

The TVA Town of Norris, Tennessee

By EARLE S. DRAPER, Director of Land Planning and Housing,
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IN BUILDING the new town of Norris, the Tennessee Valley Authority has given emphasis to the principle that adequate physical planning of the land must be based on an environment that is constantly changing. This rapidly expanding manner of life is arousing new needs and desires, not only among the people of the Tennessee Valley, but throughout America—if not the entire world.

Norris, then, is a planned effort to provide for a rapidly changing standard of life. It is not so much a paternalistic attempt to foster a different way of living among the people of the Valley as it is an effort to meet the larger requirements and demands which they themselves will make in the near future.

Norris covers an area of some 3,000 acres, lying about 4 miles by road from Norris Dam. A large part of this acreage, together with natural barriers, forms an unbroken protective zone preventing hit-or-miss development along the outskirts of the town. This protective zone is not entirely idle land, as it includes the TVA demonstration farms and the subsistence farm plots which are expected to play a large part in integrating local industrial work and a small-scale, but intensive farm economy in the community.

At Norris, streets and roadways give consideration to the natural contours of the ground. Thus, grading and maintenance costs are reduced, and the winding roadways seem to fit the irregular topography and rural setting. The freeway passing around the town, but with direct access to the town center, will ensure freedom from through traffic for the narrow roadways of the local streets.

The irregular location of the houses on the most favorable site on the deep lots makes it possible to develop a path system through the open blocks to serve houses and group garages effectively without the necessity of considering the relation of walks to the roadways and giving in most cases a desirable and complete separation between vehicular and pedestrian traffic. Foot-paths in a number of instances pass under the roadways when grades favorable to such treatment exist.

The first unit of 151 houses was completed in June, 1934, and a second group of 80 is under construction. By December, 1934, housing for a total of 350 families will be completed.

About a dozen basic floor-plans, ranging from 3 to 6 rooms, with 4-room types predominating, were employed in the first unit of houses at Norris. These are of frame-and-brick construction, varied in exterior treatment to avoid monotony. Heavy, hand-split shingles and native stonework, introduced here and there, add local character to the houses. Porches and fireplaces are important features of these houses, not only because they are traditional throughout the Valley, but largely on account of their practical usefulness in this comparatively mild climate. Complete electrification of 151 houses is an innovation made practicable by the cheap power rates established by the TVA. Electric house-heating also made it feasible to eliminate basements, service drives, and other expenses incident to a type of heating giving comparable results.

Though the houses of the first unit at Norris are of an extremely economical type, the second unit offers a distinct innovation in low-cost housing. Their walls, including interior partitions, are of cinder concrete blocks with pre-cast concrete slab and joist floor construction. The wall surfaces, both outside and in, are finished with cement paint, and the floors have an integral cement finish similar to tile. Roofs are of metal, painted, and the ceilings are insulated. Though inexpensive, these houses are durable, sightly, and comfortable.

The construction camp which was necessary for housing the 1,500, or more, single workers engaged in the construction of Norris Dam, and the town, has been designed for long-time usefulness. After the completion of the dam, these buildings may be easily converted to use as a training school or convention center.

The features necessary for the functioning of a self-contained community are provided in a town center where are grouped the buildings required for commercial and administrative purposes, with the public school and recreation grounds made a part of the unit. This group will be completed in the fall of 1934.

Complete systems for electric distribution, water-supply, and sewage disposal are provided, all based upon probable future requirements as well as upon present needs.



APPLIED HOME ECONOMICS IN T.V.A. HOUSES¹

EARLE S. DRAPER

IN BUILDING the new communities at Norris, Wheeler, and Pickwick Landing dams to provide for necessary housing in connection with construction of the dams, the Tennessee Valley Authority has approached the problem of the small house from a standpoint of home economics in every sense of the term. These houses are truly homes and actually economical—real homes in arrangement, appearance, and equipment; economical in first cost, in upkeep, and in the expense and labor of housekeeping.

Too often the difficulty of making practical application of the science of home economics has been due to thinking that there is a final or all-embracing solution based on a preconceived technological formula or an esthetic strait jacket. The designers of so-called "model" kitchens, for instance, too often seem unaware that the living requirements of people are as variable as the people themselves. Eating in the kitchen or sleeping in the living room may be entirely unacceptable to one group and distinctly preferable to another. Nor is this entirely a matter of social standards or relative ability to pay. Some of the luxurious apartments of Park Avenue and the "Gold Coast" provide for just this sort of doubling up. The T.V.A. is not attempting to impose a brand-new way of living upon the people of the Valley. Rather we are attempting to blend modern forms with the long-existing living habits and social customs of the locality.

Altogether, at Norris, Wheeler, and Pickwick dams, the T.V.A. has built 511 houses, the great majority of them of permanent or semi-permanent construction. Among these are bungalows and story-and-a-half and two-story types varying from two to six rooms in size and based upon more than forty different floor plans. Thus a wide choice is available to the people who make these houses homes.

At Norris the location of each house was an individual problem. Owing to the rugged nature of the site, streets are winding, blocks are irregular, and every building plot varies from its neighbor in size, slope, and topography. In determining the position of the house on the plot, it was recognized that an abundance of sunlight and fresh air within the house is often as much a matter of orientation as it is of windows and doors. Another consideration was that the kitchens as well as the living rooms should be favored with attractive views, but this was not a difficult problem on a high but rugged plateau bounded by wide valleys and steep river bluffs and with irregular mountain ranges on every hand—in fact almost every window in the town frames an extensive and attractive view.

Aside from the varying preferences and requirements of different people and families, the functioning of even the simplest house is a complex affair when we pause to consider the diversity of its routine activity and its effect on the safety, health, comfort, and privacy of its occupants. Among other things, it is at once capable of serving—sometimes simultaneously—as a workshop and factory, social and recreational center, nursery and training school, warehouse and

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purchasing department, laboratory and testing bureau, restaurant and hotel, hospital and first-aid station, gymnasium and concert hall, craft and repair shop, a place for study and repose, and occasionally—at least in the eyes and ears of the housewife—a madhouse!

Therefore, the plans of T.V.A. houses are based on time-and-step principles of determining the layout of work spaces and the placement of fixtures. But these studies have been based upon observation and experience as well as theory. They recognize variations between individuals in methods of work and in their definition of comfort or convenience. For instance, we have made no attempt to develop a standardized kitchen to be incorporated as a fixed unit in every house we build. Within the limits of systematic and orderly planning we work out various arrangements suited to individual requirements and desires, always, however, based on the relation of work centers to each other and to the house as a whole. Economy in time and conservation of energy is the aim throughout. The sequence of work; whether the worker is standing or sitting; width and height of table and other work surfaces; width, depth, and spacing of shelves—all these and many other factors are carefully studied in the arrangement and equipment.

Due to the low electric rates of the T.V.A. it was perfectly feasible to electrify these houses to an extent that might appear wholly impractical in most places under present costs of current. Too, the electrical household equipment was bought in large quantities and for cash, thus effecting large savings in first cost. The equipment of a typical T.V.A. electrical kitchen consists of a range, a refrigerator, and a domestic water heater—all electrified and largely automatic in operation. Space for an electric washing machine is also provided either in the kitchen or on an adjacent recessed porch.

In these houses the typical grouping of kitchen equipment is based upon the sink as the work center. Immediately adjacent to and above the sink, wall cases are built in for the storage of packaged foods, dishes, utensils, and so on. On one side, and usually at right angles to the sink, are the food pantry and refrigerator, and on the other side is the electric range. In narrow kitchens one or several of these articles are placed on the inner wall opposite the sink.

In some cases sinks are placed on an inner wall at right angles to a nearby window. This position is considered excellent by many authorities; it has the merit of providing full wall space for dish cabinets immediately above sinks and is said to reduce fatigue due to the glare of a window facing a sink. On the other hand, in many of our kitchens the sinks are placed on outer walls immediately below the windows. This is because many women feel that to be able to glance outdoors from time to time merely by raising the eyes makes work at the sink seem less monotonous and tiring, and that in summer it seems to offer a cooler place to work.

Combination laundry tubs and sink are placed in the kitchens and so related to the rear door or porch that waste steps and commotion are avoided when hanging out clothes. In a few cases laundry tubs are located in an enclosed portion of a rear porch convenient to the kitchen. The bathroom is usually next to the kitchen, with a common wall between them, thus simplifying plumbing.

In size the kitchens vary from the very compact kitchenettes of the efficiency apartment type to those which also contain ample space for dining purposes. In many cases a screen or partition may be used to separate the dining space from the kitchen if desired. A few of the houses have separate dining rooms, and in some cases meals may be served in an end of the living room.

Because of local building practice and living customs, basements are not included in these houses. This makes the provision of storage space quite important, not only in attics and closets, but also in kitchen pantries. But we have not gone to the extreme of trying to include service pantries, and butlers' pantries are conspicuous by their absence in T.V.A. houses. Rather, we have provided adequate, well-arranged space designed to meet the requirements and methods of food storage to which the people are accustomed.

Electric house heating simplifies the basement problem. At first thought, the idea of electric heating for these low-cost houses seems too ambitious, too luxurious—perhaps pampering; but after all the costs are weighed one discovers that, as compared with ordinary house heating systems, electric heating has definite economic advantages in addition to the greatly increased comfort. For instance, installation costs are much less than those required for boilers, piping, valves, gadgets, radiators, ducts, and registers; and complicated and expensive labor is avoided. There is also the matter of space, every cubic foot of which in a house costs money; when the usual cumbersome heating equipment is installed it means either that more room must be added for this purpose or that less room is available for other uses. For one thing, a radiator not only uses the actual space it occupies but also renders surrounding space practically useless, particularly the space above it. Further, for an efficient heating plant of the customary type a basement must be provided for the boiler and for fuel; service drives and alleys must be installed for delivery of fuel and for ash removal. With electric heating much of this expense is made unnecessary.

Electric heating produces no soot, smoke, or ashes. The expense and wear and tear of cleaning and renewing rugs, curtains, and other house furnishings is, of course, greatly

reduced. Walls and woodwork require painting and decorating less frequently; clothing does not get so grimy; and outdoor painting and upkeep costs are also much lower.

Electric heating is also more flexible. Each heating unit is separate and self-contained and may be snapped off or on in any room at will without affecting any other portion of the heating system.

In our near-southern climate outdoor living may be enjoyed for a longer period of the year than in the North; therefore, open porches are another characteristic and practical feature of Valley houses, and most of them have at least one porch and sometimes two. Usually these are placed on the side or rear of the house to insure privacy and are so related to the various rooms that they may be used either for living, dining, or sleeping purposes. Our porches are screened and may easily be glazed in winter if desired.

It is neither an anachronism nor a merely sentimental gesture that provides fireplaces alongside of electrical heating units in T.V.A. houses. Fireplaces are traditional in Valley houses, and the psychological effect of an open fire is well known to all of us. "Taking off the chill" is a mental process as well as a physical one. But aside from all this, the fireplaces in T.V.A. houses actually supplement the electric heaters during the coldest spells, and on crisp mornings and evenings a small open fire often makes other heat unnecessary, thus aiding in conservation of electric current.

A novel feature of the Norris houses was the development of a special type of shower bath which is used in place of a tub in most of the houses. This consists of an aluminum shower stall with a high ledge across the bottom of the opening and a stopper for the floor drain, thus forming a footbath or a basin for bathing small children. Brackets on the side walls of the stall

provide for a self-contained seat or bench. An overflow outlet prevents flooding the floor of the room. These showers are easy to keep clean, require less floor space than tubs, and have proved satisfactory in use.

One rule has been to provide at least as many useful closets as there are rooms in our houses. But let us hasten to add another rule: waste space on a plan is not labeled "closet" just because no other purpose can be found for it; in such cases you must sharpen your pencil—and your wits—and try another plan. Waste space is waste space no matter how much rationalizing you do or how euphoniously you misname it. For purposes of accessibility and to prevent waste and clutter, the majority of the closets are shallow and wide rather than deep and narrow.

An unusually generous but not lavish number of electric outlets have been provided in these houses. Their position is studied for utmost convenience and use rather than merely to make a blank wall space look busy. The type and placement of lamps is considered from the standpoint both of glare and of shadows that might interfere with kitchen work or placing a chair for comfortable reading.

The ceilings of T.V.A. houses are low, usually about seven feet four to six inches above the floor. This makes a definite saving in construction costs, causes the room to appear larger, and reduces heating bills, an unusually important item where electric heat is used. The casement windows are so placed that there is no dead air space above the windows.

Insulation is an important feature in T.V.A. houses. Rock or mineral wool for walls, insulation fiber board for ceilings and sometimes attics, and aluminum foil for floors are used to cut down heat loss during the heating season as well as to make the house more comfortable in summer. It is interesting to note that during last summer an extended series of temperature tests in

Norris houses showed that the attic spaces up under the roofs were about as cool as the rooms below.

The majority of houses have attics, and although the regular use of these for living purposes is considered secondary, narrow stairways are provided so that they may be easily accessible. Windows in the gables, and sometimes dormers, furnish light and ventilation—in fact many of the residents of Norris utilize the attics not only for storage but as studies, extra sleeping quarters, and the like.

The finish of T.V.A. houses is extremely simple and practical. They contain but few moldings and little "millwork." Some are plastered, but the typical wall treatment is a wide plank wainscot up to the window sills with plywood walls above and fiber insulation board for the ceilings. Practically all interior woodwork is given a "natural" finish. Floors are of native oak, stained, this being cheaper than first quality pine. Such parts as mantels and entrances are of plain but well-studied design and made of plain lumber and "stock" molding.

A novel and important departure from the usual methods of small house construction is seen in the cinder-block houses at Norris. In this group the walls, both exterior and interior, are of cinder concrete blocks. The floors are of precast concrete slab and joist construction with a smooth, colored surface finish similar to tile. The interior and exterior wall finish is of cement paint applied directly to the surface of the blocks. Roofs are of sheet metal painted to harmonize with the surroundings and insulated to reduce the passage of heat or cold. These houses are economical in first cost and upkeep and are virtually fire-proof. They are sanitary, easy to clean, sightly and homelike, and vermin and termite proof.

While all of the houses at Norris are of permanent construction, the T.V.A. com-

munities at Wheeler and Pickwick dams are of a more or less temporary nature except that in each place some fifteen houses of a permanent type have been provided for the use of the operative and maintenance forces after the completion of construction work on the dams. Even the temporary houses, however, are not flimsy shacks. All have baths, kitchen sinks, insulated ceilings—all the essentials of decent, sanitary, comfortable living. The kitchens at Pickwick Camp are fully electrified and the houses are electrically heated as an experiment and demonstration in complete electrification for low-cost housing. Stove heat is provided at Wheeler.

Quaintness and cleverness do not enter into the design or equipment of T.V.A. houses. Nor are they based upon "model" plans for the "average family"—whatever that is. They are adapted to the region and to the people who make them their homes. These houses are simple but not crude, inexpensive but not skimped, roomy

but not luxurious. There was no set approach, either "modernistic" or "traditional," merely an honest attempt to design houses that were functional, adapted to the locality, and making use of native materials to the greatest possible extent. They do not pretend to offer a cure-all or a solution of the housing problem once and for all. In meeting our own needs, however, there have been developed ideas of real value and solutions of merit.

It should be emphasized that in working out these houses the T.V.A. has proceeded on the assumption that the objective of the science of applied home economics is to promote real homemaking and home life, to contribute to the happiness and well-being of flesh-and-blood people. In arrangement, construction, everything, these houses are based upon the habits, the desires, the comfort, and the contentment of a varying group of human beings rather than on standardized formulas applicable to a world of robots.

TVA Planning in Practice

By EARLE S. DRAPER, Director, Land Planning & Housing, TVA

THE building of great dams, the widespread distribution of electric power, the production of cheap mineral fertilizers, the building of towns like Norris or a new type of highway, are the more obvious highlights in a broad panorama upon which the Tennessee Valley Authority is depicting the physical, economic, and social characteristics and potentialities of a region embracing more than 40,000 square miles. These larger activities are vital but they are not all-important. The Act of Congress creating the Authority gave to the TVA the right to conduct experiments and demonstrations as a basis for future recommendations to Congress.

An important feature is TVA's employee relationships. The men work six hours a day, six days a week—or a total of thirty-six hours weekly. This short working period gives the men extra time to participate in the training courses offered to all TVA workers. This training has been made an integral part of employment—not compulsory, but simply made attractive and easily available. TVA courses are largely vocational and agricultural at Norris, with certain modifications at Pickwick Landing Dam providing for spare-time work on the worker's own farm under the advice and counsel of the State agricultural agencies.

But even more important to the people as a whole is the fact that when a dam is completed and the worker must be released, he will probably be more valuable to himself and to the people of the Valley than before. Thousands of men are employed on the dams, but eventually they must find other work to do. The TVA is trying to make that return as easy and assured as possible so that the evils of unemployment will be lessened to every possible extent, and also to turn out potential leaders for the long-time private job of Valley development.

Health and sanitation are matters of TVA concern. In areas of TVA construction activities, medical centers have been established. The problem of malaria control is receiving TVA attention in coöperation with the States, especially in connection with the problems created by new reservoirs.

In connection with TVA construction communities, schools

have been established on a modern yet economical basis. Norris school is an example of a complete but moderate-sized plant, in the design of which special attention was given to lighting and physical conditions. There is a strong faculty, and special emphasis is given to individual instruction rather than textbook cramming. An unusually active and purposeful P. T. A. is instrumental in spreading educational interest throughout the community, and the school is already attracting wide attention, and is being visited by many teachers and other interested people from throughout the Valley. The school for the smaller community at Pickwick is more modest in size, but otherwise maintains the high educational standards of the larger one.

In buying land adjacent to dams for the protection of reservoirs from silting, the TVA is also given a means to control private land speculation in proximity to its operations. One vacant-lot boom like that which took place in connection with the Government's war-time operation at Muscle Shoals is enough for the Valley. The TVA is determined that there shall be healthy growth rather than speculative exploitation of the Government's investments in the Valley.

The building of a huge dam involves problems other than pure engineering. A dam means a reservoir, and a reservoir means a widespread, permanently flooded area whose original inhabitants must establish themselves elsewhere. Unless guided, this movement, together with the taking of more or less productive lands out of use, is apt to disturb agricultural balance. This is one of the things which the TVA must analyze, mollify, and ameliorate wherever possible. Studies and projects include those leading to the retirement of lands purchased when they are submarginal from standpoints of productivity, erosion control, unbalanced costs of public services, and so on. Such areas as are suitable are being developed as forest reservations, game refuges, and regional recreation areas. There have been studies made looking to the establishment of production forests on a sustained-yield basis and utilizing the labor of the original residents; studies of possible coöperatives of residents to operate recreational areas; studies to conserve the land and to protect the reservoirs from silt through erosion control, which involves terracing aid, provision of fertilizer, recommendations for cover crops, and grazing practice.

In cases involving displaced populations, studies have been made of standards of living; of preferences in moving from a flooded area to another location; of adaptability to a combined agro-industrial economy, and assistance is given in the selection of new farmsteads on a basis of good investment and satisfactory living conditions. These studies include population concentration, analysis of trade areas, population mobility or stability, and so on. Tentative studies have been made for the relocation of displaced communities so as to offer better opportunities for making a living and for enjoying it; these projects in self-containment are also to serve as practical demonstrations for other communities throughout the Valley.

In several reservoir areas, such as Norris, Wheeler, and Pickwick, these studies have been utilized to give a cross-section of the various conditions found in the Valley as a whole. Around Norris is found a self-sufficing type of mountain agriculture with personal farm ownership predominant, while in the wide bottomlands around Wheeler, cotton tenantry abounds. In coöperation with State and other governmental agencies these studies embrace such things as the economic and social aspects of tenantry; the future of cotton, its optional uses and its importance in the world's markets; the import of mechanization, such as the mechanical cotton-picker, with reference to its probable effect on the earnings and living standards of field-hands in the cotton country.

Looking toward diversification, soil-conservation, and increased farm incomes, TVA is distributing phosphate fertilizers to the agricultural colleges of the Valley, who through county agents, distribute the fertilizer to farmers of the Valley for demonstration and experimental use, with particular attention to cover and grazing crops. Research is being carried on for a balanced fertilizer program under which the fixation of nitrogen by means of legume crops supplements the phosphates. The phosphate used in this work is being produced under an improved technique developed by TVA at the war-time nitrogen plant at Muscle Shoals. An improved method of phosphate rock removal has also been perfected, permitting the replacement of the soil over-burden and resulting in the continued use of land for agricultural purposes.

As an example of what can be done in rural electrification

the case of Alcorn County, Mississippi, is cited. Enthusiastic people of this county decided that—as the benefits of rural electrification also accrued to the city through the development of a more prosperous countryside—the urban users should join with the rural users and all pay a uniform cost for building a unified urban-rural system, with electric rates the same throughout the county. The lines were built and TVA power contracted for, with the result that electric rates throughout Alcorn County are 50 per cent less than they were before, even in towns.

There have been studies made of local governmental problems arising from the flooding of large areas lying within TVA reservoirs. This involves not only the withdrawal of large areas, but brings up the problem of stranded county remnants, cut off from one another and sometimes isolated from their former trade centers or county seats, which may indicate the desirability of county consolidation as a means of solving the problem with possible better political administration.

Navigation and flood-control studies include the encouragement of water transport through the promotion of deeper river channels; studies of Valley rate structures as they affect the water shipment of heavy commodities; the relationship of river transport to highway feeders and transfer points; the relationship of waterways to railroads and to industrial opportunities. In connection with flood-control are the dams, the accumulation of climatic data such as stream-flow, rainfall, and run-off.

Close contacts are maintained with all governmental agencies, Federal, State, and local—whether permanent or relief in character. There is active coöperation between the Authority, the U. S. Forest Service, and the CCC—there are 38 CCC camps in the Valley. This involves joint work in forestry, erosion-control, development of public recreation areas, conservation of wildlife, and other activities. Recently the TVA and the State Highway Commissions, acting in coöperation, have worked out a route for a highway, soon to be built in North Carolina, Tennessee, and Alabama, that will serve present needs and yet fit into the pattern of land-use as affected by future reservoirs and dam construction. Similar coördination of highways and other public works within the Valley has already effected large savings.

objective in the operations of the Federal Savings and Loan Insurance Corporation during the past year. Recent legislation has reduced the cost of insurance and has substantially stimulated the number of applications for insurance received from eligible institutions. Such insurance of savings is regarded as one of the paramount features of the entire task of making mortgage loans widely available at economical cost to home-owners by assuring a large and stable source of capital through investments made in thousands of local thrift and home-financing institutions.

Steps by which an architectural supervisory service can be supplied to home-owners through their local home-financing institutions have only recently been put under way. Within the next few months, a comprehensive plan, embodying specifications, construction cost schedules, architectural recommendations, and detailed suggestions for the guidance of home-owners will be completed and put at the disposal of the public through all member institutions of the Federal Home Loan Bank System.

Housing by the TVA

By EARLE S. DRAPER, Director of Land Planning and Housing, TVA

IN CONSIDERING the problem of housing the thousands of workers employed in the building of new dams, the Tennessee Valley Authority faced these alternatives. One solution—and the easiest—was to throw together long ranges of barracks with a cook-shack and commissary stuck in somewhere, and call it a construction camp.

Without foresight, TVA communities would be just that and nothing more. But even flimsy, haphazard construction camps to care for thousands of men cost money, and a lot of it. And if even rudimentary precaution is taken to prevent discomfort, dissatisfaction, and disease among the workers, then it is necessary to provide for at least the essential welfare and hygiene of the camp.

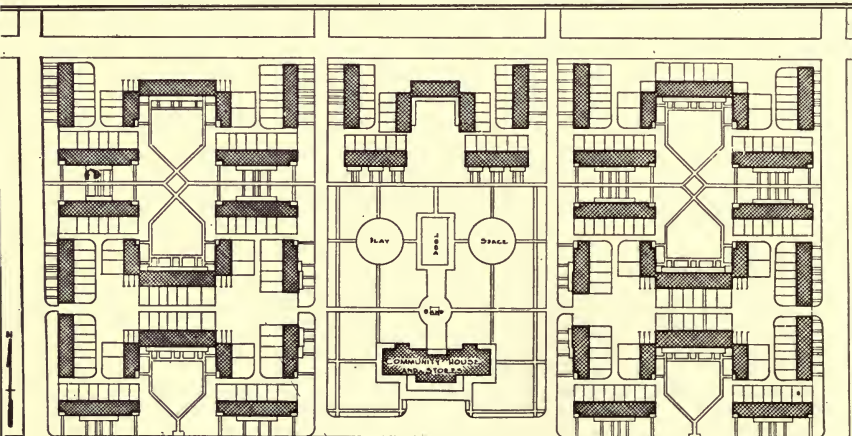
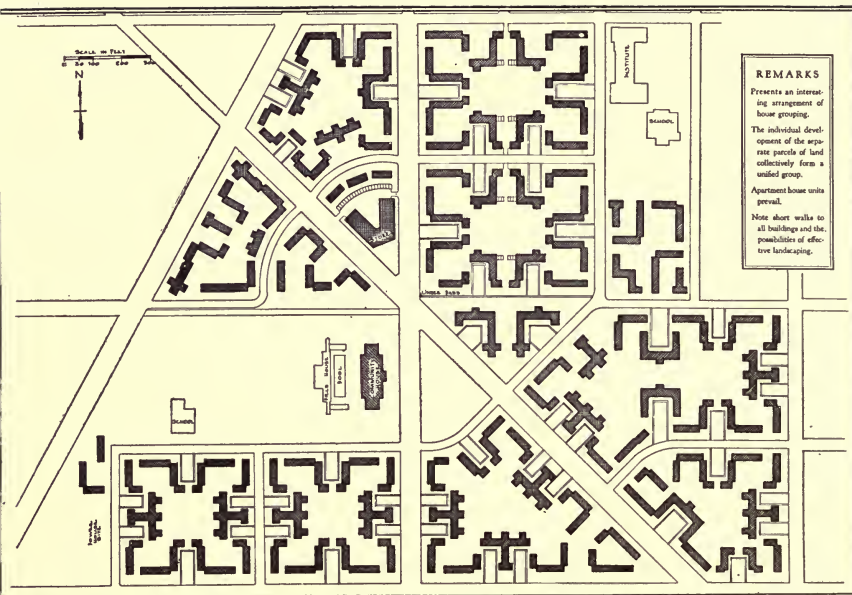
To accomplish this result requires something better than tar-paper shacks and open drains. But if adequate water-supply and sewerage systems be installed, good temporary living quarters built, and some provision made for the spare-time



An Electrically Equipped Kitchen in a TVA House

The Mingling of the Old with the New is Exemplified in This TVA Living-room, with Its Wood-burning Open Fireplace and the Built-in Electric Heater of the Latest Type.





SCALE = FEET
0 20 40 60

Courtesy American City
Site Plans for Low-rent Housing Projects by the PWA Housing Division

activities of the workers, then the investment becomes quite formidable; and when the major construction job is completed, the camp becomes just so much junk with slight, if any, salvage value.

On the other hand, the expenditure of a moderate additional amount of money will serve to put the buildings and improvements on a permanent basis so that the original cost is not sacrificed within a few years, but may even be enhanced in the future.

So it was decided by the Authority that, within reasonable limits, the new communities should be conceived as permanent modern places for comfortable living, rather than mere shack-towns—here today and gone tomorrow.

Since the late fall of 1933, when work on Norris was first begun, the TVA has completed three entirely new communities, providing housing for several thousand single workers, and homes for more than five hundred families of TVA employees. And this doesn't mean merely the throwing together of rows of gaunt barracks and even more meager shacks, but pleasant, homelike communities which give full consideration to the amenities of decent, comfortable living.

There is nothing fancy—or fanciful—about a TVA community. They are designed simply as small rural communities that for the time being are to serve the purpose of construction camps.

More than forty different basic types of house plans have been developed, ranging from completely electrified, fully insulated, steel casemented two-story houses of six or seven rooms, to compact three-room cottages of very simple but durable construction. It, of course, stands to reason that in any community, however simple, there must be distinctions in the size and the accommodations offered by its dwellings. This is partly a matter of personal choice or family requirements, partly a reflection of differences of income and proportionate ability to pay rent. There are no great differences in the earnings of the various TVA employees, but such as they are must be considered when it comes to budgeting household expenses.

In no case, however, is there any essential difference in the hygienic standards or the adequacy of TVA houses, whether large or small. In fact, the plans for some of the very small

houses received more intensive study by the designers than did the larger ones. So, invariably, the rooms receive abundant light and air from two—sometimes three—sides; every house has a well-equipped bathroom and a conveniently arranged kitchen, and all have ample yard-space—in no case have the standards of any house been lowered so that it might constitute an outpost of a potential slum.

The new TVA communities at Wheeler and Pickwick Landing dams are, in general, similar to the town of Norris which was described in last year's ANNUAL. Norris was the first housing operation undertaken by the TVA, and up to the present time is the largest one. Norris has therefore become more familiar to people throughout the country than have the two later and smaller communities.

Like Norris, the communities at Wheeler and Pickwick Landing approach the definition of a garden city as a place designed for healthy living and industry; affording a full measure of community life; surrounded by a rural belt, and so on. These TVA communities do not pretend to be garden cities, but they do fulfil the requirements of the definition.

In each case the communities have been designed to meet the functional requirements of community life. Complete water and sewer systems, and electric and telephone services have been installed, serviceable roads and pathways built, and educational and recreational activities fostered. Housing in these communities is not only represented by the homes and the buildings for single workers, but includes many factors both tangible and intangible. Recreational buildings, and outdoor areas, schools and hospitals, pure water and good roads, libraries and training projects—all these and many other factors the Authority considers important, in fact vital, to the functioning of a well-rounded life in the American community of today and tomorrow.

One of the inheritances of the TVA at Muscle Shoals consisted of more than 200 houses built by the Government during the World War period. In the meantime all but a few of these houses had been unoccupied, and the weather and termites had had their will with them. Therefore it was necessary for the Authority to undertake their extensive repair to make them habitable for its workers employed in that area.

A number of existing farmhouses on TVA property have also been repaired and modernized, and put in use as homes for employees. These farmhouses, of course, also serve as demonstration projects offering inspiration and suggestions to the farm-owners throughout the neighborhood.

The communities which the TVA is building in connection with its construction of new dams have fourfold implications: (1) their immediate primary purpose is to provide housing for workers employed on the current large-scale construction projects such as TVA dams; (2) they serve as practical, working demonstrations of planning for improved ways of living—both from the standpoint of the individual in search of ideas to be embodied in his own home, and the people or groups interested in the community aspects of large-scale housing, whether from a social or economic viewpoint; (3) they offer opportunity for research work and the testing of means and methods related to low-cost housing; (4) they form the nuclei for permanent communities of the future, with justification for believing that they may become important centers of well-rounded—and well-grounded—agricultural and industrial activities.

The Service of the Federal Housing Administration

By PAUL FITZPATRICK, Director of Division of Information, FHA

THE operation of the Federal Housing Administration under the National Housing Act during the past year cannot be accurately reviewed without citing the part it has played in working out reforms in the mortgage business. By the development of a unique system of real property appraisal, it has outmoded the old system of guessing with its high percentage of errors. In rejecting the old method, whereby the values were established as a result of income or replacement cost, the Housing Administration brought into being factors that never before have been considered in judging the worth of land or structures. These include relation of neighborhood to property, trend of city growth, type of structure, suitability to climate, sufficiency of public utilities, level of taxes and special assessments, ade-