St. George's Episcopal Church
Phase II Architectural History Evaluation, St. Louis Park, Hennepin County, Minnesota

S.P. NUMBER: 2734-34
MNDOT AGREEMENT NUMBER: 99749
SHPO NUMBER: PENDING

Authorized and Sponsored by:
Federal Highway Administration, Minnesota Department of Transportation

Prepared by:
William E. Stark, Principal Investigator
Stark Preservation Planning LLC

January 2012

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2840 43rd Avenue South
Minneapolis, Minnesota 55406

Report Author and Principal Investigator:
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MANAGEMENT SUMMARY

In November 2011, the Minnesota Department of Transportation (MnDOT) Cultural Resources Unit (CRU) requested the evaluation of St. George's Episcopal Church at 5224 Minnetonka Blvd, St. Louis Park, Minnesota (HE-SLC-033) for its eligibility for listing in the National Register of Historic Places (NRHP) in relation to the proposed reconstruction project at the intersection of Trunk Highway (TH) 100 and County State Aid Highway (CSAH) 5 (S.P. 2734-34). Stark Preservation Planning LLC, with William E. Stark as Principal Investigator, conducted the investigation. This report outlines the methods of the investigation, the description, history, context and evaluation of the property.

The project is located in southwest ¼ of Section 31, T29N, R24W, in Hennepin County, Minnesota. MnDOT proposes to reconstruct the intersection of TH 100 and CSAH 5 to address basic infrastructure deficiencies, improve interchange safety at TH 7 and County Road 5, and improve the traffic operations of TH 100 by increasing safety and mobility, making through improvements, such as modifying ramp acceleration/merging spacing and by maintaining six through-lanes of traffic within the project limits. The proposed project is adjacent to St. George's Episcopal Church (HE-SLC-033) and has the potential to affect this property. The project will be receiving funding from the Federal Highway Administration (FHWA), and therefore must comply with Section 106 of the National Historic Preservation Act of 1966, as amended. The MnDOT CRU serves as the project manager for the Section 106 process.

St. George's Episcopal Church was constructed in three major phases. The congregation's first permanent building was erected in 1949 using three Stran-Steel Quonset buildings. Designed by St. Louis Park architect, Edward Roy Ludwig, it was likely the first ecclesiastical application of a Quonset hut in Minnesota. The second wing constructed in 1960 replaced the Quonset's worship space with a new sanctuary and classrooms. Minnesota architect, Harry Gerrish, designed the space in an attractive A-frame sanctuary with classrooms in the basement, a popular design of the 1950s and 1960s. An education wing, built in 1967, finishes the primary buildings in the complex.

The property is recommended as not eligible for listing in the NRHP. The Quonset structure (1949) is a significant adaptation of a prefabricated, massed produced form adapted into a well-designed place of worship. Alterations made with the 1960 addition have significantly altered many of the character-defining features of the original building, diminishing its ability to convey its historical significance. The 1960 A-frame wing was constructed during a period when such design approaches were common, and therefore is not considered to be a significant architectural example. Similarly, the complex as a whole complex does not represent a significant example of post-World War II church growth, and is recommended as not historically significant. No other areas of historical significance were found to be associated with St. George's Episcopal Church. No further work is recommended.

TABLE OF CONTENTS

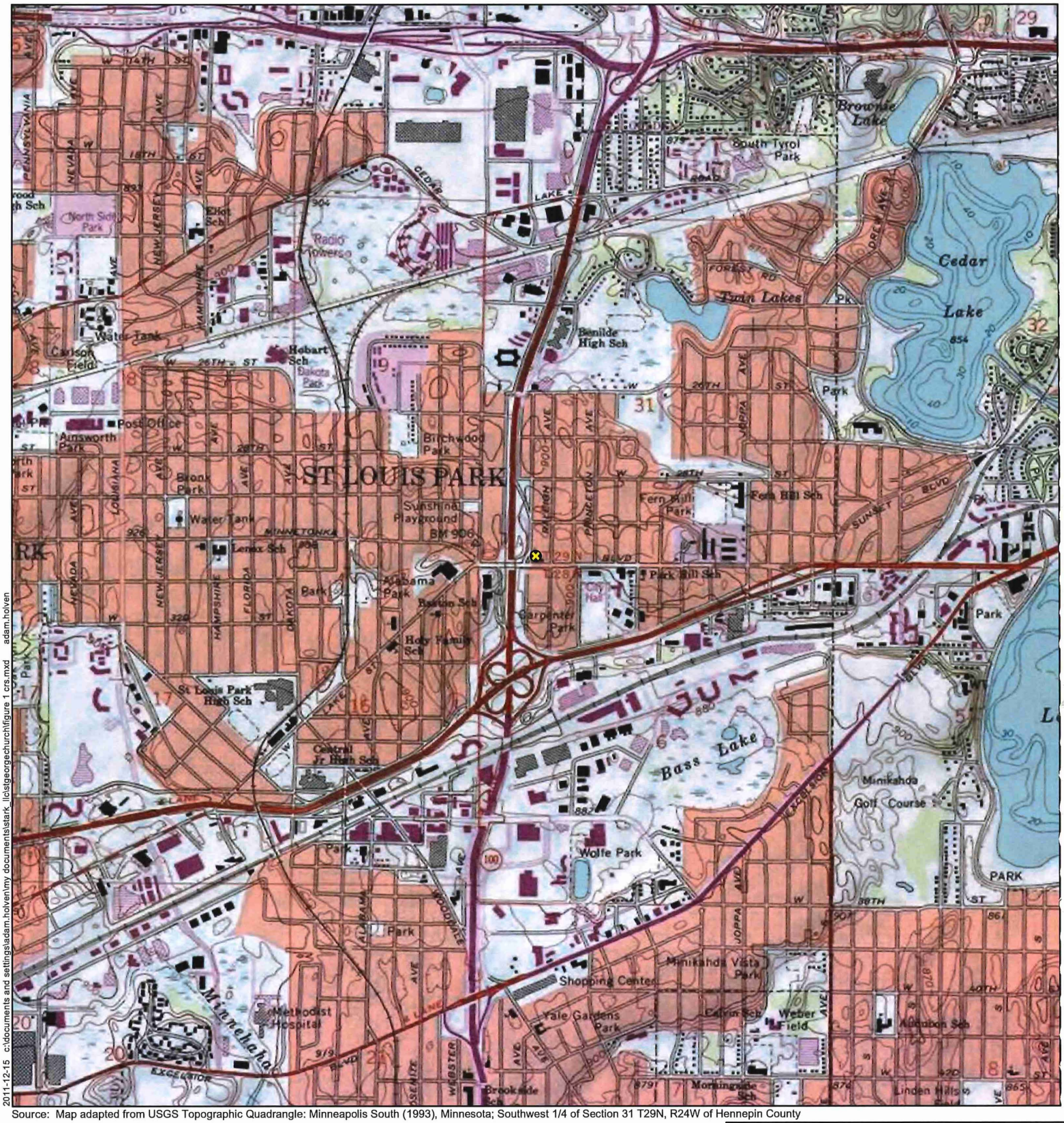
TABLE OF FIGURES

1.0 INTRODUCTION

In November 2011, the Minnesota Department of Transportation (MnDOT) Cultural Resources Unit (CRU) requested the evaluation of St. George's Episcopal Church at 5224 Minnetonka Blvd., St. Louis Park, Minnesota (HE-SLC-033) for its eligibility for listing in the National Register of Historic Places (NRHP) in relation to the proposed reconstruction project (S.P. 2734-34). The project will be receiving funding from the Federal Highway Administration (FHWA), and therefore must comply with Section 106 of the National Historic Preservation Act of 1966, as amended. MnDOT CRU serves as the project manager for the Section 106 process. The proposed project is adjacent to St. George's Episcopal Church and has the potential to affect this property. Stark Preservation Planning LLC, with William E. Stark as Principal Investigator, conducted the investigation. This report outlines the methods of the investigation, the description, history, context and evaluation of the property.

1.1 PROJECT DESCRIPTION

The project is located in the SW ¼ of the SW ¼ of Section 31, T29N, R24W, in Hennepin County, Minnesota (Figure 1). MnDOT proposes to reconstruct the intersection of TH 100 and CSAH 5 to address basic infrastructure deficiencies, improve interchange safety at TH 7 and County Road 5, and improve the traffic operations of TH 100 by increasing safety and mobility, making through improvements, such as modifying ramp acceleration/merging spacing and by maintaining six through-lanes of traffic within the project limits. The proposed project is adjacent to St. George's Episcopal Church and has the potential to affect this property.



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Source: Map adapted from USGS Topographic Quadrangle: Minneapolis South (1993), Minnesota; Southwest 1/4 of Section 31 T29N, R24W of Hennepin County

St. George's Episcopal Church

0 0.25 0.5 0.75 1 Miles

1:24,000

N

St. George's Episcopal Church
Phase II Architectural History Evaluation
St. Louis Park, Hennepin County, Minnesota

Figure 1
Project Location

stark preservation planning llc

2.0 METHODS

2.1 OBJECTIVES

The objective of the Phase II investigation was to evaluate St. George Episcopal Church (HE-SLC-033) to provide a recommendation of NRHP eligibility through property-specific research and historic context development. Work was conducted in accordance with *The Secretary of the Interiors' Standards and Guidelines for Archeology and Historic Preservation* [48 Federal Register 44716-44760] (National Park Service 1983) and the MnDOT CRU guidelines.

2.2 RESEARCH

Research was conducted to inform the history of St. George's and to develop a historic context within which to evaluate its significance. Research was undertaken at the Minnesota Historical Society, the Minnesota State Historic Preservation Office, the University of Minnesota, and the St. Louis Park Inspections Department. Archival materials in scrapbooks, which included numerous articles about St. George's, are maintained in the church library and were an invaluable resource. An interview and tour was conducted by Parish Administrator, Patty Dittrich and the Rev. Paul Allick in November 2011.

2.3 FIELD SURVEY

In November 2011, Stark conducted a survey of St. George's Episcopal Church. The property was recorded with digital photographs and field notes to develop a description of the building and setting, and to evaluate its historic integrity. Parish Administrator, Patty Dittrich provided an interior tour.

2.4 INVENTORY FORM

A Minnesota Architecture-History Inventory Form was completed for the property. The form is provided separately to be filed at the Minnesota State Historic Preservation Office.

2.5 EVALUATION

The evaluation of the St. George's Episcopal Church's eligibility for listing in the NRHP was assessed based on the property's significance and integrity. The NRHP significance criteria are summarized below:

- Criterion A – association with events that have made a significant contribution to the broad patterns of history;
- Criterion B – association with the lives of persons significant in our past;
- Criterion C – embodiment of the distinctive characteristics of a type, period, or method of construction; representation of the work of a master; possession of high artistic values; or representation of a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D – potential to yield information important to prehistory or history (NPS 1995).

The NPS has identified seven aspects of integrity to be considered when evaluating the ability of a property to convey its significance: location, design, setting, materials, workmanship, feeling, and association. The integrity of each property considered to be significant was assessed in regard to these seven aspects. The properties were also assessed to determine if they represent a type of property to be evaluated in light of NRHP Considerations (National Park Service 1995).

Because this property was built for, and currently serves a religious purpose, Criteria Consideration A for religious properties was applied to the evaluation.

3.0 PHASE II INVESTIGATION: ST. GEORGE'S EPISCOPAL CHURCH

3.1 DESCRIPTION

St. George's Episcopal Church (HE-SLC-033) is located at 5224 Minnetonka Boulevard in St. Louis Park, Hennepin County, on a 0.9-acre parcel bound by Toledo Avenue South on the west, Minnetonka Avenue on the south, Salem Avenue South on the east, and an alley on the north. Trunk Highway 100 runs just to the west of Toledo Avenue South, which also serves as the on-ramp to the highway. The complex is composed of three interconnected buildings constructed over a 20-year period forming a U-shaped complex with a courtyard at its center. The original building is located on the west side of the parcel and was constructed in 1949 using Quonset style design and materials. An A-frame addition was added to the Quonset building in 1959/60 and forms the lower portion of the U-shape on the south side of the parcel. The education wing was completed in 1967 on the east side of the parcel. A covered walkway was constructed in 1979 to form the north side of the courtyard (Figure 2).

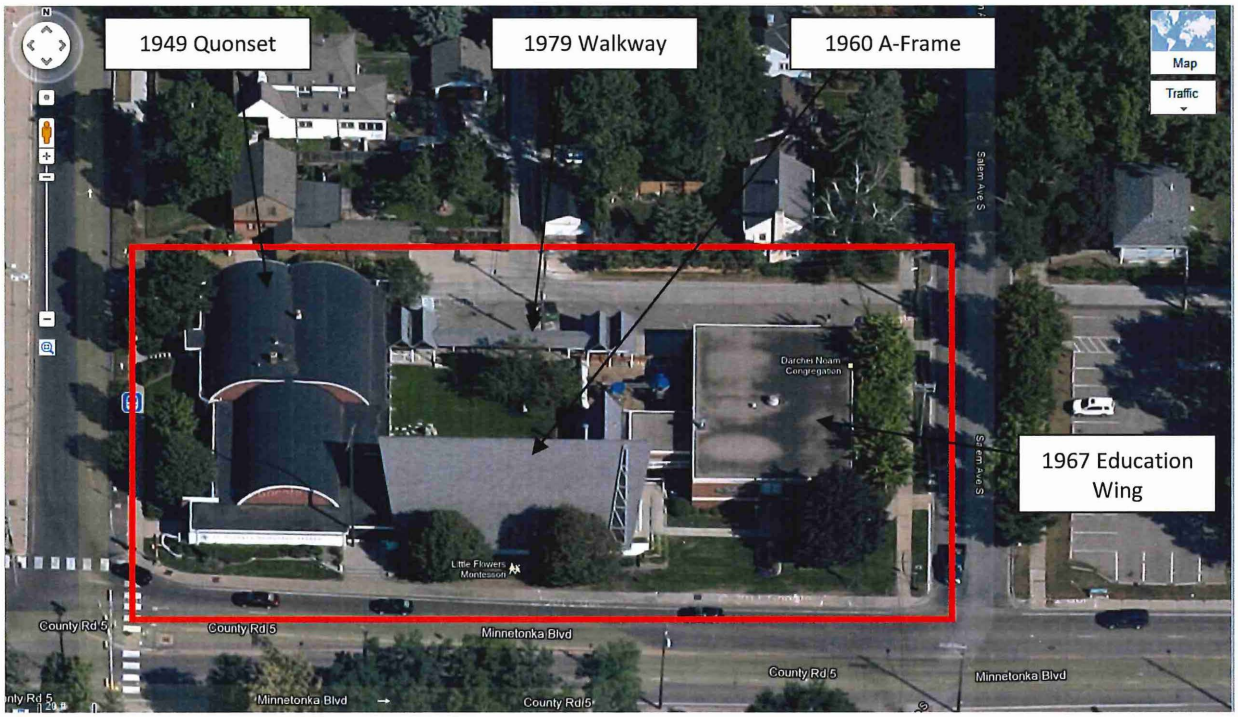

FIGURE 2. OBLIQUE AERIAL VIEW OF ST. GEORGE'S CHURCH COMPLEX, FACING N

The Quonset wing is primarily composed of three adjoined barrel roof forms placed on a concrete slab (Figure 3). A single barrel-arch roof on the south side is joined to the north at its arched opening to a multiple barrel-arched roof form of two overlapping arch structures. The single, south arched structure is wrapped by a one-story framed wing running parallel to the barrel arch. The wing has a brick knee wall with a ribbon of frosted, fluted-glass windows above it, and a battered masonry wall intersecting the barrel vault near the south end. Although some of these windows remain in place, most have been covered or replaced by wood panels. The double-arch segment also has a brick knee wall topped by a frame wall with single sash windows, and eaves. A projecting side entry with double-leaf doors and fluted glass is located on the west elevation (Figure 4). The arch-end walls are filled with brick on the lower half, and wood clapboard in the upper portion (Figure 5). The original primary façade – the arched south end – was once three-quarters filled with brick, with the remaining quarter devoted to

deeply set vertical windows. The corrugated steel roof is covered by rolled asphalt. Much of the corrugated metal siding that comprises the structure is currently, and was historically, covered by added walls, wings, trim and roofing material, although segments are left exposed to reveal the building's structure.

FIGURE 3. QUONSET AND A-FRAME BUILDINGS, FACING NE

FIGURE 4. QUONSET BUILDING, FACING NE

FIGURE 5. QUONSET BUILDING, FACING SE

The interior spaces are currently used as a library and choir rehearsal room in the south (single-arch) section (Figure 6), while the northern portion serves as the parish hall, kitchen and nursery. The west projecting wing provides access through the side of the building through spaces once divided into offices (Figure 7). Originally, the choir rehearsal room served as the sanctuary with a brick or concrete block patterned wall at it north end and a concrete altar. The west corridor was used as offices for the secretary and priest.

The A-frame addition, completed in 1960, extends perpendicular from the southeast corner of the original building (see Figure 3). It is linked to the Quonset wing by a flat-roof, one-story hyphen and corridor, which wraps the south end of the Quonset wing, obscuring and altering the original façade. The hyphen is constructed with a white-painted brick wall, a ribbon of frieze windows and a flat roof, and connects to the west end of the A-frame addition (Figure 9). It now serves as the primary entrance from the south side and from the courtyard through paired oak doors with multi-light glass windows. The A-frame wing stands on a concrete basement. Laminated wood trusses support the tall roof structure, which is clad with asphalt shingles. The dominating roof has small gabled dormers on each side (Figure 8). A brick wall with small stained-glass windows within the dormers join the roof with the ground on the south elevation, while the north elevation is composed entirely of triangular, wood-framed windows (Figure 10). The east gable end is filled with solid, white-painted brick and the west gable end is clad with diagonal wood siding with several rectangular slits of colored glass windows. Near the roof's east end on the south side is a large trapezoidal skylight placed over the rafters, illuminating the chancel area within.

FIGURE 6. LIBRARY (LEFT) AND CHOIR REHEARSAL ROOM (RIGHT), QUONSET BUILDING

FIGURE 7. PARISH HALL (LEFT) AND OFFICE AND CORRIDOR (RIGHT), QUONSET BUILDING

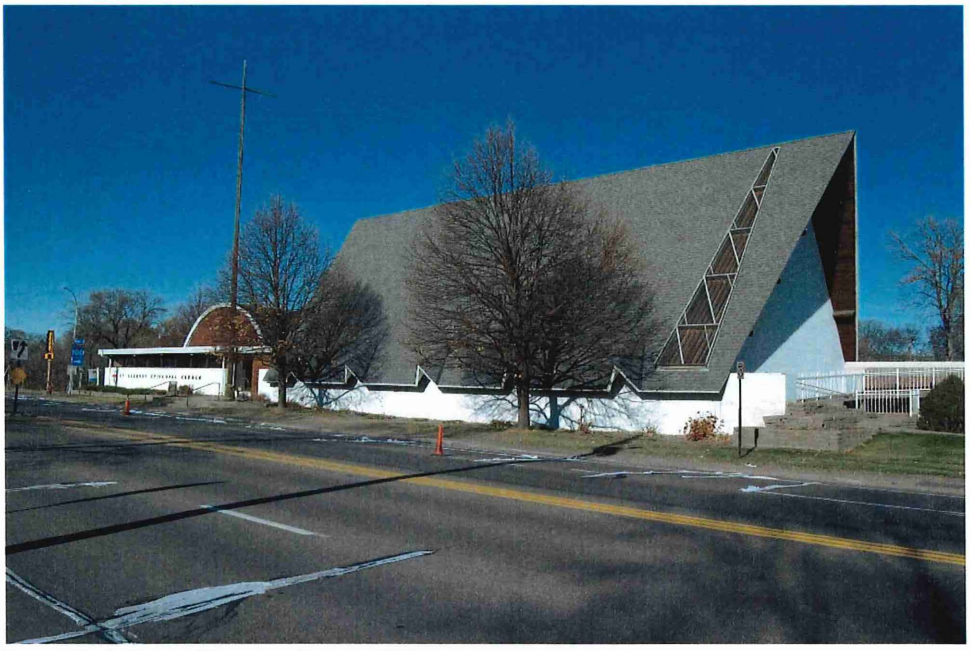

FIGURE 8. A-FRAME BUILDING, FACING NW

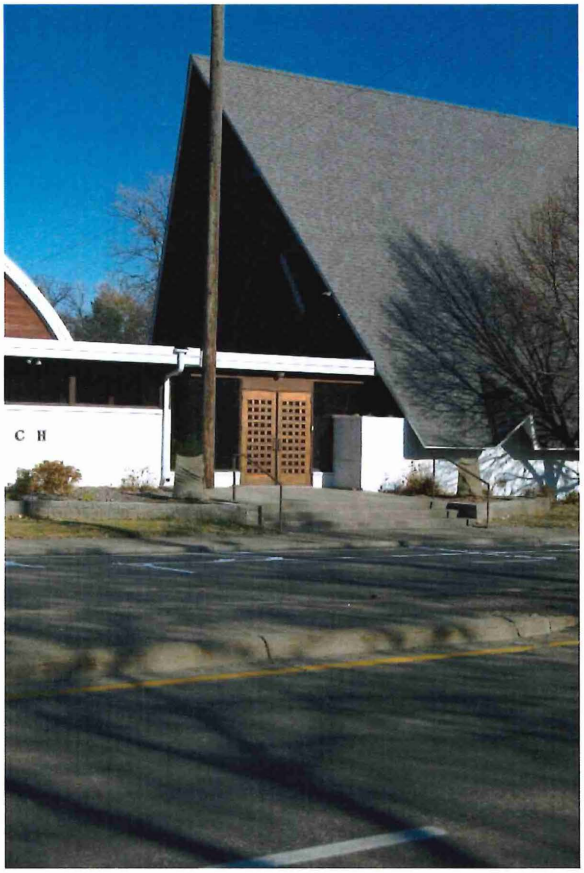

FIGURE 9. HYPHEN AND ENTRANCE TO A-FRAME BUILDING, FACING NE

FIGURE 10. GABLE ON SOUTH WALL (LEFT) AND NORTH WALL FENESTRATION (RIGHT), A-FRAME BUILDING

The interior of the main floor of the A-frame wing has a basilican form nave (Figure 11). Oak pews face east to the chancel area with a center aisle and side aisles; a tiered choir loft is in the southwest corner. The trusses of the roof structure are visible and horizontal ceiling paneling is stained to match the trusses. The east chancel area is dominated by a simple wooden cross hanging in front of the unadorned, white-painted brick wall. Three steps lead up to the altar, placed at the center of the east end. The altar, pulpit (on the north), presider seating, and communion table (on the south) are similarly constructed of golden oak with a pattern of square insets, complementary to the building's entry door. A wooden shelf is built into the east wall. A triangular, raised brick baptismal font is located at the head of the center aisle and features a three-tiered brass fountain (Figure 12). The operable, triangular, clear-glass windows on the north side are angled perpendicular to the roof are at the floor level. The abstract but figurative triangular stained glass windows are visible within the gables of the south wall. The west end is clad with diagonal wood paneling. Wood panels, removable for overflow events, separate the nave from the narthex (Figure 13). Centered double-leaf glass doors with wood frames lead from the nave to the narthex. The basement is primarily devoted to classrooms placed along a double-loaded corridor.

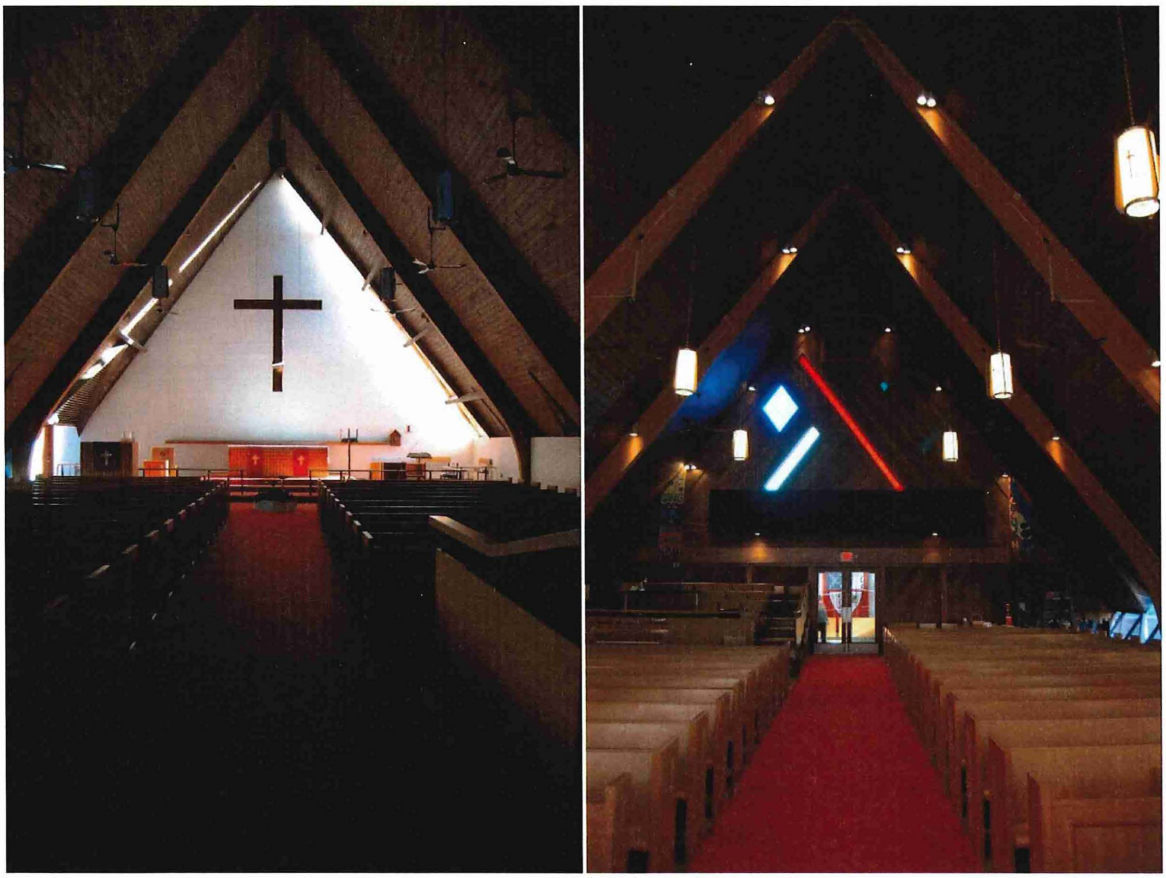

FIGURE 11. NAVE INTERIOR FACING E (LEFT) AND FACING W (RIGHT), A-FRAME BUILDING

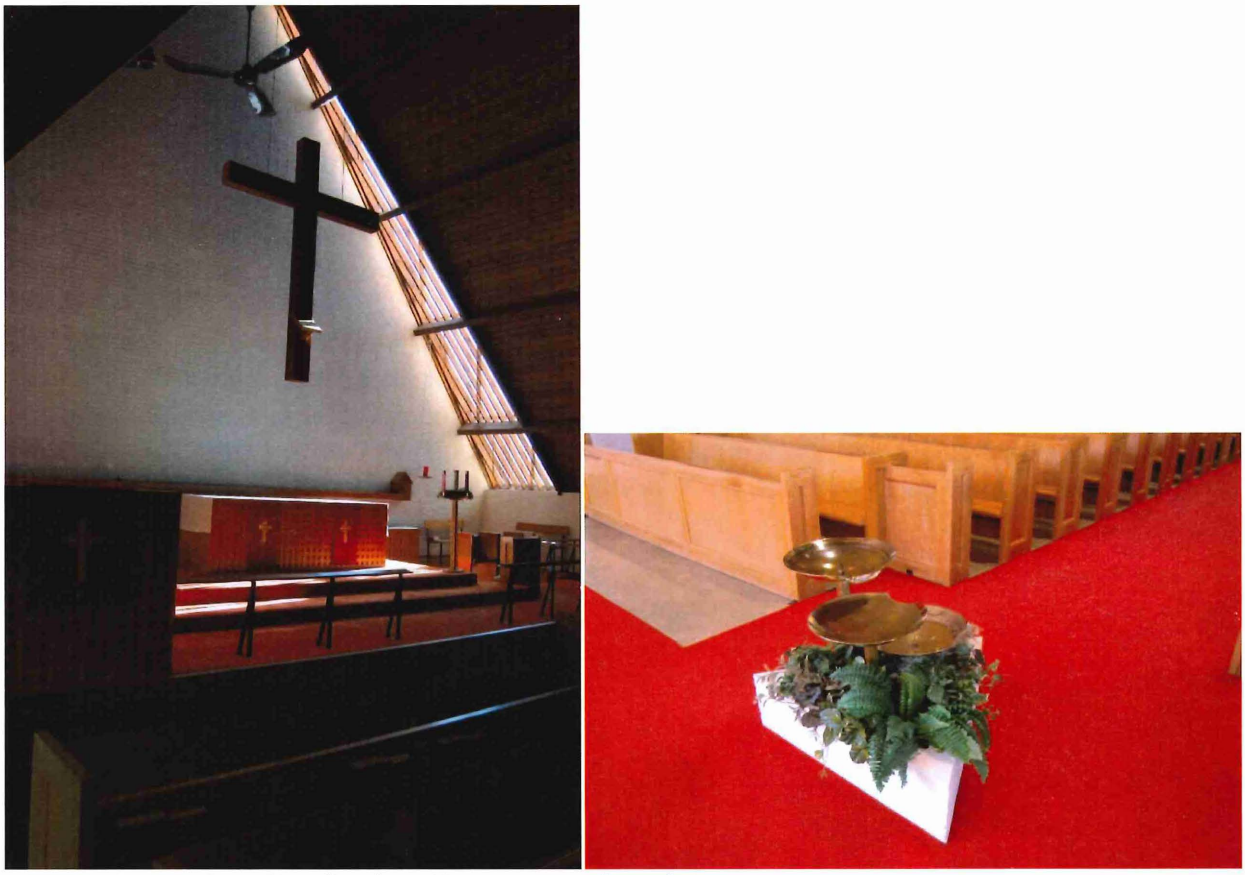

FIGURE 12. CHANCEL AREA, NAVE (LEFT) AND BAPTISMAL FONT (RIGHT), A-FRAME BUILDING

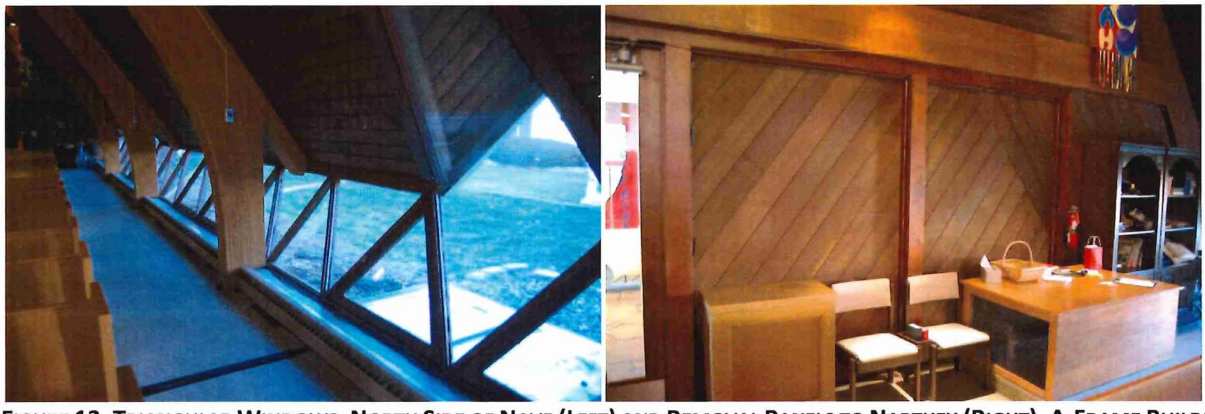

FIGURE 13. TRIANGULAR WINDOWS, NORTH SIDE OF NAVE (LEFT) AND REMOVAL PANELS TO NARTHEX (RIGHT), A-FRAME BUILDING

The third wing added in 1967 is a rectangular plan, one-story education wing with a raised basement (Figures 14 and 15). It is linked to the A-frame building by a hyphen and through the basement. The tightly contained building is clad in brick, with a broad string course separating the first story from the basement and at the parapet wall that conceals the flat roof. Paired casement window units are sparingly used and set within openings of double-gabled precast concrete insets. Paired casement windows are also located in the basement level. Double-leaf, split-level entries are centered on the north and south elevations. A bronze relief sculpture of St. George is mounted on the south wall. The building contains classrooms, offices, storage and lavatories.

FIGURE 14. EDUCATION WING, FACING NE

FIGURE 15. EDUCATION WING, FACING SW

The three buildings form a central, open courtyard. A gabled covered walkway constructed in 1979 forms the fourth (north) side of the courtyard, separating it from the alley and parking (Figure 16). The courtyard is simply landscaped with turf, a memorial boulder and bench, and a single tree. A flat-roofed covered walkway leads from the alley to the hyphen on the east side of the Quonset wing (Figure 17).

FIGURE 16. COVERED WALKWAY, FACING W

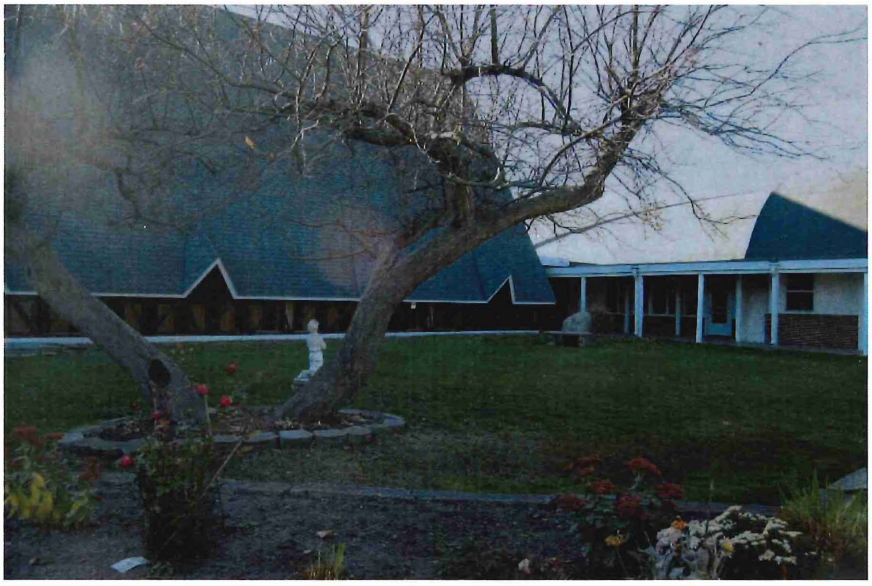

FIGURE 17. COURTYARD, FACING SW

3.1.1 Alterations

St. George's Episcopal Church has developed to its current configuration between 1949 and 1979 through four major building episodes. Each building episode has resulted in alterations to the existing buildings to a greater or lesser extent.

The earliest building, the 1949 Quonset wing, has been altered the most. With the addition of the A-frame wing in 1960, the south façade was significantly changed by the addition of a one-story

connecting hyphen that led to the narthex of the new sanctuary. As a result, the exterior façade became an interior wall, covered with drywall, and the fenestration in the upper section was covered by clapboard (Figure 18). Many of the fluted glass windows have been replaced by solid panels. The barrel arches that originally exposed the corrugated metal material (apparently painted white) have since been covered by a rolled asphalt sealer. Significant interior spaces have also been altered, including the division of the former sanctuary into two spaces – the library and choir rehearsal room (Figure 19; see Figure 6), and interior alterations of the parish hall. A small chapel was added within the space during the 1960 renovation.

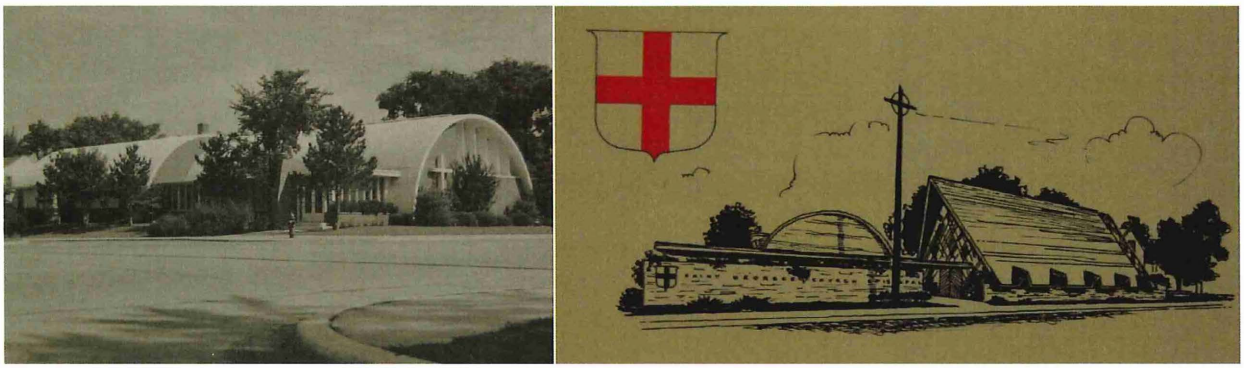

FIGURE 18. QUONSET BUILDING, CIRCA 1950 (LEFT) AND SKETCH OF MODIFIED QUONSET AND A-FRAME

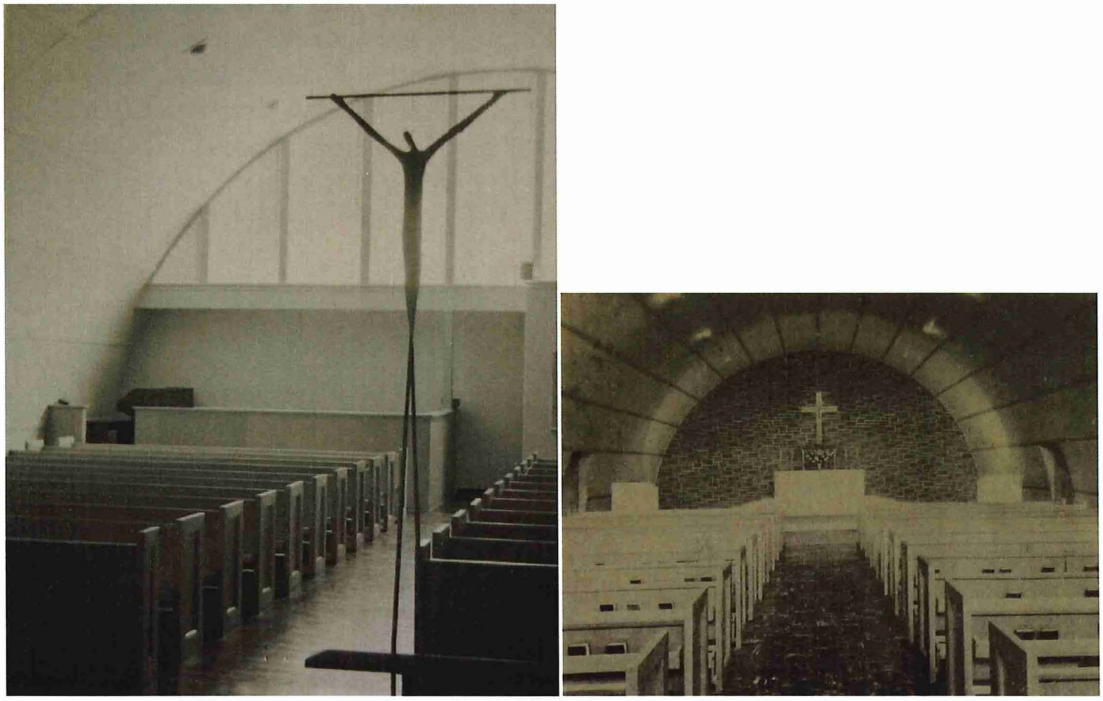

FIGURE 19. INTERIOR OF WORSHIP SPACE IN QUONSET, CIRCA 1950

The A-frame building remains largely unaltered since its construction in 1960, with minor interior changes such as sound system installation, being the most noticeable. The addition of the 1967 Education Wing resulted in changes to the east elevation, where it connects with the new wing. Similarly, few significant alterations were noted in the 1967 wing.

3.2 HISTORY

3.2.1 St. George's Episcopal Church

St. George's Episcopal Church was established as a mission in 1945 to serve the growing suburban population of St. Louis Park, which then numbered around 20,000. Early services were held in the St. Louis Park High School band room, and later the American Legion Hall on Excelsior Boulevard. The congregation quickly grew to 35 families, and the emerging church community requested that the Bishop appoint a full-time clergyman. Rev. Roger C. Schmuck accepted the post, and St. George's grew from a fledgling mission under his leadership (St. George's Episcopal Church 1987:1). St. George's became the Minnesota dioceses' first of the newly established post- World War II suburban congregations when it was named a parish in 1947. Other suburban churches in the diocese were to follow, including St. Christopher's in Roseville (1950), St. Nicholas in Richfield (1951), St. David's in Minnetonka (1952), St. Alban's in Edina (1957), Epiphany in New Hope and Good Shepherd in Sunfish Lake (both in 1958), and St. Matthias in Saint Paul Park (1960) (Sheppard 1981:9).

Schmuck's quick work to find a permanent location for the new church precipitated its becoming a full-fledged parish. In May of 1947, he arranged for the purchase of 10 lots at the intersection of Highways 7 and 100 to build his vision for an elegant but rustic English Tudor Revival styled church and parish hall in a U-shaped form (St. Louis Park Dispatch, 9 May 1947) (Figure 20). The $150,000 price tag to get the project off the ground grew to $350,000 due to escalated costs of materials following the war. The increased costs could not be assumed by the newly formed congregation, who themselves consisted of young families. A second, more modest plan was quickly put together, and the vestry acquired just three lots at Minnetonka Boulevard and Toledo Avenue, where the church is currently located. Rather than erecting the expensive stone building originally envisioned, the building committee opted to capitalize on the modern building materials and techniques that offered a more affordable solution that could be immediately implemented. The cost of the decidedly more modest version was just $55,000 and more within the means of the emerging congregation (St. George's Episcopal Church 1985:1).

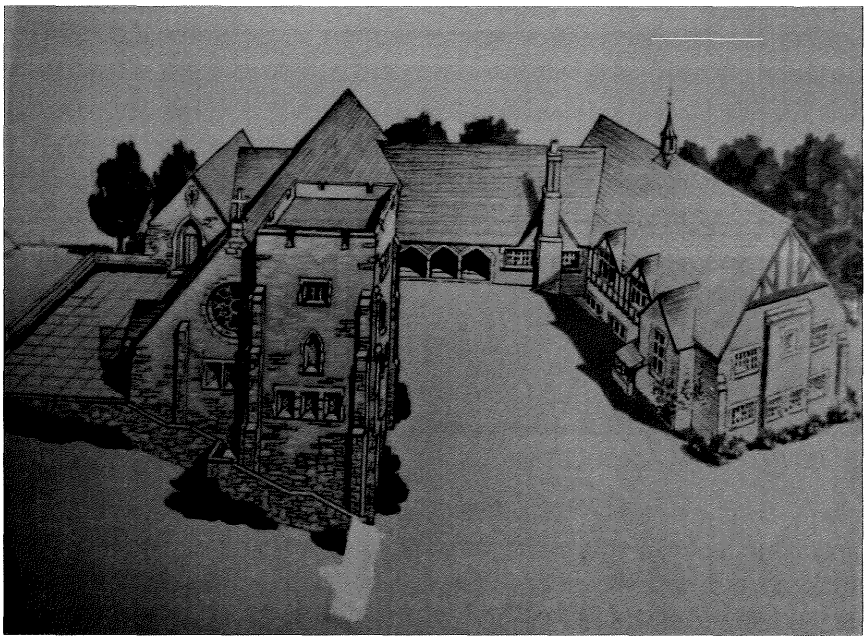

FIGURE 20. SKETCH OF PROPOSED CHURCH DESIGN, CIRCA 1947

The innovative plan designed by E. R. Ludwig utilized a precut Stran-Steel Quonset building to form a sanctuary to hold 220 people and an abutting 30 by 60-foot parish hall from a double Quonset that would also contain the sacristy, storage space, nursery, offices, and washrooms. Radiant heating was placed in the slab concrete floor. The chancel wall was constructed from Los Ranchos brick and the altar, pulpit and lectern were made of poured and polished concrete (Figure 21). A simple cross made of worm-eaten Cyprus wood was hung in the center of the arched backdrop. The five windows separated by deep fins in the south arch emphasized the modernity (St. Louis Park Dispatch, 8 October 1948) (see Figure 18). Upon its dedication, a newspaper article quoted an unnamed "clergyman from another faith" remarking positively about the new St. George's church: "I'd be proud to be part of a congregation that made the most of what they've got like that. You don't need towering spires and stained glass to worship God" (Southwest Shopper, 13 October 1948).

Edward Roy Ludwig (1886-1956)
Architect E. R. Ludwig designed St. George's innovative original church building. Ludwig was a Minneapolis native, and resided in St. Louis Park from the 1920s until his death. He attended the University of Illinois and received his Master's degree from the same institution in 1912. He studied at Hebrand's Atelier in Paris following graduate school, and traveled throughout Europe. Upon his return he briefly worked for Buechner & Orth, and Emmanuel Masqueray before establishing his own architectural office in 1914. He served in the Engineer Battalion during World War I, and upon his return collaborated with Sund & Dunham Architects of Minneapolis until 1942. After that, he worked with Magney, Tusler & Setter, and then Lang & Raugland. Among his works were the Prospect Park Methodist Church (1916), and several houses in Minneapolis' Prospect Park neighborhood. He was also involved with designs for Central Lutheran Church and the interior of the Basilica of St. Mary's, both in Minneapolis. In St. Louis Park, he served on the planning commission and was involved with the city's post office and other local projects (Edward Roy Ludwig, American Institute of Architects Application for Membership, Northwest Architectural Archives, University of Minnesota, Minneapolis; St. Louis Park Dispatch, 19 July 1956:1).

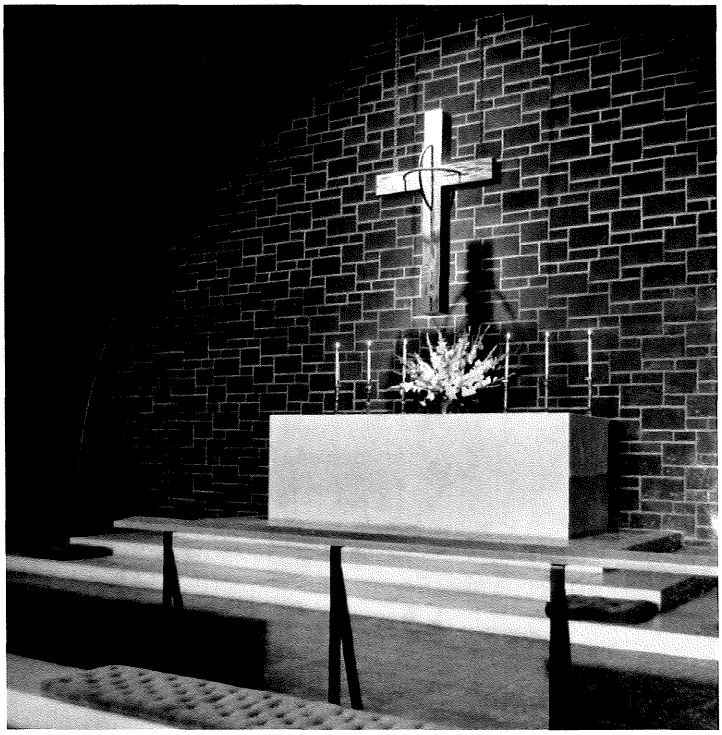

FIGURE 21. ALTAR AND CHANCEL OF QUONSET CHURCH, C. 1949

Ground was broken for the new building in October 1948. Just weeks before the first service in the new building was scheduled, fire broke out on February 7, 1949, gutting the rear portion of the building and causing $35,000 in damage (St. Louis Park Dispatch, 11 February 1949). Reconstruction began after insurance adjustments were made, and the original Quonset plan was again erected. The congregation was finally able to dedicate their new worship space on Friday, May 13, 1949. Services were conducted by Bishop Stephen E. Keeler.

The building received some attention when it was constructed, and the *Minnesota Missionary* noted that it was "the only one of its kind in this part of the country. Several national publications have carried stories and pictures on the unique structure, with its simple altar of poured concrete and end wall of brick behind the altar" (December 1951). The *St. Louis Dispatch* reported that it was the first time that a Quonset type structure was erected as a permanent church building (13 October 1948). While the claim was not entirely correct – Quonset huts had been adapted for ecclesiastical use by architect Bruce Goff in 1945 for the chapel at Camp Parks in Dublin, California in 1945 and for a Trappist monastery in Ogden, Utah in 1948 – the adaptation was still rare, and St. George's project was probably unique in Minnesota.

By 1950, as the congregation settled into their unique home, Rev. Schmuck reported that the church had grown to 139 families, or 404 baptized persons, 235 children in the Sunday school program, with a budget of $23,000. Even with the new building, the demand for space persisted, especially in the Sunday schools, where the shared space in the parish hall made it difficult for students to hear their teachers over the din. St. Louis Park itself had also grown to capacity, and would not be expanding further. The large numbers of small post-War houses meant that it became a highly transient community, where families got their start and then moved on to newer and larger homes in other suburbs, as they could afford. The congregation considered moving to a more stable suburb, such as Golden Valley, and examined specific locations in that area. In 1957, thoughts about uprooting the congregation were dropped under pressure from influential St. Louis Park members, and from the diocese, which was considering a new mission in the northwest suburbs. With that settled, the congregation, under the leadership Rev. Allen Whitman, explored ways to expand on their existing site. After discussing the possible demolition of the Quonset building to construct an entirely new church, the vestry went with a plan for an addition. The new wing would be an A-frame form with basement classrooms. The old building would be adapted into new uses (St. George's Episcopal Church 1985:2).

The plan received a strong endorsement from Bishop Hamilton H. Kellogg, who wrote, "it is obvious that a larger and more permanent building must be erected to replace the present Church edifice, which is of temporary construction, together with more Church School rooms of the latest type" (Hamilton H. Kellogg to Allen Whitman, 7 February 1959, St. George's Episcopal Church Archives, St. Louis Park, Minnesota). Although St. George's had already acquired an adjacent farm house to serve as the education building in 1953, space for the congregation's activity and Sunday school for over 350 children was at a premium. Every space was used for multiple purposes – the eighth grade crammed into the rector's study, and the fifth grade met in the kitchen, which also served as the choir's robing room. Within the sanctuary, folding chairs were placed in the aisles for overflow and newcomers had to be turned away (Minneapolis Star, 25 February 1959).

The congregation commissioned architect Harry Gerrish, Jr., to design a new building that would better accommodate its needs. Gerrish was a St. Louis Park resident, member of St. George's, and was working with the firm Setter, Leach, Lindstrom and Erickson. Gerrish was challenged by the need for expansion and the limited budget available from the

Harry E. Gerrish, Jr. (b. 1924)
Minnesota native Harry Gerrish received his Bachelor of Architecture degree from the University of Minnesota in 1950 and apprenticed in several architectural firms in Minneapolis, Minnesota and Miami, Florida between 1950 and 1959. We was admitted to the practice of architecture in Minnesota in 1959, and became a principal at Design One, Inc. in 1960. In 1985, he joined Trend Architecture, Inc. His practice included commercial, industrial, and medical architecture, churches, restaurants, motels and land planning. He was involved with numerous housing projects in the Twin Cities area (Harry E. Gerrish Resume, c. 1994, Northwest Architectural Archives, University of Minnesota, Minneapolis). Among his church projects were Christ Chapel at Gustavus Adolphus College (1962, with Setter, Leach & Lindstrom) and Waymen A.M.E. Church in north Minneapolis (1966).

congregation "made up of families that are growing faster than their incomes" (Minneapolis Star, 25 February 1959). Cost constraints suggested that a modern architectural solution would be most appropriate, and Gerrish presented a plan for a new A-frame building that would cost $127,457 plus $12,000 to remodel the old church area (St. George's Episcopal Church 1985:2). The new building would increase the sanctuary seating to 284, and would add seven new classrooms in the basement. The new wing was attached to the south end of the old Quonsets by an enclosed corridor that served as the new face and entry for the emerging complex. Ground was broken in August 1959 and it was dedicated in May 1960 (Figures 22 and 23).

As with the Quonset structure, the A-frame addition again made an architectural statement reflective of its time and circumstance. The new building was described as "contemporary" with modern planes and angular lines. The large skylight window dramatically illuminated the chancel with natural light, where a dark wooden cross hung in stark contrast to the white brick wall. The free-standing altar was pulled out from the back wall so the priest could consecrate the sacraments while facing the congregation, a nod to new liturgical movements (Unidentified newspaper article dated 5 May 1960, St. George's Episcopal Church Archives, St. Louis Park, Minnesota). Five triangular stained glass windows designed by St. Paul artist Ludwig Schermer were placed in the openings of the south wall using abstract designs for Christian symbolism. The windows were fabricated in West Germany and shipped for installation (St. George's Episcopal Church 1985:7). The spaces within the old Quonset church were renovated for additional classrooms, a library and a small chapel.

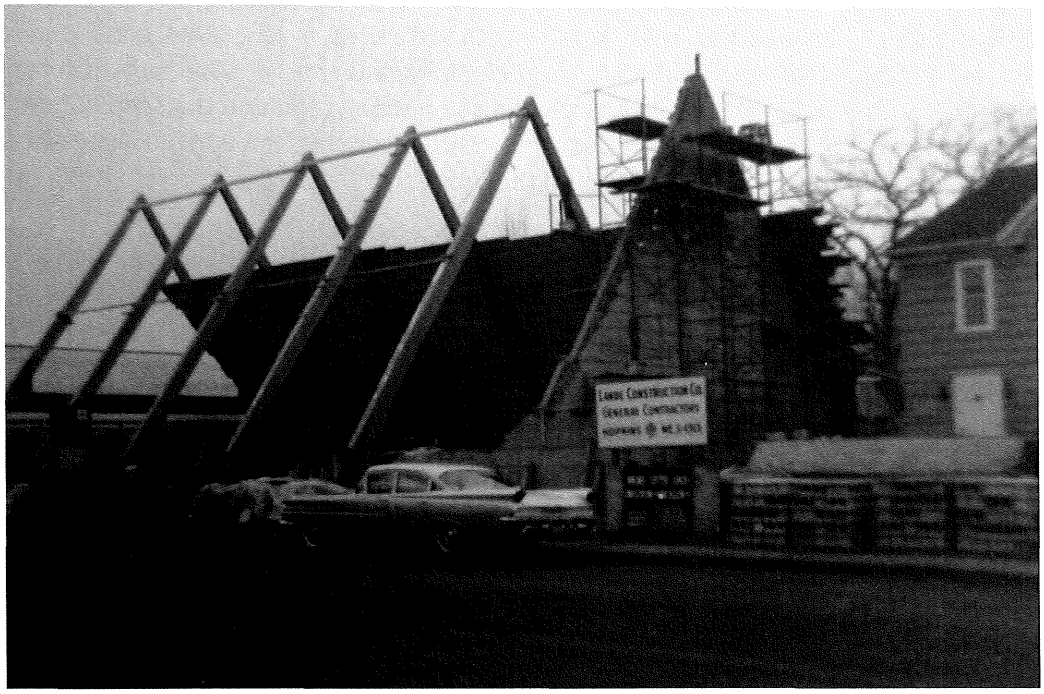

FIGURE 22. A-FRAME ADDITION UNDER CONSTRUCTION IN 1959

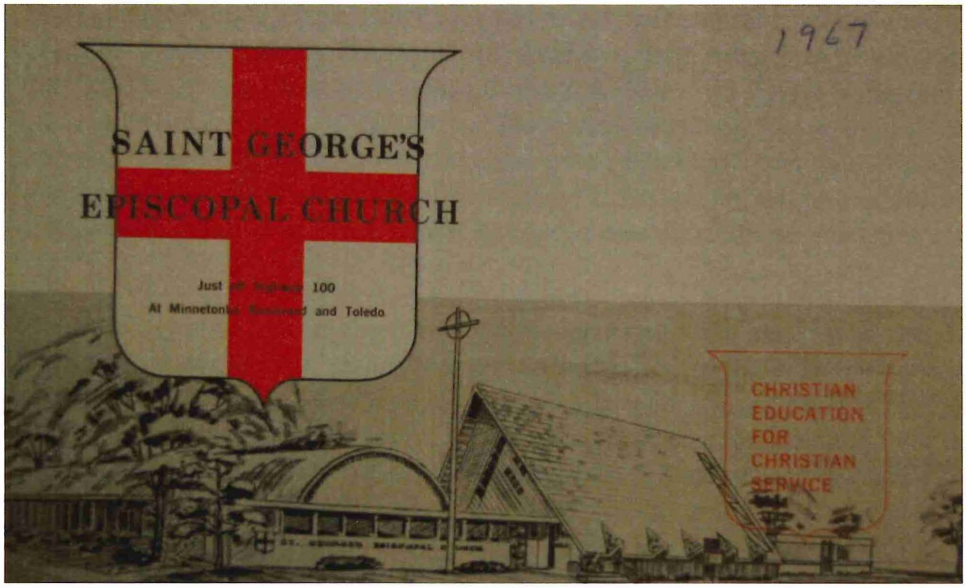

FIGURE 23. SKETCH OF CHURCH COMPLEX DATED 1967

Although the new classrooms were included as part of the 1960 addition, the old farm house continued as an inadequate Christian Education building. Citing the poor lighting, ventilation and space for children in the house's basement, the vestry proposed to a new education building to replace the former farm house. The congregation voted to move forward with the project in June 1967, and ground was broken for the new building later that month. The one-story with raised basement building contained 4,500 square feet of space on each level and included a crib room, toddler room complex and other classrooms, office space, storage rooms and lavatories. The flat-roofed, modern building was designed by Adkins Jackels Associates ("Christian Education for Christian Service" pamphlet 1967; St. Louis Park Dispatch Press, 29 June 1967) (Figure 24).

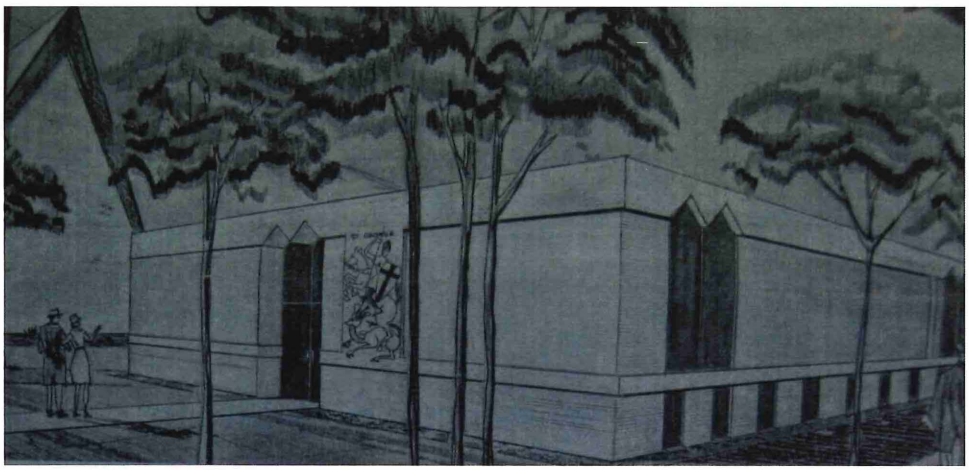

FIGURE 24. RENDERING OF PROPOSED EDUCATION WING IN FUNDRAISING MATERIALS, 1967

With this wing added, the St. George's complex was largely complete as it stands today. The three buildings formed a courtyard, which was established contemporaneous with the 1960 wing. In 1966, the parcel across Salem Avenue was acquired and the building demolished for a parking lot. The parish hall in the Quonset building had, for a time, been used as a basketball court. In the early 1970s, the room was updated and a drop ceiling, recessed lighting and carpeting were installed. The covered walkway, forming the north side of the courtyard, was added in 1979.

3.3 CONTEXT

3.3.1 St. Louis Park

The city now known as St. Louis Park grew from an agricultural area known as Minneapolis Township, lying west of the City of Minneapolis. Beginning in the 1850s, the area was sparsely settled by farmers and with occasional industrial projects, such as flour mills. By the 1880s, capital industrialist Thomas Barlow (T.B.) Walker developed a vision for a community, through which the Minneapolis and St. Louis Railroad ran its line. Walker envisioned a suburban industrial city of small factories and residences, based on George M. Pullman's model town of Pullman, Illinois. Walker teamed with other wealthy Minneapolis investors to form the Minneapolis Land and Investment Company, incorporated in September 1890 with $1.5 million in assets. The group began acquiring land in the St. Louis Park area. The investors attracted a number of small industrial ventures, including the Monitor Works, manufacturers of grain seeders, the Minneapolis Jarless Spring Carriage Company, the Thompson Wagon Company, the Minneapolis Malleable Iron Company, and the Shaft-Pierce Shoe Company. A streetcar line ran from the new community into Minneapolis (City of St. Louis Park 1976:14-15).

Despite the early success of Walker's vision for an industrial community, the economic depression of 1893 brought all activity to a stand-still. The businesses failed, and the land owned by Walker and his syndicate fell in value to less than they paid for it. Although businesses and industries would develop in St. Louis Park in the coming decades, its future would be as a residential community. Small residential additions were platted in the city during the 1910s and 1920s, along with the attendant churches and shops (http://www.jeanneandersen.net/timeline.html#walker).

With a population of 4,710 in 1930, St. Louis Park continued to function as a Village, with only a part-time Village council. By 1940, the population grew to 7,737 and then nearly trebled to 22,644 ten years later. The growing public needs of zoning, planning, infrastructure and other facilities of the growing community made it difficult to be an effective local government. The Village first petitioned the Hennepin County District Court to appoint a Charter Commission in 1938. The citizens of St. Louis Park rejected the charter in the September 1940 election. A second election on home rule in 1947 also led to rejecting the charter. Not until a December 1954 vote was St. Louis Park's Home Rule Charter approved. The newly-elected Council members took office on January 3, 1955 (http://www.slphistory.org/history/charter.asp). The city population again doubled by 1960 to 43,310.

3.3.2 Mid-Twentieth Century Church Design and Construction

The long economic depression of the 1930s had significantly curtailed the growth of building projects in the United States. Just as the economy began to recover, the nation plunged into a devastating world war, resulting not only in a short supply of capital, but also in materials and labor. The result of the successive events was a stagnated housing market and years of pent up demand. When the war ended in 1945, six million troops returned from overseas to face a decaying, inadequate and minimal housing stock. Many of the returning G.I.'s were getting married and starting families. What followed would be one of the greatest periods of economic expansion in the nation's history. Between 1940 and 1950, the number of dwellings in the United States increased by 23 percent; the increase for the Twin Cities was 19 percent. Of the millions of new houses built in the late 1940s, three quarters would be in the suburbs. Changing housing styles, government financing programs, innovative building techniques, and new building materials contributed to the wide availability of the new houses in the post-War era (Atwood and Roise 2010).

Many of the same factors that contributed to the nation's housing crisis and boom also affected its houses of worship. The lack of funding badly delayed needed expansion and construction projects in the 1930s, limited and high costs of materials during and immediately after the war further confounded potential building campaigns, and returning service members with growing families placed additional pressure on existing facilities. Like the new housing, many of the postwar religious facilities would be built in the newly developing suburban communities, in addition to the well-established congregations in the cities.

Not only were the churches and synagogues facing the overall population boom of the post-war years, but the 1950s was also a high-point for American religious observation. Never before had as many Americans belonged to, attended, or associated themselves with religious institutions (Hudnut-Buemler 1994:1). In 1951, 58 percent of the U.S. population claimed religious membership, up from 42.5 percent in 1916. This phenomenon would not only have an effect on religious organization and leaders, but also on their boards of property, the construction industry, and American architects. Despite steadily growing church membership during the first half of the century, the number of churches had not kept pace. In 1916, there were 191 members per church, and in 1951, there were over 300 per church (Smith 1954). In 1955, *Architectural Record* made a prediction based on the current trends of church participation that by 1965 some 70,000 churches and synagogues would be constructed or substantially altered for a total cost of nearly six billion dollars. This would result in about 14 church projects, at $85,000 per job, for each of the 5,000 architectural firms engaged in church work. In 1955, religious buildings would account for seven percent of all non-residential building awards, up from two percent in 1946, the first postwar year (Smith 1955).

As early as 1946, professionals in the construction industry grew concerned about the impending surge of church building in the face the steeply escalating construction costs in the postwar era. Practically speaking, the concern was that the proposed projects would be shelved, rather than adapted, when confronted with the high costs of construction. Architects and their church clients were encouraged to reexamine the traditional programmatic requirements of the church building and to reappraise expensive "archaeological" architectural styles. To more economically provide the badly needed space, churches should be designed more efficiently, meaning that areas should have more intensive use. For example, a smaller sanctuary that accommodates regular Sunday worship attendance should be considered with the understanding that multiple services may be required for the two to three annual holidays with greater attendance. Spaces should be more flexible and program scheduling may need to be adjusted for multiple use of space by different groups at different times. New technology and affordable materials, such as architectural concrete or precast concrete units, built-up gravel roofs, laminated trusses and other systems inspired by industrial construction were encouraged in order to economize on costs "without sacrifice in beauty or dignity" (Ruth 1946:). Light, sound and comfort were among the advantages that churches in a contemporary design had over more traditional sources. The successful designer was one who could achieve the programmatic functions of the building in modern materials and with fewer adornments, and still create "the kind of place which, even when empty and silent, causes the man on the street to take off his hat upon entering" (Ragsdale 1946:96).

In Minnesota, the subject of the new design approaches to sacred spaces drew attention in the popular press. A series of three photo essays in the March 1950 issues of the *Minneapolis Morning Tribune* highlighted the range of design solutions of the early postwar age. These included St. George's Episcopal Church's innovative Quonset approach, St. Frances Cabrini in Minneapolis, an award-winning design by Robert Cerny of Long and Thorshav (1947), Mount Olive Lutheran Church in St. Paul , St. Joan of Arc Catholic Church in Minneapolis, and Lutheran Church of the Good Shepherd (Hills, Gilbertson Hayes, 1949-50), and Christ Church Lutheran in Minneapolis (Saarinen and Saarinen, 1949).

Among the most influential of these was Christ Church Lutheran. The established Lutheran congregation in the Longfellow neighborhood of Minneapolis faced similar issues to those of St. George's. Long in need of additional space from their original frame church building, the congregation developed plans for a new building in 1939. The traditional Gothic Revival church would cost $146,593. After the war began, construction was postponed. In 1943, the architectural firm of Lang and Raugland of Minneapolis prepared plans and working drawings to begin construction at the conclusion of the war. In 1946, the cost estimate had run up to $367,000 due to the rising postwar building costs. With these unattainable costs, Pastor William Buege looked toward other styles of architecture that may be more within the congregation's budget. A Modern design was thought to be more affordable, and also more suited to the "honest" form of the Lutheran liturgy and contemporary life. The congregation sought the famous Finnish architect, Eliel Saarinen, practicing in Bloomfield Hills, Michigan, to accept the commission. The resulting building is decidedly Modern, using simple materials, such as brick and concrete, and effective use of proportion, scale and light. The new building was highly acclaimed and recognized as a structure without precedent in ecclesiastical architecture. The building has inspired and influenced scores of architects and their designs since (Anderson 2008). The property is now designated as a National Historic Landmark.

Like the rest of the United States, Minnesota has a diverse legacy of church buildings dating from the 1940s and 1950s postwar building-boom era. The collection of Minnesota's postwar churches and synagogues take on a wide range of unexplored shapes and forms with materials previously unavailable. To be sure, many churches of the era reflected traditional design motifs. For example, Zion Lutheran Church in Albert Lea (LeRoy Gaarder, 1958-61) erected a building for its newly formed congregation using traditional Gothic and Tudor elements, including a bell tower capped by a small copper spire, limestone walls, and even half-timbering. Only its minimal eaves and spare detailing suggest that this building is a legacy of the postwar era. Another example of a somewhat traditional form is St. Mary's Church in Warroad (Ursa Louis Freed, 1952-53). The rectangular plan and gabled-roof Catholic Church is constructed of locally harvested logs with limestone buttresses and entrance surround (Lathrop 2003).

The spirit of the postwar era, where optimism of a modern age abounded, brought with it a willingness to explore and embrace new design approaches. The Church of St. Columba in St. Paul (Barry Byrne, 1949-51), for instance, employed smooth-faced Indiana limestone to erect a building in the shape of a fish, and ancient Christian symbol. A cylindrical tower anchors the building near its entrance and is reminiscent of traditional Irish towers. Clear windows are made of glass tiles result for dramatic natural lighting. An A-frame structure with prefabricated metal panels and mosaics was designed for Our Savior's Lutheran Church Pilgrim's Chapel in Hibbing (Sandberg, 1958) and was pre-constructed and dismantled for shipment and reassembly at the site (Lathrop 2003). While these buildings took on new shapes and forms, even the steep roof of an A-frame could be distinguished as a "church-looking" building.

Several designers pushed these limits further. In 1958, architects Hammel and Green designed the Lutheran Church of the Reformation in St. Louis Park. The one-story pavilion that contained the sanctuary was capped by six transverse barrel vaults made of reinforced concrete. The design was a Merit Award from the Minnesota Chapter of the American Institute of Architects in 1959. Ralph Rapson's 1958 plan for Prince of Peace Lutheran Church for the Deaf employed a sleek, Modern, one-story box design with an entirely flat roof. Although the interior conveyed a dramatic sense of space and light, the exterior might have been mistaken for a library or an office building, were it not for the freestanding metal crosses marking the entrance. Cerny and Associates of Minneapolis decidedly reshaped the traditional worship space in Macalester College's Weyerhaeuser Memorial Chapel (1967-68). The hexagonal structure has a brick entry with glass walls held together by aluminum sashes and

supports, and is partially surrounded by a dry moat. Pews are arranged around a central platform, where congregants can visually interact (Lathrop 2003).

Some of the most dramatic postwar religious buildings were constructed for Jewish congregations. Mount Zion Temple in St. Paul engaged San Francisco architect Eric Mendelsohn for their new Summit Avenue temple (1952-54). The building employs many of the flexible space techniques important to all places of worship of the era, including a folding wall to separate the Temple, foyer, and assembly room, that could be opened up into one space for High Holidays. Beth El Synagogue moved its congregation from the Minneapolis north side to St. Louis Park in 1961 and built a dramatic temple in 1968-70 designed by New York architect Bertram Bassuk. The unusual design of the sanctuary has a sharply curved ceiling formed by laminated wood beams that swoop upward from all sides and converge at the apex directly over the altar, which is lit by stained glass (Lathrop 2003).

3.3.3 Quonset Buildings

The modern Quonset hut came into being in the early days of the U.S. involvement in World War II. At the urging of President Franklin D. Roosevelt, Congress approved a number of actions to prepare the United States for war, including an increase in navel appropriations. In turn, the Navel Board recommended the development of 25 air bases in the U.S. and overseas, included among them a shore-based aviation facility at Quonset Point, Rhode Island. Construction of the facility began July 16, 1940 under contracts with George A. Fuller and Company and the Merritt-Chapman and Scott Corporation. As construction began, the European war was quickly escalating and the U.S. entered into a treaty with Great Britain to provide surplus destroyers for 99-year leases for military bases in British territory ranging from the Caribbean to Newfoundland. With war inevitable, the mission to construct the bases and house the troops became a high priority. Limited local supplies and labor meant that prefabricated buildings from North America would be necessary. The Quonset Point facility was selected as the assembly port for all supplies and materials required for the construction of the new bases including portable shelters (Chiei 2005a:1-2).

The construction firms employed for the build-out of the Quonset Point base were also chosen to build the factory in which the prefabricated buildings would be made, in addition to coming up with a design for the new "huts." Under the leadership of architect Otto Brandenberger, a team was assembled to devise a mass-produced building that was portable, that could be quickly erected and knocked, was easily adaptable to any climate and geography, and would provide soldiers with the most protection and comfort possible. They were instructed to use the British Nissen hut as their prototype. The Nissen hut was invented by Lt. Col. Peter Norman Nissen (1871–1930) of the British Royal Engineers during World War I. Closely resembling the modern Quonset hut, it was a semi-circular steel-arched structure made of corrugated metal siding. The U.S. design team improved on the plans by making the new versions simpler to assemble, and designing an insulated interior frame of Masonite, and adapting the structure more suitable to varied climates. The first final plan for a "Nissen Type hut for Temporary Aviation Facilities" was submitted on April 4, 1941, and on April 10, 2,488 huts were authorized to be constructed and shipped to bases in Scotland and Northern Ireland. Orders for thousands more huts soon followed. A memorandum issued from Lieutenant Commander E. S. Huntington on behalf of Admiral Morell on July 18, 1941, officially assigned the moniker "Quonset hut" to the new structure (Chiei 2005a:3-4).

The 16- by 36-foot standard hut provided quarters for 10 enlisted men, or 5 to 7 officers. To protect the huts from bombs, the instruction suggested banking earth over the shelter, up to three to six feet above the floor level. Designs were adapted for the varied climates in which the huts were used. Tropical climates called for additional ventilation, shaded overhangs, and mounting on blocks for ventilation to

protect from flooding. The oil heater and vent stack could be replaced by an additional ventilator. In arctic climates, a post production entry vestibule was often added that trapped cold air from entering the hut. In total, forty-one design variations, including a dispensary/surgical hut, a laboratory, laundry, pharmacy, dental facility, hospital ward, barbershop, morgue, guard house, and tailor shop, served a multitude of needs for the military's forward bases. Each hut cost between $800 and $1,100 to produce (Chiei 2005a:8-14).

As thousands of Quonset huts were being shipped out, engineers were working to redesign the original T-Rib styled hut after only months of production. Stran-Steel, a subsidiary of the Great Lakes Steel Corporation, developed a patented system of assembly that eliminated the need for numerous bolt connections, making it lighter weight and faster to construct. The Stran-Steel Quonset, later called New Arch Rib Stran-Steel Hut (also the SSAR Hut) ,soon became the standard method used during World War II, and after (Chiei 2005a:17, 23). With the U.S. entry into the war following the December 7, 1941 attack on Pearl Harbor, production of the Quonset huts rapidly increased, overwhelming the Quonset Point manufacturing facility. The production of the shelter units was turned over to Stran-Steel in factories dispersed around the country under the Advanced Base Depot program. After fabricating 32,352 Quonset huts, the role of manufacturing at Quonset Point was phased out altogether in 1942. By the end of World War II, approximately 120,000 Stran-Steel huts had been produced and shipped to almost every corner of the globe to serve 86 official uses (Chiei 2005a:23-24).

Following the war, the Quonset would take on a new life to meet the pressing needs of a nation at peace. Housing for the huge influx of returning veterans and their growing families was perhaps its greatest role. Civilian peacetime use of Quonset huts began to be devised by the Great Lakes Steel Corporation even before the end of the war, as a way to transition their quickly erected shelter into the postwar economy. Quonset huts would help to "win the peace" in the same way they helped win the war, and would usher in a modern era of American cities, free of slums and old fashioned neighborhoods. By 1946, an estimated three million people were forced to share living quarters in apartments and houses with other families. Any alternative housing was a welcome relief. In part, Quonsets were the answer. Under a federal housing program, Quonset settlements were established in many cities across the nation. In Los Angeles, a village consisting of 750 Quonset huts, each with two housing units, sprang up in April 1946 in Griffith Park, a former National Guard airstrip. Almost overnight, a community of 5,000 people was born, complete with a medical center, chapel, library, and malt shop, all in corrugate steel Quonset huts. College campuses, which experienced and onslaught of veterans taking advantage of the G.I. Bill, quickly erected rows and rows of Quonsets for classrooms and student housing. Although not universally appreciated by those who occupied them, the arched living spaces were viewed as a sign of patriotism and continued sacrifice, as well as a much appreciated form of shelter (Vanderbilt 2005:66-73).

Stran-Steel, architects, and do-it-yourself enthusiasts explored ways in which the newly minted temporary shelter would be something beyond a stop-gap measure in the housing pecking order, and would instead be a legitimate goal itself. Adapted Quonset shelters were featured in a variety of magazines attempting to show their great flexibility to "dress it up... or use it straight." The distinctive structure could be used for anything from housing, to shopping, from banking to farming, and church to dance hall. The Quonset, it has been argued, was the quintessence of the postwar American landscape, meeting the needs of a materially deprived society eager to get back on track with just-in-time shelter (Vanderbilt 2005:76-84).

A number of architects were eager to explore the possibilities of postwar design and mass production by reconsidering and deconstructing the ubiquitous Quonset hut. Eero Saarinen, along with Oliver

Lundquist, was among the first to devise postwar housing solutions based on the Quonset by proposing a series of standardized, prefabricated-metal residential units. Their assembly-line production system took first prize in the 1943 Design for Postwar Living competition. Louis Kahn, I. M. Pei, Richard Neutra, Edward Larabee Barnes, Ralph Rapson, Henry Dreyfuss, and others were among the architects who developed projects capitalizing on the new and innovative building advancements from World War II. Bruce Goff was among the designers who explored more literally the possibilities of the Quonset hut. In 1945, he was asked to design a new chapel at Camp Parks in Dublin, California. His solution was to connect two 40- by 100-foot Quonset buildings to form a 200-foot enclosure. The metal structures were integrated together with two thick masonry walls intersecting the vaulted spaces. The resulting building clearly shows its Quonset origins, but the added design elements result in a more permanent and purposeful edifice (Figure 25). Following the war, Goff designed schemes for the Jesus Christ of Latter Day Saints Church in Cody, Wyoming. For the Sam and Ruth Ford house (1947) he tilted up one end of the Quonset's structural ribs on a central support pier to form a massive domed space (Carter 2005:50-59).

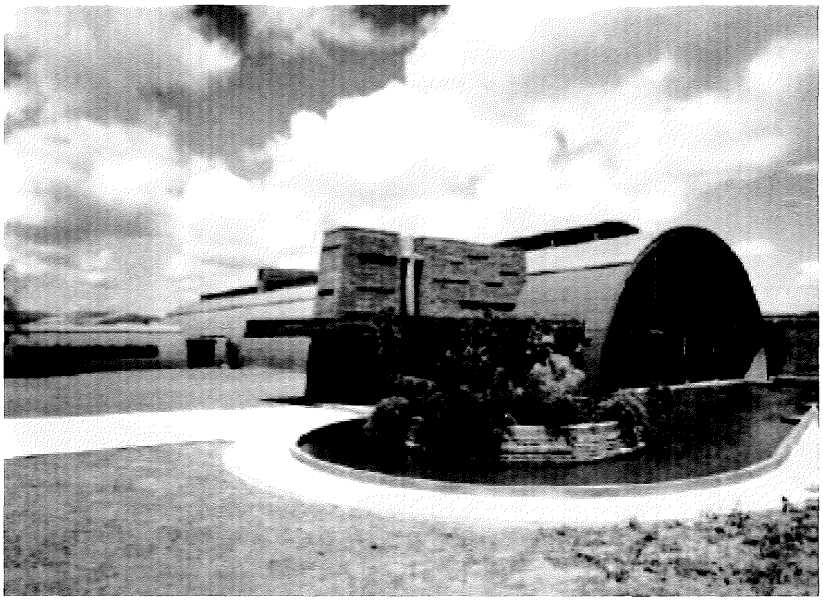

FIGURE 25. CAMP PARKS CHAPEL, BRUCE GOFF, 1945

Given the axial space clear of structural obstructions, it is not surprising that the Quonset, even in its purest form, was used for religious assembly. In addition to Goff's well-designed adaptations, numerous examples of Quonset-as-church were employed. In Ogden, Utah, Trappist monks setup their newly formed monastery in 1948, the Abbey of Our Lady of the Holy Trinity, in a Quonset hut building. Intended only to be temporary, 50 years later it continues to serve as their place of worship (Vanderbilt 2005:101) (Figure 26).

In Alaska, with its harsh winter conditions and strategic importance during World War II, the Quonset has played an important role in its built legacy. The same structures have served as practical solutions for sacred spaces. St. Patrick's Catholic Church in Barrow, the nation's northernmost Catholic parish, was constructed of surplus Navy Quonset huts in 1954. The huts are joined in the middle by a framed structure with a small steeple. That same year, a priest established another Quonset parish, Our Lady of the Way, in Haines Junction, Yukon Territory. The priest creatively incorporated a design that allowed greater natural light to enter the sanctuary through a clearstory. Instead of joining the hut's curved ribs at the peak of the arch, he set them apart, allowing light into the structure along its entire length. Father

Morriset also incorporated the hut's curved form into details throughout the building. On the exterior he constructed a false-front steeple that announces the church to the highway beyond. The same priest, when he moved onto another parish, again used a Quonset as the basis of his chapel as late as 1962 (Chiei 2005b:123-131).

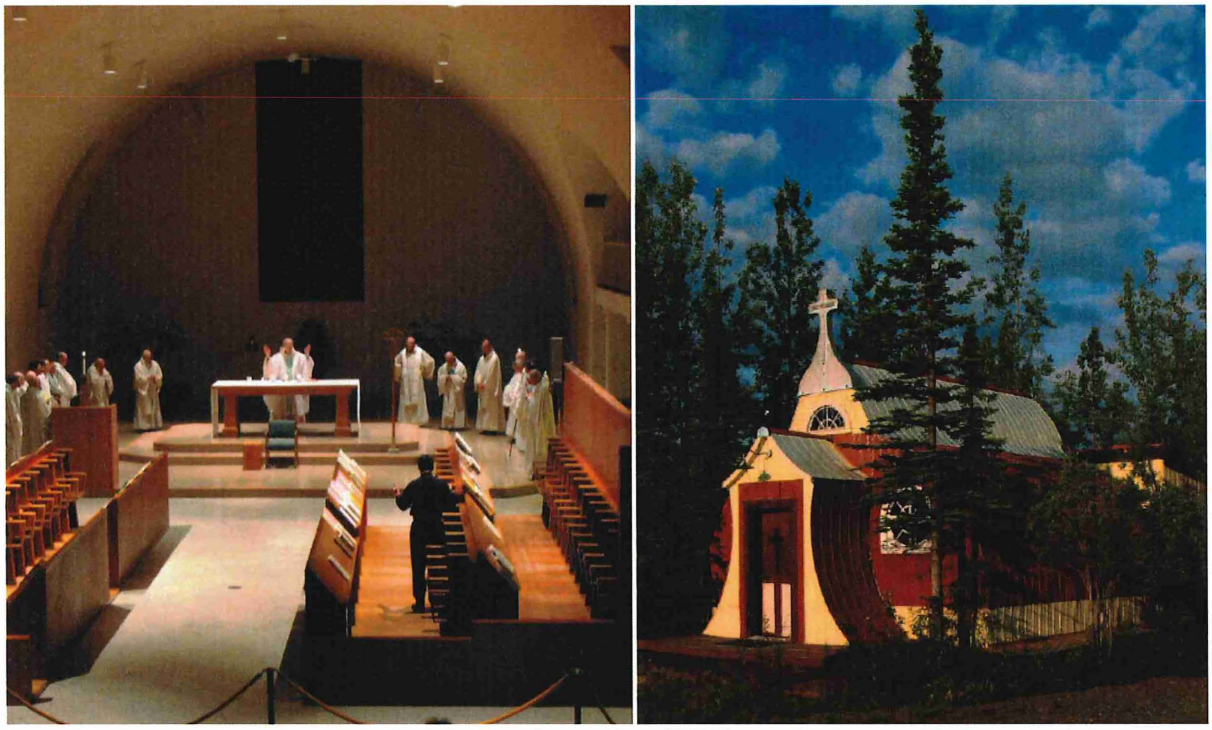

FIGURE 26. ABBEY OF OUR LADY OF THE HOLY TRINITY, OGDEN UTAH (1948) AND OUR LADY OF GRACE CATHOLIC CHURCH, BEAVER CREEK, YUKON TERRITORY (1962)

3.3.3.1 The Quonset in Minnesota

Like the rest of the nation, Minnesota had its share of pre-fabricated Quonset buildings in the postwar era. Faced with the enrollment of 16,000 returning veterans, the University of Minnesota needed to meet the academic as well as housing needs for the new student and faculty population, many of whom were married with new families. An area in Minneapolis between 28th and 29th avenues southeast, north of Como Avenue, became the home to many. As early as 1946, 20 families moved into makeshift housing constructed of both Quonset huts and metal barracks. Soon the community that came to be known as "University Village" expanded south of Como Avenue and at its peak was comprised of an array of building types, including 164 standard trailers, 50 expansible trailers, 48 prefabs, 125 metal barrack buildings, and 50 Quonsets. The village grew to become a tightly knit community of young families, of similar ages, interests and aspirations. The temporary village – initially anticipated to last just 36 months – would not be closed until 1967 (Forman 1996).

Few Quonset hut structures have been identified by name in the Minnesota historic structures inventory maintained by the State Historic Preservation Office. The six results from the database hardly suggest the quantity of Quonset buildings in the state, but more likely reflect the relative recent age of the building type and the utilitarian form. Most of the documented Quonsets are for agricultural, industrial or commercial purposes. One Quonset-style church, the Church of St. Ann's in Hibbing was documented in 2010. According to file notes, the church was constructed in the late 1940s when the previous structure burned. The property was found to be not eligible for listing in the NRHP. The new church was not built because of an expanded church population or an expansion of church services. As a

building type, the reviewer noted, except for the roofline, other character defining features are obscured by its conversion to a church (St. Ann's Church, Inventory Number SL-HBC-175, Minnesota Historic Property Inventory, Minnesota Historical Society, St. Paul).

3.3.4 A-Frames

Although the A-frame form has its antecedents extending from ancient cultures into the 1920s, it was popularized in the American landscape in the post-World War II era from 1950 though the first half of the 1970s. The distinctive building style became a symbol of the new American middle-class prosperity as it easily fit the budget and lifestyles of rising leisure spending and vacation homes. The growth of vacation homes was aided by a number of factors, including newly created artificial lakes and reservoirs by private developers and public agencies, and the expansion of the interstate highway system, which offered new and speedy access to previously remote wilderness areas. The A-frame emerged as a means to easily fulfill the desire for a second home. Many were built by the owners themselves, either using simple, modern materials, such as plywood, or with prepackaged kits. A variety of the modern-styled vacation homes, of which the A-frame was perhaps the most practical, were features in popular magazines such as *Better Homes and Gardens, Popular Mechanics, Living for Young Homemakers* and *Sunset* (Randl 2004:31-44).

The first phase of the A-frame boom (1950-1957) arose from the San Francisco Bay Area where young, innovative architects adapted the form in creative ways to the emerging nearby vacation areas of Squaw Valley and Lake Tahoe. Following appearances in a few well-placed magazine features, the A-frame quickly took off as a logical and economic choice for young families in search of the first second home. As the house style grew into popularity, a number of variations were incorporated into the simple plan to adapt it to differing building sites, and to introduce additional lighting and space (Randl 2004:47-75). By the 1960s, the A-frame had proved its flexibility and adaptability, serving equally well as a ski chalet, beach house, mountain cabin or weekend retreat, all within the affordability of much of the growing middle-class. The movement was further spurred by the publication of a variety of plans in magazines and plan books, many of which were produced by trade organizations or manufacturers, such as the Western Wood Products Association, Potlatch Forests or Georgia-Pacific (Randl 2004:77-99). Through the 1960s, the A-frame was nearly ubiquitous in the rapidly growing ski areas around the nation. When federal agencies turned to the A-frame for its rural and wilderness structures, the form had clearly become established in the mainstream (Randl 2004:117).

Not long after the A-frame landed on the architectural scene in the 1950s as a popular vacation home, it made its way into commercial and ecclesiastical architecture. Congregations of the newly emerging suburbs frequently turned to the A-frame form as houses of worship, adapting the house for play into a house to pray (Randl 2004:127). The postwar era of church design was particularly poised to accept the A-frame as a way of introducing modernity into ecclesiastical architecture. Although a variety of reasons have been hypothesized for the appeal of the A-frame form for church design, including its triangular form suggestive of the Trinity, the stripped down plans reflecting purity of faith, or a modern interpretation of the soaring space of Gothic cathedrals, what is certain is that the A-frame was among the most favored forms of postwar religious architecture (Randl 2004:136-137). The religious adaptation appeared early in the 1950s, and made frequent appearances in architectural magazines and books by the end of the decade. Frank Lloyd Wright's Unitarian Meeting House in Shorewood Hills, Wisconsin (1947) may have been an initial inspiration for the adaptation of the A-frame as house of worship. Although not strictly an A-frame design, Wright's reliance on the all-roof form with a fenestrated gable end offered a sophisticated interpretation of the possibilities for ecclesiastical design. Later, Eero Saarinen and Glen Paulsen's Kramer Chapel at Concordia Senior College (now Concordia Theological

Seminary) in Fort Wayne, Indiana (1954) would serve as high-style interpretation of the form, inspiring many similar buildings, including St. George's Episcopal. Perhaps the most creative version is the Cadet Chapel at the U.S. Air Force Academy in Colorado Springs designed by Skidmore Owings Merrill (1963). This version expanded the simple A-beams into three dimensional steel trusses formed from a variety of triangles. Internationally, the A-frame church was widely adopted in Norway, but also served as the first standardized church building model for the Unification Church, founded by Reverend Sun Myung Moon in Korea in 1954 (Randl 2004:135-144).

The A-frame-as-church concept met many of the demands of congregations in the 1950s and 1960s. With more congregations of smaller sizes, the scale of the structure could proportioned without feeling over-whelmed by huge expanses of roofing material. With limited financing and materials, the A-frame offered a structural economy that "provided a lot of drama for the dollar, as soaring interiors were not compromised by truss work or intrusive columns" (Randl 2004:138). From the 1950s into the 1970s, Creative Buildings, Incorporated offered prefabricated A-frame churches, complete with stained glass windows, shipped from its plant in Urbana, Illinois. Concrete versions with precast, prestressed concrete panels, were produced by the Lehigh Cement Company. Churches took advantage of what A-frames had to offer. The chancel wall was typically solid, which would focus the congregant on a cross, pulpit, or other sacred features. The immense roof could be punctured with skylights to emit effective and dramatic lighting on the altar. In the case of Saints Phillip and James Episcopal Church (1961), the skylight itself is in the shape of a cross. As successful as the A-frame design was for the worship space, it left much to be desired for administrative and educational functions. Frequently, these would be situated in basement level, or in an attached conventional wing, which often resulted in a compromised steeply pitched architectural effect (Randl 2004:138).

As early as 1962, the ubiquity of A-frame churches prompted Albert Christ-Janer in his book on modern church architecture to note that the type had "versions too numerous to mention" and cautioned that "the alluring simplicity of this form and structure can lead to inappropriate uses" (as quoted in Randl 2004:141-142). While Christ-Janer recommended leaving the style to Lutherans, in fact it was adopted by nearly every Christian faith, from Roman Catholic to Seventh Day Adventist, as well as multi-denominational chapels (Randl 2004:142).

3.4 EVALUATION

St. George's Episcopal Church was evaluated for its potential significance under NRHP Criterion C for its method of construction (Quonset building), as the work of an architectural master and high artistic value (A-frame building), the as an example of post-World War II church construction (complex as a whole). Because St. George's is a religious property, Criteria Consideration A must be applied.

St. George's was developed as part of the postwar suburban expansion in St. Louis Park within the context nationwide suburban settlement, a widespread and significant pattern in American history. It is unlikely, however, to possess individual significance under NRHP Criterion A in this historic context. Although it was not within the scope of this study to evaluate larger areas of St. Louis Park, inclusive of the church, to determine if a larger historic district representative of the postwar building boom might be present, a cursory review of the immediately surrounding neighborhood indicated that the area consists of properties constructed both before and after World War II, as well as a number of more recent developments. In the course of research of St. George's Church, no persons of historical significance closely related to the property were identified, and it was therefore not evaluated for significance under NRHP Criterion B. St. George's Episcopal Church has not yielded, nor is it likely to yield information important in prehistory or history, and was not evaluated under NRHP Criterion D.

3.4.1 Quonset Wing (1949)

Significance

The modern form of the barrel-arched structure, known as the Quonset hut, was initially developed during World War I by the British military and referred to as Nissen huts, for their designer Peter Norman Nissen. Before and during World War II, the U.S. Navy borrowed the form, refined it for greater efficiencies and ease of production at its naval base in Quonset Point, Rhode Island. Well over 100,000 Quonset huts were manufactured and shipped around the globe for a wide range of shelters, for primarily military purposes during World War II. Following the war, when building materials and money were scarce, civilians adopted the Stran-Steel Quonset systems for peacetime uses because of their affordability and efficient use of materials and labor.

St. George's Episcopal Church, constructed in 1949 and designed by architect Edward Roy (E. R.) Ludwig, is an early Minnesota example of adapting the Quonset hut for ecclesiastical purposes. Although St. George's was not the first church to use a Quonset (architect Bruce Goff experimented with using the Quonset hut system for a church as early as 1945), contemporary newspaper accounts suggest that St. George's may have been the first of its type in Minnesota. The scarcity of material, labor and money paired with an abundance of suburban families following World War II required resourceful and innovative solutions to a number of badly needed building projects. St. George's Quonset design represents a unique solution to the economic and social situation following the war by utilizing a modern building system, popularized by the military, and adapted it into a well-designed place of worship and parish activities. In the nave, the design took advantage of barrel arch shape, which allowed congregants to focus on the solid wall of patterned brick, while natural light flooded in from windows placed high on the south wall to the rear of the sanctuary. The unorthodox shape also suggests something of the character of the congregation, their clergy and designers for their willingness to explore new and modern materials and design concepts for religious buildings in the modern era. The expressed was that meaningful ecclesiastical architecture need no longer be based on historical and traditional precedents, but could embrace recently developed building techniques and modern aesthetics.

The Quonset wing of St. George's Episcopal Church possesses significance under NRHP Criterion C for its method of construction and design adaptation of a prefabricated, massed produced form into a well-designed place of worship. Its period of significance in 1949, the year of its construction.

Integrity

Just 10 years after the St. George's erected their first building, the congregation added a new wing that extended perpendicular to the original structure. The new building entailed significant alterations to the Quonset church, including construction of a corridor connection to the new narthex over the south (primary) façade, covering or removing the windows on the upper portion of the façade with wood clapboard, and interior changes that divided the sanctuary space into two rooms – a library, chapel and a choir rehearsal space (Figure 27). These significant alterations have resulted a loss of integrity of design by removing the features that defined the character of the original building. Furthermore, asphalt roofing material placed over the original corrugated metal also diminishes the visibility of the material that characterizes Quonset huts.

FIGURE 27. QUONSET WING, CIRCA 1950 (LEFT) AND 2011 (RIGHT)

Evaluation

Although the Quonset wing of St. George's Episcopal Church possesses historical significance under NRHP Criterion C, it is recommended as not eligible for listing in the NRHP due to loss of integrity. The 1960 addition of the new wing significantly altered many of the character-defining features of the original building, diminishing its ability to convey its historical significance.

3.4.2 A-Frame Wing (1960)

Significance

In 1960, the congregation added a new wing to the southeast corner of the Quonset building. The new nave and classroom space is in a contemporary A-frame style designed by Harry Gerrish. The A-frame emerged as a popular and affordable building style in the years of prosperity following World War II. What began as a simple and modern design for second homes grew to become popular for commercial buildings and churches as early as the 1950s. Frank Lloyd Wright's 1947 Unitarian Meeting House in Shorewood Hills, Wisconsin, which employed an "all-roof" form was a likely inspiration for the many A-framed churches in the following decades. St. George's church appears to have been strongly influenced by Eero Saarinen and Glen Paulsen's Kramer Chapel at Concordia Senior College (now Concordia Theological Seminary) (1954) (Figure 28). Like St. George's, the Kramer Chapel features a solid brick wall behind the chancel upon which a cross is centered, a vertical strip of glass on one side of the roof to illuminate the chancel, and glazed panels along the lower edge of the roof that make the immense ceiling panels appear to float above the foundation. Undoubtedly, Saarinen's design influenced many architects around the nation. So popular was the use of the A-frame technique in churches, that architectural historian Albert Christ-Janer noted in his 1962 book on modern church architecture that the A-frame "versions [of modern churches were] too numerous to mention" and cautioned that "the alluring simplicity of this form and structure can lead to inappropriate uses" (quoted in Randl 2004:141-142).

This context suggests that Gerrish's design for St. George's addition was not on the cutting edge of A-frame church design, and that the form was entering an era of ubiquity, at least according to some critics. Gerrish's design for St. George's is well executed, and skillfully adapts the A-frame motif to the site by placing a solid wall, with only small windows with stained glass, on the busy Minnetonka Boulevard side, while opening the north wall with operable, clear-glass windows under the roofline with views into the landscaped courtyard. Although well designed for the congregation, the building does not appear to rise to the standards of NRHP significance as possessing high artistic value or as being the work of a master. Therefore, the A-frame wing of the church is recommended as not significant under NRHP Criterion C.

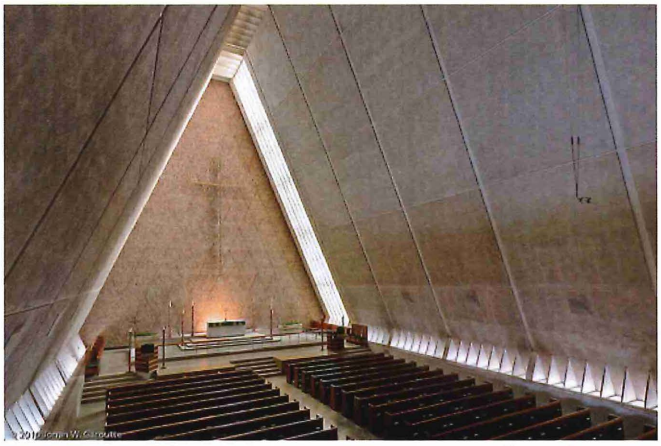

FIGURE 28. KRAMER CHAPEL, FORT WAYNE, INDIANA (EERO SAARINEN 1954)

3.4.3 St. George's Church Complex (1949-1967)

Significance

As a complex, St. George's Episcopal Church was evaluated within the period of its development from 1949 to 1967, the time within which the principal buildings were constructed. Although the last building to be added, the Education Wing, is less than 50 years of age, the first two phases represent two distinct yet overlapping approaches to postwar church design and construction. Their differing approaches reflect the increasing population, stability and wealth of suburbs, St. Louis Park in particular, during the postwar years. The Quonset solution illustrates the limited means and materials with which the congregation had to erect their place of worship and fellowship in a practical and effective way. By the 1950s, when expanded facilities were necessary, the congregation found itself in different circumstances. The difficulty in obtaining materials experienced immediately after the war was no longer an issue. The community's greater level of success as a congregation, and increased prosperity as individuals, is reflected in the more permanent and substantial A-frame sanctuary addition. Seven years later, a wing devoted to education completed the complex.

In many ways, the progression of buildings illustrates the growth of churches, particularly in the suburbs, during the decades following World War II, a period of increased church attendance, growing families, and the innovative ecclesiastical design and building systems. While the St. George's complex is an example of the pattern of postwar suburban church development, it is not an example that merits National Register significance for the following reasons. As a widespread phenomenon, examples of the growth and development of church campuses in the postwar era are quite common, and similar instances are likely to be found nearby. With the exception of the Quonset building, the congregation did not respond to their growth needs in a way that was architecturally remarkable. By 1960, the A-frame form had become nearly ubiquitous for ecclesiastical use. Similarly, the education wing (less than 50 years old) does not display important architectural achievements. Combined, the St. George's complex does not represent a significant example of post-World War II church growth, and is recommended as not historically significant.

4.0 SUMMARY AND CONCLUSIONS

In November 2011, the MnDOT CRU requested the evaluation of St. George's Episcopal Church at 5224 Minnetonka Blvd, St. Louis Park, Minnesota (HE-SLC-033) for its eligibility for listing in the NRHP in relation to the proposed reconstruction project at the intersection of TH 100 and CSAH 5 (S.P. 2734-34). Stark Preservation Planning LLC, with William E. Stark as Principal Investigator, conducted the investigation. This report outlines the methods of the investigation, the description, history, context and evaluation of the property.

The project is located in Section 31, T29N, R24W, in Hennepin County, Minnesota. MnDOT proposes to reconstruct the intersection of TH 100 and CSAH 5 to address basic infrastructure deficiencies, improve interchange safety at TH 7 and County Road 5, and improve the traffic operations of TH 100 by increasing safety and mobility, making through improvements, such as modifying ramp acceleration/merging spacing and by maintaining six through-lanes of traffic within the project limits. The proposed project is adjacent to St. George's Episcopal Church and has the potential to affect this property. The project will be receiving funding from the FHWA, and therefore must comply with Section 106 of the National Historic Preservation Act of 1966, as amended. The MnDOT CRU serves as the project manager for the Section 106 process.

St. George's Episcopal Church was constructed in three major phases. The congregation's first permanent building was erected in 1949 using three Stran-Steel Quonset buildings. Designed by St. Louis Park architect, Edward Roy Ludwig, it was likely the first ecclesiastical application of a Quonset hut in Minnesota. The second wing constructed in 1960 replaced the Quonset's worship space with a new sanctuary and classrooms. Minnesota architect, Harry Gerrish, designed the space in an attractive A-frame structure, a popular design of the 1950s and 1960s. An education wing, built in 1967, finishes the primary buildings in the complex.

The property is recommended as not eligible for listing in the NRHP. The Quonset structure (1949) is a significant adaptation of a prefabricated, massed produced form adapted into a well-designed place of worship. Alterations made with the 1960 addition have significantly altered many of the character-defining features of the original building, diminishing its ability to convey its historical significance. The 1960 A-frame wing was constructed during a period when such design approaches were common, and therefore is not considered to be a significant architectural example. Similarly, the complex as a whole complex does not represent a significant example of post-World War II church growth, and is recommended as not historically significant. No other areas of historical significance were found to be associated with St. George's Episcopal Church. No further work is recommended.

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APPENDIX A: PROJECT PERSONNEL

List of Personnel

Principal Investigator	William E. Stark, Stark Preservation Planning LLC
GIS Mapping	Adam Holven