

ENLIGHTENMENT THROUGH DESIGN

A STUDY IN CHURCH DESIGN
FIRST SOUTHERN BAPTIST CONGREGATION
WORLAND, WYOMING

AN ARCHITECTURAL THESIS
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Above, the existing facility located North-East (kitty corner) of the program site provides mid-scale context amid very small, single family homes. Below, photo looking South to the site taken across from existing church.



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BACKGROUND

Nearly every religious sect that we find in our world today has it's own set of doctrines, beliefs and practices that both distinguish it from some, yet relate it to others. Once upon a time it was nearly as cut-and-dried as the designation of Protestant or Catholic. But today, there really exists nothing that bounds the definition of Christianity and religion. As a result any two religious groups of the same given name can vary in practice like night and day. Often times one group is simply the offshoot of another older, well established congregation whose views on some modern issue are found to be unsuitable for the younger generation's tastes and therefore a new version of the same basic religion evolves. In this way the myriad of modern religions of today have evolved from the strict rule of Catholicism and others down through the ages. One must keep in mind that a constant element present with any people over time is change. For better or worse, evolutionary change is inevitable and must be respected.

The place of worship for all of these various groups today are as different as their beliefs. From the Cathedral at Chartres to Corbu's Ronchamp to Eione Fay Jones' Thorncrown Chapel, the essence of church and chapel design has been perfected and then lost or evolved, just as religion has evolved. Flying buttresses, giant stained glass windows and spires that reach to the heavens form the substance of the great cathedrals of old. The level of detail embodied in these great tabernacles may never again be realized. The master-masons are gone and today a different type of specialist is controlling the look of our architecture. The modern-day architect or structural engineer has such resources as light bulbs, high tensile steel beams and

forced air HVAC systems to utilize. These are the new buttresses, interior lighting and gentle breezes of the modern world, and as some will sadly admit, we can never go back. To most however, these luxuries will, from the present time forward, be taken for granted and the ways of the old lost forever.

Have we really gained what we've lost? Steel for stone.... maybe, aside from aesthetic opportunity, but it's really much deeper than that. In many cases today we've removed ourselves from the implications of the site and opportunities of nature. We excavate the site with huge machines that turn mountains into molehills, we pull the shades on poorly placed windows and then close these windows to cool breezes so as not to disrupt the cycle of the cooling system. In this age of limited and waning natural resources our goal must be to seize every opportunity to conserve them within the bounds of reason. Granted, we have previously created situations in our world that for many years will haunt and prevent us from conservative application. However, nearly every design commission today has opportunities to explore some facet of good, resource sensitive design, we must only be willing to search them out. As the options of this design challenge are explored, be ever mindful of what is certain. People change, as do social and religious norms and attitudes. Technology changes, not always giving in return for what is lost. A conclusion may therefore be drawn: Any endeavor that is to respond to programmatic function and be integral with the natural resource opportunities must inherently draw on what is known and be mindful of what may be yet to come.



Above, the site from North-East. Below
photo from southern edge of site looking
due North.



THE SETTING

WORLAND, WYOMING. Just a few miles down the road from the historic Oregon Trail, this little town is located in a fertile basin on the Big Horn River. To the East the Big Horn Mountains provide skiing and other outdoor activities such as hunting and fishing. To the South and West the majestic Wind River Range provides the backdrop. North central Wyoming is known for many things; small towns, wild bars, good folk, red hills, sagebrush, rabbits and many farms and ranches. In a nutshell that's Worland.

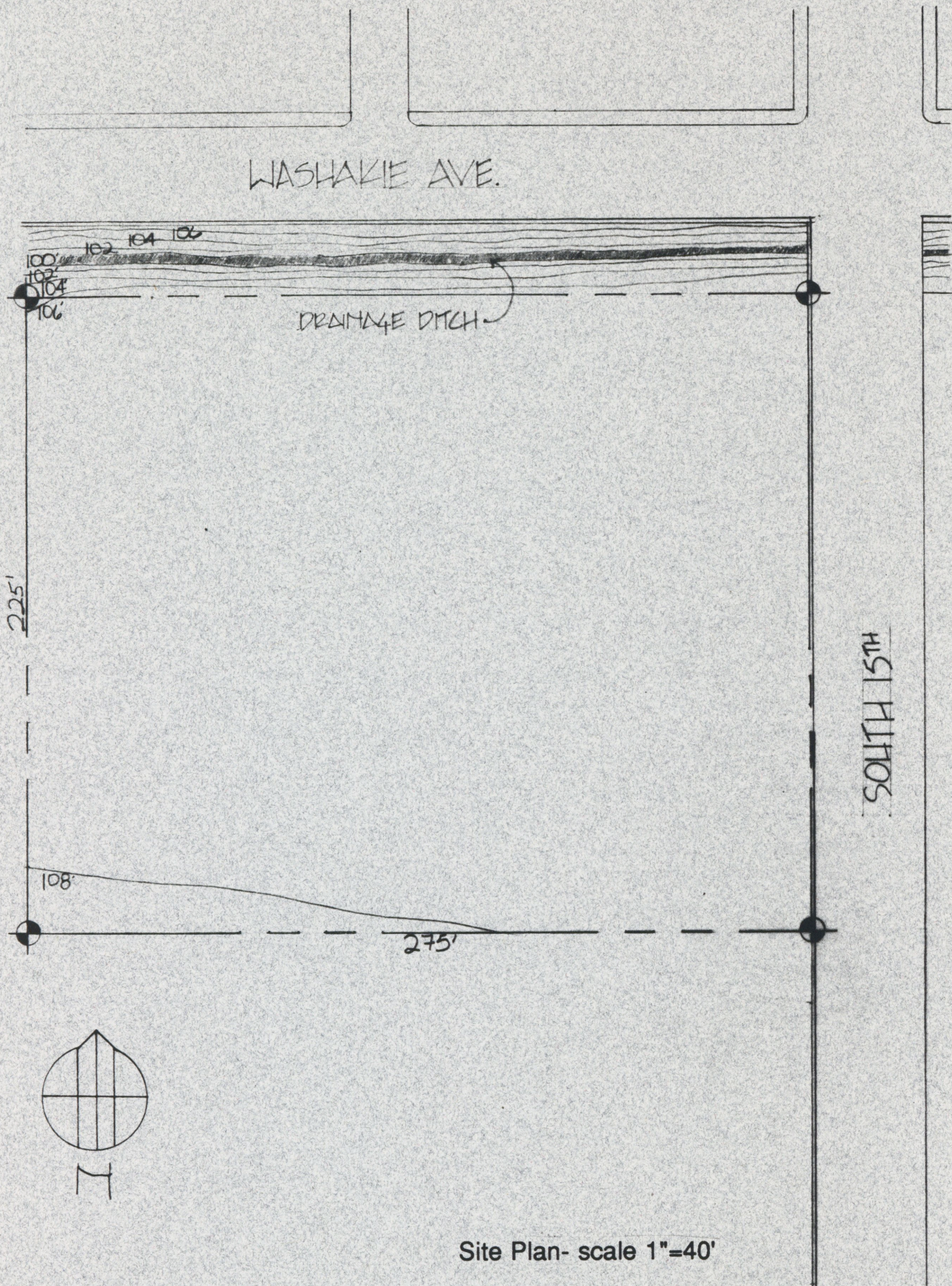
Settled as prime irrigated farmland, Worland has weathered the storm of the oil boom better than most. Today as in the past the old standby continues to be crops; tall corn, big sugar beets and golden barley provide the economic base. Other major employers include the Pepsi Cola bottling plant, The Holly Sugar processing factory and an aluminum can manufacturing facility. These three provide the only real industrial component to speak of. Cattle and sheep ranching still exist but are not as profitable as they once were and therefore most operations are quite large or bankrupt. Worland is home to about six thousand people, many of whom have chosen the same lifestyle as the generations before them. For this reason, change comes fairly slowly and must be implemented with sensitivity. These reflections shall serve as the socioeconomic reference for this project.

DESIGN ASPIRATIONS

The element of daylighting can in no way be overstated in this challenge. The spiritual power that a daylighting scheme can provide is beyond that which any artificial means could ever impose. It must be recognized that the resources available in this program by which to achieve a grandiose daylit space are limited in the monetary much more than in the imaginative or natural and therefore must be approached accordingly. The success of achieving a scheme organized by the marriage of function and daylighting opportunity will in part determine the success of the design itself. It is useful in contemplating these notions to review the works of the masters. Alvar Aalto and LeCorbusier are two that could serve as great inspiration.

THE PROGRAM

The program calls for the design of a church facility for the First Southern Baptist congregation in Worland, Wyoming. In addition to and integral with the programmatic functions of the church, a preschool/daycare element shall be included in the program. This additional function shall utilize a portion of the classroom space and multi-use spaces within the church during the weekdays.



Site Plan- scale 1"=40'

THE RELIGIOUS EXPERIENCE

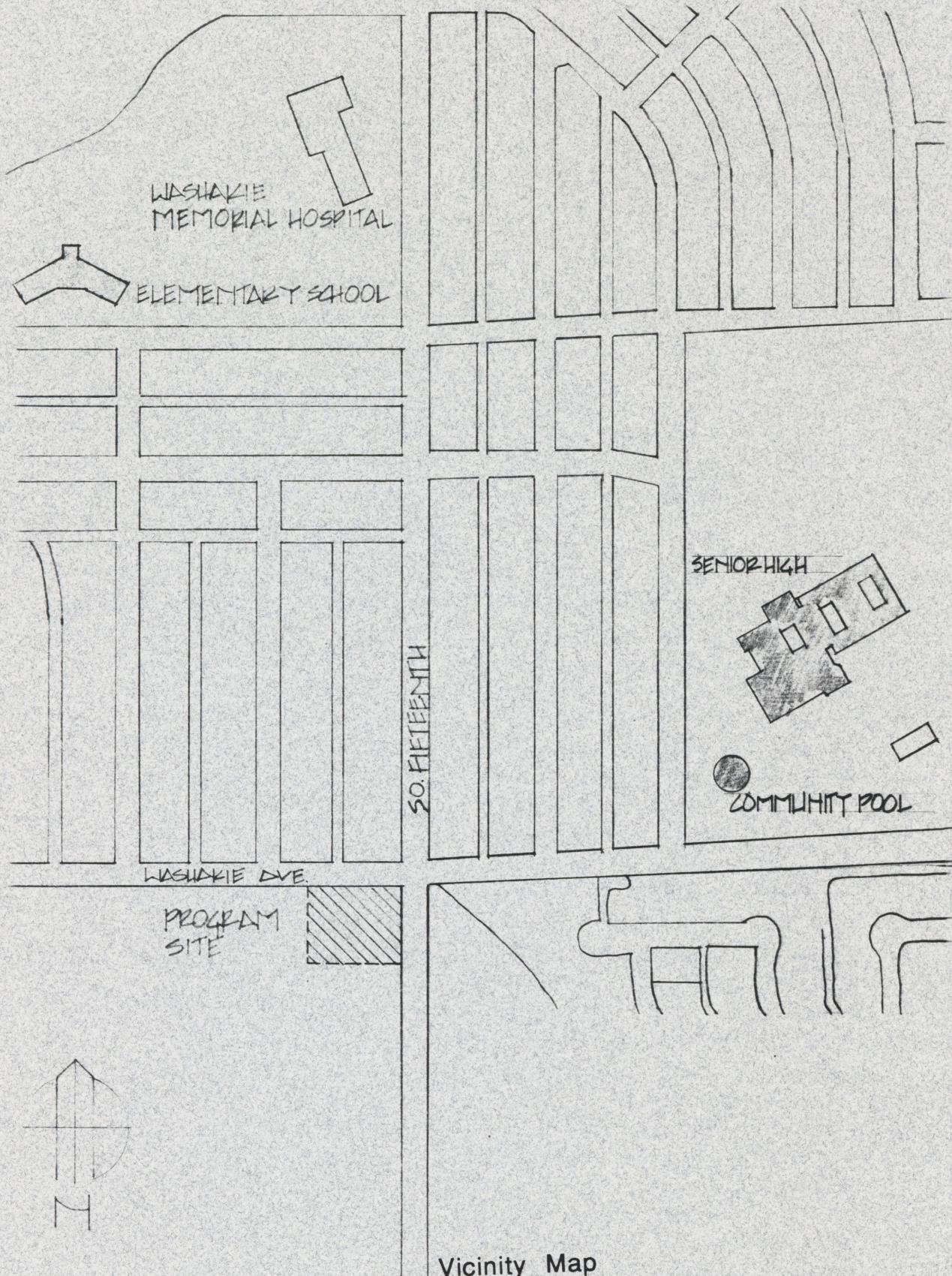
There are many ways to go about trying to determine what a religious experience consists of. The most difficult thing to try and analyze is that for each of us the whole notion of religion means something different. To some the concept of religion merely entails carrying on a tradition that has been in the family for years. Just attending that weekly Sunday service is religion to some folk. For others it is a daily set of rituals ; prayers, quiet times and confessions, or other things such as a chant spoken in a certain way or facing a certain direction that makes up the whole scenario. Still others view their religion as the driving force in their everyday lives.

Let us now consider the physical properties of a religious ritual. It may begin in one's home preparing for the upcoming service. One's frame of mind is typically different on this day than any other day of the week when the destination might be the workplace or school instead of the church building. The entire preparation and transition from a person's dwelling to the meeting place does play a role in the overall experience. Consider the following: How would this entire progression of events change if the "church" where the services were to be held was not a church by design at all but rather a barn or basement? What psychological associations are made with the actual place that may in effect determine the success of the experience or for that matter, the popularity of the group and willingness to endure adverse or less than optimum facilities. This program will challenge you to consider all of these things realizing that a designer can rarely control, directly, those functions which lie outside the bounds of the site. However one must consider how the design will indirectly affect the associations of the preparation, transition and

worship experience with the place of worship. What contributions can the designer make to the experience of the individual?

THE PEOPLE

The members of this congregation are as one would expect, from a wide variety of backgrounds. For the most part though it would be accurate to assume that all are small town oriented with some forty percent having lived in Worland at least twenty years. This is, to be sure a social bunch. There is always some activity for children and adults alike going on. They love singspiration night and pot-luck dinners like one could not imagine. The spirit of fellowship and common faith runs deep and provides the common bonding element so necessary to have growth.



WASHAKIE
MEMORIAL HOSPITAL

ELEMENTARY SCHOOL

SO. FIFTEENTH

SENIOR HIGH

COMMUNITY POOL

WASHAKIE DVE.

PROGRAM
SITE

Vicinity Map

PROGRAM AND SITE

The physical site is located on the southern edge of town adjacent to the existing facility which has been outgrown. The new site currently exists as farmland and is therefore is very flat, encouraging a variety of landscaping options and development. This corner lot is bounded to the North by city street and an adjacent irrigation/drainage ditch running parallel. To the West and South only farmland exist for some distance. On the East boundary the site is defined by its' major access road, a minor entrance to the town. This road services many outlying homes and farms as well as the local airport and golf course/country club. The immediate context for this project is the existing church facility across the street and surrounding city blocks of mainly small, one level single family homes.

All necessary parking for the new facility shall be provided for on site. A projected occupancy figure of 325 persons may be used to calculate all footage and capacity requirements. All site development must be clearly presented in detail sufficient to be understood by persons unfamiliar with the project.

PROGRAM AND CLIMATE **A RESPONSE TO THE ENVIRONMENT**

This part of the country has a most unique climate. A climate of extremes to be sure, it is no wonder why there are so many seasonal residents of Worland. Winter brings cold in mid-October and seldom is gone until late March. Heavy snowfall and temperatures that dip around thirty below at times (without windchill) are to be expected in December and January. Spring and Fall are typically short and quite progressive. Often,

the first snow will hit the ground before the leaves creating a unique transitional period. The spring months in this area provide an exciting time for outdoors people. Spring skiing in "shorts" is a favorite pastime. With warm, sunny days and the nights below freezing the high mountain slopes hold a good snowpack well into May. The Summer months in Worland are quite warm with some twenty or more days annually recording temperatures over one hundred degrees. During July and August the nights offer little respite with overnight lows maintained at eighty-five to ninety degrees. In cruel partnership with these extremes works the geographic composition of the river basin which afflicts the movement of high and low pressure regions through the valley. Therefore a hot or cold "spell" may be trapped in the basin for days at a time.

These patterns and extremes provide an interesting challenge to the designer to rely in appropriate extent on available natural resources (sun, wind, etc.) and landscaping opportunities (berming, trees, etc.).

LABOR AND RELATIVE FINANCIAL BOUNDARIES

The members of this congregation are highly motivated and many possess construction and finishing expertise. They have indicated that much of the time and labor needed to realize this project will be donated. Therefore it is reasonable to assume that an approximate figure of 15,000 square feet may be used to begin calculations and a corresponding budget of \$800,000.

<u>PROGRAM ELEMENT</u>	<u>DESCRIPTION/RELATIONSHIP</u>	<u>AREA/S.F.</u>
SANCTUARY	Capacity 325	2,000
-Choir Stand	Occupancy 40	450
-Pulpit Area	Piano/Organ/Pulpit/Baptistry	500
-Support Rooms	2@150 s.f. each, M/F	300
FOYER	Central to church circulation size depends on placement.	
CLASSROOMS	(*) Indicates use by Daycare during weekdays. (N) Indicates noisy class and must be located away from adults.	
Nursery(*N)	Birth to two yrs. Max 10 children per room. Requires bathroom. 2 rooms @ 350 s.f. each	700
2 Yrs.(*N)	15 child max/room Share bathroom with 3,4 and 5's	400
3 Yrs.(*N)	15 child max/room	400
4 & 5 Yrs.(*N)	20-25 max. Must incl. storage	750
Grades 1&2(N)	20-25 max. Must incl. storage	750
Grades 3&4(N)	20-25 max. Must incl. storage	750
Grades 5&6	25-30 max.	750
Grades 7&8	25 max.	400
Grades 9&10	25 max. Room may share movable wall w/ grades 11&12	400
Grades 11&12	25 max. As above- may be located adj. to fellowship hall for seating.	400

Young adult	30 max. Ages 18-23 singles	450
Young adult	30 max. Couples to age 26	450
Median adult	30 max. Couples 27-35	450
Median adult	30 max. Couples 36-49	450
Older adult	30 max. Couples 50 and up	450
Older adult	15 max. each room. One mens and one womens class age 50 and up. Two rooms @ 300 s.f.	600

MULTI-USE

Fellowship Hall(*)	Occupancy 200, Must include table and chair storage.	2,500
Overflow	Adjacent to fellowship hall. Occupancy 100, Must include table and chair storage, and piano.	1,000
Kitchen	Must include storage and pantry. Adjacent to fellowship hall	500

MINISTER'S QUARTERS

-Study	Desk, files and coat closet	300
-Library		400
-Office	Bookkeeping and records	200

OTHER

Bathrooms	Four, two men's/two women's each 200 s.f. Does not include childrens previously accounted for.	800
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Mechanical		250
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SITE

Parking	130 10'x19' spaces Includes three handicap spaces	39,000
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	Rough site area totals	60,000
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