailing Address: 310 7th Ave SW Date: 4/8/24
City: Albany State: Or Zip: 97321
Phone #: 8014996575 Fax #: _____
Email: james.r.anderson@utah.edu

Authorized Agent or Representative (must be signed, if applicable)

Choose One: Engineer Architect Other Installer
Name: Peter Greenberg Signature: Peter Greenberg
Mailing Address: 2340 15th Ave SW Date: 11/23/20
City: Albany State: Or Zip: 97321
Phone #: 541-905-2271 Fax #: _____
Email: nrgwise.lighting@gmail.com
Relationship to property owner(s): Installer for solar system

Electronic Plans Representative (if different from applicant)

IF MORE THAN ONE, PROVIDE THE FOLLOWING INFORMATION FOR EACH; THEY WILL BE SENT ALL CITY NOTICES

Choose One: Engineer Architect Other Electrician
Name: John Craig Signature: John Craig
Mailing Address: 1215 1/2 River Road Date: 11/23/20
City: Eugene, State: Or Zip: _____
Phone #: 541-915-8276 Fax #: _____
Email: johndcraig@msn.com

Other Representative (must be signed, if applicable)

Choose One: Engineer Architect Other _____
Name: _____ Signature: _____
Mailing Address: _____ Date: _____
City: _____ State: _____ Zip: _____
Phone #: _____ Fax #: _____
Email: _____



PUBLIC WORKS - COMMUNITY DEVELOPMENT

333 Broadalbin Street SW, PO Box 490, Albany, Oregon 97321-0144 | BUILDING 541-917-7553 | PLANNING 541-917-7550

Historic Review of Exterior Alterations

Checklist and Review Criteria

Information and Instructions

- ⊕ See fee schedule for filing fee (*subject to change every July 1*): staff will contact you for payment after submittal.
- ⊕ All plans and drawings must be to scale, and review criteria responses should be provided as specified in this checklist.
- ⊕ Email all materials to plans@cityofalbany.net. Please call 541-917-7550 if you need assistance.
- ⊕ Depending on the complexity of the project, paper copies of the application may be required.
- ⊕ Before submitting your application, please check the following list to verify you are not missing essential information. An incomplete application will delay the review process.

Historic Review of Exterior Alterations Submittal Checklist

PLANNING APPLICATION FORM WITH AUTHORIZING SIGNATURES

PROPERTY & PROJECT INFORMATION

Submit the following information (separately or on this page):

1) Historic District:

Monteith Hackleman Downtown Local Historic Commercial/Airport

2) Historic rating:

Historic Contributing Historic Non-Contributing Non-Historic (post 1945)

3) House Architectural Style(s): Colonial

4) Construction Date: 1924

5) Please describe the proposed alteration(s) and the purpose of the alterations: _____

adding solar panels onto roof, visible from about 15-20 feet of Broadalbin

Historic Review of Exterior Alterations

Solar panels on 310 7th Ave SW, Albany, Or 97321

Review Criteria:

The solar will be visible from Broadalbin

The solar panels will be on the roof and will not alter the exterior building looks.

Little known to most people, solar water heaters, which also use the sun to produce energy were available for over 123 years. In 1897, 30% of Pasadena had solar water heaters which also were housed in metal boxes topped with glass. In fact, the modern day gas water heater was designed by a solar company.

By 1900 there were 1600 solar water heaters in southern California

The first modern flat plate solar collector
invented by William Bailey in 1909

- used separate storage tank
- company was called Day & Night



Panoma Valley, CA, 1911

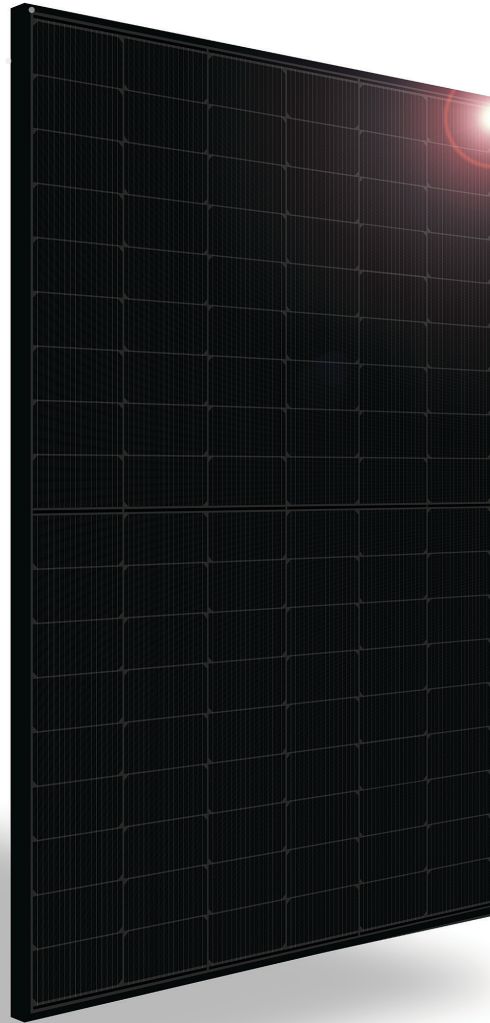


Laundry in FL in the 1930s

By 1941 there were 60,000 Day & Night solar water heaters in Florida

SILFAB PRIME NTC

SIL-420/430 QD



INTRODUCING NEXT-GENERATION N-TYPE CELL TECHNOLOGY

- Improved Shade Tolerance
- Improved Low-Light Performance
- Increased Performance in High Temperatures
- Enhanced Durability
- Reduced Degradation Rate
- Industry-Leading Warranty



SILFABSOLAR.COM



ELECTRICAL SPECIFICATIONS		420		430	
Test Conditions		STC	NOCT	STC	NOCT
Module Power (Pmax)	Wp	420	313	430	321
Maximum power voltage (Vpmax)	V	33.08	30.86	33.25	31.02
Maximum power current (Ipmax)	A	12.70	10.15	12.93	10.33
Open circuit voltage (Voc)	V	38.84	36.52	38.91	36.58
Short circuit current (Isc)	A	13.50	10.85	13.87	11.15
Module efficiency	%	21.5%	20.1%	22.1%	20.6%
Maximum system voltage (VDC)	V	1000			
Series fuse rating	A	25			
Power Tolerance	Wp	0 to +10			

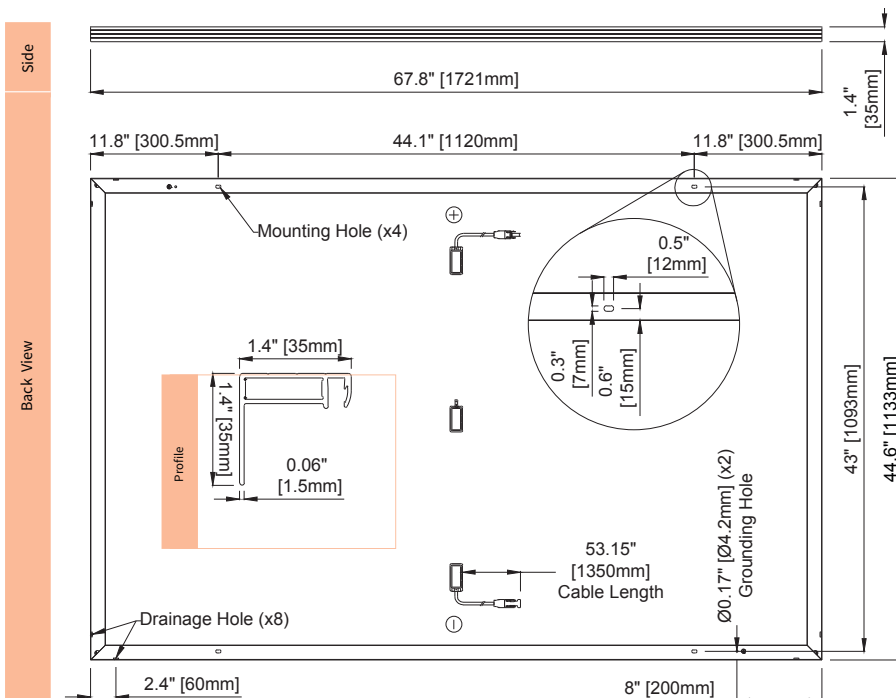
Measurement conditions: STC 1000 W/m² • AM 1.5 • Temperature 25 °C • NOCT 800 W/m² • AM 1.5 • Measurement uncertainty ≤ 3%
 Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by 0 to +10 W.

MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL
Module weight	21 kg ± 0.2 kg	46.3 lbs ± 0.4 lbs
Dimensions (H x L x D)	1721 mm x 1133 mm x 35 mm	67.8 in x 44.6 in x 1.37 in
Maximum surface load (wind/snow)*	4000 Pa rear load / 5400 Pa front load	83.5 lb/ft ² rear load / 112.8 lb/ft ² front load
Hail impact resistance	Ø 25 mm at 83 km/h	Ø 1 in at 51.6 mph
Cells	108 Half cells - N-Type Silicon solar cell 182 mm x 91 mm	108 Half cells - N-Type Silicon solar cell 7.16 in x 3.58 in
Glass	3.2 mm high transmittance, tempered, antireflective coating	0.126 in high transmittance, tempered, antireflective coating
Cables and connectors (refer to installation manual)	1350 mm, Ø 5.7 mm, MC4 from Staubli	53.1 in, Ø 0.22 in (12 AWG), MC4 from Staubli
Backsheet	High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, fluorine-free PV backsheet	
Frame	Anodized aluminum (Black)	
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated, 3 diodes	

TEMPERATURE RATINGS		WARRANTIES	
Temperature Coefficient Isc	0.04 %/°C	Module product workmanship warranty	25 years**
Temperature Coefficient Voc	-0.24 %/°C	Linear power performance guarantee	30 years
Temperature Coefficient Pmax	-0.29 %/°C		≥ 98% end 1st yr ≥ 94.7% end 12th yr ≥ 90.8% end 25th yr ≥ 89.3% end 30th yr
NOCT (± 2 °C)	45 °C		
Operating temperature	-40/+85 °C		

CERTIFICATIONS		SHIPPING SPECS	
Product	UL 61215, UL 61730, CSA C22.2#61730, IEC 61215, IEC 61730, IEC 61701 (Salt Mist Corrosion), IEC 62716 (Ammonia Corrosion), CEC Listed, UL Fire Rating: Type 2	Modules Per Pallet:	26 or 26 (California)
Factory	ISO9001:2015	Pallets Per Truck	32 or 30 (California)
		Modules Per Truck	832 or 780 (California)

* ⚠ Warning. Read the Safety and Installation Manual for mounting specifications and before handling, installing and operating modules.
 ** 12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at silfabsolar.com.
 PAN files generated from 3rd party performance data are available for download at: silfabsolar.com/downloads.



SILFAB SOLAR INC.

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9th & Calapooia

Write a description for your map.

Legend

Attachment C.12 GREEN Cascades

Example of other solar on historical houses nearby
view from busy 9th St.



Google Earth

© 2024 Google

5.71 ft

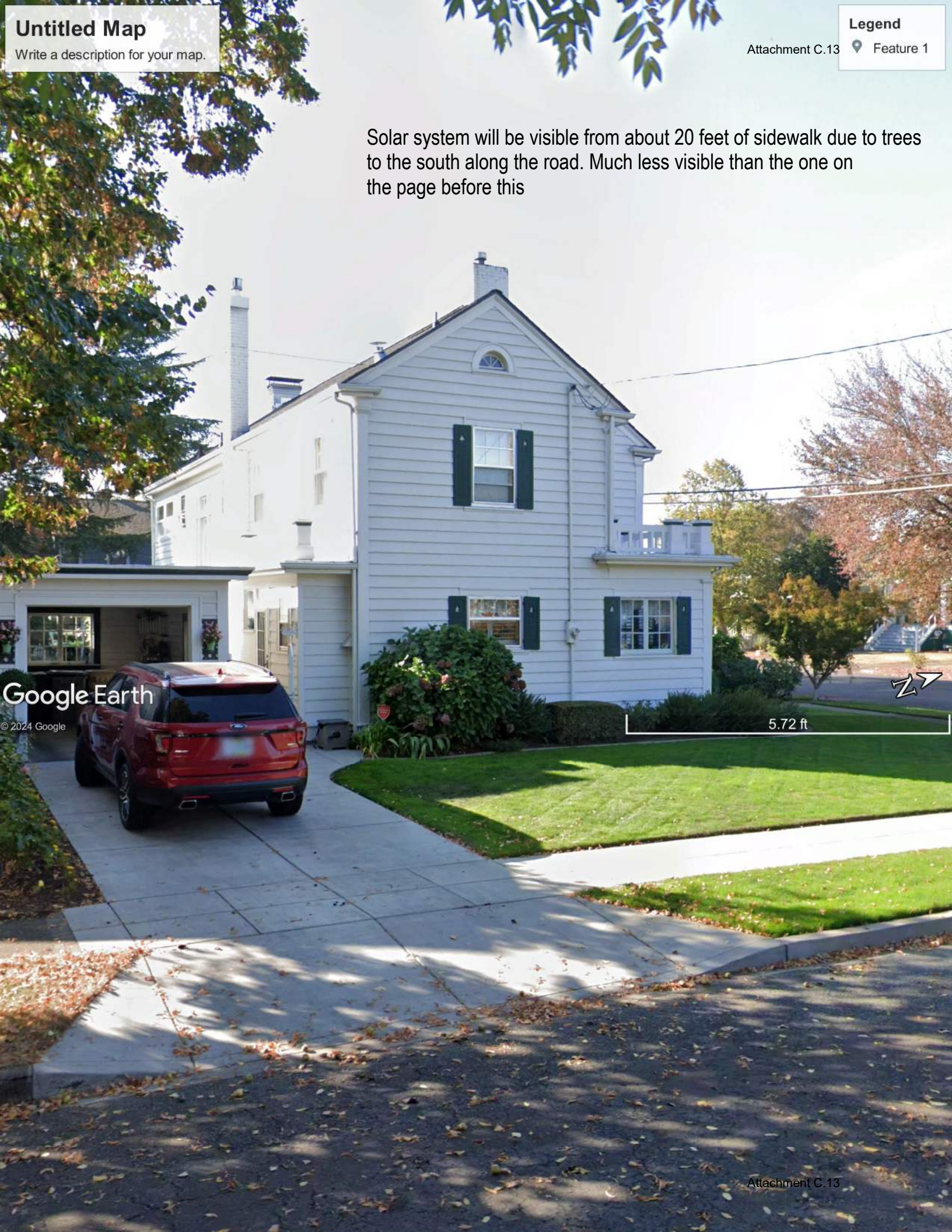
Solar system will be visible from about 20 feet of sidewalk due to trees to the south along the road. Much less visible than the one on the page before this

Google Earth

© 2024 Google



5.72 ft



Untitled Map

Write a description for your map.

Legend

Attachment C.14

Feature 1

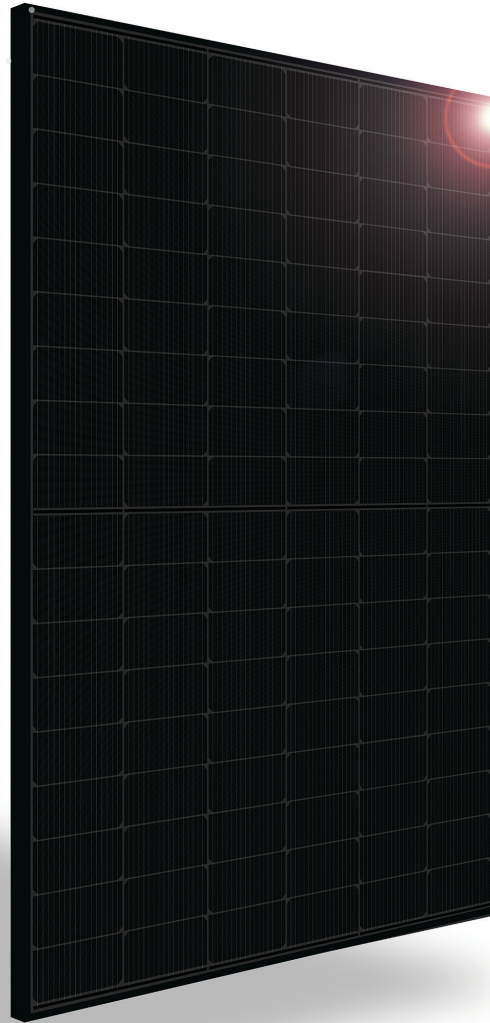
Darn tree I can't see the solar on the roof

D



SILFAB PRIME NTC

SIL-420/430 QD



INTRODUCING NEXT-GENERATION N-TYPE CELL TECHNOLOGY

- Improved Shade Tolerance
- Improved Low-Light Performance
- Increased Performance in High Temperatures
- Enhanced Durability
- Reduced Degradation Rate
- Industry-Leading Warranty



SILFABSOLAR.COM



ELECTRICAL SPECIFICATIONS		420		430	
Test Conditions		STC	NOCT	STC	NOCT
Module Power (Pmax)	Wp	420	313	430	321
Maximum power voltage (Vpmax)	V	33.08	30.86	33.25	31.02
Maximum power current (Ipmax)	A	12.70	10.15	12.93	10.33
Open circuit voltage (Voc)	V	38.84	36.52	38.91	36.58
Short circuit current (Isc)	A	13.50	10.85	13.87	11.15
Module efficiency	%	21.5%	20.1%	22.1%	20.6%
Maximum system voltage (VDC)	V	1000			
Series fuse rating	A	25			
Power Tolerance	Wp	0 to +10			

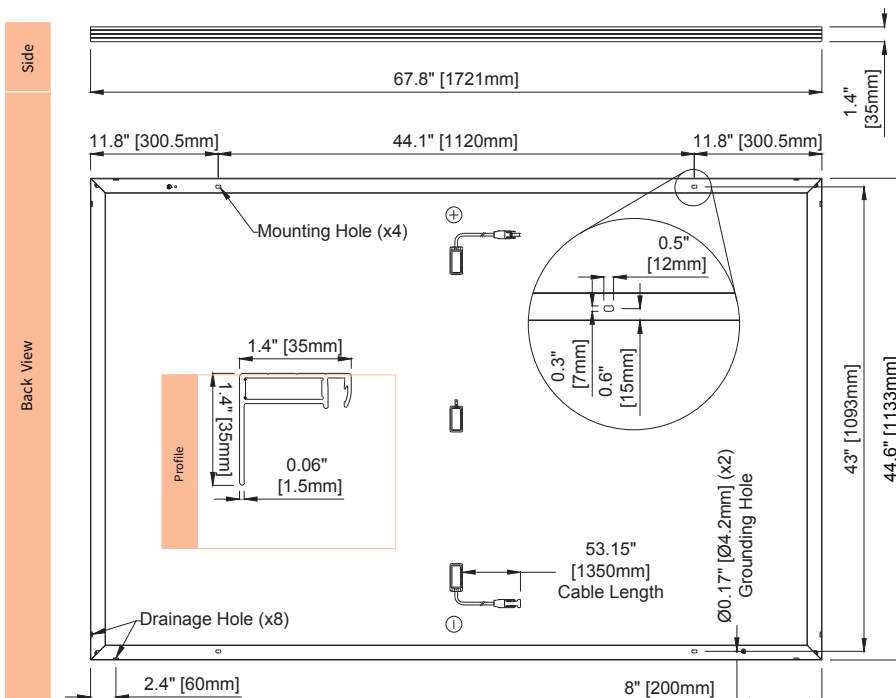
Measurement conditions: STC 1000 W/m² • AM 1.5 • Temperature 25 °C • NOCT 800 W/m² • AM 1.5 • Measurement uncertainty ≤ 3%
 Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by 0 to +10 W.

MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL
Module weight	21 kg ± 0.2 kg	46.3 lbs ± 0.4 lbs
Dimensions (H x L x D)	1721 mm x 1133 mm x 35 mm	67.8 in x 44.6 in x 1.37 in
Maximum surface load (wind/snow)*	4000 Pa rear load / 5400 Pa front load	83.5 lb/ft ² rear load / 112.8 lb/ft ² front load
Hail impact resistance	ø 25 mm at 83 km/h	ø 1 in at 51.6 mph
Cells	108 Half cells - N-Type Silicon solar cell 182 mm x 91 mm	108 Half cells - N-Type Silicon solar cell 7.16 in x 3.58 in
Glass	3.2 mm high transmittance, tempered, antireflective coating	0.126 in high transmittance, tempered, antireflective coating
Cables and connectors (refer to installation manual)	1350 mm, ø 5.7 mm, MC4 from Staubli	53.1 in, ø 0.22 in (12 AWG), MC4 from Staubli
Backsheet	High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, fluorine-free PV backsheet	
Frame	Anodized aluminum (Black)	
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated, 3 diodes	

TEMPERATURE RATINGS		WARRANTIES	
Temperature Coefficient Isc	0.04 %/°C	Module product workmanship warranty	25 years**
Temperature Coefficient Voc	-0.24 %/°C	Linear power performance guarantee	30 years
Temperature Coefficient Pmax	-0.29 %/°C		≥ 98% end 1st yr ≥ 94.7% end 12th yr ≥ 90.8% end 25th yr ≥ 89.3% end 30th yr
NOCT (± 2 °C)	45 °C		
Operating temperature	-40/+85 °C		

CERTIFICATIONS		SHIPPING SPECS	
Product	UL 61215, UL 61730, CSA C22.2#61730, IEC 61215, IEC 61730, IEC 61701 (Salt Mist Corrosion), IEC 62716 (Ammonia Corrosion), CEC Listed, UL Fire Rating: Type 2	Modules Per Pallet:	26 or 26 (California)
Factory	ISO9001:2015	Pallets Per Truck	32 or 30 (California)
		Modules Per Truck	832 or 780 (California)

* ⚠ Warning. Read the Safety and Installation Manual for mounting specifications and before handling, installing and operating modules.
 ** 12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at silfabsolar.com.
 PAN files generated from 3rd party performance data are available for download at: silfabsolar.com/downloads.



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