UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

Earle H. Clapp, Acting Chief

ARCHITECTURAL TREND OF FUTURE FOREST SERVICE BUILDINGS

1940

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Architectural Trend of future Forest Service Buildings

Architectural Trend:

The external design of Forest Service buildings calls for a much greater display of imagination and inventive genius than heretofore, in order to give them sufficient individual character to definitely express their purpose and the particular Federal Agency to which they belong. This matter, sadly neglected in the past, demands special consideration, together with the most serious thought and study on the part of the designer. This field of design is full of unusual possibilities.

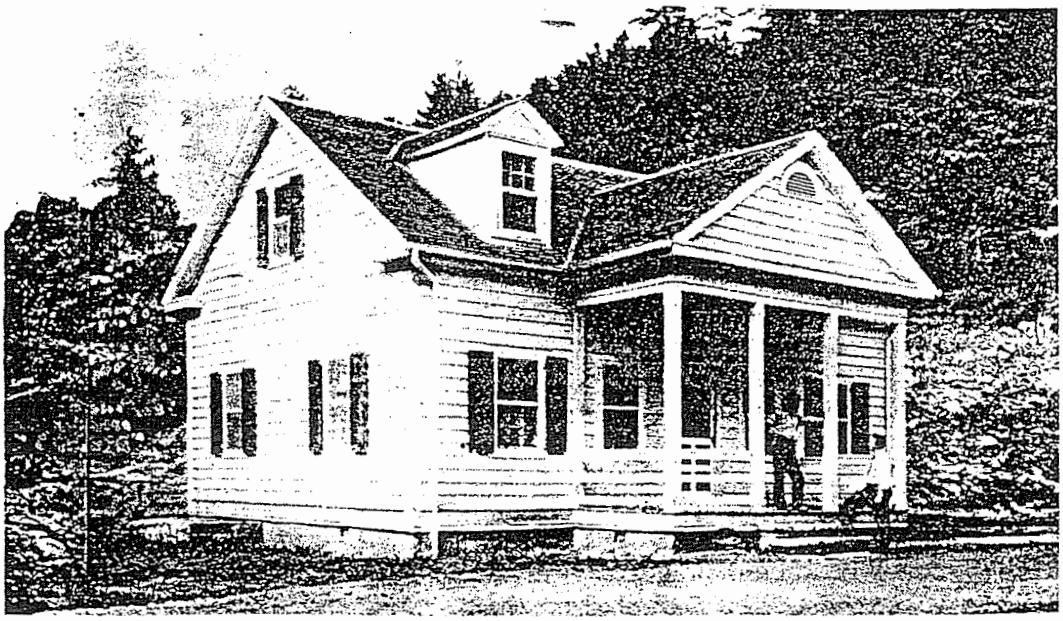
The almost universal practice, now commonly in vogue in a number of Regions, of always employing the conventional urban styles of architecture for Forest Service buildings generally, could be discontinued advantageously for styles which are more expressive of the Forest Service itself, and, at the same time, more appropriate to the diverse conditions, respective locations and particular environments in which they are to be erected.

Before discussing this subject it seems only proper to state that the Forest Service structures of the past few years have shown a marked improvement over former ones, not only in general design but more especially in plan.

Furthermore, progress in better planning has not been confined solely to improving the arrangement, accommodations, facilities and modern conveniences of individual buildings but it has advanced to the fundamental consideration of comprehensive planning for groups of buildings; a primary matter which, logically, comes first.

Elevational design, however, has not kept pace with the progress made in planning, except in one Region where, despite numerous discrepancies in plan, the buildings are characterized by attractive elevations.

The photograph of a Conventional Urban Design in a rural environment is shown, not because it is unattractive or lacking in interest, but because it corresponds with and is typical of private dwellings rather than representative of the Forest Service. Where no comparison is made or when judged solely by ordinary standards, this dwelling would be considered good and accepted as such without further comment.



A Conventional Urban Design
in a Rural Environment

Even where, due to propinquity, conventional urban designs may be fitting, ipso facto, they are still far from satisfactory as an expression of the Forest Service. In fact, they often correspond so closely in general character to adjacent buildings they are unrecognizable as Federal buildings except by those employed therein or living in the immediate vicinity.

Having no particular association with Forest Service traditions, ideals and purposes they are not considered representative, and, lacking this identity, they receive much well-founded adverse criticism.

A recognition of this fact indicates conclusively that buildings of a more distinctive character are in demand, based upon designs which both more adequately express the purposes of the Forest Service and which are more appropriate to their particular locales. This situation calls for an analysis of the architectural trend of future buildings for Administrative Sites throughout the Forest Service as a whole.

Therefore, the problem is, obviously, the difficult one of imbuing Forest Service buildings with an individual architectural expression.

Consequently, the following pertinent remarks, in connection with the design of future buildings, are advanced by Engineering in an attempt to avoid, or at least minimize, further adverse criticism.

Quantity production, lack of adequate design and drafting personnel, insufficient time to seriously study elevational designs because of the pressure of immediate demands for hastily prepared plans to take advantage of unexpended balances at the end of the fiscal year, etc., have all resulted in the commonplace, mediocre buildings to be found on every hand. So-called "Standard Plans" were the outcome of this irrational procedure which, fortunately, is now almost entirely abandoned.

The selection of a single, acceptable and appropriate architectural style, satisfactory for all conditions and localities of any Region, is also out of the question, due to the variety of purposes served by Forest Service buildings which include residences, offices, shops, warehouses, laboratories, etc.

No one architectural style can serve universally to adequately represent any particular Federal Agency because the country itself is too vast in extent and too varied in character to permit of it with any degree of success.

For example, the Colonial Style is incongruous in Regions where, due to traditional usage, it has been found that the Mexican, Spanish, or Ranchhouse types are appropriate and practical. The contrary is equally true.

Again, were it possible to adopt any one style for universal use, or to develop one particular type for Forest Service buildings, it would immediately become monotonous and unpopular and, therefore, equally unsatisfactory.

In certain Regions, where a traditional architecture exerts a predominating influence, the problem may be simplified by taking advantage of it. Since all Regions are not fortunate enough to possess pronounced traditional architectural styles like those cited above, it is imperative to create entirely original designs, based upon other typical, less conspicuous regional prototypes, to accomplish the desired results.

This requires a keener appreciation of respective sites and a special study of individual projects. It necessitates a diligent search for those particular features which not only differentiate one site from another but also one Region from another. Characteristic architectural motifs are often difficult to discern but once they are found they may be adopted and utilized for purposes of design in developing indigenous types of construction.

The first step in achieving this is to zone the Region for architectural styles, based upon climatic characteristics, diverse vegetation and forest cover. This has been done very logically by Region 3, in the following manner:

Type of Country	Style of Architecture
Desert or semi-desert	Adobe or Pueblo
Grassland	Ranchhouse type
Woodland - pine, fir or spruce	Timber type
Alpine	Alpine type, - stone or stone and rough timbers

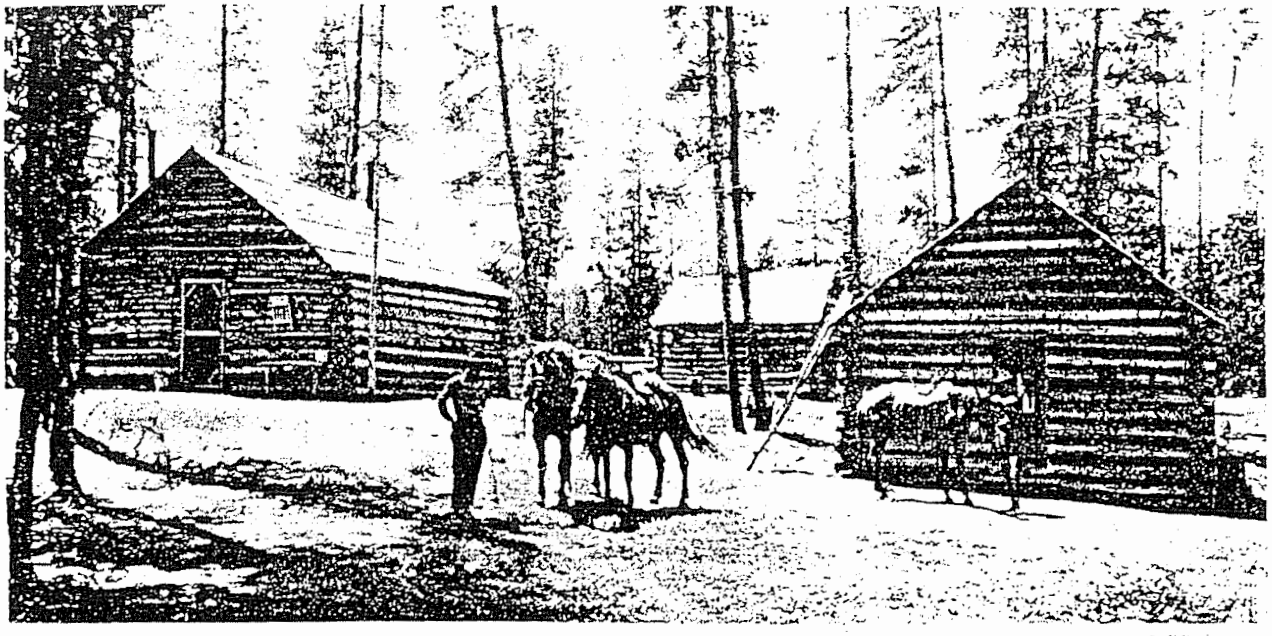
These general classifications represent a reasonable subdivision of Region 3 into localities typified by different natural features and a respective type of design appropriate to each.

When the elevations of buildings composing Administrative Sites, Service Groups, etc., are designed in accordance with these primary considerations they will be neither monotonous, inappropriate, nor lacking in those characteristics which are thoroughly representative of the Forest Service itself.

Ultimately, logical classifications of this sort will be found of great assistance in determining elevational design based upon the use of acceptable, appropriate types of architecture.

Log Buildings:

Log buildings, primitive in character and associated with the early history of our country, bespeak the forests themselves. In certain sections of several northern Regions, low, one-story structures, built entirely of logs or a combination of logs and stone, have been customary for generations.



Beaver Creek Ranger Station
Payette National Forest, R-4

As in former times, the Forest Service still builds many distinctive log structures in Regions 1,2,4and 6. In continuing to erect them, it performs a highly laudable undertaking in perpetuating the art and traditions of log work in this country, despite the fact that the craftsmanship required to cut and fit the logs involves greater expense than that of other forms of wood construction.

Since buildings of this type admittedly conform to the premises of this treatise they are accepted as appropriate for the Forest Service without further deliberation, in localities where their erection agrees with common practice.

Hence, this discussion will deal primarily with other than log construction.

Elevational Design:

In order to confine attention exclusively to the subject of elevational design it is assumed that the fundamental considerations of utilitarian planning have been satisfied to the extent that the plans meet the requirements and function properly.

The problem of designing buildings to definitely represent any particular Government Agency is a difficult one. To discern those specific elements of design which may be construed as representative of the Forest Service exclusively and by means of which its buildings may always be recognized, is, indeed, an arduous undertaking. It calls for the exercise of the imagination and the ability to design, rather than the plagarizing of designs prepared by others by selections from architectural magazines, etc.

This task necessitates a greater play of imagination by the introduction of such qualities as the quaint, the naive, the intimate, the picturesque, the provincial or primitive, and other similar characteristic attributes, in contradistinction to the sophisticated, formal and highly conventionalized classic adaptations now commonly employed.

Design, or the architectural treatment of structures, signifies the introduction of beautification by art. Ordinarily, additional expenditures are anticipated in this process. Often, however, the contrary is true. The experienced designer is capable of designing by means of simplification and refinement rather than by the introduction of any additional features. There is no reason why good design and economical construction should not be synonymous.

To accomplish the results herein contemplated Forest Service buildings must emerge from ordinary, commonplace structures to enter the realm of architecture.

Practical Examples:

To demonstrate how the recommendations set forth herein may be put into actual practice several examples may be cited. Region 1, having become convinced of the necessity of improving the exteriors of its

buildings along the lines discussed herein, undertook to design something more characteristic and appropriate for the Philipsburg Ranger Station than the designs formerly used.

By reverting to the simple, primitive types to be found on the farmsteads of Montana, uncontaminated by any foreign influence, it was found possible to arrive at an original design based upon indigenous prototypes.

The long, low, rambling structures of the farm opposite to the site of the proposed Administrative Group on the outskirts of Philipsburg, Montana, are typical of many others in this locality, and were photographed for use in this connection.

They appeared to possess a clue to a characteristic type of local building. The countryside, with its farm buildings, usually provides the most valuable source material for this particular purpose.

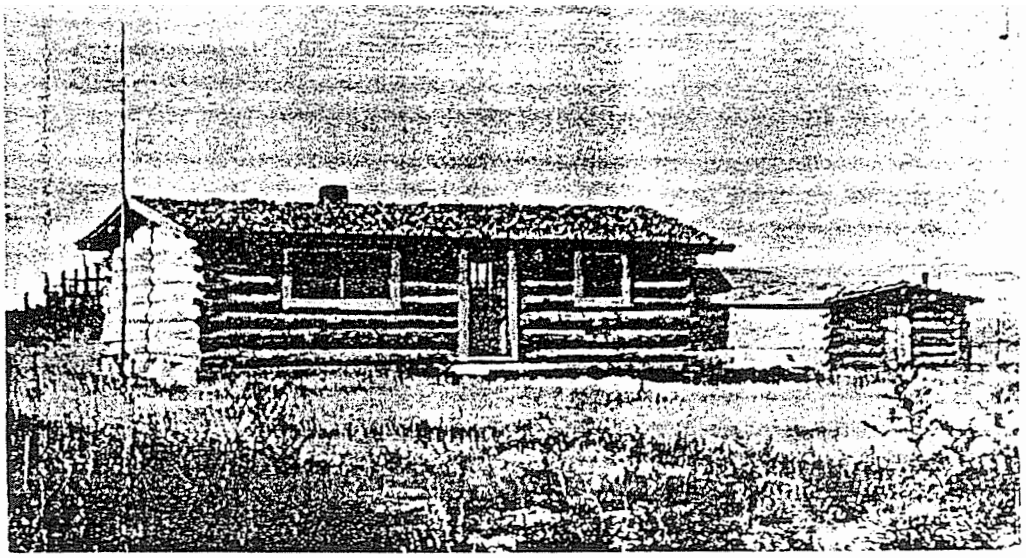
Typical, rambling farmstead opposite the
Philipsburg Administrative Group Site.

Incidentally, in this photograph will be seen a mediocre, two story frame dwelling, representative of the ordinary urban type of extraneous, inappropriate architecture, the duplication and repetition of which it is attempted to supply by Forest Service designs developed in accordance with the procedure outlined herein.

The color, shape and height of this dwelling are incongruous in relation to both the immediate environment and the general landscape. This lack of harmony offers a clue of what to avoid in subsequent designs for Forest Service buildings.

By incorporating in these designs the significant architectural features to be found only in some of the older, existing native structures, Region 1 is to be credited with unusual foresight and a keen appreciation of its native architecture which has not yet been sufficiently developed to be recognized as an established traditional style.

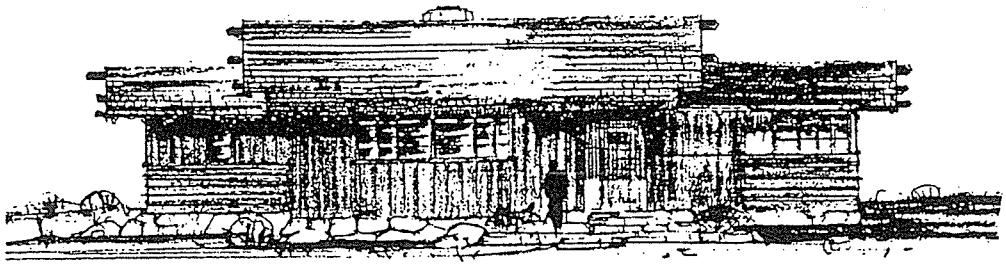
To search out, conventionalize and adapt characteristic elements of design is always difficult, especially where there is so little traditional architecture to draw upon and, consequently, very few motifs from which to choose.



A Typical Montana Farm Dwelling

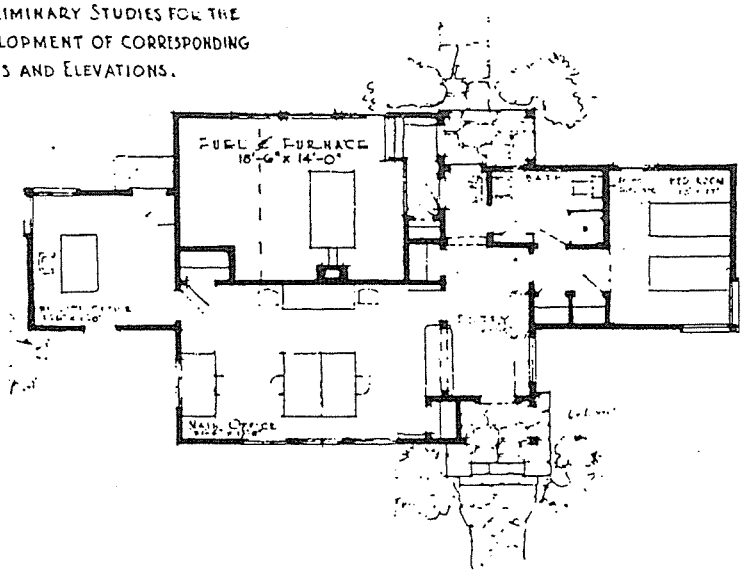
A representative prototype used as the source material for the following perspective sketches in designing the buildings comprising the Philipsburg Administrative Group.

Differing radically from any other basic style in this country, and in many respects, closely resembling the primitive simplicity of the Alpine structures around the Zermatt, near the Italian-Swiss border, it possesses unique stylistic possibilities.



FRONT ELEVATION

PRELIMINARY STUDIES FOR THE DEVELOPMENT OF CORRESPONDING PLANS AND ELEVATIONS.



FLOOR PLAN

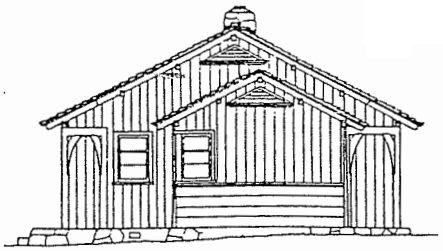
PRELIMINARY STUDY

ADMINISTRATION BUILDING

PHILIPSBURG RANGER STATION

DEERLODGE NATIONAL FOREST

REGION 1



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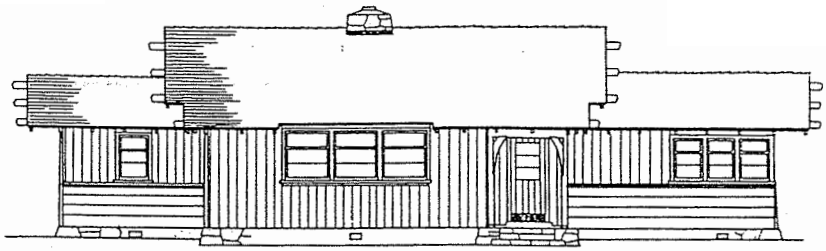

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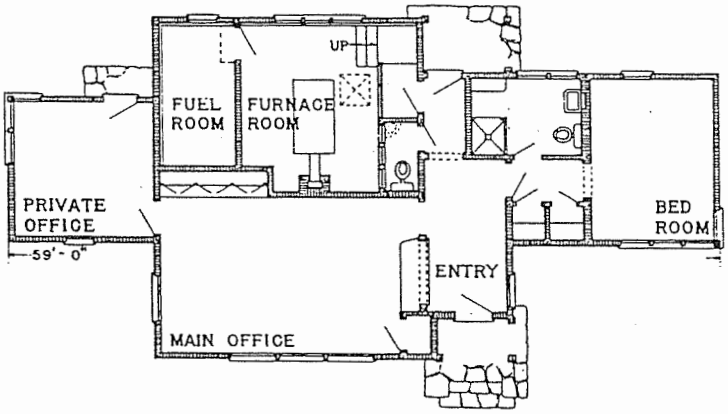


FLOOR PLAN

FINAL DRAWINGS

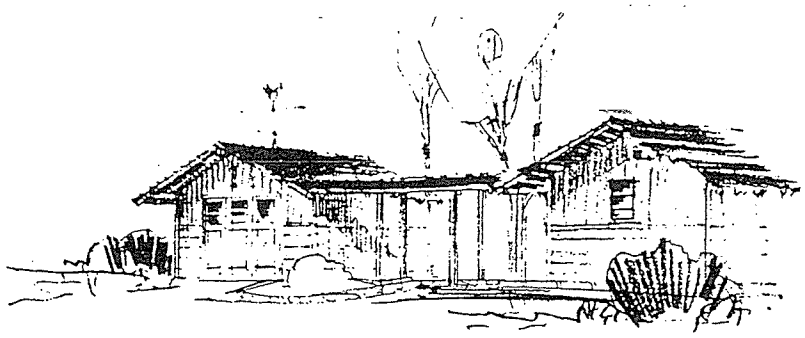
ADMINISTRATION BUILDING

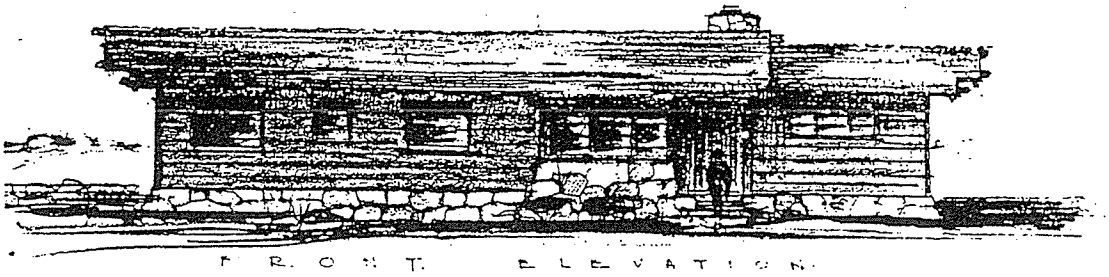
PHILIPSBURG RANGER STATION

DEERLODGE NATIONAL FOREST

REGION 1

PLAN NO. B-109





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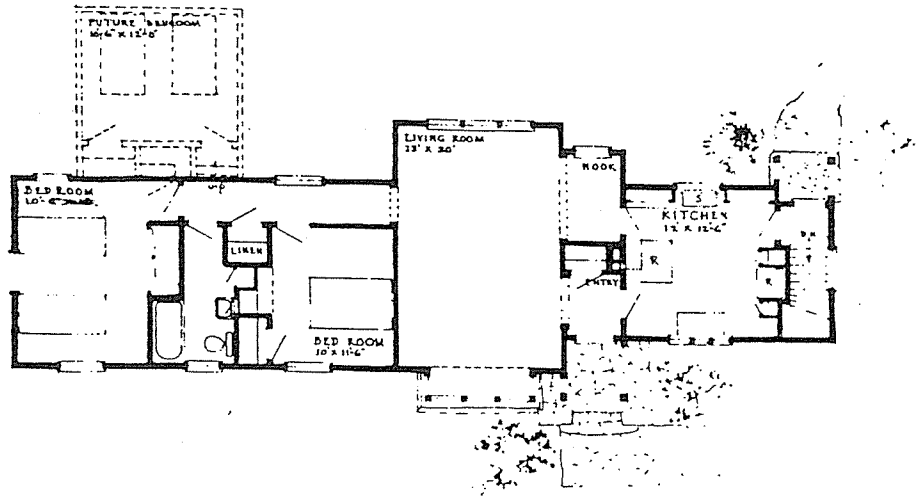


FLOOR PLAN

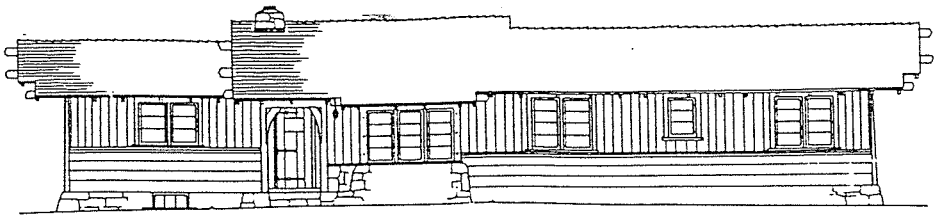
PRELIMINARY STUDY

RESIDENCE

PHILIPSBURG RANGER STATION

DEERLODGE NATIONAL FOREST

REGION 1



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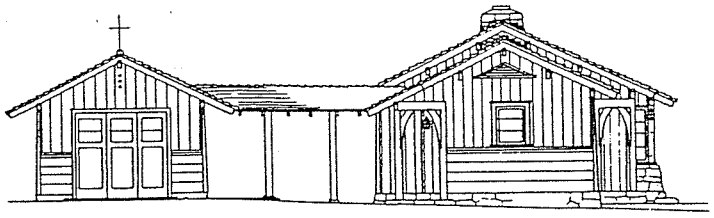

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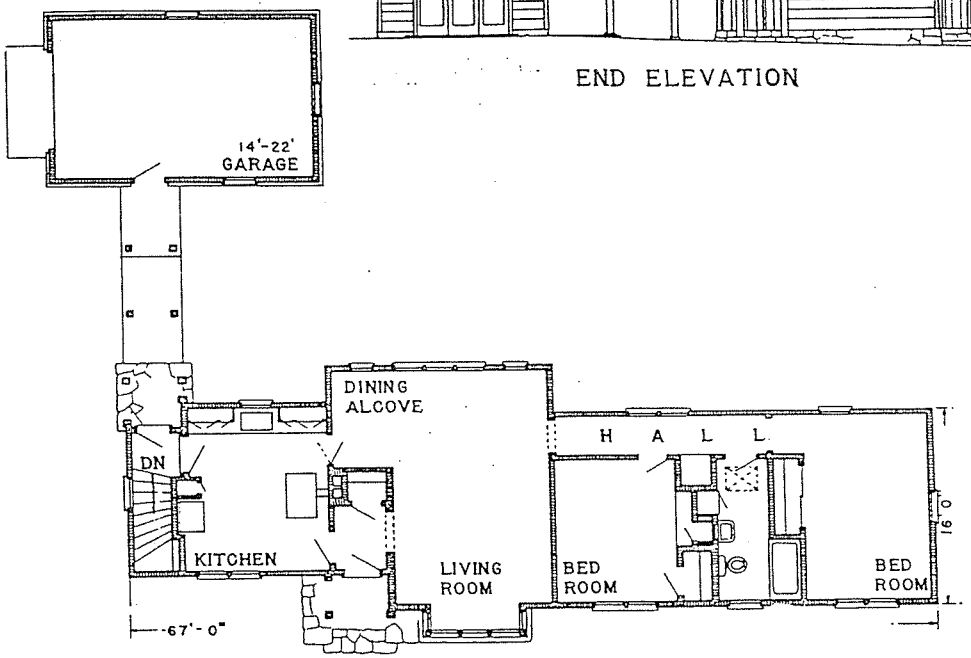


FLOOR PLAN

FINAL DRAWINGS

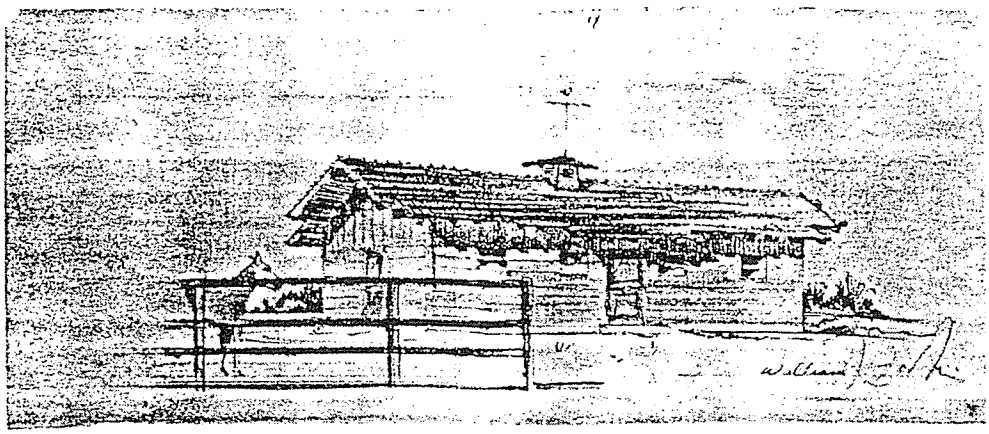
RESIDENCE

PHILIPSBURG RANGER STATION

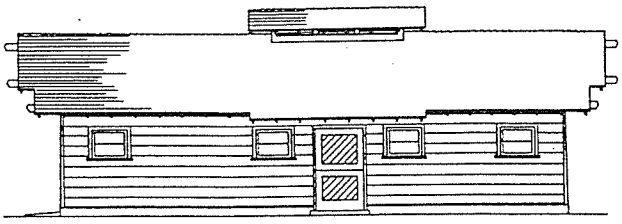
DEERLODGE NATIONAL FOREST

REGION 1

PLAN NO B-108



PRELIMINARY SKETCH



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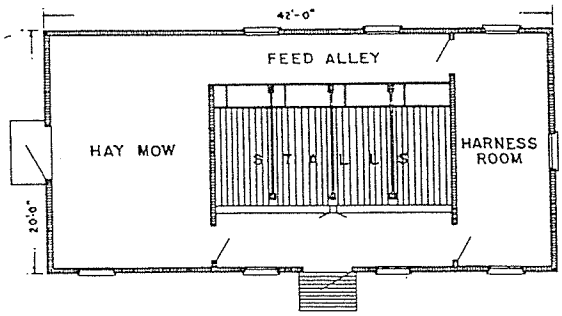


FLOOR PLAN

FINAL DRAWINGS

FOUR HORSE BARN

PHILIPSBURG RANGER STATION

DEERLODGE NATIONAL FOREST

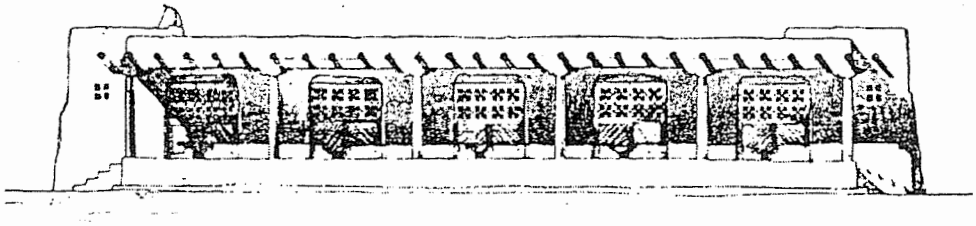
REGION 1

PLAN No. B-113

Another example, worthy of mention, differs fundamentally from the previous one. Here, Region 3 has taken advantage of an established traditional style, the Adobe or Pueblo, by employing it as the nucleus for the design of a number of its buildings at various locations.

The photograph herewith represents a typical native Adobe structure and a Region 3 design for a Forest Service Warehouse conforming to it in basic design and traditional architectural character.

Plaza, -Indian Pueblo of San Ildefonso, N. Mex.



Design for an Adobe
Forest Service Warehouse, Region 3

It is to be observed that neither of the foregoing photographs bear any semblance to imported, extraneous architectural styles.

In the reproduction of the Plaza, Pueblo of San Ildefonso, may be seen an interesting architectural parallel of a porch motif, represented by that portion indicated between arrows, which may be considered as a traditional prototype for the recently designed adobe Forest Service Warehouse.

In utilizing characteristic, traditional, regional building motifs, by wisely adapting them in a practical manner to satisfy modern utilitarian requirements, is design at its best.

Conflicting Influences:

To the circumstances and conditions under which the Forest Service buildings were previously erected may be attributed much of the responsibility for their lack of individual design and Forest Service character. Among these may be cited the former use of "Standard Plans", quantity production by means of so-called "Ready-cut" buildings, rapid construction, excessive requirements under restricted cost limitations, the use of building materials for the primary purpose of economy rather than a selection with consideration for their effect upon ultimate appearance, permanence and low maintenance cost.

Lack of time and personnel to devote sufficient attention to elevational design has been another detrimental factor.

Another regrettable influence, which tends to destroy attempts to inject individual design into buildings, is that of using materials purchased exclusively for economy. Purchasing departments are interested in construction only from this standpoint and are not concerned with architectural design. Ordinarily, the procedure consists of purchasing materials, etc., which meet average specifications at the lowest cost. Permanence, low maintenance costs and the necessary individual design, aesthetics and artistry required to express Forest Service character, are qualities which receive little or no consideration where slightly higher costs are involved. Where economy is the controlling factor, aesthetic design is seldom possible.

In contrast to these negative influences are those of the drafting room, striving to secure some measure of design in spite of the adverse conditions just cited.

The architectural designer neither creates uninteresting, box-like buildings deliberately nor from personal preference, because his training has not been along any such lines. Rambling, intimate buildings, having interrupted wall surfaces and roofs, etc., are always his first choice. Artistry usually involves some additional expense. It is unreasonable to expect it to be gratuitous. Quality always costs, but, curiously enough, it remains long after cost is forgotten. To allow nothing for it in building allotments is inconsistent, and especially so, if, later, artistry is to be stressed to the point of being mandatory.

It is very significant that these matters are receiving wide attention and bids well for the future which, as a consequence thereof, appears to hold greater opportunity for better design than ever before.

Stock Millwork and
Prefabricated Materials:

One of the greatest hindrances to the introduction of individual character in the exterior design of Forest Service buildings has been the use of stock millwork, mouldings, etc., and other standard,

stock products on the sole assumption they are economical and, plausibly, the most likely means of not exceeding the existing restricted cost limitations.

On the other hand, it is not recommended that the use of these economical stock products be discontinued for other special or more expensive ones. The essential point is, when, where, and how to use them

For instance, many architectural features such as cornices, doorways, etc., are composed, ordinarily, of an assemblage of standard mouldings, members, parts, etc., in accordance with certain conventional rules; assembled or built up after the fashion of using building blocks.

Failure to heed the fact that this procedure neither involves nor produces original design and that by using stock shaped mouldings and other standard articles such as asbestos shingles, siding or "what have you" in this manner, it is the untrained millman or some one in a particular trade whose feeble attempts at design are accepted and utilized. This procedure is entirely devoid of individual character or expression in design and any possible harmony with particular localities, environments, etc.

The recommendations, therefore, are to prepare architectural designs as previously discussed under "Architectural Trend" and "Elevational Design", largely eliminating those items which show the limited, untrained ability of others in the various trades, and,thereby, minimizing the use of such of their products as unfavorably affect the exterior appearance of Forest Service buildings. Stock window frames and sash, door frames, and many other stock items, may, of course, be used satisfactorily in this process, but they must be arranged and coordinated to suit the new type of original design expressive of the Forest Service and not used in a way to control, distort or nullify it.

Supplemental Details:

Scale and Full Size Details have been either very sketchy or largely neglected in the stampede to erect buildings under the past programs of rapid expansion.

Ordinarily, scale drawings are issued with the general plans to illustrate certain parts of the work in greater detail. Others of them, together with Full Size Details, commonly prepared for all architectural features, may be issued during the progress of the work as supplementary explanations.

By means of such details the Architect is able to illustrate and explain exactly what is required in constructing the various parts of the work, as well as how they are to be erected or installed. It is chiefly upon the character of these details that the Architect or Designer relies to introduce the elements of individual design which

differentiate it from the mediocre or commonplace. The latter are always the product of work executed without the careful, personal study represented by the detail drawings.

By the aid of these details control is maintained over the ultimate appearance, character and intimate charm of each particular project. By means of them one project is differentiated from another. Without them, it is impossible to obtain distinctive character in any buildings.

Such details enable the Architect to introduce the qualities of intimate character, dignity, charm, etc., into the work. Expressive, sympathetic individual design does not thrive in the absence of the necessary details to insure its incorporation in the executed work itself. The ultimate quality of all structures, including every phase of them, depends primarily upon the care and study devoted to their details, together with diligent field supervision to insure the correct construction of them.

One purpose of emphasizing the importance of the details, even in full size scale when required, is to place the full responsibility for them upon the Designer and his architectural staff because upon their careful study depends the elusive element in design so much sought after. There is nothing new in this matter because it conforms with standard architectural practice. It does represent, however, the exact point in actual practice where the "spirit " of the design is either injected into the work or where it is lost forever.

Supervision:

The excellence of all construction work depends chiefly upon the care exercised with the details even to the most insignificant of them, and the diligence with which they are supervised to insure their construction in a manner which will incorporate the aesthetic qualities intended by the Designer.

It has been found that, in spite of the technical supervision usually employed in connection with Forest Service construction projects, it is frequently not only too occasional and inadequate, but without the proper knowledge and advice to obtain the desired artistry herein discussed.

Aesthetic accomplishment depends solely upon that sort of supervision which includes a sympathetic understanding and appreciation of the artistry contemplated in the final product by the Architect or Engineer and not merely an interpretation of the working drawings.

The Inspector or Superintendent of construction, untrained in design, must depend entirely upon complete details to obtain the desired results rather than to be called upon to make field decisions without them.

Architectural Service:

The present trend toward improving the appearance of other structures, such as bridges, dams, culverts, etc., directs particular attention to the opportunity of utilizing the creative ability of the Regional Architect, in cooperation with the Engineering staff, for the accomplishment of this purpose.

In this way, architectural advice may be found of invaluable assistance by those concerned with engineering projects in producing structures of greater simplicity and more pleasing appearance than heretofore.

The same fundamental principles of design are as applicable to these structures as to those commonly known as buildings.

This phase of Forest Service construction is of such vital importance that Engineering, in recently circulated Brochures on these subjects, has attempted to illustrate some outstanding examples. Their particular purpose is to call attention, coincidentally, to their artistic and aesthetic qualities while pointing out and making constructive recommendations for the correction or improvement of other less successful features.

Summary:

Because the subject of Elevational Design is attracting unusual attention at this time and its pertinence is of the greatest importance, it has been deemed advisable to offer some fundamental suggestions as the basis upon which to make a reasonable start toward the design of more representative Forest Service buildings.

Engineering, Washington Office, welcomes the opportunity of reviewing any sketches which may be submitted for its special consideration, comments and suggestions, etc., in advance of actual construction in order to assist, insofar as possible, in improving matters of architectural design.

In this manner, it is hoped to create designs of a totally different character from the present ones which now do not receive very favorable comment; designs which will more adequately represent the traditions, ideals and purposes of the Forest Service.

W. Ellis Groben

W. ELLIS GROBEN,
Consulting Architect.

January 4, 1940.