Staff Report for Item 11

To:	Chairman Bryan Green and Historic Architectural Review Commission Members
From:	Kelly Perkins, MHP HARC Assistant Planner
Meeting Date:	April 26, 2016
Applicant:	Keys Roofing
Application Number:	H16-01-0342
Address:	#600 Eaton Street – Jones Fellowship Hall

Description of Work:

Remove asphalt shingles and replace with metal v-crimp. Install modified bitumen roof on flat section.

Site Facts:

The structure at 600 Eaton Street is currently a one story structure, designed with a mid-century modern interpretation of a gothic revival architectural style. The survey lists the property as a contributing resource built c. 1877, and the Florida Master Site File for that address considers the Fellowship Hall a 1963 addition to the contributing building – the Key West United Methodist Church. The Fellowship Hall currently has an asphalt shingle roof, and the building had an asphalt shingle ring in the c.1965 photograph. Currently, the asphalt shingle roof is not in great condition, with some shingles missing.

Guidelines Cited in Review:

Secretary of the Interior's Standards for Rehabilitation (pages 16-17), specifically Standards 2, 5, and 6.

Roofs (15-16) of the Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings.

Roofing (page 26), specifically guidelines 1 and 4.

Additions, Alterations, and New Construction (page 36-38a), specifically guidelines 1.

Preservation Brief 4: Roofing for Historic Buildings.

Staff Analysis

This Certificate of Appropriateness proposes the removal of the existing asphalt shingle roof that is on a steeply pitched roof with a unique curved edge and the addition of new v-crimp on the roof. Asphalt shingles, contrary to what the guidelines state, are a historic material, first developed in the 1890s and early 1900s. Asphalt shingles largely replaced the use of other roofing materials in the United States by the mid-20th century, when this structure was built.

Consistency with Guidelines

1. Our guidelines state, "The form and configuration of a roof must not be altered in pitch, design, *materials*, or shape unless the resulting changes would return the roof to a verifiable and appropriate historical form." The use of v-crimp would alter the materials. Also our guidelines state that a structure "shall not be altered and/or expanded in such a manner that its essential character-defining features are disguised or concealed." The roof is a character-defining feature of this building, and the asphalt shingles are an important component of the roof and its appearance.
2. The Secretary of the Interior's Standards for Rehabilitation state, "The historic character of a property should be retained and preserved." Standard 5 states, "Distinctive features…that characterize a historic property shall be preserved." Standard 6 dictates that "the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials." Asphalt shingles are still readily available.
3. The Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings say, "Using a substitute material for the replacement part that <u>does not convey</u> the visual appearance of the surviving parts of the roof or that is physically or chemically incompatible" is not recommended. The guidelines also state that "introducing a new roof feature that is incompatible in size, scale, material, and color" is not recommended.
4. Preservation Brief 4: Roofing states, "In a rehabilitation project, there may be valid reasons for replacing the roof with a material other than the original. The historic roofing may no longer be available, or the cost of obtaining specially fabricated materials may be prohibitive. But the decision to use an alternative material should be weighed carefully against the primary concern to keep the historic character of the building. If the roof is flat and is not visible from any elevation of the building, and if there are advantages to substituting a modern built-up composition roof for what might have been a flat metal roof, then it may make better economic and construction sense to use a modern roofing method. *But if the roof is readily visible, the alternative material should match as closely as possible the scale, texture, and coloration of the historic roofing material."*

It is staff's opinion that proposed change of roofing materials to the Fellowship Hall is inconsistent with the guidelines, the Secretary's Standards for Rehabilitation, The Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings, and Preservation Brief 4. The change from asphalt shingles to v-crimp and modified bitumen will alter the character of the building, especially since the roof is such a large and predominant feature of the building. The texture and verticality

of v-crimp roofing does not match the horizontal character of asphalt shingles. The materials will alter the scale of the roof, as v-crimp has a very different appearance from asphalt shingles.

Roofs

The roof—with its shape; features such as cresting, dormers, cupolas, and chimneys; and the size, color, and patterning of the roofing material—can be extremely important in defining the building's overall historic character. In addition to the design role it plays, a weathertight roof is essential to the preservation of the entire structure; thus, protecting and repairing the roof as a "cover" is a critical aspect of every rehabilitation project.

Recommended	*Not Recommended*
Identifying, retaining, and preserving roofs—and their functional and decorative features—that are important in defining the overall historic character of the building. This includes the roof's shape, such as hipped, gambrel, and mansard; decorative features such as cupolas, cresting, chimneys, and weathervanes; and roofing material such as slate, wood, clay tile, and metal, as well as its size, color, and patterning.	Radically changing, damaging, or destroying roofs which are important in defining the overall historic character of the building so that, as a result, the character is diminished.
	Removing a major portion of the roof or roofing material that is repairable, then reconstructing it with new material in order to create a uniform, or "improved" appearance.
	Changing the configuration of a roof by adding new features such as dormer windows, vents, or skylights so that the historic character is diminished.
	Stripping the roof of sound historic material such as slate, clay tile, wood, and architectural metal.
	Applying paint or other coatings to roofing material which has been historically uncoated.
rotecting and maintaining a roof by cleaning the gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for proper venting to prevent moisture condensation and water penetration; and to insure that materials are free from insect infestation.	Failing to clean and maintain gutters and downspouts properly so that water and debris collect and cause damage to roof fasteners, sheathing, and the underlying structure.
Providing adequate anchorage for roofing material to guard against wind damage and moisture penetration.	Allowing roof fasteners, such as nails and clips to corrode so that roofing material is subject to accelerated deterioration.
Protecting a leaking roof with plywood and building paper until it can be properly repaired.	Permitting a leaking roof to remain unprotected so that accelerated deterioration of historic building materials—masonry, wood, plaster, paint and structural members—occurs.
Repairing a roof by reinforcing the historic materials which comprise roof features. Repairs will also generally include the limited replacement in kind—or with compatible substitute material—of those extensively deteriorated or missing parts of features when there are surviving prototypes such as cupola louvers, dentils, dormer roofing; or slates, tiles, or wood shingles on a main roof.	Replacing an entire roof feature such as a cupola or dormer when repair of the historic materials and limited replacement of deteriorated or missing parts are appropriate.
	Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the roof or that is physically or chemically incompatible.
Replacing in kind an entire feature of the roof that is too deteriorated to repair—if the overall form and detailing are still evidence—using the physical evidence to guide the new work. Examples can include a large section of roofing, or a dormer or chimney. If using the same kind of material is not technically or economically feasible, then a compatible substitute material may be considered.	Removing a feature of the roof that is unrepairable, such as a chimney or dormer, and not replacing it; or replacing it with a new feature that does not convey the same visual appearance.

The following work is highlighted to indicate that it represents the particularly complex technical or design aspects of rehabilitatin projects and should only be considered after the preservation concerns listed above have been addressed.

Recommended	*Not Recommended*
Design for Missing Historic Features	
Designing and constructing a new feature when the historic feature is completely missing, such as a chimney or cupola. It may be an accurate restoration using historical, pictorial and physical documentation; or be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating a false historical appearance because the replaced feature is based on insufficient historical, pictorial, and physical documentation. Introducing a new roof feature that is incompatible in size, scale, material, and color.
Alterations/Additions for the New Use	
Installing mechanical and service equipment on the roof such as air conditioning, transformers, or solar collectors when required for the new use so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.	Installing mechanical or service equipment so that it damages or obscures character-defining features; or is conspicuous from the public right-of-way.
Designing additions to roofs such as residential, office, or storage spaces; elevator housing; decks and terraces; or dormers or skylights when required by the new use so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.	Radically changing a character-defining roof shape or damaging or destroying character-defining roofing material as a result of incompatible design or improper installation techniques.

4 PRESERVATION BRIEFS

HABS

Roofing for Historic Buildings

Sarah M. Sweetser

U.S. Department of the Interior
National Park Service
Cultural Resources
Heritage Preservation Services

Significance of the Roof

A weather-tight roof is basic in the preservation of a structure, regardless of its age, size, or design. In the system that allows a building to work as a shelter, the roof sheds the rain, shades from the sun, and buffers the weather.

During some periods in the history of architecture, the roof imparts much of the architectural character. It defines the style and contributes to the building's aesthetics. The hipped roofs of Georgian architecture, the turrets of Queen Anne, the Mansard roofs, and the graceful slopes of the Shingle Style and Bungalow designs are examples of the use of roofing as a major design feature.

But no matter how decorative the patterning or how compelling the form, the roof is a highly vulnerable element of a shelter that will inevitable fail. A poor roof will permit the accelerated deterioration of historic building materials—masonry, wood, plaster, paint—and will cause general disintegration of the basic structure. Furthermore, there is an urgency involved in repairing a leaky roof since such repair costs will quickly become prohibitive. Although such action is desirable as soon as a failure is discovered, temporary patching methods should be carefully chosen to prevent inadvertent damage to sound or historic roofing materials and related features. Before any repair work is performed, the historic value of the materials used on the roof should be understood. Then a complete internal and external inspection of the roof should be planned to determine all the causes of failure and to identify the alternatives for repair or replacement of the roofing.

Historic Roofing Materials in America

Clay Tile: European settlers used clay tile for roofing as early as the mid-17th century; many pantiles (S-curved tiles), as well as flat roofing tiles, were used in Jamestown, Virginia. In some cities such as New York and Boston, clay was popularly used as a precaution against such fire as those that engulfed London in 1666 and scorched Boston in 1679.

Tiles roofs found in the mid-18th century Moravian settlements in Pennsylvania closely resembled those found in Germany. Typically, the tiles were 14–15″ long, 6–7″ wide with a curved butt. A lug on the back allowed the tiles to hang on the lathing without nails or pegs. The tile surface was usually scored with finger marks to promote drainage. In the Southwest, the tile roofs of the Spanish missionaries (mission tiles) were first manufactured (ca. 1780) at the Mission San Antonio de Padua in California. These semicircular tiles were made by molding clay over sections of logs, and they were generally 22″ long and tapered in width.

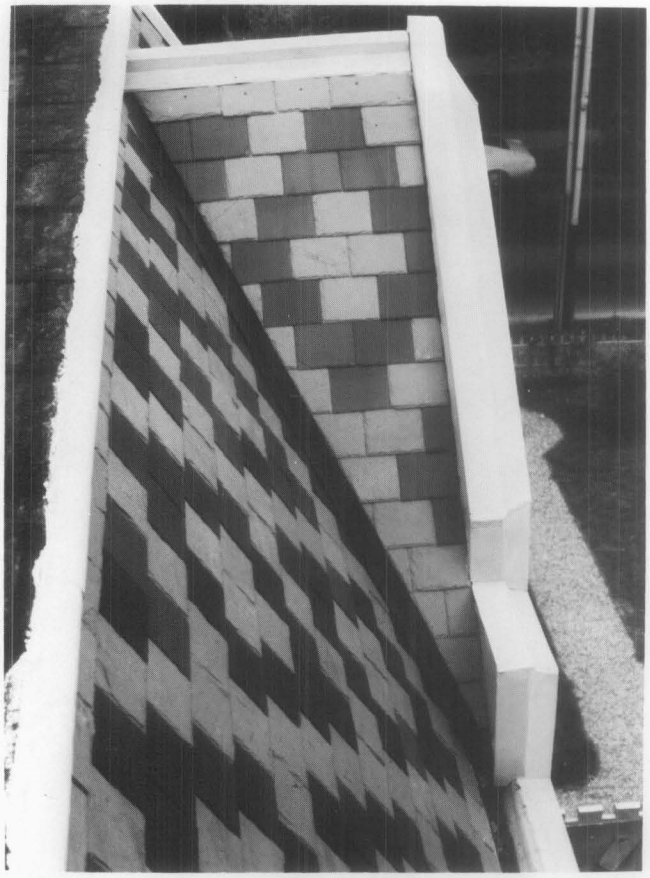
Repairs on this pantile roof were made with new tiles held in place with metal hangers. (Main Building, Ellis Island, New York)

The plain or flat rectangular tiles most commonly used from the 17th through the beginning of the 19th century measured about 10″ by 6″ by ½″, and had two holes at one end for a nail or peg fastener. Sometimes mortar was applied between the courses to secure the tiles in a heavy wind.

In the mid-19th century, tile roofs were often replaced by sheet-metal roofs, which were lighter and easier to install and maintain. However, by the turn of the century, the Romanesque Revival and Mission style buildings created a new demand and popularity for this picturesque roofing material.

Slate: Another practice settlers brought to the New World was slate roofing. Evidence of roofing slates have been found also among the ruins of mid-17th-century Jamestown. But because of the cost and the time required to obtain the material, which was mostly imported from Wales, the use of slate was initially limited. Even in Philadelphia (the second largest city in the English-speaking world at the time of the Revolution) slates were so rare that "The Slate Roof House" distinctly referred to William Penn's home built late in the 1600s. Sources of native slate were known to exist along the eastern seaboard from Maine to Virginia, but difficulties in inland transportation limited its availability to the cities, and contributed to its expense. Welsh slate continued to be imported until the development of canals and railroads in the mid-19th century made American slate more accessible and economical.

Slate was popular for its durability, fireproof qualities, and



The Victorians loved to used different colored slates to create decorative patterns on their roofs, an effect which cannot be easily duplicated by substitute materials. Before any repair work on a roof such as this, the slate sizes, colors, and position of the patterning should be carefully recorded to assure proper replacement. (Ebenezer Maxwell Mansion, Philadelphia, Pennsylvania, photo courtesy of William D. Hershey)

Replacement of particular historic details is important to the individual historic character of a roof, such as the treatment at the eaves of this rounded butt wood shingle roof. Also note that the surface of the roof was carefully sloped to drain water away from the side of the dormer. In the restoration, this function was augmented with the addition of carefully concealed modern metal flashing. (Mount Vernon, Virginia)

Galvanized sheet-metal shingles imitating the appearance of pantiles remained popular from the second half of the 19th century into the 20th century. (Episcopal Church, now the Jerome Historical Society Building, Jerome, Arizona, 1927)

aesthetic potential. Because slate was available in different colors (red, green, purple, and blue-gray), it was an effective material for decorative patterns on many 19th-century roofs (Gothic and Mansard styles). Slate continued to be used well into the 20th century, notably on many Tudor revival style buildings of the 1920s.

Shingles: Wood shingles were popular throughout the country in all periods of building history. The size and shape of the shingles as well as the detailing of the shingle roof differed according to regional craft practices. People within particular regions developed preferences for the local species of wood that most suited their purposes. In New England and the Delaware Valley, white pine was frequently used: in the South, cypress and oak; in the far west, red cedar or redwood. Sometimes a protective coating was applied to increase the durability of the shingle such as a mixture of brick dust and fish oil, or a paint made of red iron oxide and linseed oil.

Commonly in urban areas, wooden roofs were replaced with more fire resistant materials, but in rural areas this was not a major concern. On many Victorian country houses, the practice of wood shingling survived the technological advances of metal roofing in the 19th century, and near the turn of the century enjoyed a full revival in its namesake, the Shingle Style. Colonial revival and the Bungalow styles in the 20th century assured wood shingles a place as one of the most fashionable, domestic roofing materials.

Metal: Metal roofing in America is principally a 19th-century phenomenon. Before then the only metals commonly used were lead and copper. For example, a lead roof covered "Rosewell," one of the grandest mansions in 18th-century Virginia. But more often, lead was used for protective flashing. Lead, as well as copper, covered roof surfaces where wood, tile, or slate shingles were inappropriate because of the roof's pitch or shape.

Copper with standing seams covered some of the more notable early American roofs including that of Christ Church (1727–1744) in Philadelphia. Flat-seamed copper was used on many domes and cupolas. The copper sheets were imported from England until the end of the 18th century when facilities for rolling sheet metal were developed in America.

Sheet iron was first known to have been manufactured here by the Revolutionary War financier, Robert Morris, who had a rolling mill near Trenton, New Jersey. At his mill Morris produced the roof of his own Philadelphia mansion, which he started in 1794. The architect Benjamin H. Latrobe used sheet iron to replace the roof on Princeton's "Nassau Hall," which had been gutted by fire in 1802.

The method for corrugating iron was originally patented in England in 1829. Corrugating stiffened the sheets, and allowed greater span over a lighter framework, as well as reduced installation time and labor. In 1834 the American architect William Strickland proposed corrugated iron to cover his design for the market place in Philadelphia.

Galvanizing with zinc to protect the base metal from rust was developed in France in 1837. By the 1850s the material was used on post offices and customhouses, as well as on train sheds and factories. In 1857 one of the first metal roofs in the

Repeated repair with asphalt, which cracks as it hardens, has created a blistered surface on this sheet-metal roof and built-in gutter, which will retain water. Repairs could be made by carefully heating and scraping the surface clean, repairing the holes in the metal with a flexible mastic compound or a metal patch, and coating the surface with a fibre paint. (Roane County Courthouse, Kingston, Tennessee, photo courtesy of Building Conservation Technology, Inc.)

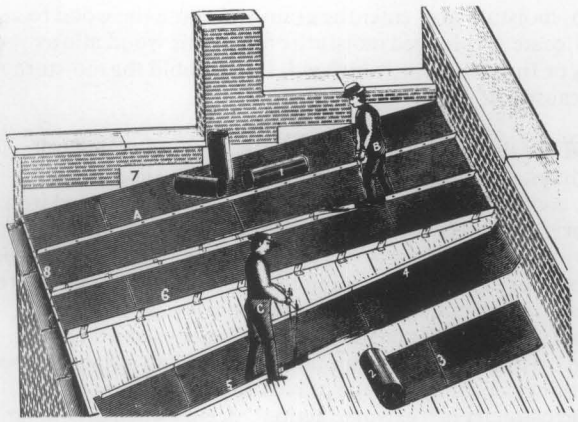
South was installed on the U.S. Mint in New Orleans. The Mint was thereby "fireproofed" with a 20-gauge galvanized, corrugated iron roof on iron trusses.

Tin-plate iron, commonly called "tin roofing," was used extensively in Canada in the 18th century, but it was not as common in the United States until later. Thomas Jefferson was an early advocate of tin roofing, and he installed a standing-seam tin roof on "Monticello" (ca. 1770–1802). The Arch Street Meetinghouse (1804) in Philadelphia had tin shingles laid in a herringbone pattern on a "piazza" roof.

However, once rolling mills were established in this country, the low cost, light weight, and low maintenance of tin plate made it the most common roofing material. Embossed tin shingles, whose surfaces created interesting patterns, were popular throughout the country in the late 19th century. Tin roofs were kept well-painted, usually red; or, as the architect A. J. Davis suggested, in a color to imitate the green patina of copper.

Terne plate differed from tin plate in that the iron was dipped in an alloy of lead and tin, giving it a duller finish. Historic, as well as modern, documentation often confuses the two, so much that it is difficult to determine how often actual "terne" was used.

Zinc came into use in the 1820s, at the same time tin plate was becoming popular. Although a less expensive substitute for lead, its advantages were controversial, and it was never widely used in this country.



A Chicago firm's catalog dated 1896 illustrates a method of unrolling, turning the edges, and finishing the standing seam on a metal roof.

Tin shingles, commonly embossed to imitate wood or tile, or with a decorative design, were popular as an inexpensive, textured roofing material. These shingles $8^3/_8$ inch by $12^1/_2$ inch on the exposed surface) were designed with interlocking edges, but they have been repaired by surface nailing, which may cause future leakage. (Ballard House, Yorktown, Virgina, photo by Gordie Whittington, National Park Service)

Other Materials: Asphalt shingles and roll roofing were used in the 1890s. Many roofs of asbestos, aluminum, stainless steel, galvinized steel, and lead-coated copper may soon have historic values as well. Awareness of these and other traditions of roofing materials and their detailing will contribute to more sensitive preservation treatments.

Locating the Problem

Failures of Surface Materials

When trouble occurs, it is important to contact a professional, either an architect, a reputable roofing contractor, or a craftsman familiar with the inherent characteristics of the particular historic roofing system involved. These professionals may be able to advise on immediate patching procedures and help plan more permanent repairs. A thorough examination of the roof should start with an appraisal of the existing condition and quality of the roofing material itself. Particular attention should be given to any southern slope because year-round exposure to direct sun may cause it to break down first.

Wood: Some historic roofing materials have limited life expectancies because of normal organic decay and "wear." For example, the flat surfaces of wood shingles erode from exposure to rain and ultraviolet rays. Some species are more hardy than others, and heartwood, for example, is stronger and more durable than sapwood.

Ideally, shingles are split with the grain perpendicular to

the surface. This is because if shingles are sawn across the grain, moisture may enter the grain and cause the wood to deteriorate. Prolonged moisture on or in the wood allows moss or fungi to grow, which will further hold the moisture and cause rot.

Metal: Of the inorganic roofing materials used on historic buildings, the most common are perhaps the sheet metals: lead, copper, zinc, tin plate, terne plate, and galvanized iron. In varying degrees each of these sheet metals are likely to deteriorate from chemical action by pitting or streaking. This can be caused by airborn pollutants; acid rainwater; acids from lichen or moss; alkalis found in lime mortars or portland cement, which might be on adjoining features and washes down on the roof surface; or tannic acids from adjacent wood sheathings or shingles made of red cedar or oak.

Corrosion from "galvanic action" occurs when dissimilar metals, such as copper and iron, are used in direct contact. Corrosion may also occur even though the metals are physically separated; one of the metals will react chemically against the other in the presence of an electrolyte such as rainwater. In roofing, this situation might occur when either a copper roof is decorated with iron cresting, or when steel nails are used in copper sheets. In some instances the corrosion can be prevented by inserting a plastic insulator between the dissimilar materials. Ideally, the fasteners should be a metal sympathetic to those involved.

Iron rusts unless it is well-painted or plated. Historically this problem was avoided by use of tin plating or galvinizing. But this method is durable only as long as the coating remains intact. Once the plating is worn or damaged, the exposed iron will rust. Therefore, any iron-based roofing material needs to be undercoated, and its surface needs to be kept well-painted to prevent corrosion.

One cause of sheet metal deterioration is fatigue. Depending upon the size and the gauge of the metal sheets, wear and metal failure can occur at the joints or at any protrusions in the sheathing as a result from the metal's alternating movement to thermal changes. Lead will tear because of "creep," or the gravitational stress that causes the material to move down the roof slope.

Slate: Perhaps the most durable roofing materials are slate and tile. Seemingly indestructable, both vary in quality. Some slates are hard and tough without being brittle. Soft slates are more subject to erosion and to attack by airborne and rainwater chemicals, which cause the slates to wear at nail holes, to delaminate, or to break. In winter, slate is very susceptible to breakage by ice, or ice dams.

Tile: Tiles will weather well, but tend to crack or break if hit, as by tree branches, or if they are walked on improperly. Like slates, tiles cannot support much weight. Low quality tiles that have been insufficiently fired during manufacture, will craze and spall under the effects of freeze and thaw cycles on their porous surfaces.

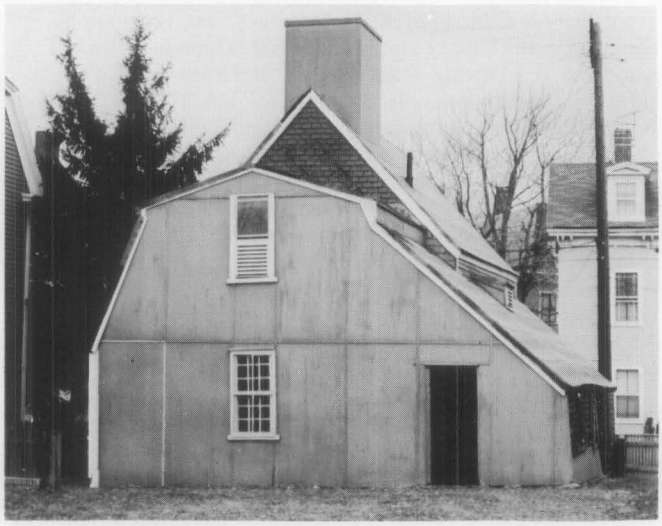
Failures of Support Systems

Once the condition of the roofing material has been determined, the related features and support systems should be examined on the exterior and on the interior of the roof. The gutters and downspouts need periodic cleaning and maintenance since a variety of debris fill them, causing water to back up and seep under roofing units. Water will eventually cause fasteners, sheathing, and roofing structure to deteriorate. During winter, the daily freeze-thaw cycles can cause ice floes to develop under the roof surface. The pressure from these ice floes will dislodge the roofing material, especially slates, shingles, or tiles. Moreover, the buildup of ice dams above the gutters can trap enough moisture to rot the sheathing or the structural members.

Many large public buildings have built-in gutters set within the perimeter of the roof. The downspouts for these gutters may run within the walls of the building, or drainage may be through the roof surface or through a parapet to exterior downspouts. These systems can be effective if properly maintained; however, if the roof slope is inadequate for good runoff, or if the traps are allowed to clog, rainwater will form pools on the roof surface. Interior downspouts can collect debris and thus back up, perhaps leaking water into the surrounding walls. Exterior downspouts may fill with water, which in cold weather may freeze and crack the pipes. Conduits from the built-in gutter to the exterior downspout may also leak water into the surrounding roof structure or walls.

Failure of the flashing system is usually a major cause of roof deterioration. Flashing should be carefully inspected for failure caused by either poor workmanship, thermal stress, or metal deterioration (both of flashing material itself and of the fasteners). With many roofing materials, the replacement of flashing on an existing roof is a major operation, which may require taking up large sections of the roof surface. Therefore, the installation of top quality flashing material on

This detail shows slate delamination caused by a combination of weathering and pollution. In addition, the slates have eroded around the repair nails, incorrectly placed in the exposed surface of the slates. (Lower Pontalba Building, New Orleans, photo courtesy of Building Conservation Technology, Inc.)



Temporary stabilization or "mothballing" with materials such as plywood and building paper can protect the roof of a project until it can be properly repaired or replaced. (Narbonne House, Salem, Massachusetts)

These two views of the same house demonstrate how the use of a substitute material can drastically affect the overall character of a structure. The textural interest of the original tile roof was lost with the use of asphalt shingles. Recent preservation efforts are replacing the tile roof. (Frank House, Kearney, Nebraska, photo courtesy of the Nebraska State Historical Society, Lincoln, Nebraska)

a new or replaced roof should be a primary consideration. *Remember, some roofing and flashing materials are not compatible.*

Roof fasteners and clips should also be made of a material compatible with all other materials used, or coated to prevent rust. For example, the tannic acid in oak will corrode iron nails. Some roofs such as slate and sheet metals may fail if nailed too rigidly.

If the roof structure appears sound and nothing indicates recent movement, the area to be examined most closely is the roof substrate—the sheathing or the battens. The danger spots would be near the roof plates, under any exterior patches, at the intersections of the roof planes, or at vertical surfaces such as dormers. Water penetration, indicating a breach in the roofing surface or flashing, should be readily apparent, usually as a damp spot or stain. Probing with a small pen knife may reveal any rot which may indicate previously undetected damage to the roofing membrane. Insect infestation evident by small exit holes and frass (a sawdust-like debris) should also be noted. Condensation on the underside of the roofing is undesirable and indicates improper ventilation. Moisture will have an adverse effect on any roofing material; a good roof stays dry inside and out.

Repair or Replace

Understanding potential weaknesses of roofing material also requires knowledge of repair difficulties. Individual slates can be replaced normally without major disruption to the rest of the roof, but replacing flashing on a slate roof can require substantial removal of surrounding slates. If it is the substrate or a support material that has deteriorated, many surface materials such as slate or tile can be reused if handled carefully during the repair. Such problems should be evaluated at the outset of any project to determine if the roof can be effectively patched, or if it should be completely replaced.

Will the repairs be effective? Maintenance costs tend to multiply once trouble starts. As the cost of labor escalates, repeated repairs could soon equal the cost of a new roof.

The more durable the surface is initially, the easier it will be to maintain. Some roofing materials such as slate are expensive to install, but if top quality slate and flashing are used, it will last 40–60 years with minimal maintenance. Although the installation cost of the roof will be high, low maintenance needs will make the lifetime cost of the roof less expensive.

Historical Research

In a restoration project, research of documents and physical investigation of the building usually will establish the roof's history. Documentary research should include any original plans or building specifications, early insurance surveys, newspaper descriptions, or the personal papers and files of people who owned or were involved in the history of the building. Old photographs of the building might provide evidence of missing details.

Along with a thorough understanding of any written history of the building, a physical investigation of the roofing and its structure may reveal information about the roof's construction history. Starting with an overall impression of the structure, are there any changes in the roof slope, its configuration, or roofing materials? Perhaps there are obvious patches or changes in patterning of exterior brickwork where a gable roof was changed to a gambrel, or where a whole upper story was added. Perhaps there are obvious stylistic changes in the roof line, dormers, or ornamentation. These observations could help one understand any important alteration, and could help establish the direction of further investigation.

Because most roofs are physically out of the range of careful scrutiny, the "principle of least effort" has probably limited the extent and quality of previous patching or replacing, and usually considerable evidence of an earlier roof surface remains. Sometimes the older roof will be found as an underlayment of the current exposed roof. Original roofing may still be intact in awkward places under later features on a roof. Often if there is any unfinished attic space, remnants of roofing may have been dropped and left when the roof was being built or repaired. If the configuration of the roof has been changed, some of the original material might still be in place under the existing roof. Sometimes whole sections of the roof and roof framing will have been left intact under the higher roof. The profile and/or flashing of the earlier roof may be apparent on the interior of the walls at the level of the alteration. If the sheathing or lathing appears to have survived changes in the roofing surface, they may contain evidence of the roofing systems. These may appear either as dirt marks, which provide "shadows" of a roofing material, or as nails broken or driven down into the wood, rather than pulled out during previous alterations or repairs. Wooden headers in the roof framing may indicate that earlier chimneys or skylights have been removed. Any metal ornamentation that might have existed may be indicated by anchors or unusual markings along the ridge or at other edges of the roof. This primary

evidence is essential for a full understanding of the roof's history.

Caution should be taken in dating early "fabric" on the evidence of a single item, as recycling of materials is not a mid-20th-century innovation. Carpenters have been reusing materials, sheathing, and framing members in the interest of economy for centuries. Therefore, any analysis of the materials found, such as nails or sawmarks on the wood, requires an accurate knowledge of the history of local building practices before any final conclusion can be accurately reached. It is helpful to establish a sequence of construction history for the roof and roofing materials; any historic fabric or pertinent evidence in the roof should be photographed, measured, and recorded for future reference.

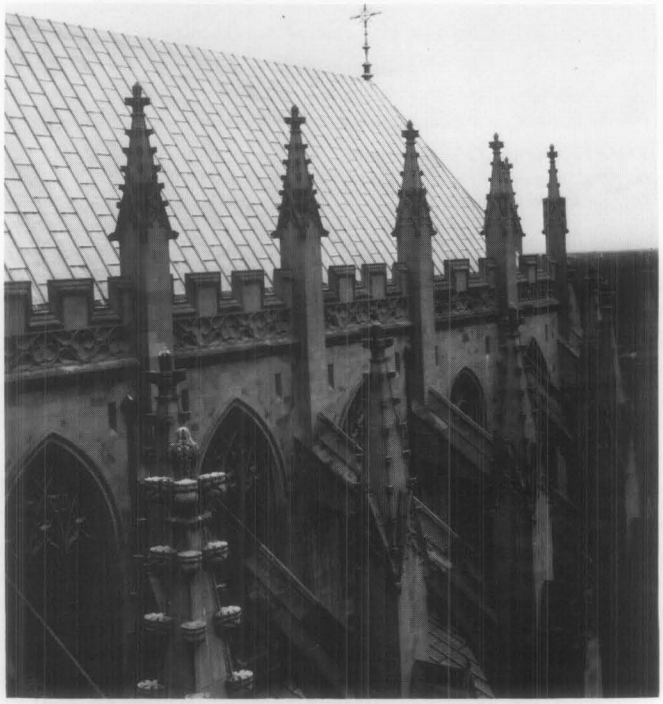
During the repair work, useful evidence might unexpectedly appear. It is essential that records be kept of any type of work on a historic building, before, during, and after the project. Photographs are generally the easiest and fastest method, and should include overall views and details at the gutters, flashing, dormers, chimneys, valleys, ridges, and eaves. All photographs should be immediately labeled to insure accurate identification at a later date. Any patterning or design on the roofing deserves particular attention. For example, slate roofs are often decorative and have subtle changes in size, color, and texture, such as a gradually decreasing coursing length from the eave to the peak. If not carefully noted before a project begins, there may be problems in replacing the surface. The standard reference for this phase of the work is *Recording Historic Buildings,* compiled by Harley J. McKee for the Historic American Buildings Survey, National Park Service, Washington, D.C., 1970.

Replacing the Historic Roofing Material

Professional advice will be needed to assess the various aspects of replacing a historic roof. With some exceptions, most historic roofing materials are available today. If not, an architect or preservation group who has previously worked with the same type material may be able to recommend suppliers. Special roofing materials, such as tile or embossed metal shingles, can be produced by manufacturers of related products that are commonly used elsewhere, either on the exterior or interior of a structure. With some creative thinking and research, the historic materials usually can be found.

Because of the roof's visibility, the slate detailing around the dormers is important to the character of this structure. Note how the slates swirl from a horizontal pattern on the main roof to a diamond pattern on the dormer roofs and side walls. (18th and Que Streets, NW, Washington, D.C.)

Craft Practices: Determining the craft practices used in the installation of a historic roof is another major concern in roof restoration. Early builders took great pride in their work, and experience has shown that the "rustic" or irregular designs commercially labled "Early American" are a 20th-century invention. For example, historically, wood shingles underwent several distinct operations in their manufacture including splitting by hand, and smoothing the surface with a draw knife. In modern nomenclature, the same item would be a "tapersplit" shingle which has been dressed. Unfortunately, the rustic appearance of today's commercially available "handsplit" and re-sawn shingle bears no resemblance to the hand-made roofing materials used on early American buildings.



Good design and quality materials for the roof surface, fastenings, and flashing minimize roofing failures. This is essential on roofs such as on the National Cathedral where a thorough maintenance inspection and minor repairs cannot be done easily without special scaffolding. However, the success of the roof on any structure depends on frequent cleaning and repair of the gutter system. (Washington, D.C., photo courtesy of John Burns, A.I.A.)

Early craftsmen worked with a great deal of common sense; they understood their materials. For example they knew that wood shingles should be relatively narrow; shingles much wider than about 6" would split when walked on, or they may curl or crack from varying temperature and moisture. It is important to understand these aspects of craftsmanship, remembering that people wanted their roofs to be weather-tight and to last a long time. The recent use of "mother-goose" shingles on historic structures is a gross underestimation of the early craftsman's skills.

Supervision: Finding a modern craftsman to reproduce historic details may take some effort. It may even involve some special instruction to raise his understanding of certain historic craft practices. At the same time, it may be pointless (and expensive) to follow historic craft practices in any construction that will not be visible on the finished product. But if the roofing details are readily visible, their appearance should be based on architectural evidence or on historic prototypes. For instance, the spacing of the seams on a standing-seam metal roof will affect the building's overall scale and should therefore match the original dimensions of the seams.

Many older roofing practices are no longer performed because of modern improvements. Research and review of specific detailing in the roof with the contractor before beginning the project is highly recommended. For example, one early craft practice was to finish the ridge of a wood shingle roof with a roof "comb"—that is, the top course of one slope of the roof was extended uniformly beyond the peak to shield the ridge, and to provide some weather protection for the raw horizontal edges of the shingles on the other slope. If the "comb" is known to have been the correct detail, it should be used. Though this method leaves the top course vulnerable to the weather, a disguised strip of flashing will strengthen this weak point.

Detail drawings or a sample mock-up will help ensure that the contractor or craftsman understands the scope and special requirements of the project. It should never be assumed that the modern carpenter, slater, sheet metal worker, or roofer will know all the historic details. Supervision is as important as any other stage of the process.

Special problems inherent in the design of an elaborate historic roof can be controlled through the use of good materials and regular maintenance. The shape and detailing are essential elements of the building's historic character, and should not be modified, despite the use of alternative surface materials. (Gamwell House, Bellingham, Washington)

Alternative Materials

The use of the historic roofing material on a structure may be restricted by building codes or by the availability of the materials, in which case an appropriate alternative will have to be found.

Some municipal building codes allow variances for roofing materials in historic districts. In other instances, individual variances may be obtained. Most modern heating and cooking is fueled by gas, electricity, or oil—none of which emit the hot embers that historically have been the cause of roof fires. Where wood burning fireplaces or stoves are used, spark arrestor screens at the top of the chimneys help to prevent flaming material from escaping, thus reducing the number of fires that start at the roof. In most states, insurance rates have been equalized to reflect revised considerations for the risks involved with various roofing materials.

In a rehabilitation project, there may be valid reasons for replacing the roof with a material other than the original. The historic roofing may no longer be available, or the cost of obtaining specially fabricated materials may be prohibitive. But the decision to use an alternative material should be weighed carefully against the primary concern to keep the historic character of the building. If the roof is flat and is not visible from any elevation of the building, and if there are advantages to substituting a modern built-up composition roof for what might have been a flat metal roof, then it may make better economic and construction sense to use a modern roofing method. But if the roof is readily visible, the alternative material should match as closely as possible the scale, texture, and coloration of the historic roofing material.

Asphalt shingles or ceramic tiles are common substitute materials intended to duplicate the appearance of wood shingles, slates, or tiles. Fire-retardant, treated wood shingles are currently available. The treated wood tends, however, to be brittle, and may require extra care (and expense) to install. In some instances, shingles laid with an interlay of fire-retardent building paper may be an acceptable alternative.

Lead-coated copper, terne-coated steel, and aluminum/zinc-coated steel can successfully replace tin, terne plate, zinc, or lead. Copper-coated steel is a less expensive (and less durable) substitute for sheet copper.

The search for alternative roofing materials is not new. As early as the 18th century, fear of fire cause many wood shingle or board roofs to be replaced by sheet metal or clay tile. Some historic roofs were failures from the start, based on over-ambitious and naive use of materials as they were first developed. Research on a structure may reveal that an inadequately designed or a highly combustible roof was replaced early in its history, and therefore restoration of a later roof material would have a valid precedent. In some cities, the substitution of sheet metal on early row houses occurred as soon as the rolled material became available.

Cost and ease of maintenance may dictate the substitution of a material wholly different in appearance from the original. The practical problems (wind, weather, and roof pitch) should be weighed against the historical consideration of scale, texture, and color. Sometimes the effect of the alternative material will be minimal. But on roofs with a high degree of visibility and patterning or texture, the substitution may seriously alter the architectural character of the building.

Temporary Stabilization

It may be necessary to carry out an immediate and temporary stabilization to prevent further deterioration until research can determine how the roof should be restored or rehabilitated, or until funding can be provided to do a proper job. A simple covering of exterior plywood or roll roofing might provide adequate protection, but any temporary covering should be applied with caution. One should be careful not to overload the roof structure, or to damage or destroy historic evidence or fabric that might be incorporated into a new roof at a later date. In this sense, repairs with caulking or bituminous patching compounds should be recognized as potentially harmful, since they are difficult to remove, and at their best, are very temporary.

Precautions

The architect or contractor should warn the owner of any precautions to be taken against the specific hazards in installing the roofing material. Soldering of sheet metals, for instance, can be a fire hazard, either from the open flame or from overheating and undected smoldering of the wooden substrate materials.

Thought should be given to the design and placement of any modern roof appurtenances such as plumbing stacks, air vents, or TV antennas. Consideration should begin with the placement of modern plumbing on the interior of the building, otherwise a series of vent stacks may pierce the roof membrane at various spots creating maintenance problems as well as aesthetic ones. Air handling units placed in the attic space will require vents which, in turn, require sensitive design. Incorporating these in unused chimneys has been very successful

in the past.

Whenever gutters and downspouts are needed that were not on the building historically, the additions should be made as unobtrusively as possible, perhaps by painting them out with a color compatible with the nearby wall or trim.

Maintenance

Although a new roof can be an object of beauty, it will not be protective for long without proper maintenance. At least twice a year, the roof should be inspected against a checklist. All changes should be recorded and reported. Guidelines should be established for any foot traffic that may be required for the maintenance of the roof. Many roofing materials should not be walked on at all. For some—slate, asbestos, and clay tile—a self-supporting ladder might be hung over the ridge of the roof, or planks might be spanned across the roof surface. Such items should be specifically designed and kept in a storage space accessible to the roof. If exterior work ever requires hanging scaffolding, use caution to insure that the anchors do not penetrate, break, or wear the roofing surface, gutters, or flashing.

Any roofing system should be recognized as a membrane that is designed to be self-sustaining, but that can be easily damaged by intrusions such as pedestrian traffic or fallen tree branches. Certain items should be checked at specific times. For example, gutters tend to accumulate leaves and debris during the spring and fall and after heavy rain. Hidden gutter screening both at downspouts and over the full length of the gutter could help keep them clean. The surface material would require checking after a storm as well. Periodic checking of the underside of the roof from the attic after a storm or winter freezing may give early warning of any leaks. Generally, damage from water or ice is less likely on a roof that has good flashing on the outside and is well ventilated and insulated on the inside. Specific instructions for the maintenance of the different roof materials should be available from the architect or contractor.

Summary

The essential ingredients for replacing and maintaining a historic roof are:

- Understanding the historic character of the building and being sympathetic to it.
- Careful examination and recording of the existing roof and any evidence of earlier roofs.
- Consideration of the historic craftsmanship and detailing and implementing them in the renewal wherever visible.
- Supervision of the roofers or maintenance personnel to assure preservation of historic fabric and proper understanding of the scope and detailing of the project.
- Consideration of alternative materials where the original cannot be used.
- Cyclical maintenance program to assure that the staff understands how to take care of the roof and of the particular trouble spots to safeguard.

With these points in mind, it will be possible to preserve the architectural character and maintain the physical integrity of the roofing on a historic building.

This Preservation Brief was written by Sarah M. Sweetser, Architectural Historian, Technical Preservation Services Division. Much of the technical information was based upon an unpublished report prepared under contract for this office by John G. and Diana S. Waite. Some of the historical information was from Charles E. Peterson, FAIA, "American Notes," *Journal of the Society of Architectural Historians.*

The illustrations for this brief not specifically credited are from the files of the Technical Preservation Services Division.

This publication was prepared pursuant to Executive Order 11593, "Protection and Enhancement of the Cultural Environment," which directs the Secretary of the Interior to "develop and make available to Federal agencies and State and local governments information concerning professional methods and techniques for preserving, improving, restoring and maintaining historic properties." The Brief has been developed under the technical editorship of Lee H. Nelson, AIA, Chief, Preservation Assistance Division, National Park Service, U.S. Department of the Interior, Washington, D.C. 20240. Comments on the usefulness of this information are welcome and can be sent to Mr. Nelson at the above address. **February 1978.**

Decorative features such as cupolas require extra maintenance. The flashing is carefully detailed to promote run-off, and the wooden ribbing must be kept well-painted. This roof surface, which was originally tin plate, has been replaced with lead-coated copper for maintenance purposes. (Lyndhurst, Tarrytown, New York, photo courtesy of the National Trust for Historic Preservation)

Additional readings on the subject of roofing are listed below.

Boaz, Joseph N., ed. *Architectural Graphic Standards.* New York: John Wiley and Sons, Inc., 1970. (Modern roofing types and detailing)

Briggs, Martin S. *A Short History of the Building Crafts.* London: Oxford University Press, 1925. (Descriptions of historic roofing materials)

Bulletin of the Association for Preservation Technology. Vol. 2 (nos. 1–2) 1970. (Entirely on roofing)

Holstrom, Ingmar; and Sandstrom, Christina. *Maintenance of Old Buildings: Preservation from the Technical and Antiquarian Standpoint.* Stockholm: National Swedish Building Research, 1972. (Contains a section on roof maintenance problems)

Insall, Donald. *The Care of Old Buildings Today.* London: The Architectural Press, 1972. (Excellent guide to some problems and solutions for historic roofs)

Labine, R.A. Clem. "Repairing Slate Roofs." *The Old House Journal* 3 (no. 12, Dec. 1975): 6–7.

Lefer, Henry. "A Birds-eye View." *Progressive Architecture.* (Mar. 1977), pp. 88–92. (Article on contemporary sheet metal)

National Slate Association. *Slate Roofs.* Reprint of 1926 edition, now available from the Vermont Structural Slate Co., Inc., Fairhaven, VT 05743. (An excellent reference for the many designs and details of slate roofs)

Peterson, Charles E. "Iron in Early American Roofs." *The Smithsonian Journal of History* 3 (no. 3). Edited by Peter C. Welsh. Washington, D.C.: Smithsonian Institution, 1968, pp. 41–76.

Waite, Diana S. *Nineteenth Century Tin Roofing and its Use at Hyde Hall.* Albany: New York State Historic Trust, 1971.

——. "Roofing for Early America." *Building Early America.* Edited by Charles E. Peterson. Radnor, Penn.: Chilton Book Co., 1976.

APPLICATION

COMBINATION APPLICATION: FLOODPLAIN, CONSTRUCTION AND HARC

$50.00 APPLICATION FEE NON-REFUNDABLE

City of Key West

3140 FLAGLER AVENUE
KEY WEST, FLORIDA 33040
Phone: 305.809.3956

HARC PERMIT NUMBER	BUILDING PERMIT NUMBER	INITIAL & DATE
16-01-0342	16-986	

FLOODPLAIN PERMIT	REVISION #

FLOOD ZONE	PANEL #	ELEV. L. FL.	SUBSTANTIAL IMPROVEMENT
			___YES ___NO _____%

ADDRESS OF PROPOSED PROJECT:	600 Eaton St, Key West, Fl 33040		# OF UNITS
RE # OR ALTERNATE KEY:	00006320-000000		
NAME ON DEED:	Key West United Methodist Church	PHONE NUMBER	
OWNER'S MAILING ADDRESS:	William Spottswood	EMAIL	
	500 Fleming Street, Key West, FL 33040		
CONTRACTOR COMPANY NAME:	Keys Roofing Inc	PHONE NUMBER (305) 451-5678	
CONTRACTOR'S CONTACT PERSON:	P.O. Box 1227, Key Largo, FL 33037	EMAIL keysroofinginc@bellsouth.net	
ARCHITECT / ENGINEER'S NAME:		PHONE NUMBER	
ARCHITECT / ENGINEER'S ADDRESS:		EMAIL	

HARC: PROJECT LOCATED IN HISTORIC DISTRICT OR IS CONTRIBUTING: ☑ YES ☐ NO (SEE PART C FOR HARC APPLICATION.)

CONTRACT PRICE FOR PROJECT OR ESTIMATED TOTAL FOR MAT'L., LABOR & PROFIT: $ 26,700.00

FLORIDA STATUTE 837.06: WHOEVER KNOWINGLY MAKES A FALSE STATEMENT IN WRITING AND WITH THE INTENT TO MISLEAD A PUBLIC SERVANT IN THE PERFORMANCE OF HIS OR HER OFFICIAL DUTY SHALL BE GUILTY OF A MISDEMEANOR OF THE SECOND DEGREE PUNISHABLE PER SECTION 775.082 OR 775.083.

PROJECT TYPE: ☐ ONE OR TWO FAMILY ☐ MULTI-FAMILY ☐ COMMERCIAL ☐ NEW ☐ REMODEL
___ CHANGE OF USE / OCCUPANCY ☐ ADDITION ___ SIGNAGE ___ WITHIN FLOOD ZONE _____
___ DEMOLITION ___ SITE WORK ___ INTERIOR ☑ EXTERIOR ___ AFTER-THE-FACT

DETAILED PROJECT DESCRIPTION INCLUDING QUANTITIES, SQUARE FOOTAGE ETC., Re-roofing- Tear off existing shingle ro
and flat decks- install galvalume eave drip, install grace ice and watershield, install 5v crimp galvalume metal roof, new c
custom made gutter, install modified bitumen roof on flat section

I'VE OBTAINED ALL NECESSARY APPROVALS FROM ASSOCIATIONS, GOVT AGENCIES AND OTHER PARTIES AS APPLICABLE TO COMPLETE THE DESCRIBED PROJECT:

OWNER PRINT NAME:	QUALIFIER PRINT NAME:
LARRY J THOMPSON	James A Sample, IV
OWNER SIGNATURE:	QUALIFIER SIGNATURE:
Notary Signature as to owner:	Notary Signature as to qualifier:
STATE OF FLORIDA; COUNTY OF MONROE, SWORN TO AND SCRIBED BEFORE ME THIS 18th DAY OF February, 20 16	STATE OF FLORIDA; COUNTY OF MONROE, SWORN TO AND SCRIBED BEFORE ME THIS 29 DAY OF Feb, 20 16
MARY P. ALLEY-DRAPER Notary Public - State of Florida My Comm. Expires Sep 3, 2018 Commission # FF 135516	RUTH ANN BENNETT MY COMMISSION #FF041483 EXPIRES July 31, 2017 (407) 398-0153 FloridaNotaryService.com
Personally known or produced _____ as identification.	Personally known or produced _____ as identification.

14014-7535-D/C

SIGN SPECIFICATIONS		
SIGN COPY:	PROPOSED MATERIALS:	SIGNS WITH ILLUMINATION:
		TYPE OF LTG.:
		LTG. LINEAL FTG.:
MAX. HGT. OF FONTS:		COLOR AND TOTAL LUMENS:
IF USING LIGHT FIXTURES PLEASE INDICATE HOW MANY:	INCLUDE SPEC. SHEET WITH LOCATIONS AND COLORS.	

OFFICIAL USE ONLY: HARC STAFF OR COMMISSION REVIEW		
___ APPROVED ___ NOT APPROVED ___DEFERRED FOR FUTURE CONSIDERATION ___ TABLED FOR ADD'L. INFO.		
HARC MEETING DATE:	HARC MEETING DATE:	HARC MEETING DATE:
REASONS OR CONDITIONS:		
STAFF REVIEW COMMENTS:		
HARC PLANNER SIGNATURE AND DATE:	HARC CHAIRPERSON SIGNATURE AND DATE:	

PART D: STATE OF FLORIDA OFFICIAL NOTIFICATIONS AND WARNINGS

FLORIDA STATUTE 713.135: WARNING TO OWNER: YOUR FAILURE TO RECORD A 'NOTICE OF COMMENCEMENT' MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED WITH THE COUNTY RECORDER AND A COPY POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING A NOTICE.

FLORIDA STATUTE 469: ABESTOS ABATEMENT. AS OWNER / CONTRACTOR / AGENT OF RECORD FOR THE CONSTRUCTION APPLIED FOR IN THIS APPLICATION, I AGREE THAT I WILL COMPLY WITH THE PROVISIONS F. S. 469.003 AND TO NOTIFY THE FLORIDA D. E. P. OF MY INTENT TO DEMOLISH / REMOVE ASBESTOS.
IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT APPLICATION, THERE MAY BE DEED RESTRICTIONS AND / OR ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF MONROE COUNTY AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENT ENTITIES SUCH AS AQUADUCT ATHORITY, FLORIDA DEP OR OTHER STATE AGENCIES; ARMY CORPS OF ENGINEERS OR OTHER FEDERAL AGENCIES.

FEDERAL LAW REQUIRES LEAD PAINT ABATEMENT PER THE STANDARDS OF THE USDEP ON STRUCTURES BUILT PRIOR TO 1978.

OFFICIAL USE ONLY BY PLANS EXAMINER OR CHIEF BUILDING OFFICIAL:				CBO OR PL. EXAM. APPROVAL:
HARC FEES:	BLDG. FEES:	FIRE MARSHAL FEE:	IMPACT FEES:	
				DATE:

Oper: KEYWBLD Type: BP Drawer: 1
Date: 3/09/16 50 Receipt no: 11831
2016 1000342
PT * BUILDING PERMITS-NEW
1.00 $50.00
Trans number: 3078365
CK CHECK 17560 $150.00
Trans date: 3/09/16 Time: 9:42:18

PART B: SUPPLEMENTARY PROJECT DETAILS TO AVOID DELAYS / CALL-BACKS

PROPERTY STRUCTURES AFFECTED BY PROJECT: ☑ MAIN STRUCTURE ☐ ACCESSORY STRUCTURE ___ SITE

ACCESSORY STRUCTURES: ☐ GARAGE / CARPORT ___ DECK ___ FENCE ___ OUTBUILDING / SHED

FENCE STRUCTURES: ___ 4 FT. ___ 6 FT. SOLID ___ 6 FT. / TOP 2 FT. 50% OPEN

POOLS: ___ INGROUND ___ ABOVE GROUND ___ SPA / HOT TUB ___ PRIVATE ___ PUBLIC

PUBLIC POOLS REQUIRE BD. OF HEALTH LICENSE APPLICATION AT TIME OF CITY APPLICATION.

PUBLIC POOLS REQUIRE BD. OF HEALTH LICENSE PRIOR TO RECEIVING THE CITY CERTIFICATE OF OCCUPANCY.

ROOFING: ☐ NEW ☑ ROOF-OVER ☐ TEAR-OFF ☐ REPAIR ☐ AWNING

☑ 5 V METAL ☐ ASPLT. SHGLS. ☐ METAL SHGLS. ☐ BLT. UP ☐ TPO ☐ OTHER

FLORIDA ACCESSIBILITY CODE: ___ 20% OF PROJECT FUNDS INVESTED IN ACCESSIBILITY FEATURES.

SIGNAGE: ___ # OF SINGLE FACE ___ # OF DOUBLE FACE ___ REPLACE SKIN ONLY ___ BOULEVARD ZONE

___ POLE ___ WALL ___ PROJECTING ___ AWNING ___ HANGING ___ WINDOW

SQ. FT. OF EACH SIGN FACE:

SUBCONTRACTORS / SPECIALTY CONTRACTORS SUPPLEMENTARY INFORMATION:

___ MECHANICAL: ___ DUCTWORK ___ COMMERCIAL EXH. HOOD ___ INTAKE / EXH. FANS ___ LPG TANKS

A / C: ___ COMPLETE SYSTEM ___ AIR HANDLER ___ CONDENSER ___ MINI-SPLIT

___ ELECTRICAL: ___ LIGHTING ___ RECEPTACLES ___ HOOK-UP EQUIPMENT ___ LOW VOLTAGE

SERVICE: ___ OVERHEAD ___ UNDERGROUND ___ 1 PHASE ___ 3 PHASE _____ AMPS

___ PLUMBING: ___ ONE SEWER LATERAL PER BLDG. ___ INGROUND GREASE INTCPTRS. ___ LPG TANKS

RESTROOMS: ___ MEN'S ___ WOMEN'S ___ UNISEX ___ ACCESSIBLE

PART C: HARC APPLICATION FOR A CERTIFICATE OF APPROPRIATENESS

APPLICATION FEES: PAINTING SINGLE FAMILY: $10 STAFF APPROVAL: $50 COMMISSION REVIEW $100

PLEASE ATTACH APPROPRIATE VARIANCES / RESOLUTIONS FROM HARC, PLANNING BOARD OR TREE COMMISSION.

ATTENTION: NO BUILDING PERMITS WILL BE ISSUED PRIOR TO HARC APPROVAL.

PLEASE SEND ELECTRONIC SUBMISSIONS TO: harc@cityofkeywest-fl.gov

INDICATE TYPE OF CERTIFICATE. OF APPROPRIATENESS: ☑ GENERAL ___ DEMOLITION ___ SIGN ___ PAINTING ___ OTHER

ADDITIONAL INFORMATION: _____

PROJECT SPECIFICATIONS: PLEASE PROVIDE PHOTOS OF EXISTING CONDITIONS, PLANS, PRODUCT SAMPLES, TECHNICAL DATA

ARCHITECTURAL FEATURES TO BE ALTERED:	ORIGINAL MATERIAL:	PROPOSED MATERIAL:

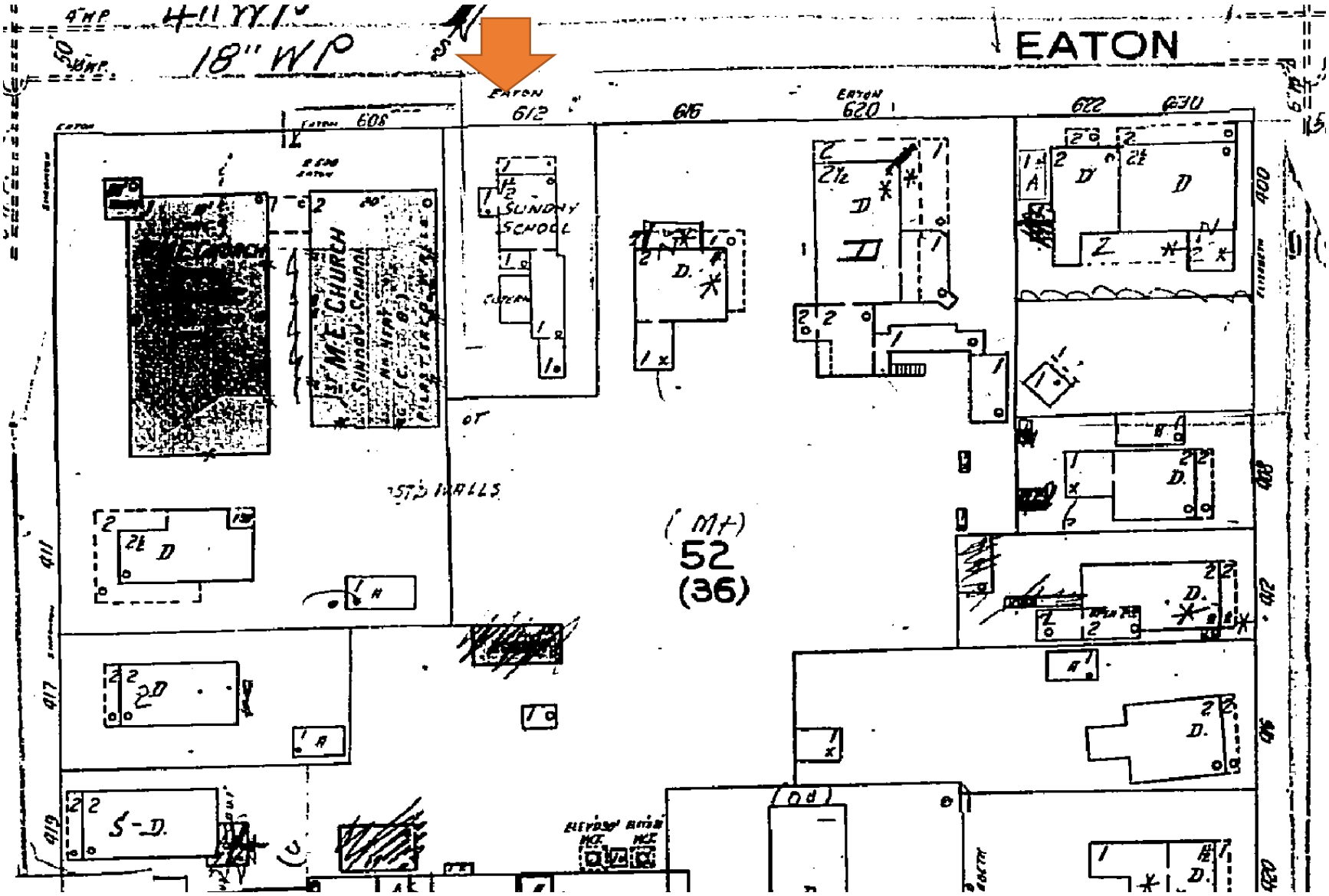
DEMOLITION: PLEASE FILL OUT THE HARC APPENDIX FOR PROPOSED DEMOLITION.

DEMOLITION OF HISTORIC STRUCTURES IS NOT ENCOURAGED BY THE HISTORIC ARCHITECTURAL REVIEW COMMISSION.

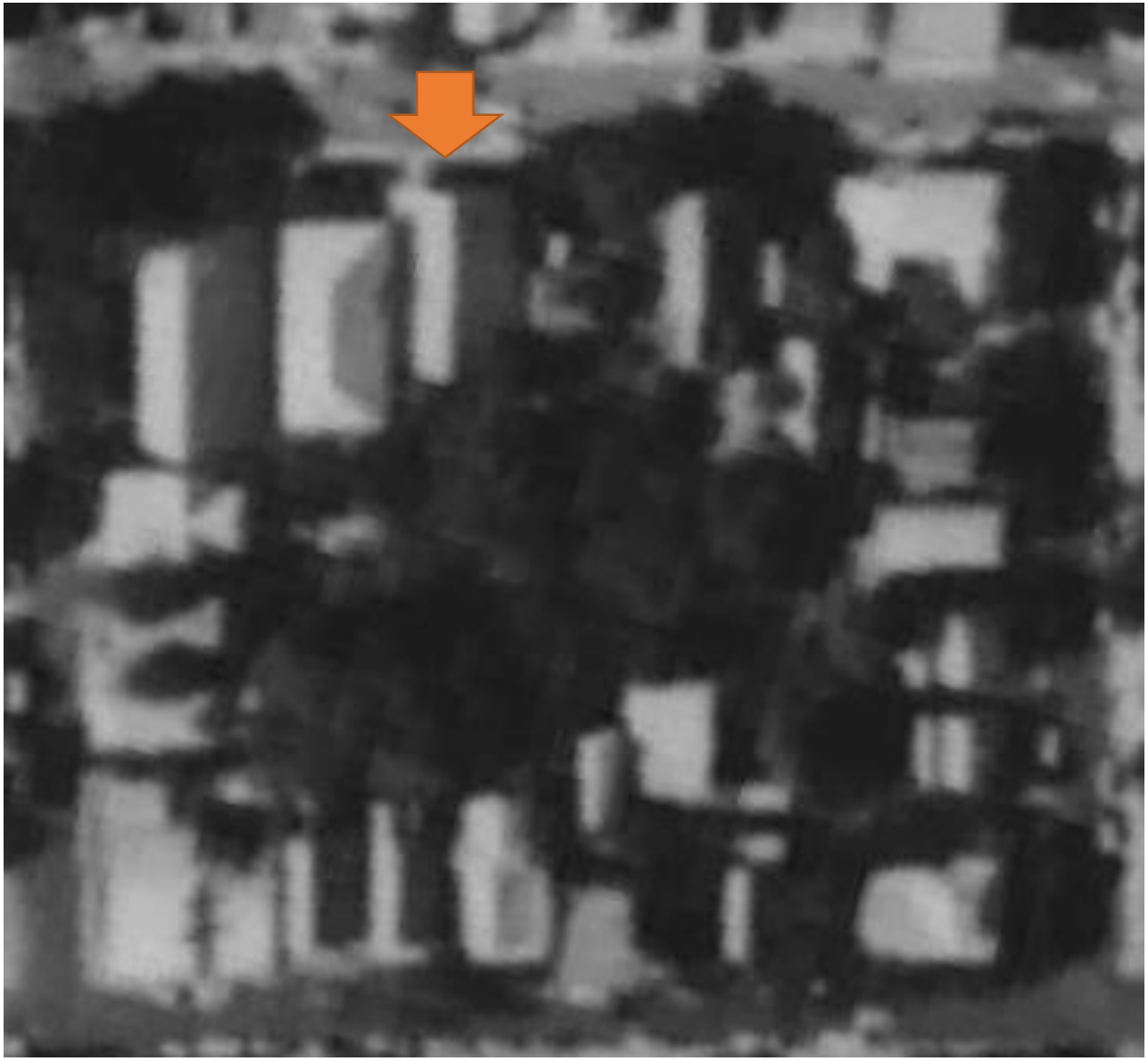
SIGNAGE: (SEE PART B) ___ BUSINESS SIGN ___ BRAND SIGN ___ OTHER: _____

BUSINESS LICENSE # IF FAÇADE MOUNTED, SQ. FT. OF FAÇADE _____

SANBORN MAPS



1962 Sanborn Map



1964 Aerial Photograph

PROJECT PHOTOS

Property Appraiser’s Photograph, c.1965. Monroe County Public Library.


305-294-0995
Conch Electric Cars


Key West
United Methodist Church
SUNDAY
SERVICES
8:30 & 11 AM


Key West
United Methodist Church
SUNDAY
SERVICES
8:30 & 11 AM
PASTOR
REV. TODD HILL
ALL ARE WELCOME!

NOTICING

Public Meeting Notice

The Historic Architectural Review Commission will hold a public hearing **at 5:30 p.m., April 26, 2016 at Old City Hall, 510 Greene Street**, Key West, Florida. The purpose of the hearing will be to consider a request for:

REMOVE ASPHALT SHINGLES AND REPLACE WITH METAL V-CRIMP. INSTALL BITUMEN ROOF ON FLAT SECTION.

FOR- #600 EATON STREET

Applicant – Keys Roofing **Application #H16-01-0342**

If you wish to see the application or have any questions, you may visit the Planning Department during regular office hours at 3140 Flagler Avenue, call 305-809-3975 or visit our website at www.cityofkeywest-fl.gov.

THIS NOTICE CAN NOT BE REMOVED FROM THE SITE UNTIL HARC FINAL DETERMINATION

ADA ASSISTANCE: It is the policy of the City of Key West to comply with all requirements of the Americans with Disabilities Act (ADA). Please call the TTY number at 800-955-8771 or 800-955-8770 (Voice) or the ADA Coordinator at 305-809-3731 at least five business days in advance for sign language interpreters, assistive listening devices, or materials in accessible format.


Public
Meeting
Notice

PROPERTY APPRAISER INFORMATION

Scott P. Russell, CFA
Property Appraiser
Monroe County, Florida

Key West (305) 292-3420
Marathon (305) 289-2550
Plantation Key (305) 852-7130

Property Record Card -
Maps are now launching the new map application version.

Alternate Key: 1006548 Parcel ID: 00006320-000000

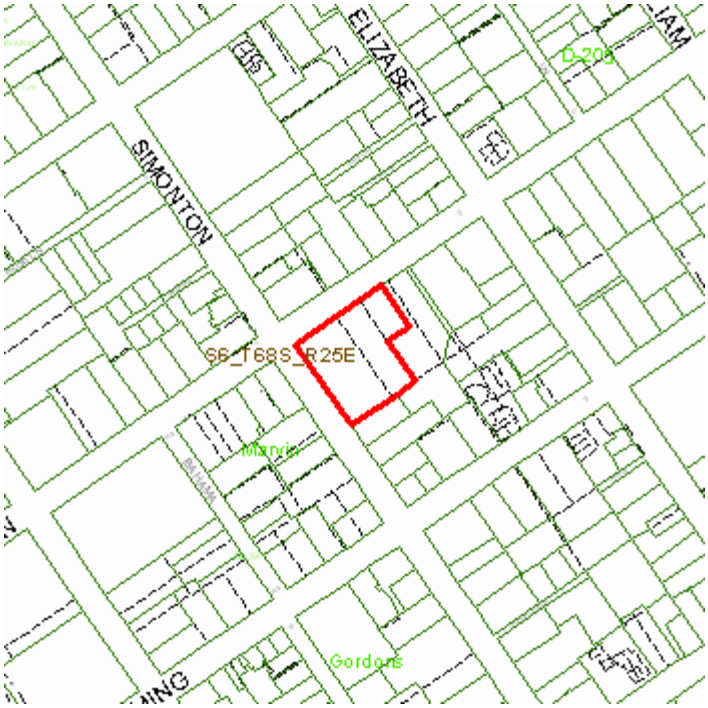
Ownership Details

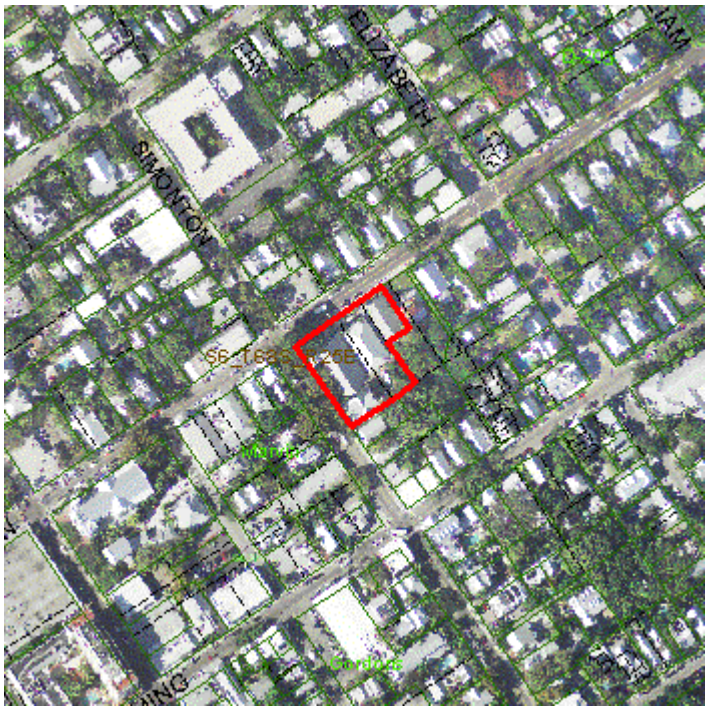
Mailing Address:
FIRST UNITED METHODIST CHURCH
600 EATON ST
KEY WEST, FL 33040-6803

Property Details

PC Code:	71 - CHURCHES
Millage Group:	10KW
Affordable Housing:	No
Section-Township-Range:	06-68-25
Property Location:	600 EATON ST KEY WEST
Legal Description:	KW PT LOT 3 SQR 36 D-179-235-461 B4-472 OR142-18/20 (RE 630 & RE 631 NOW COMBINED WITH THIS PARCEL FOR ASSESSMENT PURPOSES DONE FOR THE 2000 TAX ROLL 4/29/00)LG

Click Map Image to open interactive viewer





Exemptions

Exemption	Amount
10 - RELIGIOUS	4,787,648.00

Land Details

Land Use Code	Frontage	Depth	Land Area
100E - COMMERCIAL EXEMPT	0	0	28,758.62 SF

Building Summary

Number of Buildings: 4
Number of Commercial Buildings: 3
Total Living Area: 16200
Year Built: 1877

Building 1 Details

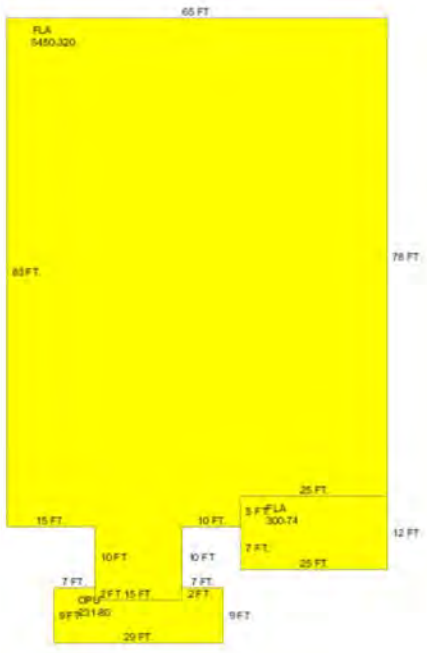
Building Type		**Condition**	A	**Quality Grade**	450
Effective Age	21	**Perimeter**	394	**Depreciation %**	26
Year Built	1877	**Special Arch**	0	**Grnd Floor Area**	5,750
Functional Obs	0	**Economic Obs**	0		

Inclusions:

Roof Type	**Roof Cover**	**Foundation**
Heat 1	**Heat 2**	**Bedrooms** 0
Heat Src 1	**Heat Src 2**	

Extra Features:

2 Fix Bath	0	**Vacuum**	0
3 Fix Bath	0	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0
5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	4	**Dishwasher**	0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
1	FLA		1	1993					5,450
2	FLA		1	1993					300
3	OPU		1	1993					231

Interior Finish:

Section Nbr	Interior Finish Nbr	Type	Area %	Sprinkler	A/C
	1572	CHURCHES-A-	100	N	Y
	1573	CHURCHES-A-	100	N	Y
	1574	OPU	100	N	N

Exterior Wall:

Interior Finish Nbr	Type	Area %
433	CUSTOM	100

Building 2 Details

Building Type	R1	**Condition**	A	**Quality Grade**	550
Effective Age	20	**Perimeter**	324	**Depreciation %**	27
Year Built	1939	**Special Arch**	0	**Grnd Floor Area**	2,806
Functional Obs	0	**Economic Obs**	0		

Inclusions: R1 includes 1 3-fixture bath and 1 kitchen.

Roof Type	GABLE/HIP	**Roof Cover**	METAL	**Foundation**	WD CONC PADS
Heat 1	NONE	**Heat 2**	NONE	**Bedrooms**	3
Heat Src 1	NONE	**Heat Src 2**	NONE		

Extra Features:

2 Fix Bath	0	**Vacuum**	0
3 Fix Bath	1	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0
5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	0	**Dishwasher**	0

Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
0	FHS	12:ABOVE AVERAGE WOOD	1	1993					824
1	FLA	12:ABOVE AVERAGE WOOD	1	1993	N	N	0.00	0.00	1,436
2	OPX		1	1993	N	N	0.00	0.00	510
3	FLA	12:ABOVE AVERAGE WOOD	1	1993	N	N	0.00	0.00	1,370
4	OPX		1	1993	N	N	0.00	0.00	510

Building 3 Details

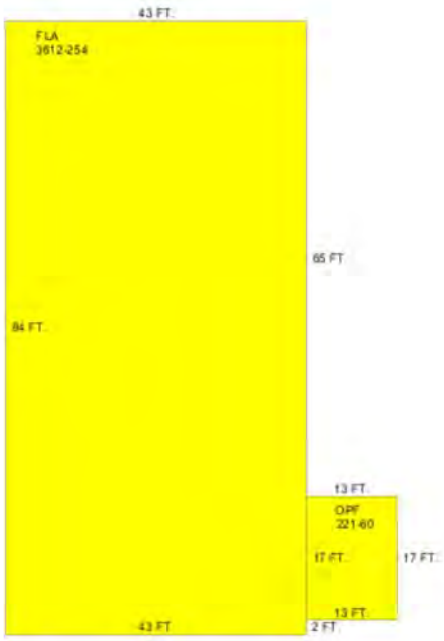
Building Type		**Condition**	A	**Quality Grade**	350
Effective Age	21	**Perimeter**	254	**Depreciation %**	26
Year Built	1965	**Special Arch**	0	**Grnd Floor Area**	3,612
Functional Obs	0	**Economic Obs**	0		

Inclusions:

Roof Type		**Roof Cover**		**Foundation**	
Heat 1		**Heat 2**		**Bedrooms**	0
Heat Src 1		**Heat Src 2**			

Extra Features:

2 Fix Bath	2	**Vacuum**	0
3 Fix Bath	0	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0
5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	0	**Dishwasher**	0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
1	FLA		1	1984					3,612
2	OPF		1	1984					221

Interior Finish:

Section Nbr	Interior Finish Nbr	Type	Area %	Sprinkler	A/C
	1575	CHURCHES-A-	100	N	Y

Exterior Wall:

Interior Finish Nbr	Type	Area %
434	BRICK	100

Building 4 Details

Building Type		**Condition**	A	**Quality Grade**	400
Effective Age	21	**Perimeter**	264	**Depreciation %**	26
Year Built	1963	**Special Arch**	0	**Grnd Floor Area**	4,032
Functional Obs	0	**Economic Obs**	0		

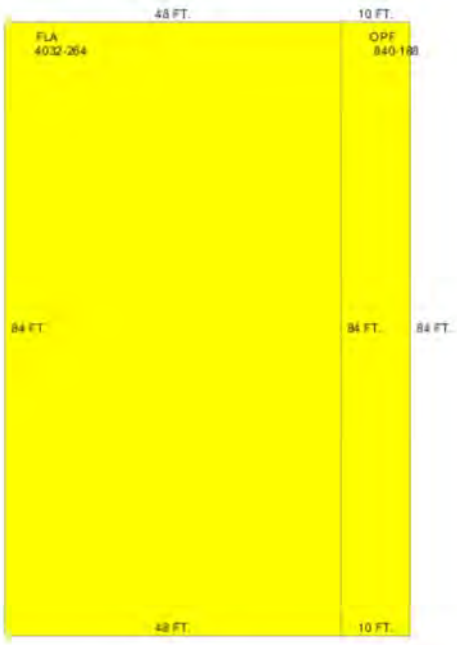
Inclusions:

Roof Type	**Roof Cover**	**Foundation**
Heat 1	**Heat 2**	**Bedrooms** 0
Heat Src 1	**Heat Src 2**	

Extra Features:

2 Fix Bath	2	**Vacuum**	0
3 Fix Bath	0	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0

5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	0	**Dishwasher**	0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
1	FLA		1	1983					4,032
2	OPF		1	1984					840

Interior Finish:

Section Nbr	Interior Finish Nbr	Type	Area %	Sprinkler	A/C
	1576	CHURCHES-A-	100	N	Y

Exterior Wall:

Interior Finish Nbr	Type	Area %
435	BRICK	100

Misc Improvement Details

Nbr	Type	# Units	Length	Width	Year Built	Roll Year	Grade	Life
1	FN2:FENCES	669 SF	223	3	1959	1960	4	30
2	PT3:PATIO	294 SF	42	7	1959	1960	2	50
3	PT3:PATIO	120 SF	10	12	1959	1960	2	50
4	AC2:WALL AIR COND	1 UT	0	0	1959	1960	2	20

Appraiser Notes

600 EATON ST FIRST UNITED METHODIST "OLD STONE" CHURCH 411 SIMONTON ST "OLD STONE CHURCH" PARSONAGE 608 EATON STREET = SUNDAY SCHOOL ANNEX 612 EATON STREET = CHURCH ANNEX

Building Permits

Bldg	Number	Date Issued	Date Completed	Amount	Description	Notes
12	04-3804	12/15/2004	10/31/2005	1,000	Commercial	REPLACE FUSE BOX WITH BREAKER PANEL
	15-2751	07/07/2015		6,000		REMOVE AND REPLACE METAL SHINGLES ON STEEPLE ROOF, GRACE ICE SHIELD UNDER SHINGLES. REMOVE AND REPLACE ROTTEN FASCIA SOFFIT AT STEEPLE, PAINT WHITE, AND REPAINT STEEPLE TO MATCH.
	15-1710	12/29/2015		8,800	Commercial	INSTALL 3 TON DUCTLESS UNITS. REMOVAL OF EXISTING WALL UNITS.
1	B95-1817	06/01/1995	10/01/1995	3,000	Commercial	PAINTING
2	A95-02036	06/01/1995	10/01/1995	29,505	Commercial	80 SQS V CRIMP ROOFING
3	97-02462	07/01/1997	08/01/1997	2,807	Commercial	FLAT PORCH ROOF
4	95-00005	12/01/1995	08/01/1996	1	Commercial	PAINTING
5	96-01920	05/01/1996	08/01/1996	2,000	Commercial	RENOVATIONS
6	97-01316	04/01/1996	07/01/1997	800	Commercial	VARNISHING
7	98-00181	01/29/1998	11/05/1998	3,900	Commercial	PAINT
8	98-00777	03/10/1998	11/03/1998	8,000	Commercial	REMODEL 2 BATHS
9	99-00668	02/25/1999	08/16/1999	3,000	Commercial	RENOVATIONS
10	01-01299	03/22/2001	10/11/2001	250	Commercial	INSTALL HURRICANE SHUTTER
11	01-02071	07/23/2001	10/11/2001	2,850	Commercial	20 SQS METAL SHINGLES
13	07-0747	02/16/2007	06/21/2007	2,450	Commercial	REPLACE 400SQ FT OF DECK& BOTTOM RAILINGS
14	07-1780	04/24/2007	06/21/2007	32,000	Commercial	INTERIOR WORK FOR 612 EATON ST
15	07-2203	05/08/2007	06/21/2007	6,800	Commercial	REPLACE 10 WINDOWS
16	07-2675	06/06/2007	06/21/2007	10,000	Commercial	REPLACE PLUMBING FIXTURES IN BATHROOMS & KITCHEN
17	07-2822	06/12/2007	06/21/2007	17,000	Commercial	INSTALL 2 NEW 3.5 TON CENTRAL A/C
18	07-2488	05/31/2007	06/21/2007	4,350	Commercial	ADD ELECTRICAL OUTLETS IN KITCHEN AND LIGHTS & RECP. IN BATHROOM
19	07-5019	11/09/2007	11/20/2007	2,895	Commercial	REMOVE AND INSTALL EXISTING GUTTER

Parcel Value History

Certified Roll Values.

View Taxes for this Parcel.

Roll Year	Total Bldg Value	Total Misc Improvement Value	Total Land Value	Total Just (Market) Value	Total Assessed Value	School Exempt Value	School Taxable Value
2015	2,478,887	4,473	2,385,111	4,868,471	4,868,471	4,868,471	0
2014	2,485,123	4,067	2,320,648	4,809,838	4,809,838	4,809,838	0
2013	2,493,235	4,067	2,204,616	4,701,918	4,701,918	4,701,918	0
2012	2,509,460	4,067	2,204,616	4,718,143	4,718,143	4,718,143	0

2011	2,626,600	4,067	2,449,573	5,080,240	5,080,240	5,080,240	0
2010	2,630,656	4,067	3,379,138	6,013,861	6,013,861	6,013,861	0
2009	2,751,850	4,067	3,379,138	6,135,055	6,135,055	6,135,055	0
2008	2,755,906	4,067	3,738,621	6,498,594	6,498,594	6,498,594	0
2007	1,944,683	4,067	3,738,621	5,687,371	5,687,371	5,687,371	0
2006	1,974,565	4,067	2,875,862	4,854,494	4,854,494	4,854,494	0
2005	1,966,042	4,067	2,588,276	4,558,385	4,558,385	4,558,385	0
2004	1,974,059	4,067	1,725,517	3,703,643	3,703,643	3,703,643	0
2003	1,974,059	4,067	1,150,345	3,128,471	3,128,471	3,128,471	0
2002	1,787,470	4,067	1,150,345	2,941,882	2,941,882	2,941,882	0
2001	1,787,470	4,067	1,150,345	2,941,882	2,941,882	2,941,882	0
2000	1,788,296	1,149	776,483	2,565,928	2,565,928	2,565,928	0
1999	927,213	949	427,680	1,355,842	1,355,842	1,355,842	0
1998	665,492	949	427,680	1,094,121	1,094,121	1,094,121	0
1997	580,931	0	396,000	976,931	976,931	976,931	0
1996	540,743	0	396,000	936,743	936,743	936,743	0
1995	540,743	0	396,000	936,743	936,743	936,743	0
1994	540,743	0	396,000	936,743	936,743	936,743	0
1993	560,090	0	396,000	956,090	956,090	956,090	0
1992	560,090	0	396,000	956,090	956,090	956,090	0
1991	560,090	0	396,000	956,090	956,090	956,090	0
1990	476,441	0	336,600	813,041	813,041	813,041	0
1989	476,441	0	332,640	809,081	809,081	809,081	0
1988	442,081	0	300,960	743,041	743,041	743,041	0
1987	433,892	0	135,868	569,760	569,760	569,760	0
1986	435,768	0	134,006	569,774	569,774	569,774	0
1985	425,914	0	142,560	568,474	568,474	568,474	0
1984	92,652	81,082	142,560	316,294	316,294	316,294	0
1983	92,652	81,082	70,963	244,697	244,697	244,697	0
1982	89,237	81,082	70,963	241,282	241,282	241,282	0

Parcel Sales History

NOTE: Sales do not generally show up in our computer system until about two to three months after the date of sale. If a recent sale does not show up in this list, please allow more time for the sale record to be processed. Thank you for your patience and understanding.

There are no sales to display for this parcel.

Monroe County Property Appraiser
Scott P. Russell, CFA
P.O. Box 1176 Key West, FL 33041-1176