CITY OF ST. HELENA
PLANNING DEPARTMENT 1480 MAIN STREET- ST. HELENA, CA 94574
PLANNING COMMISSION

September 20, 2016

AGENDA ITEM: 6

FILE NUMBER: PL16-061

SUBJECT: Walloch Residence Design Review Exemption

PREPARED BY: Lilly Bianco, Contract Planner

REVIEWED BY: Noah Housh, Planning Director

APPLICATION FILED: 08/01/16 **ACCEPTED AS COMPLETE:** 08/30/16

LOCATION OF PROPERTY: 1660 Spring Street

APN: 009-313-047 (Was 009-313-042)

GENERAL PLAN/ZONING: Medium Density Residential (MR)

APPLICANT: Richard Walloch **PHONE:** (925) 818-9971

BACKGROUND: On June 18, 2013 the planning Commission adopted resolution 2013-09 approving a lot line adjustment and Design Review for 1660 Spring Street. This approval facilitated the re-configuration of the common boundary between 1664 Spring St. (APN 009-313-023) and 1660 Spring Street (APN.009-313-042) to better accommodate infill development. The approval also allowed for the construction of a principal dwelling, detached accessory structure, and two covered parking spaces (carports) located in between the primary residence and accessory structure and consistent with MR: Medium Density Residential development standards.

PROJECT DESCRIPTION

Applicant, Richard Walloch, is requesting Design Review approval to construct an enclosed garage in place of one of the two previously approved carports at 1660 Spring Street approved per resolution 2013-09. Pursuant to St. Helena Zoning Code, Section Sec. 17.164.060, staff recommends the Planning Commission approve an exemption from Design Review given that the project poses no substantial design problems and meets the criteria for an exemption pursuant to Municipal Code Section 17.164.030 and as described below.

The project at 1660 Spring Street is located in the MR: Medium Density Residential zoning district. The proposed garage will measure 12' x 10' and exhibit a similar footprint as the approved carport, but will introduce an enclosure so as to provide

necessary weather proofing and electrical connections to secure and charge one electric vehicle. The garage would feature insulated metal wall panels and would be capped with an insulated metal standing seam roof (**Attachment 5).**No changes are being proposed to the previously approved residential building, accessory structure or landscaping.

ANALYSIS

GENERAL PLAN

The subject property exhibits a general plan land use designation of Medium Density Residential. This land use designation allows single family detached and attached homes, secondary residential units, public and semi-public uses, and other compatible uses. The Medium density residential land use designation serves as the predominant residential land use designation and is intended to perpetuate the existing development patterns exhibited by St. Helena's established neighborhoods.

Relevant General Plan policies include:

2.6.15 Encourage new residential development in all density ranges that is consistent with scale and character of the older residential districts of the City, particularly the neighborhoods west of Main Street.

ZONING

Consistent with the GP land use designation, 1660 Spring Street exhibits a zoning designation of MR: Medium Density Residential. The MR zoning district allows for single-family detached homes, accessory dwelling units and other compatible uses insofar as they conform to the development standards prescribed by Municipal Code Section 17.40.060. Review of the project indicates the project meets all applicable development standards; the proposed garage structure would be located on generally the same footprint as the previously approved carport and exhibits a side yard setback of 4'10". The structure would measure 10' x 12' and exhibit a maximum height of 10'. As an accessory structure the proposed project is exempt from the prescribed F.A.R provisions.

DESIGN REVIEW

The purpose of design review is to, among other things, promote the qualities that bring value to the community and foster attractiveness and functional utility of the community as a place to live and work. Consistent with Zoning Code Section 17.164.060, the Commission may approve a design review exemption insofar as the project raises no substantial design problems of the sort enumerated in sections 17.164.010 to 17.164.030. The project therefore must be obviously consistent with the design criteria prescribed by Section 17.164.030 and exhibit a quality of design that is compatible with adjacent development, features a siting, scale, massing and architectural style that is generally consistent with the predominant development patterns, and that does not

otherwise detract or negatively affect the established character of the surrounding neighborhood.

The project site is located behind 1650 and 1640 Spring Street and accessed via a deeded alley such that the proposed structure would not be readily visible from the street. The garage measures 10'x12' with a proposed maximum height of 10' which would ensure that it appears subordinate to the proposed residence and would be compatible in terms of scale and massing. The proposed materials include metal wall panels and a standing seam metal roof. Accordingly, the proposed garage is of a scale, massing, and quality of design that is compatible with the other buildings and structures in the immediate vicinity and does not significantly deviate from that approved as part of resolution 2013-09.

CEQA

The project is categorically exempt in accordance with CEQA Section 15303 "New construction or conversion of small structures" as the construction of a small garage (accessory structure). The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission adopt a resolution finding that:

1. The project is exempt from the requirements of CEQA pursuant to CEQA Section 15303 as the construction of an accessory structure, and

2. Accepting the required findings and approving the design review exemption for the proposed garage at 1660 Spring Street.

ATTACHMENTS

1. Resolution / Conditions of Approval
2. APN Map
3. Aerial View
4. Plan Set
5. Material Specifications

CITY OF ST. HELENA PLANNING COMMISSION

RESOLUTION PCXXX

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ST. HELENA GRANTING APPROVAL OF A DESIGN REVIEW EXEMPTION FOR THE WALLOCH GARAGE LOCATED AT 1660 SPRING STREET

PROPERTY OWNER: Richard and Mary Walloch **APN:** 009-313-047

Recitals

A. Whereas, Mr. Richard Walloch submitted an application for a Design Review Exemption to construct a detached garage at 1660 Spring Street in the MR: Medium Density Residential District, and

B. Whereas, on June 18, 2013 the Planning Commission adopted Resolution 2013-09 approving a lot line adjustment and design review for the construction of a principal dwelling, detached accessory structure, and two covered parking spaces (carports) located in between the primary residence and accessory structure at 1660 Spring Street, and

C. Whereas, since adoption of Resolution 2013-09, the project has been further refined and the applicant requests design review approval to construct an enclosed single car garage *instead of* one of the previously approved carports, and

D. Whereas, A staff report dated September 20, 2016 and incorporated herein by reference analyzed the projects consistency with the Design Criteria enumerated in Section 17.164.030 of the Municipal Code, and

D. Whereas, the Planning Commission of the City of St. Helena, State of California, considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on September 20, 2016, and

E. Now, therefore let it be found that, the Planning Commission approves the Design Review Exemption and authorizes the modifications contained in said plans based on the findings below and subject to the conditions of approval enumerated herein.

Resolution

1. The project is categorically exempt in accordance with CEQA Section 15303 "New construction or conversion of small structures" as the construction of a small garage (accessory structure).The proposed project is not subject to any of the exceptions to the use of a categorical exemption as outlined in CEQA Section 15300.2. The project site is not located on or near an environmentally sensitive

area, is not visible from a scenic highway, is not included on a hazardous waste site, and will not impact historic resources or otherwise generate or contribute to any potentially significant impacts.

2. The project is consistent with the design review criteria prescribed by Municipal Code Section 17.164.030 in that the design, massing, scale, and materials of the proposed single car garage, are compatible with development on the subject site and in the immediate vicinity and the project will not detract or otherwise degrade the established character of the neighborhood.

   The garage will be of a size and scale that appears subordinate to the principal buildings on site and will feature quality materials consistent with the other approved buildings and structures. Further, given the location of the proposed garage, it will not be readily visible from the street and therefore is not expected to impact the established character of the streetscape or that of the greater neighborhood.

F. Now therefore be it further resolved that, the Design Review for the above described project is granted subject to compliance with all applicable provisions of the Zoning Code subject to each of the following conditions. Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

Planning Department Conditions of Approval

1. The Permit shall be in conformance with all City ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

2. The plans submitted for building permit review shall be in substantial conformance with the plans on file in the Planning Division, date stamped August 1, 2016, expect as modified by the following conditions.

3. The Design Review Exemption shall be vested within one (1) year from the date of approval. A building permit for the use allowed under this approval shall have been obtained within one (1) year from the effective date of the Use Permit and Design Review decision or these approvals shall expire; provided however that the approved Use Permit and Design Review may be extended for up to two (2) one-year periods pursuant to the St. Helena Municipal Code, Section 17.08.030, Extension of Permits and Approvals.

4. The Design Review Exemption shall become effective fourteen (14) calendar days after approval, provided that the action is not appealed by the City Council or any other interested party within that 14 day period.

5. Any request for an extension of the Design Review Exemption must be justified in writing and received by the Planning Department at least thirty (30) days prior to expiration.

6. All required fees, including planning fees, development impact fees, building fees, retrofit fees, and St. Helena Unified School District fees shall be paid prior to issuance of building permit.

7. Prior to issuance of construction permits, compliance with conditions of approval shall be clearly identified on all plans. A copy of approved plans with the conditions listed shall be maintained on-site during construction activities.

8. Conditions shall be achieved at such a time as determined by the City and shall be achieved at the requisite stage and before issuance of certificate of occupancy or initiation of use unless another time is set by law or by this approval. Occupancy or final inspection of a project may be withheld if all conditions, including payment of fees for services rendered by the City, are not met.

9. The applicant shall defend and indemnify and hold the City, its agents, officers, and employees harmless of any claim, action or proceedings to attack, set aside, void or annul an approval so long as the City promptly notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.

10. This Design Review approval shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.

11. The primary purpose of this review is for compliance with the General Plan and Zoning Ordinance. The owner/applicant is responsible for meeting with the Building Official / Fire Inspector to review compliance with Building and Fire Codes, including fire protection systems and the accessibility standards of Title 24.

12. No structure shall be permitted over any existing property lines. Documentation of the location of the property lines shall be submitted with plans for building permit issuance.

13. No signs are approved as a part of this action. Separate sign Permit approval is required prior to any sign construction and/or installation.

Public Works Department Conditions of Approval

14. Approval of this project shall be subject to the requirements of, and all improvements shall be designed and constructed in accordance with, the most current version at the time of improvement plan submittal, Caltrans Standards and Specifications, the City of St. Helena Municipal Code, the St. Helena Water and Sewer Standards, the St. Helena Street, Storm Drain and Sidewalk Standards, and all current federal, state and county codes governing such improvements

15. For any improvements outside the existing building envelope, a grading and drainage plan showing topographic data, all easements, infrastructure onsite and

directly adjoining, and an erosion control plan shall be submitted for review and approval by the City Engineer prior to the issuance of a building permit. If the project entails more than 50 cubic yards of soil disturbance, 10,000 square feet of disturbance area, a cut or fill of 3 feet or more, or alteration of any drainage pattern, a grading permit shall be required.

16. No added drainage from new hardscape, roofs or pool improvements shall be allowed to leave the site; improvement plans shall show how drainage will be handled on site and at the property lines to prevent inundation of neighboring properties. Pre-developed and 100 year storm event overflow site drainage shall be directed in to an existing storm drain or gutter through City standard under-sidewalk drains where applicable.

17. Where fire sprinklers are required, applicant shall install an appropriately-sized water service with appropriate backflow and meter devices prior to Certificate of Occupancy. Fire system calculations shall be submitted with the Grading and Drainage Plan to verify fire service lateral and meter sizing.

18. The applicant shall incorporate water conservation practices into the proposed project per the Water Use Analysis Report prepared by JAC Designs on 15 February 2013, including installing 1.28 gal toilets, 1.5 gpm faucets, 1.5 gpm low flow showers, efficient 3 gal per cycle dishwasher and 15 gal per load clothes washer and all off-site retrofits for the St. Helena Catholic School as required prior to certificate of occupancy. A Smart Yard Sensor system shall be incorporated in to the yard irrigation system. Any and all non-conforming appliances and plumbing fixtures shall be removed from the premises.

19. The applicant shall conform to the City of St. Helena Water and Sewer Standards Section 6-2.10 which includes assessing the adequacy of the lateral, replacing if necessary and installing any needed cleanouts.

20. The applicant shall repair all public improvements that are damaged by the construction process in accordance with the City Water/Sewer/Street/Storm Drain/Sidewalk Standards prior to Certificate of Occupancy.

21. All frontages shall be required to install curb, gutter and sidewalk where there is none. Any missing or broken curb, gutter and/or sidewalk along the project frontage shall be installed or replaced per City specifications prior to Certificate of Occupancy, extent to be determined by the Public Works Department.

22. Existing streets being cut by new utility services will require edge grinding and an A.C. overlay per City standards, extent to be determined by the Public Works Department.

23. All driveway approaches shall be per current City and ADA standards. Where none exists, or where deteriorating or non-standard driveway approaches exist, they shall be installed or replaced at the direction of the Public Works Department prior to Certificate of Occupancy. The driveway approach for the access drive to the two properties shall be replaced in order to conform to current ADA standards.

24. Any existing driveway approach not directly connected to a driveway shall be replaced with sidewalk/curb/gutter, as applicable and as directed by the Public Works Department prior to Certificate of Occupancy.

25. An encroachment permit shall be required for any work performed in the public right of way.

26. The applicant shall record easements for all utilities, access and drainage patterns where facilities or features cross one parcel to serve another parcel, as determined by the City's Public Works Director.

27. Access to the building site shall conform to current access standards and be approved by the Fire Department prior to building permit issuance.

I HEREBY CERTIFY that the foregoing Design Review Exemption was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on September 20, 2016, by the following roll call vote:

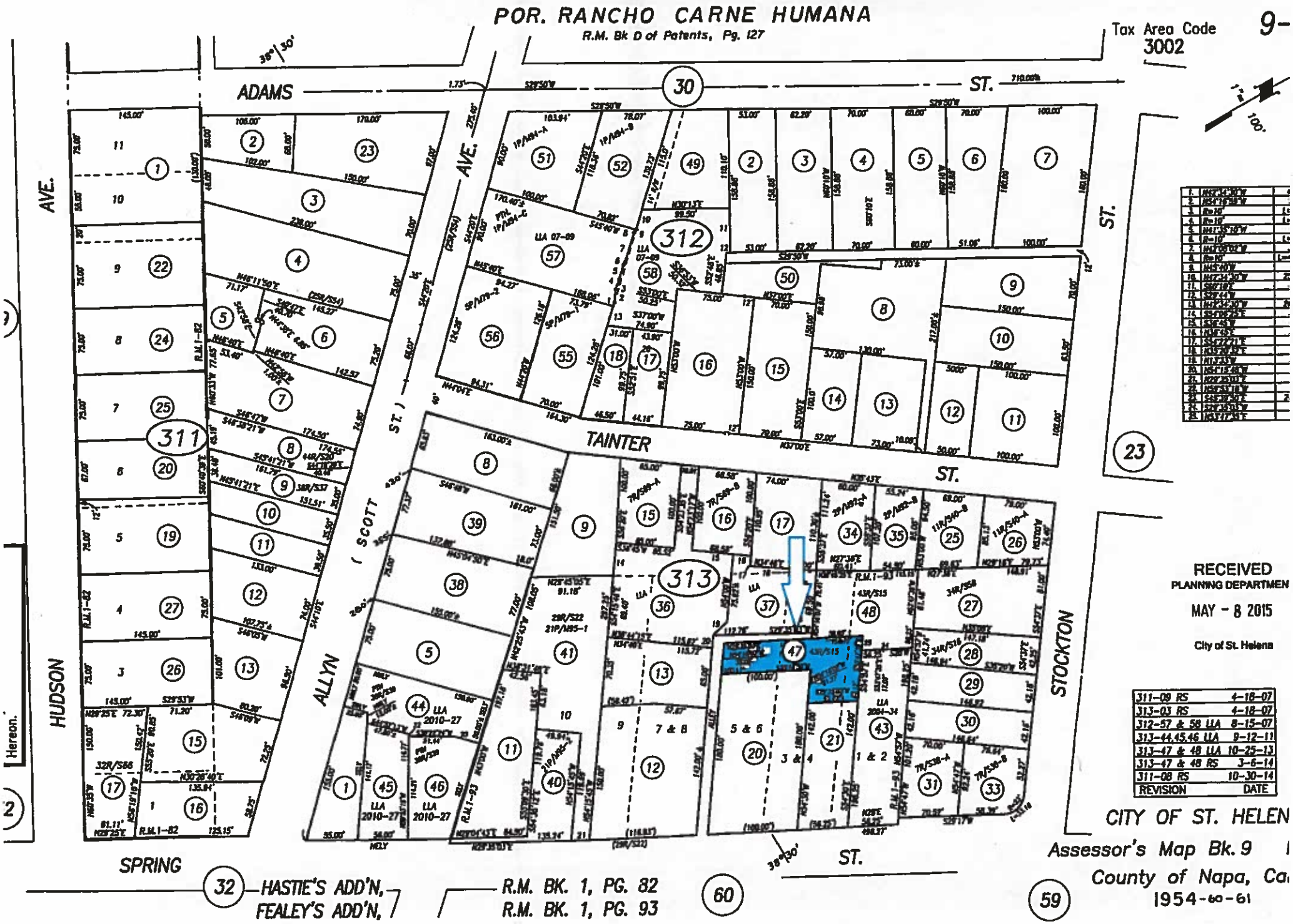
AYES:
NOES:
ABSENT:
ABSTAIN:

APPROVED:

Grace Kistner
Chair, Planning Commission

ATTEST:

Noah Housh,
Planning and Community Improvement Director


POR. RANCHO CARNE HUMANA
R.M. Bk D of Patents, Pg. 127
Tax Area Code 3002
9-
ADAMS ST.
30
AVE.
HUDSON AVE.
(SCOTT ST.)
ALLYN
TAINTER ST.
STOCKTON ST.
23
312
313
311
SPRING ST.
32
HASTIE'S ADD'N,
FEALEY'S ADD'N,
R.M. BK. 1, PG. 82
R.M. BK. 1, PG. 93
60
59
RECEIVED
PLANNING DEPARTMEN
MAY - 8 2015
City of St. Helena
311-09 RS 4-18-07
313-03 RS 4-18-07
312-57 & 58 LLA 8-15-07
313-44,45,46 LLA 9-12-11
313-47 & 48 LLA 10-25-13
313-47 & 48 RS 3-6-14
311-08 RS 10-30-14
REVISION DATE
CITY OF ST. HELEN
Assessor's Map Bk. 9
County of Napa, Ca
1954-60-61


1660 Spring St
Stockton St
Talinter St
Adams St
Allyn Ave
Spring St
Hudson Ave
Crane Ave
Voorhees Cir
Mitchell Dr
© 2016 Google
Google earth

PROJECT DIRECTORY

DESIGNER:	**OWNER:**
JAC DESIGNS JOSH CHANDLER	RICHARD, MARY WALLOCH
ADDRESS: P.O. BOX 648 GEYSERVILLE, C.A. 95441	ADDRESS: 10 BEACONS FIELD COURT ORINDA, CA 95463
PH: 707 480 6835	PH: 925 818 9871
FX: 707 857 1935	
EMAIL: JACdesign1@aol.com	EMAIL: RDWALLOCH@GMAIL.COM
STRUCTURAL:	**ENERGY:**
TANG LE & ASSOCIATES STRUCTURAL ENGINEERS	SOL DATA - SARAH
ADDRESS: 199 S. EL MOLINO AVE., SUITE 102 PASADENA, CA 91101	ADDRESS: 401 COLLEGE AVE. SANTA ROSA, CA. 95401
PH: 626.731.1539	PH: 707.545.4440
EMAIL: THANG@THANGLESE.COM	FX: 707.545.4447
	EMAIL: SARAH@SOLDATA.COM
FIRE SPRINKLER:	**SPECIAL INSPECTION:**
WESTSIDE MECHANICAL INC.	JANKOVSKY ENGINEERING SERVICES
ADDRESS: P.O. BOX 6067 COTATI, CA	ADDRESS: 1285 WILSON RD. CLOVERDALE, CA. 95425
PH: 707.795.8606	PH: 707.894.3511
FAX: 707.795.6781	FX:
	EMAIL:
CIVIL ENGINEER:	
ADOBE ASSOCIATES	
ADDRESS: 1220 NORTH DUTTON AVE. SANTA ROSA, CA. 95401	
PH: 707.541.2300	
FAX: 707.541.2301	

CODE COMPLIANCE

ALL WORK SHALL CONFORM WITH
2013 California Building Code (CBC)
2013 California Residential Code (CRC)
2013 California Electrical Code (CEC)
2013 California Plumbing Code (CPC)
2013 California Mechanical Code (CMC)
2013 California Energy Standards Code (CESC)
2013 California Green Building Standards Code (CGBSC)
2013 California Fire Code (CFC)
This project complies with the state and local codes and ordinances adopted by the City of St. Helena. A

AGENCY:

OCCUPANCY: R-3 A

BUILDING TYPE: VB

STORIES: (2)

CONDITIONED FLOOR AREA, TOTAL: 2,299 S.F.
FIRST FLOOR: 1,193 S.F.
SECOND FLOOR: 1,079 S.F.

UNCONDITIONED FLOOR AREA
BASEMENT 1,084 S.F.

NOTE:
ALL NEW CONSTRUCTION, FIXTURES, EQUIPMENT AND DETAILING TO FOLLOW GREEN BUILDING MANDATORY MEASURES AS STATED IN THE ATTACHED CHECKLIST ON SHEET A1.3

UTILITY SUMMARY

WATER:	CITY WATER SUPPLY
SEWER:	CITY SEWAGE
GAS:	PG&E NATURAL GAS
ELECTRICITY:	PG&E

SITE DATA

ADDRESS	1660 SPRING STREET ST. HELENA, CA 94574
APN	009-313-042
SET BACK REQUIREMENTS	FRONT: 20 FEET REAR: 20 FEET SIDE: 10 FEET / 12 FEET
PARCEL AREA	7840.80 SQ. FT. .18 ACRES
ZONING:	CITY OF SAINT HELENA
HEIGHT LIMITS:	HOUSE: 35 FEET SECOND UNIT: 15 FEET

SITE PLAN NOTES

1. SITE PLAN GRADING PERMIT # BD1304 - 030
2. SEE ATTACHED SHEETS C1.0 - C3.0 FOR REFERENCE
3. ALL EXCAVATION SOIL TO BE HAULED FROM SITE

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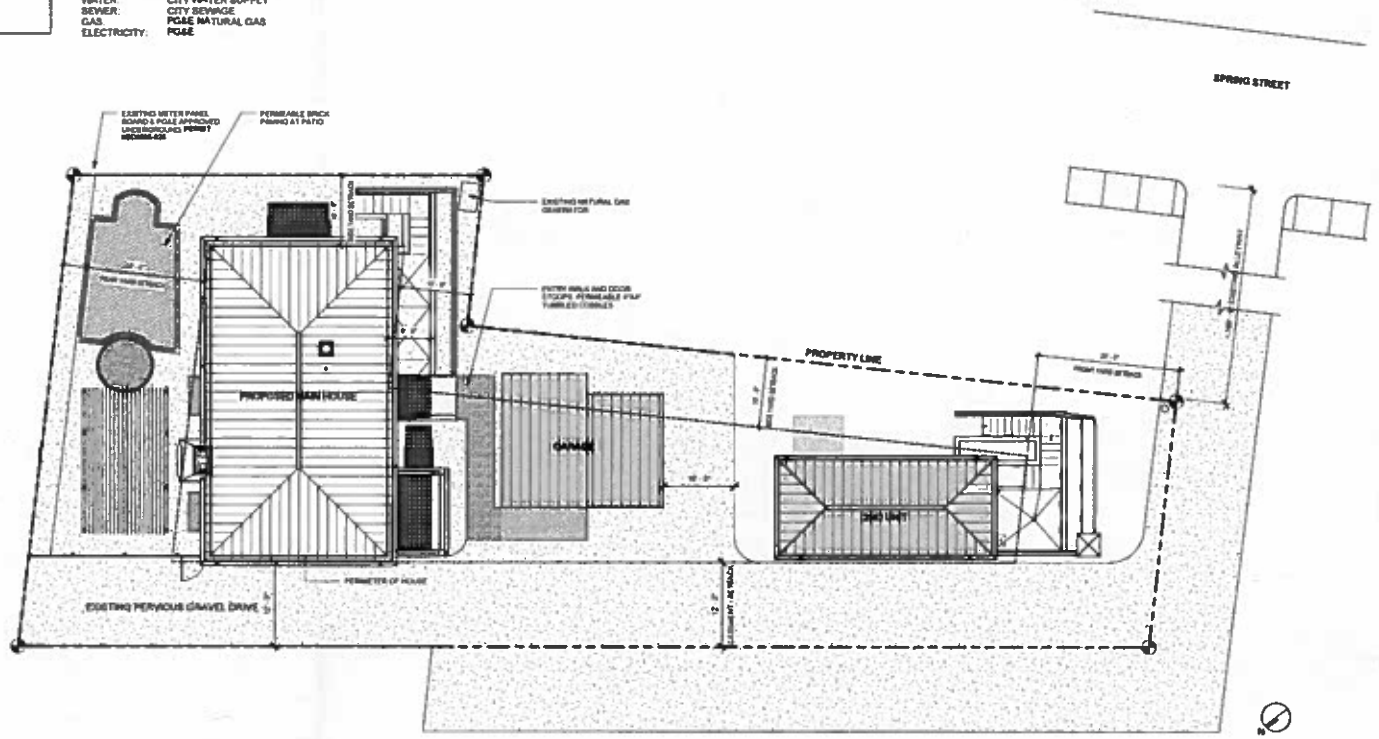
VICINITY MAP



WALLOCH RESIDENCE 1660 SPRING STREET, SAINT HELENA, CA 94574

JAC Designs
JAC Designs
P.O. BOX 648
GEYSERVILLE, CA
95441

WALLOCH RESIDENCE
1660 SPRING STREET
SAINT HELENA
C.A. 94574

No.	Description
1	PLAN CHECK RESPONSE #1

Date 07/26/18
By JAC DESIGNS
Checked By Checker

PROJECT DATA / SITE PLAN

A1.1

Scale As Indicated

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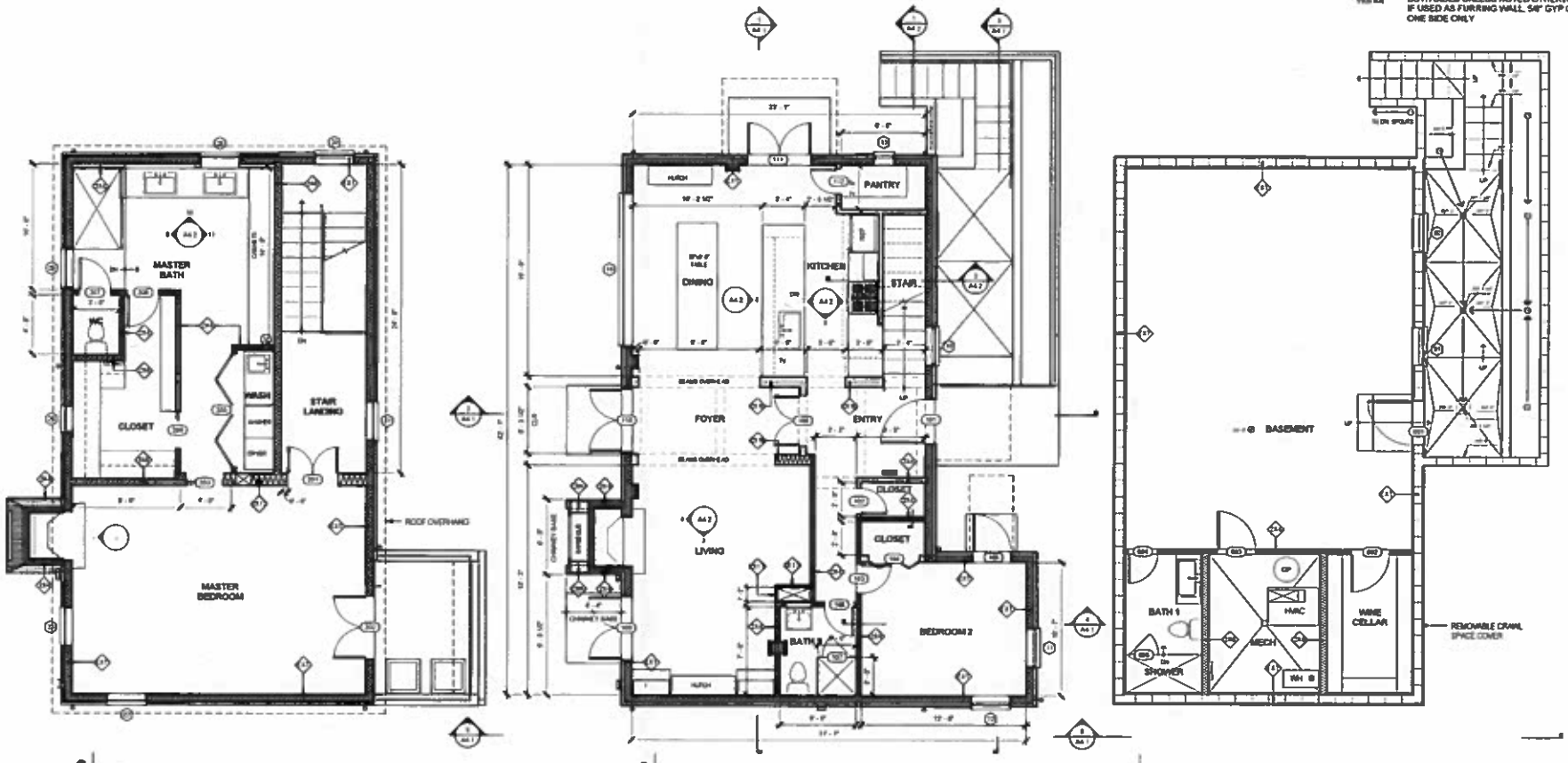
GENERAL NOTES

1. Guards shall be provided in accordance with Sections R312.1.1 through R312.1.4.
2. Guards where required by section R312.1.1 at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 42 inches high measured vertically above the adjacent walking surface per R312.1.2, see exceptions a & b
   a. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
   b. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
3. Opening limitations per R312.1.3. Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm) in diameter. See exceptions a & b
   a. The triangular openings at the open side of stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches (153 mm) in diameter.
   b. Guards on the open side of stairs shall not have openings which allow passage of a sphere 4-3/8 inches in diameter
4. See elevations, sections and details for dimensions and guardrail and handrail materials.

WALL TYPES

- EXTERIOR WOOD FRAME WALL. SEE WALL SECTION DETAIL 1/A4.2
- CMU WALL. SEE WALL SECTION DETAIL 1/A4.2 FOR BASEMENT PERIMETER WALLS
- EXTERIOR WOOD FRAME WALL. 2X6 WOOD STUDS (UNLESS OTHERWISE NOTED ON PLAN) @ 16" O.C. WITH R-21 BATT INSULATION
- INTERIOR WOOD FRAME WALL. WOOD STUDS (SIZE AS SHOWN ON PLAN) @ 16" O.C. WITH 5/8" TYPE 'X' GYP. BD. BOTH SIDES UNLESS NOTED OTHERWISE. IF USED AS FURRING WALL, 5/8" GYP ON ONE SIDE ONLY



3 MAIN HOUSE - LEVEL 2
SCALE: 1/4" = 1'-0"

2 MAIN HOUSE - LEVEL 1
SCALE: 1/4" = 1'-0"

1 MAIN HOUSE - BASEMENT FLOOR PLAN
SCALE: 1/4" = 1'-0"

JAC Designs
JAC Designs
P.O. BOX 648
GEYSERVILLE, CA
95441

WALLOCH RESIDENCE

1600 SPRING STREET
SAINT HELENA
C.A. 94574

No.	Description
1	PLAN CHECK RESPONSE #1

Date 07/26/16
By JAC DESIGNS
Checked By Checker

FLOOR PLANS

A2.1

Scale As indicated

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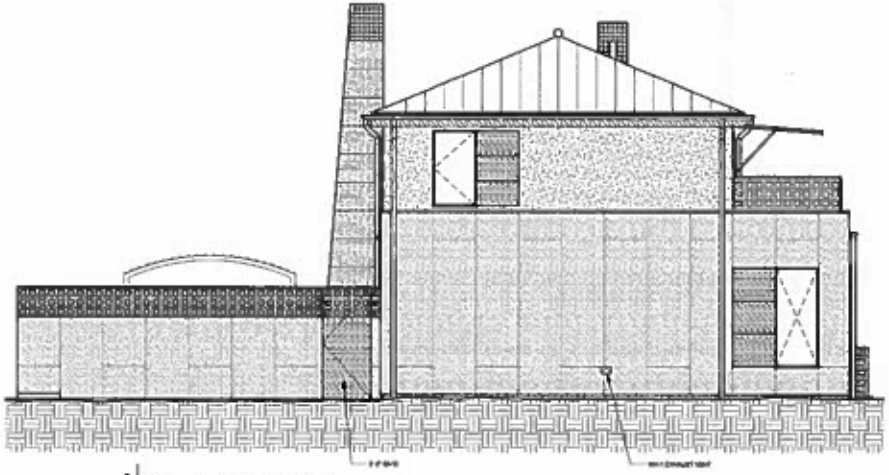
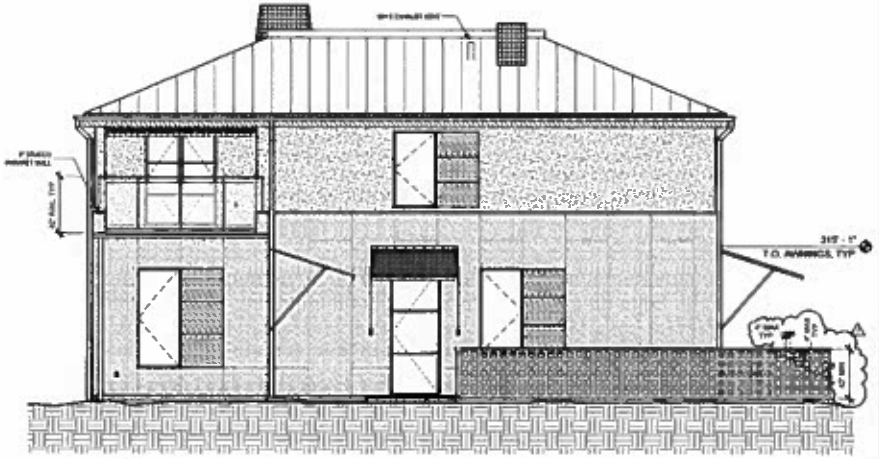


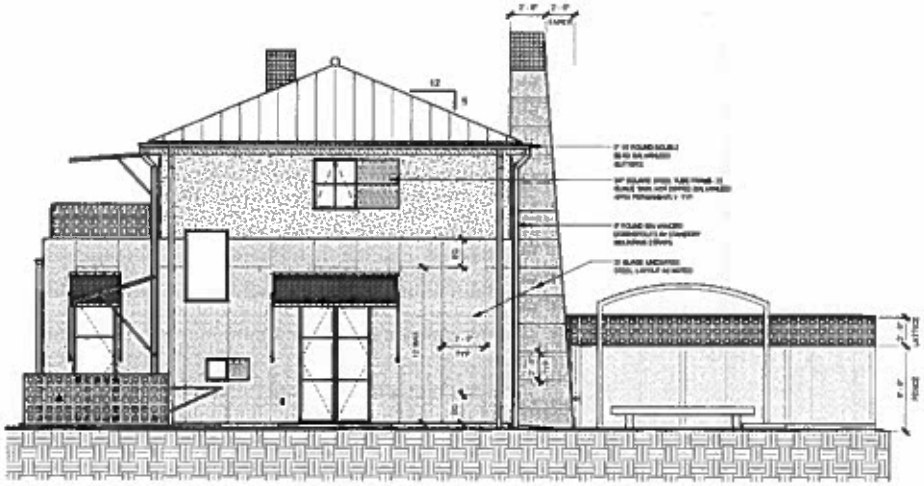
4 HOUSE - WEST ELEVATION

SCALE 1/4" = 1'-0"



3 HOUSE - SOUTH ELEVATION

SCALE 1/4" = 1'-0"



2 HOUSE - EAST ELEVATION

SCALE 1/4" = 1'-0"

1 HOUSE - NORTH ELEVATION

SCALE 1/4" = 1'-0"

JAC Designs
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P.O. BOX 548
GEYSERVILLE, CA
95441

WALLOCH RESIDENCE
1860 SPRING STREET
SAINT HELENA
C.A. 94574

No.	Description
1	PLAN CHECK RESPONSE #1

Date 07/28/16
By JAC DESIGNS
Checked By Chandler

EXTERIOR ELEVATIONS

A3.1

Scale 1/4" = 1'-0"

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WATER USAGE DATA - PER MWELO

NOTE: ALL IRRIGATION AND LANDSCAPING TO CONFORM TO MWELO ORDINANCE AND APPENDIX D CHECKLIST (ATTACHED BELOW)

LANDSCAPE SQUARE FOOTAGE AREA TOTAL 585 sf
21.5% WUCOLS WATER USAGE sf, MODERATE = 128 sf
78.5% WUCOLS WATER USAGE sf LOW = 457 sf

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO)
SHORT FORM PRESCRIPTIVE COMPLIANCE

Applicant Information:

Name: JAC Design Josh Chandler

Phone: 707 480 6935

Address: Box 648 Geyserville CA 95425

E-mail: Jacdesign1@aol.com

Project

Site Address: 1660 Spring St Saint Helena CA 95474

Project Type (new dwelling, constructed or rehab): New Dwelling

☑ This project does incorporate landscaping equal to or less than 2500 sq ft and will be using the form to identify prescriptive requirements which will be included as part of the landscape project information provide the prescribed water budget for the landscape area and identify the location on the plans each design measure can be found using the LANDSCAPE WATER EFFICIENCY (MWELO APPENDIX D CHECKLIST) on page three

Total Landscape Area (sq ft): 585 Turf Area (sq ft): 0.0

Non-Turf Plan Area (sq ft): 585 Special Landscape Area (sq ft): 0.0

Water Type (potable, recycled, well): potable

Name of water purveyor (if not served by private well): City of Saint Helena

Signature

I certify the above information is correct and agree to comply with the requirements of the MWELO

Signature of property owner or authorized representative — Date: 4-11-16

LANDSCAPE WATER EFFICIENCY (MWELO) APPENDIX D CHECKLIST
(Can only be used when aggregate landscape areas are 2,500 square feet or less)

Landscape Parameter	Design Measures	Location on Plans
Compost	Incorporate compost at a rate of at least four (4) cubic yards per 1,000 sq. ft. to a depth of 6 inches into landscape area (unless contra-indicated by a soil test)	A7.0
Plant Water Use	Protect and install climate adapted plants that require occasional little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water Non-invasive: Install climate adapted plants that require occasional little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water	A7.0
Mulch	A minimum 3-inch layer of mulch should be applied on all exposed soil surfaces of planting areas, except in areas of turf or creeping groundcover	A7.0
Turf	Total turf area shall not exceed 25% of the landscape area. Turf is not allowed in non-residential projects Turf is allowed in parkways is treated to slopes not exceeding 25% and is not used in parkways less than 10 feet in width. Turf, if utilized in parkways is irrigated by sub-surface irrigation or other technology that prevents overspray or runoff	A7.0
Irrigation System	Irrigation controllers are weather responsive or soil moisture data based (smart) controllers Irrigation controller programming data will not be lost due to an interruption in the primary power source Areas less than 10 feet in any direction shall be subsurface irrigation or other technology that prevents overspray or runoff A private landscape submeter is installed at all residential landscape areas of 1,000 sq. ft. or more	A7.0

Statement

I agree to comply with the requirements of the prescriptive compliance option of the MWELO per Appendix D.

Signature of property owner or authorized representative — Date: 4/19/16

Note

For the purpose of these landscape area includes all the planting areas, turf areas, and water features as a professional design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprint of buildings or structures, sidewalks, driveways, parking lots, decks patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

LANDSCAPE & IRRIGATION GENERAL NOTES

NOTE: ALL IRRIGATION AND LANDSCAPING TO CONFORM TO MWELO ORDINANCE AND APPENDIX D CHECKLIST (ATTACHED BELOW)

1. ALL IRRIGATION TO BE DRIP IRRIGATION - HARD PIPE SCHED 40 TO PLANTING LOCATIONS
2. GRUB AND REMOVE OLD FENCELINE SHRUBS AND TREES - MIN 3" THICK PER MWLO. CHIP ALL GREEN MATERIAL AND REUSE AS MULCH
3. NO TURF AREAS THIS PLAN

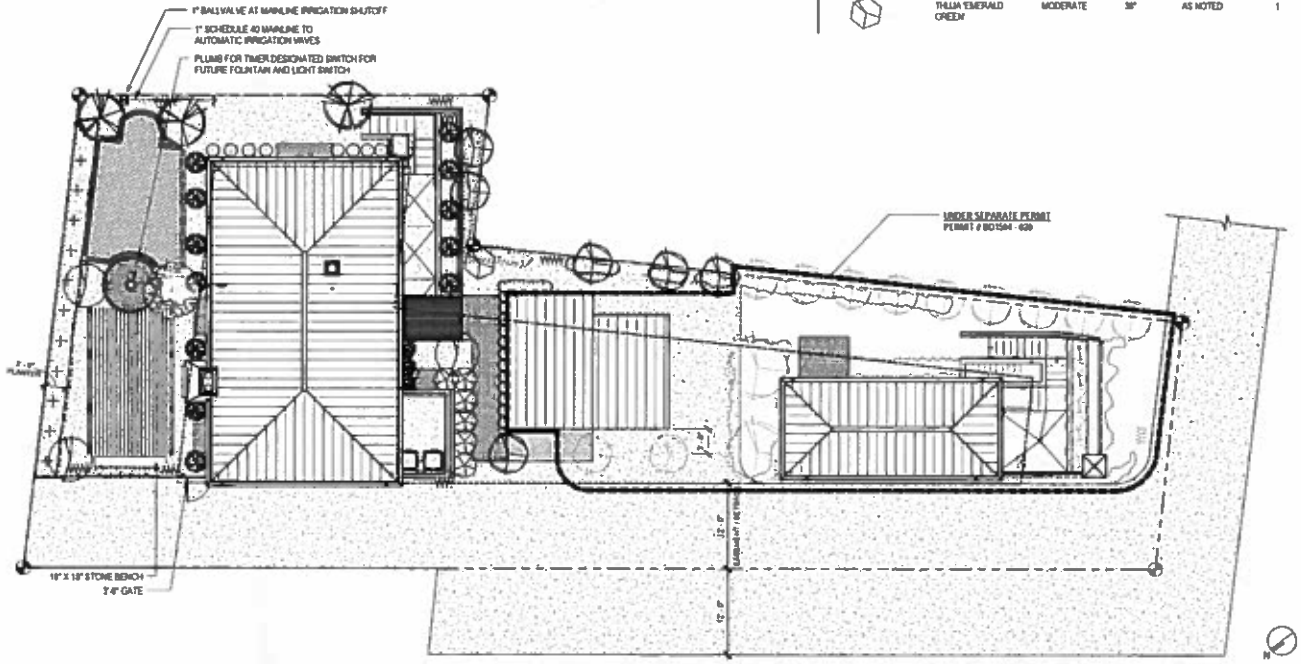
MATERIALS LEGEND

- STONE COBBLE - 4"X4" TUMBLED - PERMEABLE PAVING
- BRICK - HERRINGBONE PATTERN - PERMEABLE PAVING
- GRAVEL - PERMEABLE PAVING

PLANTING LEGEND

SYMBOL	BOTANICAL NAME	WATER USAGE	SIZE	SPACING	QUANTITY
	ACER platanoides "CONCLUEST"	MODERATE	24" BOX	AS NOTED	3
	BUXUS "GREEN BEAUTY"	MODERATE	1 GAL	AS NOTED	12
	BUXUS "GREEN GEM"	MODERATE	20 GAL	AS NOTED	7
	CARPINUS betulus "FASTIGIATUM"	MODERATE	15 GAL	AS NOTED	6
	CHONDROPETALUM "TECTORUM"	LOW	1 GAL	AS NOTED	20
	CORNUS kousa TBA	MODERATE	30"	AS NOTED	1
	FICUS pumila	MODERATE	1 GAL	AS NOTED	2

SYMBOL	BOTANICAL NAME	WATER USAGE	SIZE	SPACING	QUANTITY
	LAURUS nobilis	LOW	5 GAL	AS A HEDGE	12
	OLEA europaea "LITTLE OLI"	VERY LOW	5 GAL	AS NOTED	5
	MYRTUS	LOW	5 GAL	AS NOTED	3
	MYRTUS communis "COMPACTA"	LOW	1 GAL	AS NOTED	10
	OLIVE SPECIMEN	VERY LOW	48"	AS NOTED	3
	PARTHENOCISSUS tricuspidata	LOW	5 GAL	AS NOTED	2
	POMEGRANATE "WONDERFUL" + CHONDRAPETALUM tectorum	LOW	15 GAL 1 GAL	STAKED - AS NOTED	1 5
	"SUNSHINE BLUE" MONROVIA	MODERATE	5 GAL	AS NOTED	8
	THUJA 'EMERALD GREEN'	MODERATE	36"	AS NOTED	1



JAC Designs
JAC Designs
P.O. BOX 648
GEYSERVILLE, CA
95441

WALLOCH RESIDENCE
1660 SPRING STREET
SAINT HELENA
C.A. 94574

No.	Description

Date 07/28/16
By JAC DESIGNS
Checked By Checker

LANDSCAPE PLAN

A7.0

Scale 1/8" = 1'-0"

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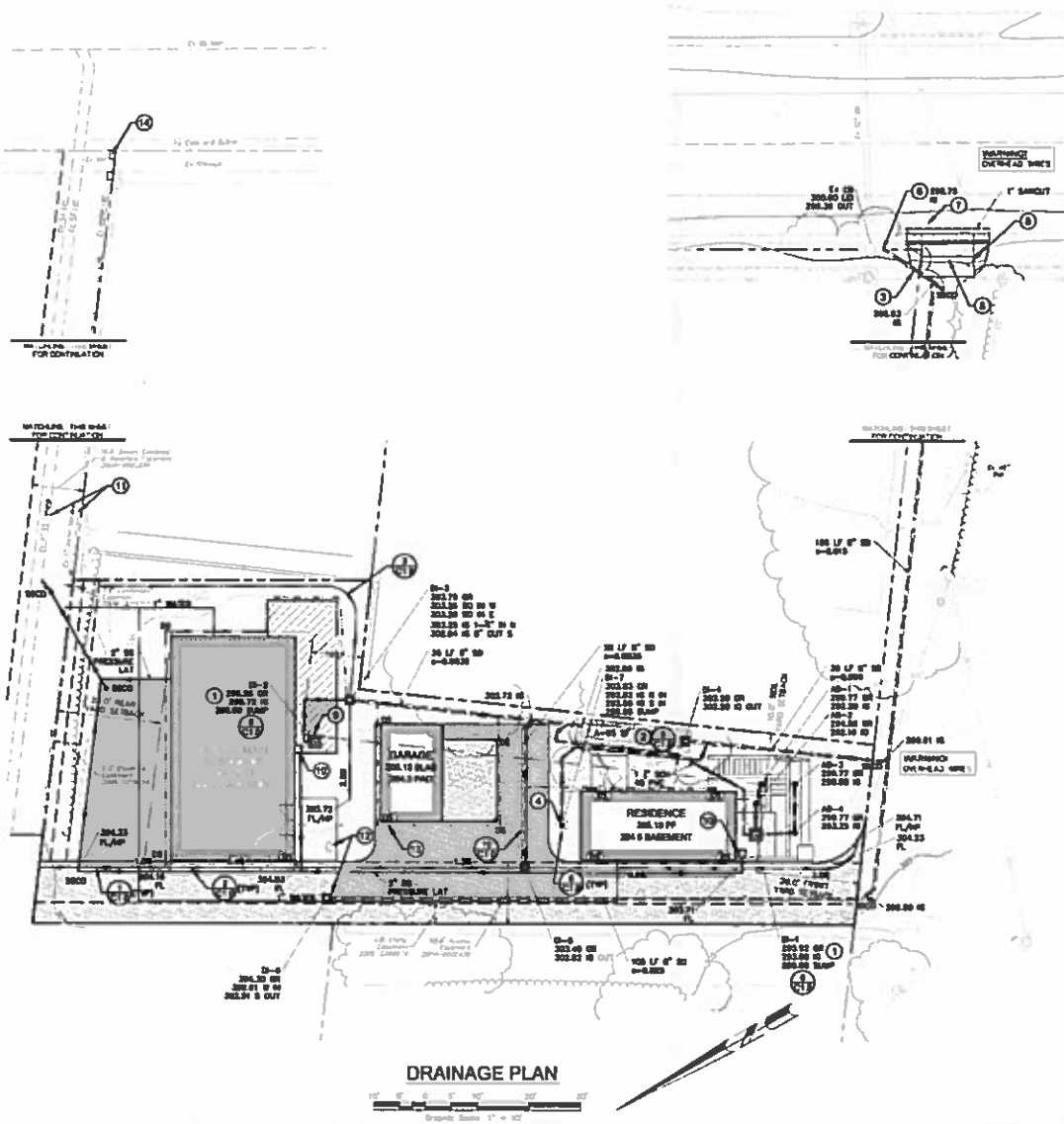

KEY NOTES:

1. DUAL SUMP AND PUMP UNIT TYPE ZOELLER EXTRA PROTECTION, TWO PUMP ALTERNATING SYSTEM, 1 hp OR EQUIVALENT.
2. VEGETATED BUFFER.
3. CONTRACTOR TO PROVIDE ST. HELENA CITY STANDARD APPROVED PIPE MATERIAL WITHIN PUBLIC RIGHT-OF-WAY.
4. DUAL SUMP AND PUMP UNIT TYPE 1 HP STANCOR AVENGER SERIES SSD-1 & 2 HP SSD-2, TWO PUMP ALTERNATING SYSTEM, 1 HP OR EQUIVALENT CONTRACTOR TO BE BOTH THE RESIDENCE AND FUTURE RESIDENCE BASEMENT BLOCKAGE INTO SUMP AND PUMP UNIT. SEE BASEMENT SUBDRAIN DUAL PUMP DESIGN INFORMATION BELOW.

   OPERATION: PUMPS TO FUNCTION WITH CYCLING LEAD, LAG AND HIGH PUMP ASSIGNMENT IN ORDER TO DISTRIBUTE OPERATION TIME. NO SHORE CYCLE ALLOWED.

   PRELIMINARY CONTROL ELEVATIONS (TO BE REVISED BY MANUFACTURER SPECS):

   SD-1:
   - LEAD/LAG PUMP OFF: 290.00 (INITIAL #SD)
   - LEAD PUMP ON: 292.00
   - LAG PUMP ON: 293.75
   - HIGH ALARM: 293.75
   - HIGH HIGH ALARM: 294.25

   SD-2:
   - LEAD/LAG PUMP OFF: 291.00 (INITIAL #SD)
   - LEAD PUMP ON: 293.00
   - LAG PUMP ON: 294.00
   - HIGH ALARM: 294.75
   - HIGH HIGH ALARM: 295.25

   SD-7:
   - LEAD/LAG PUMP OFF: 290.50 (INITIAL #SD)
   - LEAD PUMP ON: 293.50
   - LAG PUMP ON: 294.50
   - HIGH ALARM: 295.50
   - HIGH HIGH ALARM: 297.50
5. REMOVE AND REPLACE 1 MISSING DRIVE WAY APPROACH WITH NEW DRIVE WAY APPROACH PER CITY OF ST HELENA STANDARD DETAIL 3H-1
6. TIE SD PIPE INTO EXISTING CATCH BASIN
7. RELOCATE EX ELECTRICAL BOX, IN KIND
8. RAISE EX WATER METER TO GRADE, IF EX BOX IS NOT TRAFFIC RATE, REPLACE WITH A TRAFFIC RATED BOX
9. ALERT ENGINEER IF WHEAT GRADES HAVE CHANGED
10. PROVIDE GRINDER PUMP, TYPE LIBERTY PROVIDE SIMPLEX GRINDER 1 HP PUMP, OR EQUIVALENT FOR SD SERVICE.
11. CONTRACTOR TO VERIFY LOCATION OF EX SEWER LATERAL AND 1" WATER SERVICE
12. RELOCATE EX SD TO NEW LOCATION SPECIFIED ON PLANS. REMOVE REMAINING EXCESS PIPE.
13. FOUNDATION DRAINS
14. UPGRADE EX 3/4" DIA TO 1" DIA. NEW 1" WATER SERVICE CONNECTION AND PRESSURE BACKFLOW DEVICE PER CITY OF SAINT HELENA STD DETAIL 135 AND 136

NOTES:

1. THE LOCATION OF EXISTING UTILITIES IS SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION AND DEPTH. VERIFICATION SHALL BE COORDINATED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANIES AND SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT LEAST 48 HOURS BEFORE COMMENCING WORK.
2. AN ENCROACHMENT PERMIT WILL BE REQUIRED PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
3. CONFINE ALL STOCKPILES AND LANDSCAPE MATERIAL AND DEBRIS PROPERLY WITH STRAW BATTLES OR SAND BAGS AND/OR BEHIND SILT FENCE, AWAY FROM WATER BODIES. HAZARDOUS MATERIALS AND WASTES MUST BE KEPT IN CLOSED CONTAINERS THAT ARE COVERED AND UTILIZE SECONDARY CONTAINMENT, NOT DIRECTLY ON SOIL.

PAVING LEGEND:

- CONCRETE
- ENGINEERED LANDSCAPE AREA
- LOW-ATTENTION AREA

STORM DRAIN SCHEDULE	
D-1 & D-2	1 HP ZOELLER EXTRA PROTECTION, TWO PUMP SYSTEM, OR EQUIVALENT, OLDCASTLE MODEL CP1810
D-3 THRU D-6	OLDCASTLE MODEL CB1212
D-7	1 HP STANCOR AVENGER SERIES SSD-1 AND 2 HP STANCOR AVENGER SERIES SSD-2, TWO PUMP SYSTEM, OR LOUNSBURY, STANDARD 48" MANHOLE
AD-1 THRU AD-4	4" ABS DRAIN WITH GRATE (OR APPROVED EQUAL)
FOUNDATION DRAINS PER GEOLOGIST RECOMMENDATION	
ALL DOWNSPOUTS TO BE TIED TO UNDERGROUND SD SYSTEM WITH 4" SCH. 5=0.070 (MIN.) (SAP)	
STORM DRAIN PIPE SHALL BE SCH. 5 PVC, OR EQUAL (MEETING CA. TRANS SPEC. 64 SPECIFICATIONS)	
BASEMENT SLAB SUBDRAIN PER GEOLOGIST RECOMMENDATION	

DRAINAGE PLAN

Graphic Scale: 1" = 10'

FOR REFERENCE - SUBMITTED UNDER PERMIT # BD1504 - 020

adobe associates, inc.
civil engineering | land surveying | landscape architecture
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WALLOCH RESIDENCE
DRAINAGE PLAN
1660 Spring Street
Saint Helena, California
APN 009-130-020

Sheet C2.0

JAC Designs
JAC Designs
P.O. BOX 648
GEYSERVILLE, CA
95441

WALLOCH RESIDENCE
1660 SPRING STREET
SAINT HELENA
C.A. 94574

No.	Description

Date 07/28/16
By Author
Checked By Checker

DRAINAGE PLAN - FOR REFERENCE

C2.0

Scale

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Insulated Panels

KingZip™

INSULATED STANDING SEAM ROOF PANEL SYSTEM

Kingspan®

Kingspan KingZip™

Kingspan is a global leader in the innovative design and manufacturing of sustainable high performance insulated metal roof and wall panel systems. Kingspan's fast track building envelope systems are key to achieving affordable, low energy, low carbon, and net-zero energy buildings.

KingZip™ insulated metal roof systems provide high levels of thermal (R-value) and airtightness performance throughout the service life of the building, contributing towards achieving net-zero energy building* targets and LEED® project certification.

KingZip's one step installation method can reduce on-site installation time by up to 50% compared to traditional multi-part roof systems, and is suitable for new and retrofit applications across commercial, industrial and cold storage market sectors.

Where do you start?
With the **EnvelopeFirst™**

Follow Kingspan on:

*U.S. Department of Energy's Commercial Building Initiative. www.eere.energy.gov

Contents

Performance Benefits

The easiest and most cost-effective route to reducing building energy demand and costs is to utilize the high thermal performance and superior airtightness benefits of KingZip™ standing seam roof systems.

Path to Net-Zero™

Path to NetZero™ is a unique tool for the building industry that will simulate the process of achieving high performance and net-zero energy buildings. Experts report on modeling results that evaluate energy savings and the impact of using insulated metal panels (IMPs). This tool is accessible through interactive mobile applications available on the web as well as via free apps for the iPad, iPhone, iPod Touch and Android mobile devices.

To evaluate the impact of high performance IMP wall and roof systems on building efficiency, Kingspan commissioned a study by the Architectural Energy Corporation that simulated three buildings – school, office and warehouse – in four locations.

The IMP buildings were compared against EIFS, split-faced block, tilt-up and single skin with batt insulation. Results indicated that continuous insulation with high effective R-value and superior airtightness achieved significant energy savings, followed by renewables, such as PV systems and energy conservation measures. This demonstrates the importance of **EnvelopeFirst™**, a high performance building envelope design strategy.

Energy Cost Savings

KingZip's thermal performance of high R-value, superior airtightness and low thermal bridging can result in energy savings of as much as 30% over standard cavity-based insulation systems.

*Visit **www.pathtonetzero.com** to download the appropriate version.*

Available on the App Store

Download for Android

High R-Value

KingZip's insulating core provides superior thermal performance with tested R-values of up to 48. In addition, the panel assembly features a unique thermally broken hidden clip system that helps prevent heat loss and condensation.

Most importantly, the insulation is exterior of the building structure. This feature provides the best possible thermal envelope by reducing thermal bridging typical of cavity insulation systems. In addition, the panels feature excellent foam-to-foam contact, which provides an unbroken thermal shield against heat transfer.

KingZip™ is tested to ASTM C1363, and the tested configuration is typical of actual in-place construction and performance.

Superior Airtightness and Weathertightness

One of the biggest sources of building heat loss (or heat gain) is due to air leakage i.e. – 'leaky buildings'. KingZip™ panels are rigorously tested to ensure that they remain both air and weathertight over the life of the building.

The standing seam design along with the hidden fastener clip assembly allows KingZip™ to be utilized on low slope applications (as low as ¼:12).

The standing seam joint is mechanically seamed using the KingZip™ Power Seamer

Kingspan offers an optional Manufacturers Weathertight Warranty program for KingZip™. Contact Kingspan for more details.

Carbon Emission Reduction

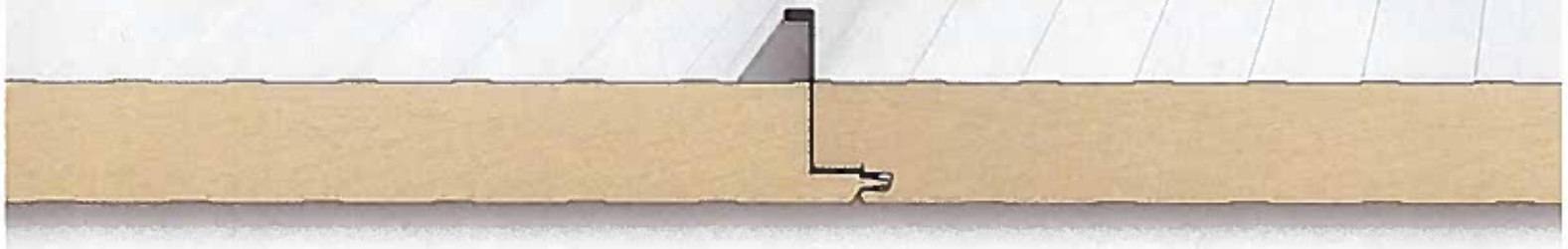
KingZip™ is a superior thermal and airtight system that reduces a building's operational energy demands (primarily heating and cooling), and as a result, it's carbon footprint.

Contributes to LEED® Credits

- Energy and Atmosphere
  - Optimize Energy Performance
    (requires building modeling to determine actual quantity)
- Energy Star® and Cool Roof® specifications
- Materials and Resources
  - Recycled Content
  - Regional Materials
- Innovation in Design Process

Performance Benefits

KingZip™ insulated standing seam roof system offers design flexibility and aesthetics combined with high R-values and unparalleled service life thermal performance – all 'built-in' to a single off-site, factory assembled insulated panel. KingZip™ is also available with integrated solar PV options.



Faster Build

KingZip's one step installation can reduce on-site installation time by up to 50% compared to traditional multi-part roof systems. KingZip™ insulated panels provide the exterior weather barrier, high efficiency insulation core and an integral vapor barrier. This reduces multiple labor steps required with other roof systems down to a single operation.

KingZip™ is available in 42" cover width and lengths of up to 48' making it easier to handle and position, while increasing installation productivity. KingZip™ panels are mechanically seamed using a Power Seamer.

Accessories

To complete the KingZip™ system a full range of integrated accessories including rooflights*, curb units*, fastening clips, gutters, architectural feature trims, and flashings are available.

KingZip™ is easily adaptable to accommodate safety and fall arrest systems.

** These solutions are project specific. Please contact Kingspan.*

Kingspan's single component systems **can increase speed of build by up to 50%**

Hand Crimper

This tool incorporates an over-bend feature to roll the top standing seam to a perpendicular orientation. The hand tool is also used to seam the panels at the end of the run for a distance of approximately 12" in order to be able to start the electric seaming tool.

Electric Seamer

The Power Seamer mechanically roll forms the seam of each KingZip™ panel to the adjacent panel. The tool features a lightened shaved gear train, hollowed shafts, and dual direction seaming capability. The seamer is available for rent or purchase.

Design Flexibility, Aesthetic Appeal

KingZip's vertical side seam and integral batten provide an attractive linear accent to any roofing application. In addition, the strong one piece flat pan design of the panel is ideal for complicated roof geometries such as hips and valleys, does not require the use of underlayments, and may be applied directly over open purlins or decking.

A full range of accessories are available to complete the KingZip™ system. The standing seam concept allows the system to be utilized on low roof slopes with cover widths of 42".

A wide range of color and finish options are available to enhance the aesthetic appeal of the roof. Energy Star® and Cool Roof® (CRRC) ratings are available for many Kingspan standard colors – contact Kingspan for more information.

KingZip™ Finish Options

KingZip™ is available with high-performance, sustainable roof finishes, including solar reflective Cool Roof® rated options that can reduce peak cooling energy demand by up to 15%. Cool Roof® rated solutions comply with codes and green building programs. When applied these finishes can contribute to several LEED® credits.

These Cool Roof® coatings are intended to reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimates and human and wildlife habitat.

As required by LEED® credit 7.2, Sustainable Sites – Heat Island Effect – Roof, the cool color palette for KingZip™ is Energy Star® compliant, specifying highly reflective and high-emissivity roofing (emissivity of at least 0.9 when tested in accordance with ASTM E408) for a minimum of 75% of the roof surface.

Energy Star® qualified roof systems can reduce the amount of air conditioning required in buildings and can reduce energy bills by up to 50%, translating into dollar savings and reducing impact on the environment.

KingZip™ Powerpanel

Powerpanel is a leading product for the sustainability challenges we face today. It combines the thermal performance benefits of KingZip™ with the power of the sun to offer a roofing system that **insulates and generates** renewable energy on-site from the comfort of a single source trusted provider.

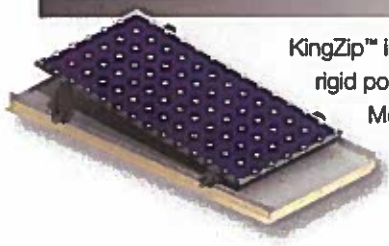
Insulate & Generate

Kingspan's Solar PV options include Thin Film Laminate BIPV, for a building integrated roof, Poly or Monocrystalline Tilt and Direct Mount systems.

Laminate BIPV

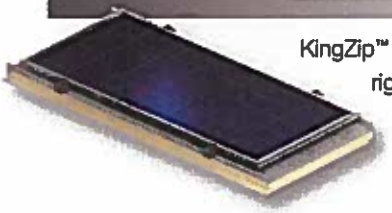
KingZip™ insulated roofing panel with flexible, factory applied thin-film Laminate PV.

Tilt Mount



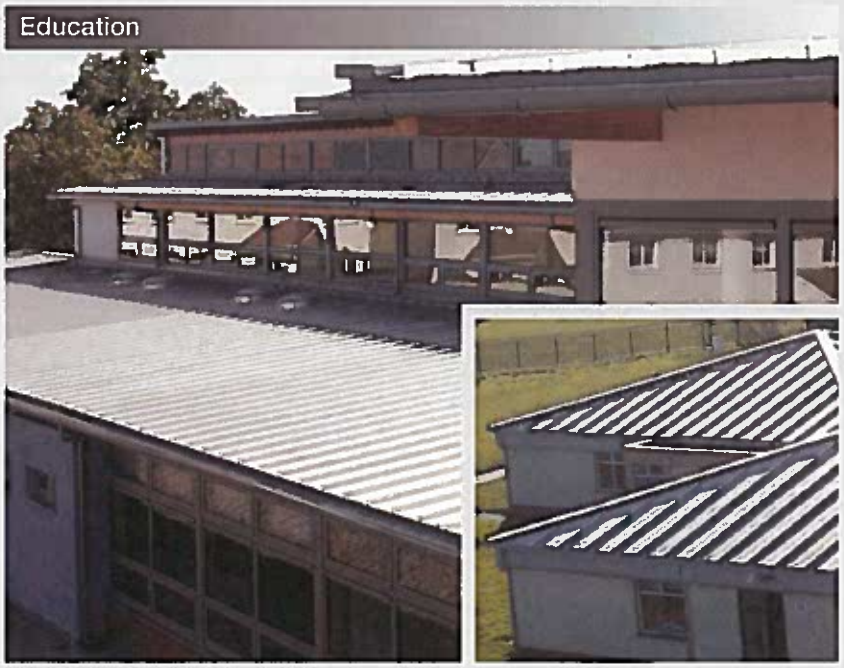
KingZip™ insulated roofing panel with rigid poly or monocrystalline PV Modules, mounted on a steel strut tilting system, fixed to the standing seam joints.

Direct Mount



KingZip™ insulated roofing panel with rigid poly or monocrystalline PV modules fixed directly to the standing seam joints.

Market Sectors




Recreational


Retail

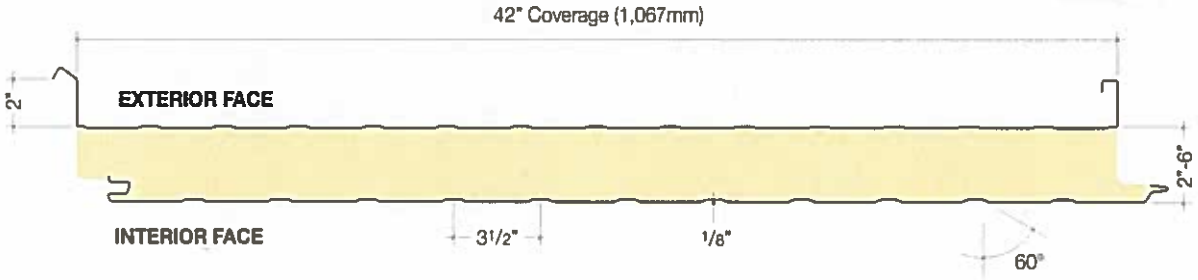

Industrial


Cold Storage

Product Data

Dimensions

KingZip™



Shown before seaming

Specifications

Description:	KingZip™ Standing Seam Roof Panel
Dimensions:	Panel Width – 42" / Panel Length – Minimum 10'-0"; Maximum 48'-0"
Joint Configuration:	Mechanically seamed 2" nominal sidelap
Insulation Core:	Foamed-in-place polyisocyanurate (PIR)
Slope:	For applications as low as ¼:12
Material:	**Exterior** – 24 gauge stucco embossed steel, AZ50 Galvalume® / Zincalume®. 22 gauge steel is also available. **Interior** – 26 gauge stucco embossed steel, AZ50 Galvalume® / Zincalume® or G90 galvanized. 24 and 22 gauge steel or stainless steel are also available.
Finish Options:	A wide range of color and finish options are available to enhance the aesthetic appeal of the roof. Energy Star® and Cool Roof® (CRRC) ratings are available for many Kingspan standard colors – contact Kingspan for more information.

Testing & Approvals

Test	Procedure	Results
Surface Burning	Factory Mutual ASTM E84	Flame Spread: 25 or Less Smoke Developed: 450 or Less
Toxicity Test	State of New York, Article 15, Part 1120 of the New York State Uniform Fire Prevention Code	Kingspan panels are in compliance
Wind Uplift	Factory Mutual 4471	1-105 @ 5'0" spans with minimum 14 gauge roof purlins 1-60 @ 6' spans with minimum 14 gauge roof purlins
	UL 580 Class 90 uplift rating	5'0" spans with minimum 14 gauge purlins
	UL 580 Class 90 uplift rating	Panels attached to 20 gauge decking with 3' o.c. fastening
Strength	ASTM E72 Chamber Method	Panel load / span and deflection tables are available
Thermal Transmission	ASTM C1363 Guarded Hot Box	2" R = 15 U = 0.0667 3" R = 24 U = 0.0417 4" R = 33 U = 0.0303 5" R = 41 U = 0.0244 6" R = 48 U = 0.0208
Air Infiltration	ASTM E283 and ASTM E1680	0.003 CFM/ft² of Panel Area at 6.24 psf
Water Penetration	ASTM E331 and ASTM E1646	No Water Penetration at 20.0 psf
Fatigue Test	Subjected to 2 million alternate cycles of 20 PSF positive and negative wind loading	No metal / foam delamination or metal fatigue
Humidity Test	Sample subjected to 100% relative humidity at 140 °F for 1000 hours	No evidence of metal primer corrosion
Autoclave Test	Sample placed in an autoclave device and pressurized to 2 PSI at 212 °F for 2½ hours	No evidence of delamination
Skin Delamination		No skin delamination with direct pull off pressure up to 1188 psf

Product Data

Insulation Core

Foamed-in-place Polyisocyanurate (PIR): with an Ozone Depletion Potential of zero (Zero ODP).

KingZip™ panels have been thoroughly evaluated by Factory Mutual and comply with FM-4471 Approval Standard for Class I roofs. Findings show that the panels in and of themselves would not create a need for automatic sprinklers.

Quality & Durability

Kingspan insulated panels are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, ensuring long-term reliability and service life.

Warranties

Kingspan insulated metal roof and wall panels have been used on every continent in the world under extreme climatic conditions.

Contact Kingspan for more information regarding our optional extended warranty programs of up to 20 years.

Delivery

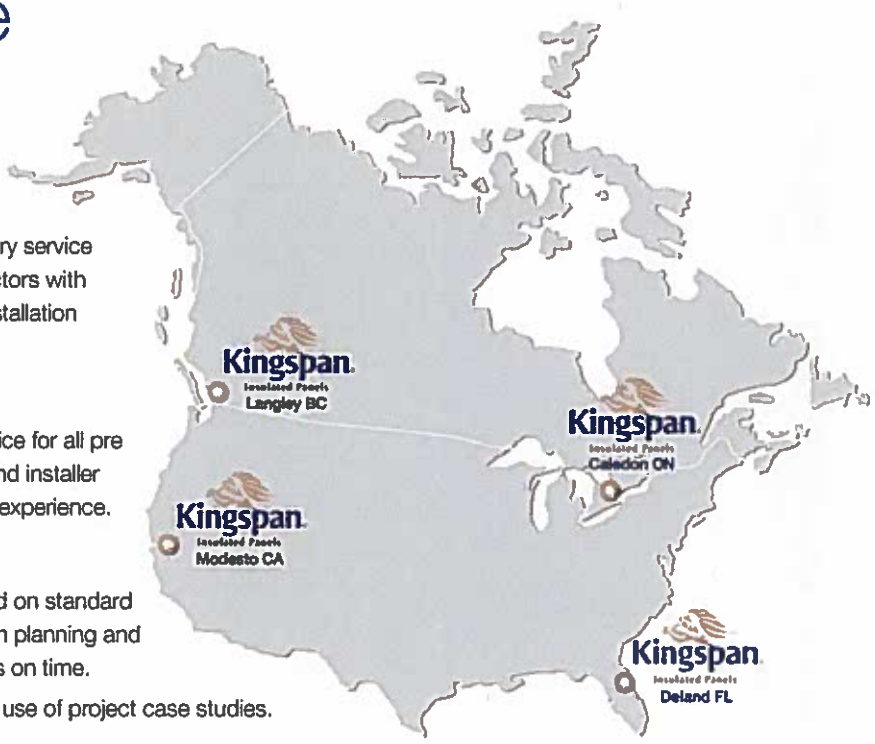
All deliveries (unless indicated otherwise) are by road transport to project site. Off loading is the responsibility of the client.

Site Installation Procedure

Site assembly instructions are available from **Kingspan Technical Services**. Kingspan KingZip™ Installation Guides are available for download at:

US - www.kingspanpanels.us/resourcelibrary
Canada - www.kingspanpanels.ca/resourcelibrary

Kingspan Service



Technical Service

Kingspan provides a comprehensive technical advisory service to assist architects, specifiers and installation contractors with building design, product application and site work installation training and challenges.

Customer Service

Our dedicated team provides focused customer service for all pre and post-order administration, delivery scheduling, and installer support, ensuring a seamless coordinated customer experience.

Marketing Support

Our marketing team aims to provide a fast turnaround on standard sample and literature requests, eliminating delays with planning and client approval of material, so that your project begins on time.

Additional marketing support is provided through the use of project case studies.

Field Service Support

Kingspan's Field Service Engineering Team offer customers free contractor training on the installation of new and existing products, site inspection services as well as advice on mechanical handling solutions.

Sales Team

Our regionally based sales team can provide assistance on any project from the design stage through to site installation.

Find your local sales rep on our website.
US - www.kingspanpanels.us/findasalesrep
Canada - www.kingspanpanels.ca/findasalesrep

Email us:

Technical Services:
technicalservice@kingspanpanels.com

Installation:
installation@kingspanpanels.com

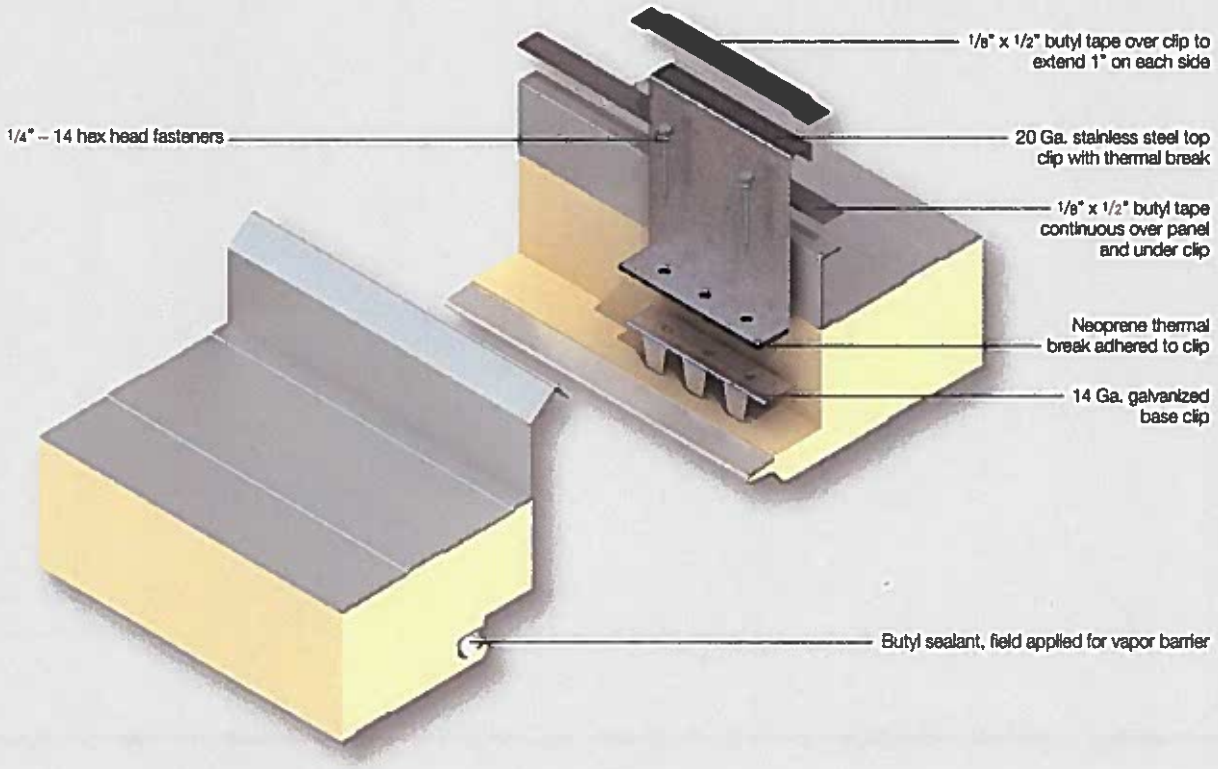
Marketing:
marketingdept@kingspanpanels.com

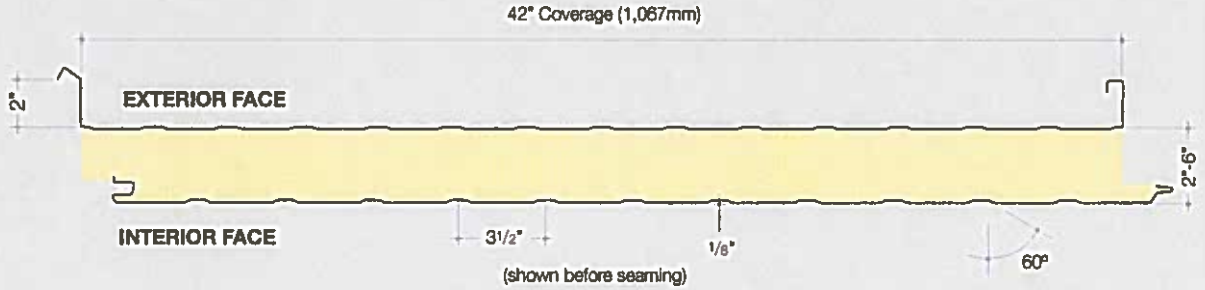
Samples:
samplesdept@kingspanpanels.com

Follow Kingspan on:

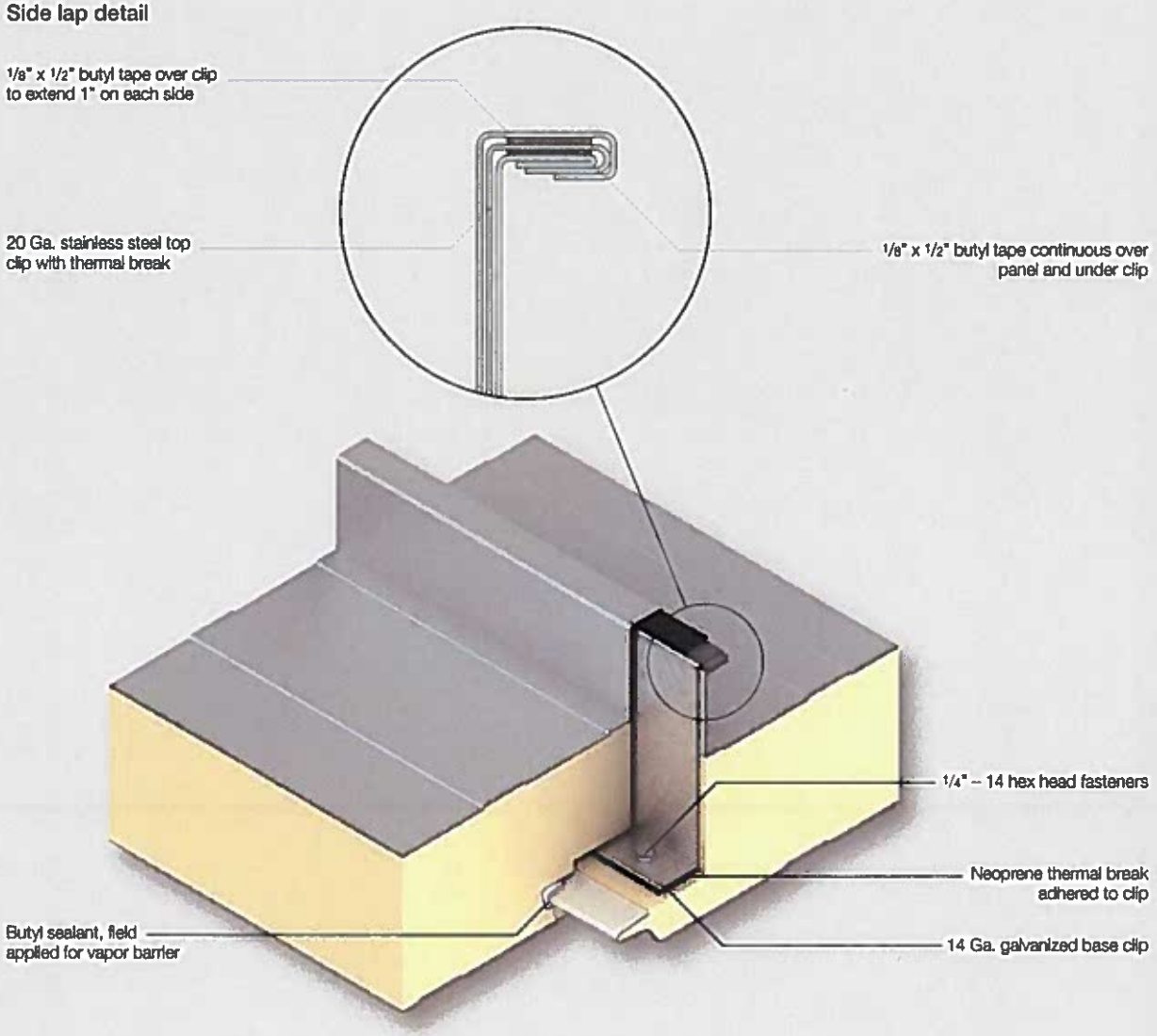
Side Lap Details

Side lap detail

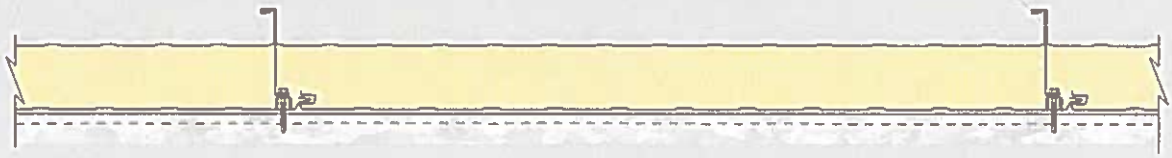




Side lap detail



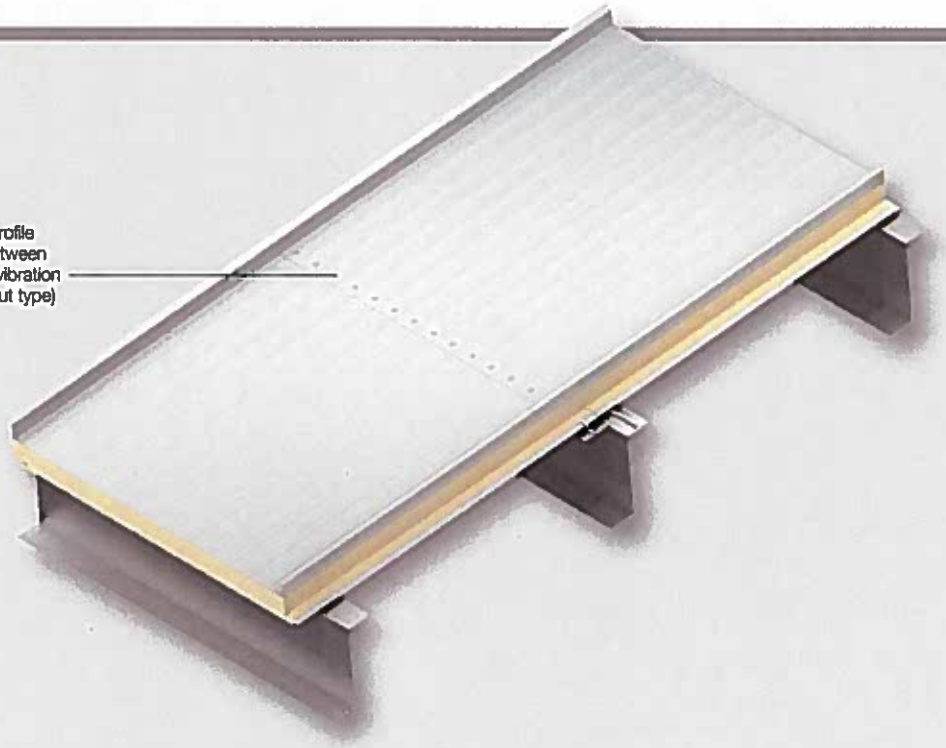
2 each of 1/4" – 14 through fasteners with stainless steel two piece clip required for each panel at each support

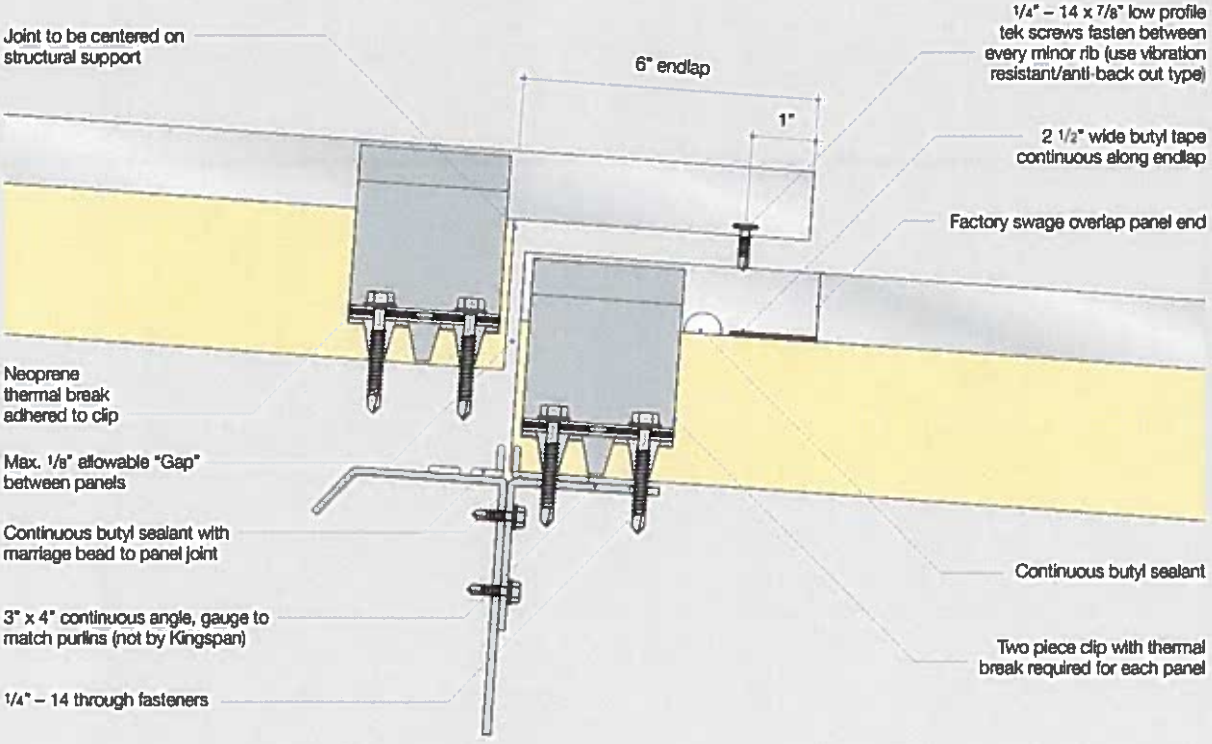


(shown after seaming)

Endlap Details

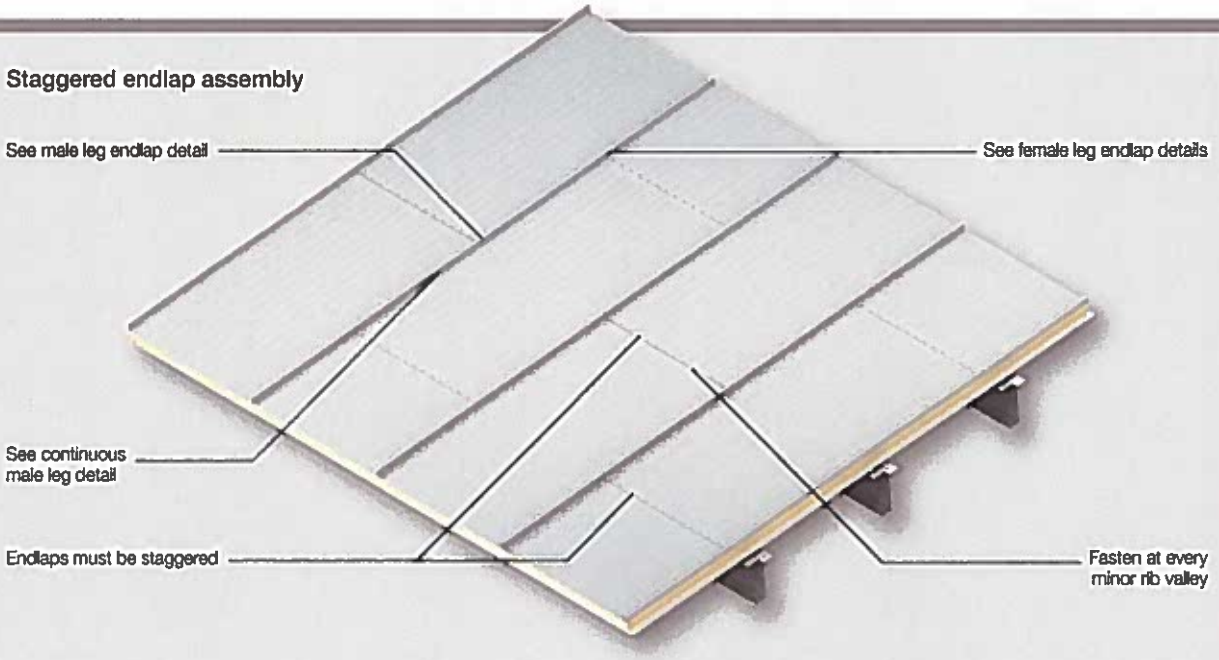
Endlap detail



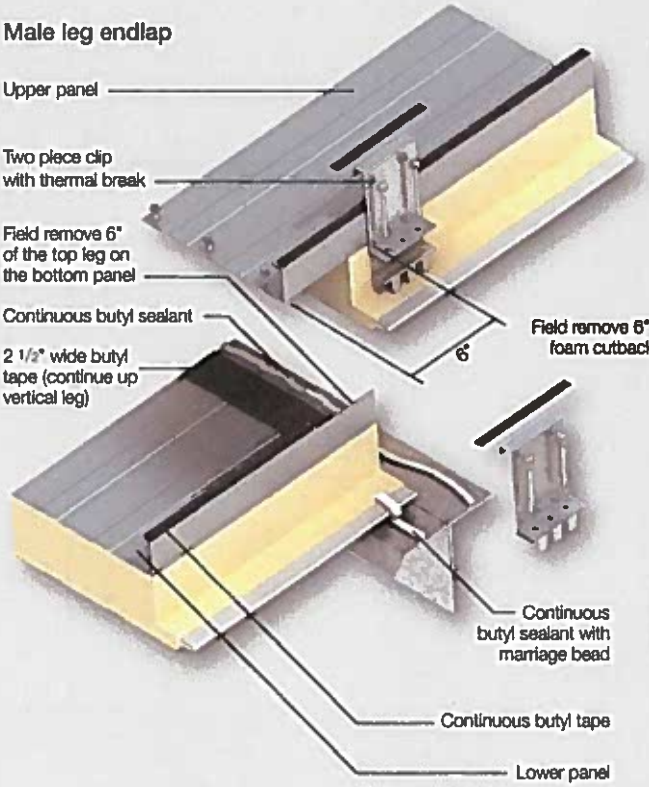


Note: Min. 5" wide support at each endlap for proper panel attachment.

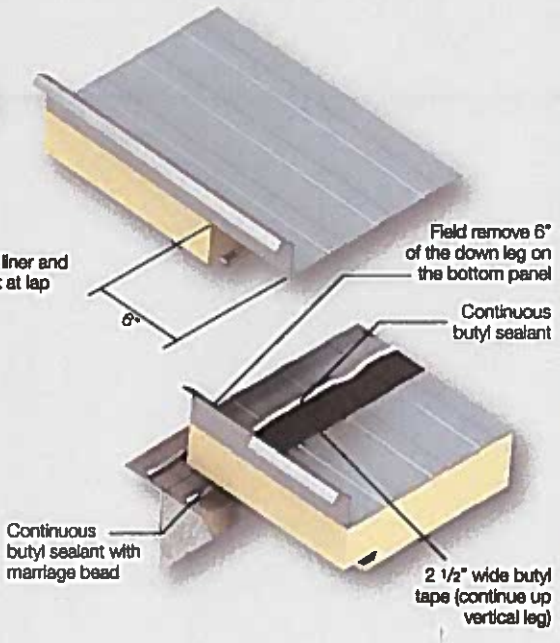
Staggered endlap assembly



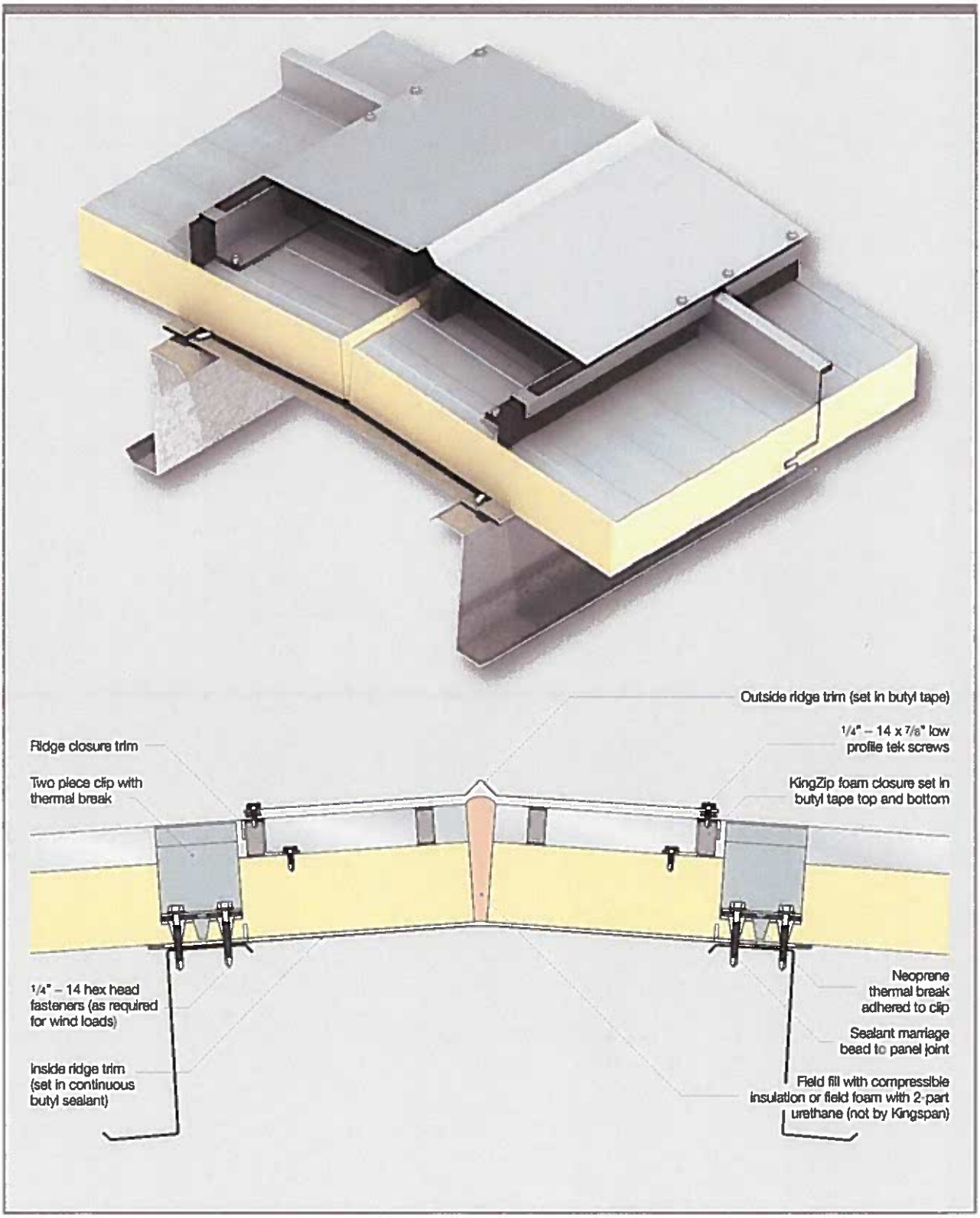
Male leg endlap



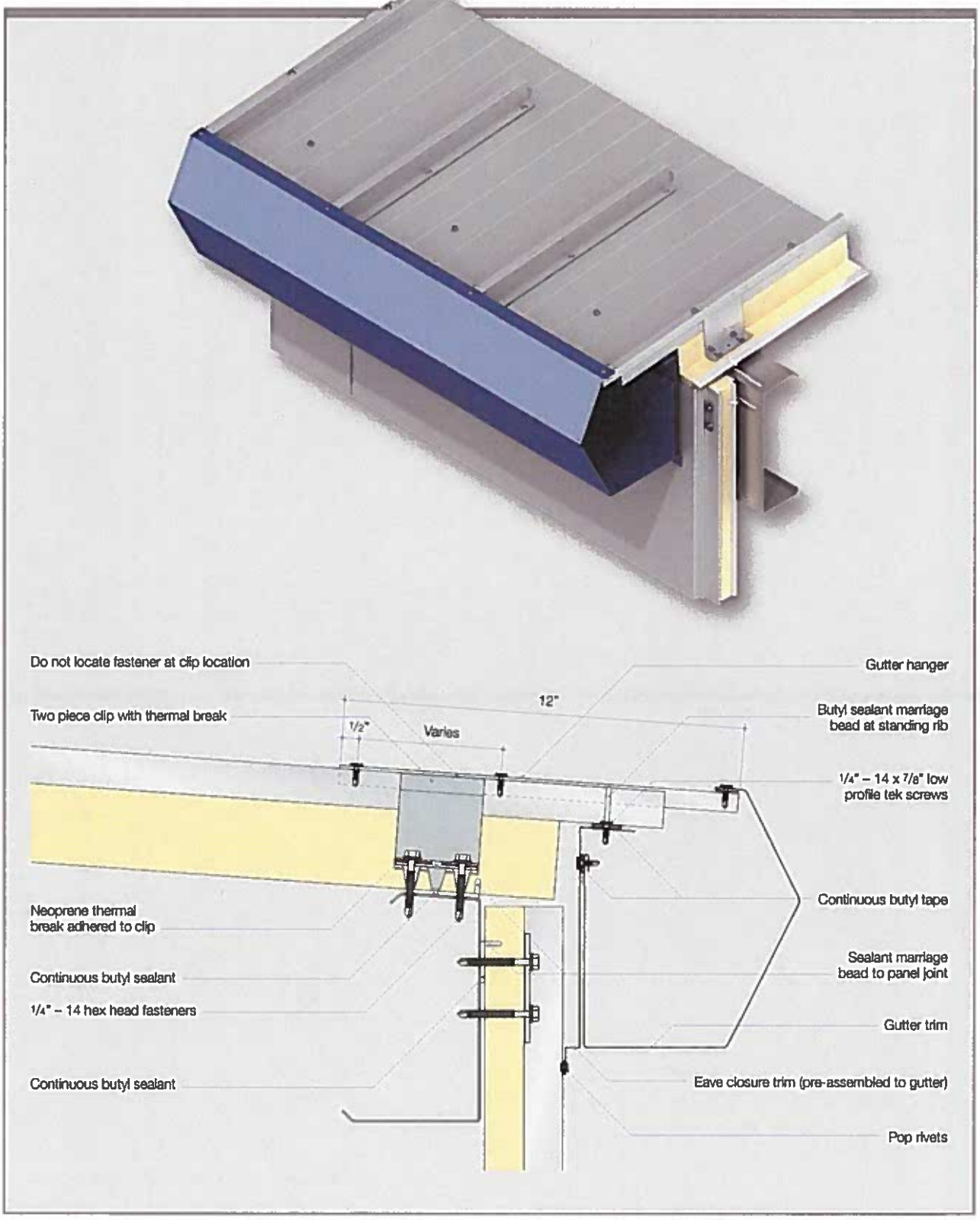
Female leg endlap



Ridge Detail



Eaves Detail



Project Portfolio

Pratt Paper Mill

Shreveport, Louisiana

Churchill House

Sudbury, Massachusetts

Providenciales Power Company

Turks and Caicos Islands

Kingspan USA Deland, FL; 386-626-6789 Modesto, CA; 209-531-9091
Kingspan Canada Caledon, ON; 905-951-5600 Langley, BC; 604-607-1101

Email: kingzip@kingspanpanels.com
www.kingspanpanels.us / www.kingspanpanels.ca

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200 Inverted Rib

Insulated Metal Wall Panels

Kingspan's 200 Inverted Rib insulated metal panels can be applied to a multitude of designs for vertical wall applications. Offered in multiple thickness, the 200 Inverted Rib is a single component insulated metal panel, minimizing construction delays, possibly reducing labor costs, and producing faster on-site installation when compared to multi-part wall systems. Kingspan's metal insulated panels provide thermal performance of high R-value, superior airtightness and low thermal bridging, resulting in energy cost savings of as much as 30% over traditional multi part built-up systems while increasing a building's curb appeal.

Product Specification | Features and Benefits | Resource Library | Sustainability | Project Gallery

Product Specifications

Panel Thickness	2" 2.5" 3" 4" 5" 6"
R-Value by ASTM C518	7.2 per inch at 75°F 8.0 per inch at 35°F
Panel Width	42"
Lengths	10' to 48'
Joint Configuration	Interlocking tongue and groove
Exterior Face	26/24/22 Ga. Embossed or Non-Embossed steel, AZ50 Galvalume® or G90 galvanized (20 Ga. available upon request)
Interior Face	26/24/22 Ga. Embossed or Non-Embossed steel, AZ50 Galvalume® or G90 galvanized (20 Ga. available upon request)
Core Material	Polyisocyanurate
Orientation	Vertical