

## PARKING TURNOUTS AND WAYSIDE AREAS

A progress report by the Sub-Committee on Parking Turnouts and Rest Areas, presented at the 29th Annual Meeting of the Highway Research Board, Washington, D. C., December 1949.

George B. Gordon, Bureau of Public Roads  
Chairman

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The design and development of roadside areas for use by motor vehicles and their drivers presents a number of problems of interest to the highway engineer, to the traveling public, and to owners of lands adjacent to highways.

The engineer, harassed by high costs of new highway construction and old highway maintenance, often wonders how much expenditure, if any, is justified for off road parking space and driver services.

The motorist, tired by long hours of driving, or forced to stop by serious engine trouble, too often may look in vain for a safe and convenient place to stop off the traveled way.

The owner of farm or residence property along a heavily traveled highway only too often is being provided with an accelerated education in the various forms of trespass by a constantly increasing number of motor vehicles and their drivers. A natural result of this condition is the lengthening wall of wire fences and "no trespassing" signs along main highways in older settled regions. In wilderness areas without development of bordering lands the forest fire hazard caused by travelers parking along the highway is often serious.

A number of States have found that installation of occasional wayside rest areas with water supply and fireplaces will solve most of the problems connected with vehicles stopped along the roadside. This need for adequate turnout and rest area development is increasing month by month. There is for example literally no safe or convenient place to stop off the road shoulders on many hundreds of miles of main highways in the industrialized East or Far West except at commercial establishments which the motorist may have no need or desire to patronize.

A number of State highway departments have made progress in meeting this need for off the road parking space and rest area development. These departments recognize the fact that a certain percentage of motor vehicle drivers, whether traveling for recreation or business purposes, are occasionally forced to or desire to stop off the travelled way. Trucks must be loaded and unloaded, mail must be delivered on rural routes, buses must stop to take on or discharge passengers, and travelers driving for hours at a time must stop to rest. For mutual safety of both moving and stopping traffic, all this stopping and starting of vehicles must be done off the travelled way and most of it beyond the outer shoulder line. The alternative is continuation of present traffic hazards, harassment of tired motorists, and trespass on private property along thousands of miles of primary highways.

The Subcommittee on Parking Turnouts and Rest Areas has approached the analysis of this problem with some trepidation. As plans for roadside rest areas and turnout development were studied and the literature of wayside park and turnout development was reviewed, this trepidation was found to be justified. Photographs of well designed turnouts and rest areas, for example, are not often available. Well designed turnouts and rest areas are located at wide intervals and in only a few States. In many others such off road parking spaces as exist are merely widened shoulder areas that add to an already confusing and dangerous condition of our highway borders.

It should be clear, therefore, that this analysis of the problem of turnouts and rest area design and development is in the nature of a progress report. What could be learned about the problem from available sources will be placed before the Committee. The comprehensive report on Wayside Parks and Turnouts assigned as a Committee report for 1951 must begin where this analysis leaves off.

Background. In the early nineteen hundreds, when motor vehicles began to crowd other forms of traffic off our main highways, the present problems of turnout and wayside rest areas did not exist. Vehicles leaving the early surfaced highways, with their narrow shoulder width and deep ditches, did so at their own risk. Motor vehicles were simply parked wherever the motorist could get off the traveled way. A drive over a primary State highway leading from Sacramento, California, to Lake Tahoe, on a Sunday afternoon in 1938 is recalled; for example. More than a thousand vehicles were seen parked between the highway and the lake and the stream that formed its outlet, along some 20 miles of highway. No turnout or parking space was provided, and tow cars were seen taking away vehicles disabled by driving off the road among the stumps and small boulders.

About 10 years before this, one New England State, Connecticut, had begun developing safety and service turnouts on areas of right-of-way left when sharp curves were relocated. These turnout areas were already provided with smooth all weather surfaces in the form of sections of the old abandoned road. An island usually existed between moving traffic and that parked in the turnout. The only trouble was that most of these "old road" turnouts were not at scenic locations, nor were they always located where safety turnouts were particularly needed. The design, spacing, and capacity of these areas simply had no studied relationship to traffic whatever.

Later, with the advent of the Parkways in Westchester County and on Long Island in New York State, areas for scenic turnouts and for rest and picnic areas, were selected during highway location; were acquired during right-of-way acquisition; and were provided with surfaced driveways, parking space and essential tables, benches, fireplaces, and comfort facilities as part of the parkway construction. These parkways were thus the first major roads designed and developed as complete highways with essential driver services as well as traffic surfaces provided in the original highway design.

As Mr. J. R. Knowland of the California Chamber of Commerce brings out in an article on "Roadside Picnic Groves" in California Magazine for June 1949, at least 16 States have now begun to consider the development of State-wide system turnouts and wayside rest areas on their most heavily traveled roads. Mr. Knowland made a country-wide survey of roadside picnic ground development by questionnaire methods, as a basis for his article. More will be said later concerning his survey.

#### Types of Turnouts and Rest Areas.

A list of types of turnouts, off-road parking spaces and rest areas, will be found in Table I. The development of many of these types involves the use of private, rather than public highway funds. The fact remains that the interests of traffic safety and free traffic movement require close cooperation between private individuals and corporations and the highway departments concerned with this type of roadside development. Reference is here made to "A Policy on Highway Types," published by the American Association of State Highway Officials, page 8, the paragraph on "Parking Lanes." The text of "A Policy on Intersections at Grade," also prepared by the A.A.S.H.O., contains basic design principles of the greatest value in all turnout and off-road parking space design.

Major off-road parking space developments for hundreds of vehicles at stadiums, bathing beaches, drive-in theaters, industrial plants, etc., do not, of course, come within the scope of this report. Such parking spaces involve what is essentially the design of new highway intersections. For example, some drive-in theaters commonly require entrance driveways to accommodate hundreds of vehicles in less than one hour. A series of connected parking spaces at a beach development on Long Island accommodates above 40,000 vehicles. Such parking spaces and the design of the roads leading to and from them, are problems in highway design as well as in parking space development.

#### Types of Turnout and Rest Areas in Relation to Types of Highways.

As will be observed in Table II, the development of the various types of turnouts or off-road parking areas has a definite relationship to the kinds of roads where such areas are located. This general relationship may be briefly outlined as follows:

Heavily traveled highways in suburban localities will usually require bus, safety and service turnouts at points selected to meet existing traffic needs. Such suitable natural park sites as are available on suburban highways will usually be conserved, if the public so desires, by inclusion within City, State or County park systems. Experience indicates that the development of wayside parks on suburban roadsides usually is neither desirable nor usually practicable, by the State highway department.

On primary highways in open country the following types of wayside area development have been observed:

Bus turnouts at carefully studied intervals, as at schools, major road intersections, and the like.

TABLE I

TURNOUTS AND PARKING SPACES OBSERVED  
ON PRIMARY HIGHWAYS OUTSIDE URBAN AREAS

Large Sized Off-road Parking Spaces. (Over 25 vehicles)

- Shopping centers
- Schools, churches, etc.
- Stadiums and athletic fields
- Airports
- Railroad terminals
- State and county parks
- Industrial plants
- Drive-in theatres
- Country clubs - golf courses
- Restaurants and department stores
- Hotels - motels - tourist cabins
- \*Ski-runs on road borders

Moderate Sized Off-road Parking Spaces. (5 to 25 vehicles)

- \*Highway maintenance depots
- Garages
- Service stations
- Small stores - food stands
- \*Wayside rest areas

Small Off-road Parking Spaces. (Usually less than 5 vehicles)

- \*Bus turnouts
- \*Mail box turnouts
- \*Scenic turnouts
- \*Picnic turnouts
- Historic signs and markers

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\*Have been developed and maintained by highway departments.

TABLE II

## SUGGESTED ROADSIDE DEVELOPMENT IN RELATION TO HIGHWAY TYPES

Classification	Description	TYPE OF ROADSIDE WORK - CLASSIFICATION OF HIGHWAY				City Street
		Urban or Rural Interstate	Primary Rural	Secondary Rural		
Conservation	Conservation - trees	x	x	x	-	
	Conservation - shore areas	x	x	x <sup>1/</sup>	-	
	Conservation - sites for waysides	x	x	x <sup>1/</sup>	-	
	Salvage replace - topsoil	x	x	x	-	
Grading	Round cross section	x	x	x	-	
	Obliterate old roads	x	x	-	-	
Erosion control	Mulch, seed slopes	x	x	x	-	
	Mulch, seed other areas	x	x	x	x	
	Sod or surface channels	x	x	x	-	
	Sod culvert inlets, outlets	x	x	x	-	
Traffic service	Surfaced turnouts - bus, mail	x	x	x	-	
	Surfaced turnouts - (safety scenic)	x	x	-	-	
	Footwalks - sidewalks	x <sup>2/</sup>	x <sup>2/</sup>	x <sup>2/</sup>	x	
Driver service	Waysides					
	Driveways	x	x	-	-	
	Parking space	x	x	-	-	
	Comfort facilities	x	x	-	-	
	Water supply	x <sup>3/</sup>	x <sup>3/</sup>	x <sup>4/</sup>	-	
	Tables - benches	x	x	x	-	
	Fireplaces	x	x	-	-	
Shelters	x <sup>5/ 6/</sup>	x <sup>5/ 6/</sup>	-	x <sup>5/</sup>		
Planting	Shade tree planting	x	x	-	x	
	Planting, shrub, ground cover	x	x	-	-	
Tree maintenance	Selective cutting	x	x	-	-	
	Pruning for sight distance	x	x	x	x	
	Pruning - other purposes	x	x	-	x	
	Branch cables - open cavity treatment	x	x	-	x	

## NOTES:

- 1/ - On secondaries carrying more than 1,000 vehicles per day and likely to become primary roads.
- 2/ - Where heavy pedestrian use is to be expected.
- 3/ - Drilled wells or springs.
- 4/ - Good existing springs that can be protected against contamination.
- 5/ - At bus loading points in suburbs.
- 6/ - Usually required only in localities with frequent and heavy rainfall or desert areas without shade in open country.

Scenic turnouts at crests of vertical curves, outside of horizontal curves, at stream and lake shore sites, etc. These are usually located at points where traffic would tend to stop were no driveways or traffic separation islands or other facilities provided. Many of these turnouts as now installed are simply widenings of shoulder areas.

Picnic tables and benches are being provided in many Eastern States where turnout space for one or two vehicles is available. As pointed out in Mr. Knowland's article, previously mentioned, the State of Michigan reported that eventually all picnic tables in that State would probably be included in strategically located wayside rest areas, provided with water supply and comfort facilities. It is evidently being found that the scattering of large numbers of isolated tables and benches is not the final answer to the rest area problem.

Wayside areas. A number of States now provide a system of State-wide wayside parks and rest areas located on heavily traveled roads between centers of population. These are usually from 1 to 3 acres in size and are completely equipped for day use by motorists. Michigan, for example, expects to have eventually between 500 and 600 such areas. Ohio has more than 300 now in operation. Larger wayside rest areas are acquired in certain Western States where desert and badlands country renders land values negligible for agriculture or other intensive land use.

On lightly traveled primary or secondary highways, minor turnouts at mail boxes, and loading points for farm or forest products are frequently observed. These areas are usually a mere widening of the shoulder area and involve no service facilities of any kind.

#### Regional Problems of Off-Road Parking Space Design.

It may be of interest at this point to record regional variations of this turnout and rest area problem, observed in the field.

Pacific Coast region. Here the States have provided numbers of scenic turnouts at points where fine views are available, particularly along coastal and mountain highways. One State has a policy of acquiring outstanding large wayside rest areas without facilities other than parking space and occasional drinking water. Another provides a few State-owned forested roadside areas, also without facilities. A third State highway department has developed a series of well-planned State parks along its coastal highways, and administers them through a Parks Division of the highway department. The article by Mr. Knowland in California Magazine points out a correlation between frequent man-caused fires on range and forest lands adjoining main highways, and the lack of a system of completely developed wayside rest areas in California. Competition for tourist travel, says Mr. Knowland, would justify Statewide systems of such roadside parks where these are not now in existence.



Intermountain and Rocky Mountain regions. Montana, some years before the war, installed a series of roadside parks at "ports of entry," where traffic crosses the State line. These "parks" feature an information service building with parking space, water supply and comfort facilities. Wyoming, Idaho, Colorado, New Mexico and Arizona have installed a few scattered rest areas and scenic lookout points usually in the form of a widened shoulder area are frequent in mountain country. An interesting type of shelter building in Arizona was observed at outstanding scenic viewpoints on a main highway. Here shade was provided by a shelter with a roof of poles, on turnouts where planting or the growth of shade trees was impossible. Nevada has a few well equipped roadside rest areas. One rest developed for fishermen was seen along the Truckee River. Another park, not far from Reno, provided complete facilities except for water supply. Here a large banquet table was provided on a hillside with a view of the Continental Divide. Parties of 50 or more used this area for picnic suppers. Colorado provides occasional turnouts with a supply of water on ascending grades at high altitude. Here radiators frequently boil over, and without water a vehicle is disabled.

The best potential rest areas in these States are in high mountain country, or along streams in canyons, where groves of cottonwoods provide beautiful and well-shaded settings. Utah has a series of such canyon parks in the Wasatch Mountains outside Salt Lake City.



Figure 1. The "Bandit Rocks" a wayside rest area in the Pacific Mountain region, entrance to left. A superb natural setting but no water, tables, fireplaces, or comfort facilities were available when this photo was taken. As one State highway department spokesman says, "We cannot continue to operate roadside parks unless complete driver service facilities are provided."



Figure 2. Site for a scenic turnout--Rocky Mountain region. Bumper rails to protect vehicles, and a separating island, will be needed here to make this excellent turnout site safe for public use.



Figure 3. Scenic turnout on a widened shoulder area--Rocky Mountains. Bumper rails or stone curbs, and a traffic island to separate standing vehicles from moving traffic might add to the safety of this turnout.



Figure 4. Turnout in a river canyon of the Inter-montane Plateau region. Selective cutting needed here to open view of stream to the right.

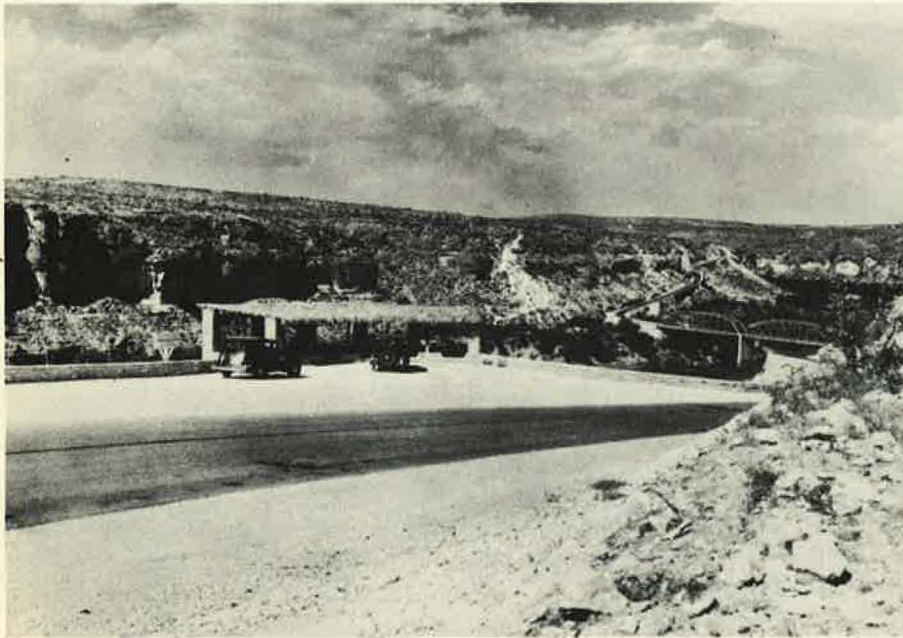


Figure 5. A ramada, or pole shelter in a turnout area in southwestern Inter-montane Plateau country. There is a fine view from this area. A separating island would improve traffic circulation and increase safety.



Figure 6. A wayside rest area in the southwestern Interior Plains region. Note parking space, ramadas, and cooking facilities. Wells and hand pumps or windmills are frequently provided in these areas in the southwest.



Figure 7. Turnout on a highway in the southern Interior Plains region. Note tables and benches and parking space. Rising grade at exit point to road and apparent lack of sight distance would appear to introduce a traffic hazard here.



Figure 8. Wayside park in Atlantic Plain region (Texas). Note circulatory road with individual parking spaces for vehicles with nearby table, bench, and fire-place units.



Figure 9. Wayside rest area Interior Highlands region (Missouri). Note facilities provided for parking, and types of table and bench units.

Texas has some 800 roadside parks and picnic turnouts in operation. It is reported that larger roadside rests are located about midway between county seats. In west Texas, windmill pumps and well water are an essential feature of the larger roadside parks. This is a country where water for vehicles and drivers is at a premium.

North Central States. Michigan and Minnesota have State-wide systems of wayside rest areas, Michigan particularly having pioneered in this field, together with Texas and Connecticut. Lake shore areas are particularly favored as sites for rest areas here. Michigan reports some 2,400 individual picnic tables, with 56 major "roadside parking areas." Ohio is another Central State with an outstanding system of roadside parks, some 300 of these areas now being operated with complete facilities for driver service. The State estimates that 7,250,000 persons used these rest areas in 1948. Indiana is known to have had 40 roadside parks in 1941, many with complete driver service facilities.

Gulf and South Atlantic region. The subcommittee lacks information on this phase of roadside development in the Gulf States region. It has recently been learned, however, that Mississippi has a program for State-wide roadside park construction on an experimental basis. Georgia has a few outstanding small State parks provided with off-road parking space and rest area facilities.

Middle and North Atlantic States. As highway traffic increases in density near the larger centers of population in the East, the need for safety and scenic turnout areas and wayside rest areas increases in proportion. Some States, including North Carolina, Virginia, Maryland, West Virginia, Pennsylvania and others, are to some degree attempting to meet this need. The big stumbling block in development of turnout and wayside rest areas in this region lies in the field of right-of-way acquisition. Land values, particularly along major highways, are increasing at an accelerated rate. Once a highway has been constructed, acceptable wayside rest area sites in intensively developed country are rapidly pre-empted by gas stations and other business developments. Only in relatively remote localities on main roads in the East can rest area sites be acquired at reasonable costs, except when turnout space is acquired as a part of original acreage acquisition for highway construction purposes. A few years ago, for example, Pennsylvania passed legislation<sup>1/</sup> calling for a system of roadside rests on existing highways. Difficulty in the acquisition of sites has been a severe handicap in carrying out the intent of this legislation. Many of the best turnout and rest area sites are now too valuable for gas station or other business use to be purchased by the highway department on existing highways.

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<sup>1/</sup> - LAWS OF PENNSYLVANIA, Session of 1945, No. 401, AN ACT "providing for construction, erection and maintenance of roadside rests adjacent to State highway routes ....." and amended in 1947.



Figure 10. Wayside rest area, Atlantic Plains region (Florida). Note lack of curb or bumper rails to control placing of parked cars. In any but this deep sandy soil, the driving of vehicles over tree roots would in a few weeks probably destroy all trees on the area.



Figure 11. Small turnout southern Atlantic Plains region. Note permanent type of table and bench installation. Small areas of this type are usually provided with movable tables and benches so that areas can occasionally be "rested" to avoid serious damage to trees and turf by passage of vehicles over root systems.



Figure 12. Scenic turnout on a Minnesota Trunk Route in the Interior Plains region. Note island separation and masonry curbs and sidewalk. This area will not be readily damaged by heavy use.



Figure 13. Turnout and drinking fountain, Appalachian Highlands, West Virginia. It has been found difficult to protect roadside springs against contamination. Wells appear to be the safer source of water supply.



New England. Despite outstanding scenic advantages and heavy tourist traffic that would indicate a need for emphasis on turnout and wayside development, the New England region in general has few and widely scattered roadside rest areas or service and scenic turnouts. Connecticut, and to some extent, Rhode Island, foresaw this need many years ago. New York has, in recent years, developed a large number of small turnouts equipped with tables and benches for picnic purposes. In 1947, after about a thousand miles of driving over Northeastern highways, one wayside park was found in New Hampshire. This was a beautiful area in a 50-year old white pine plantation on a State park. The State Park Department maintains a headquarters building here at which a caretaker lives throughout the summer tourist season.

At the New England Highway Exposition in Boston in October, a public meeting was held to discuss roadside development in Massachusetts. A number of motorists expressed a hope that more wayside rest areas would be established in the very near future in Massachusetts. Connecticut was highly praised for its driver service areas, by representatives of the traveling public and highway organizations alike.

### Elements of Turnout and Wayside Rest Area Design and Construction

Having drawn a perhaps too general picture of the turnout and wayside rest area problems we arrive at the \$64 question: How can we obtain adequate systems of well-designed areas for these essential off-road parking purposes? We might begin by roughly analyzing the basic elements of turnout and rest area design.

How many turnouts are needed and of what types? As with all highway design problems, this one begins with a study of present and potential traffic and prevailing use of bordering lands on the highway along which the off-road parking areas are to be provided. Studies by the Indiana State Highway Department, for example, indicate that from 1 to 5 percent of the total traffic tends to stop on well-designed roadside rest areas. Contrary to a prevalent idea, turnouts are as badly needed on predominantly commercial routes as on highways carrying largely recreational traffic. Certain off-road parking spaces on a Virginia highway for example, were found to be in constant use by drivers of trucks and trailers carrying food and supplies to nearby cities.

Site selection. Experience indicates the following points regarding site selection. Good off-road parking sites are likely to be:

1. Readily accessible from the traveled way. Grades steeper than about two to three or four percent on driveways leading to or from off-road parking spaces are not usually considered safe.
2. Well drained and requiring relatively little grading and excavation.
3. At a distance from towns or villages. Experience indicates that turnouts or rest areas near towns are usually pre-empted for local rather than traffic use.
4. Provided with existing shade. Even in a dry region, cottonwoods occur near stream and lake shores. Fine groves of trees are usually excellent parking area sites in all regions.



Figure 14. Wayside rest area between two highways (Rhode Island). Maintenance of areas of turf broken up by groups of shrub planting like this may be difficult and costly.

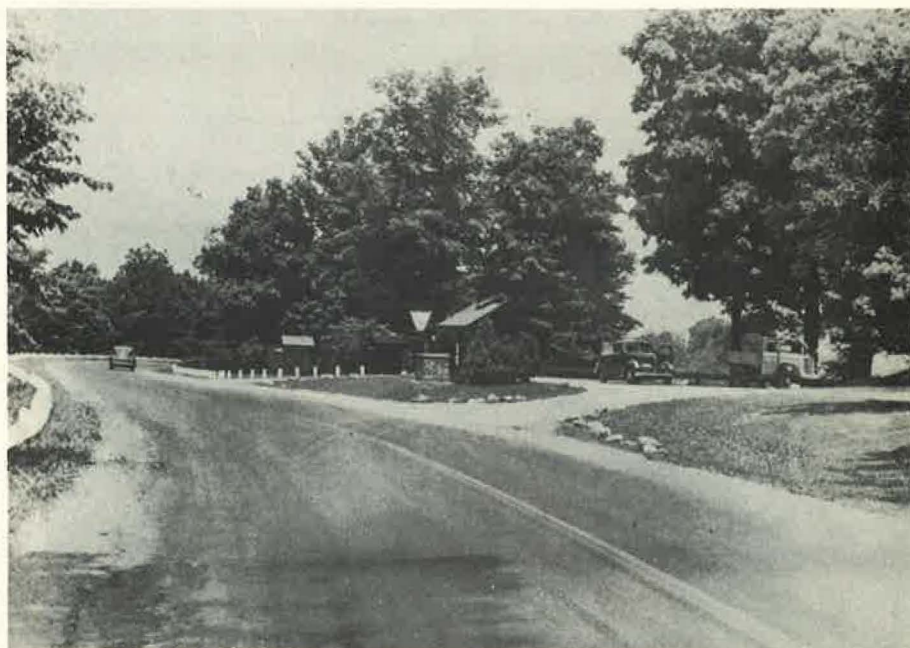


Figure 15. Rest area, Central Lowlands region (Ohio). Note typical pump house, traffic island, and parking space. Ohio has several hundreds of these areas, greatly appreciated by the public.



Figure 16. Wayside parking space, Appalachian Highlands region (Virginia). This rest area is much used by all-night drivers of trucks and trailers on a route with heavy commercial traffic.



Figure 17. A dangerous turnout area. Note short sight-distance at entrance and exit points, and steep driveway grades.

5. At points where fine views, existing drinking water, lake or stream shores or other natural features exist. Turnouts or wayside rest areas with features like this are popular with the motoring public.

6. At points where entrances or exits are clearly visible for several hundred feet in each direction.

7. At points where parking space development and public use will not interfere with or detract from the value of adjacent lands for private use. For example, a turnout along a wheat field or apple orchard would be considered a hazard to farmlands and crops.

Development of the site. Essential details of turnout and wayside rest area design include:

1. Adequate safe driveways with surface equal to that of the traveled way. On heavily traveled highways, acceleration and deceleration approach lanes are a wise precaution against traffic hazards. New York State, for example, provides about 300 feet of stabilized shoulder area for use as a deceleration lane at the approaches to some of its turnout areas.

2. Proper island separation between moving traffic on the traveled way and standing vehicles within the rest area or turnout.

3. Adequate bumper rails or curbs to control vehicles and prevent damage to existing trees and ground cover within the roadside rest area.

4. Proper footwalks and footbridges as necessary for use by the public. In regions where range cattle are a problem, adequate fencing of turnout and wayside areas is essential.

5. Various types of tables, benches, fireplaces and comfort stations and shelter buildings are described in "Park Structures and Facilities," a publication issued by the National Park Service. An equivalent book describing types of fireplaces and camp stoves is issued by the U. S. Forest Service (see list of references appended).

6. West of the 99th meridian, water supply is a difficult problem, and all major wayside rest areas must probably be provided with wells, pumps, etc. A study by the Committee of water supply facilities adapted to use on roadside areas would be of great value in the general report to be prepared for 1951.

#### Easy Maintenance Important.

One of the chief objections to many wayside rest areas in past years has been the difficulty of keeping them in clean operating condition. Contamination of drinking water is sometimes difficult to avoid. The public is often given to untidy habits as observation of picnic areas in most States will disclose. One of the greatest problems still to be solved is that of foolproof rest area design that will reduce maintenance of rest areas to reasonable amounts.

### SUMMARY AND CONCLUSIONS

We may now summarize information known to the Subcommittee on Parking Turnouts and Rest Areas at the time of preparing this progress report.

1. Turnouts and rest areas are a growing need, particularly in heavily traveled suburban and rural highways. These roadside improvements are necessary to provide safe parking space off the traveled way for (a) loading and unloading busses and trucks, (b) scenic and safety turnouts, (c) places where travelers can rest and eat; and to prevent growing trespass by the traveling public on private property, with the resulting strong trend towards posting of land and fencing against trespass by the traveling public.

2. Turnouts designed primarily for loading and unloading of bus passengers, mail and agricultural and forest products are needed on heavily traveled highways. In suburban areas, the bus turnout is of particular importance. In some metropolitan areas new freeways have been observed that have apparently ignored this primary need in their original designs.

Turnouts designed for the above traffic services, and larger wayside rest areas for driver comfort and service are both considered as necessary for heavily traveled highways in open country.

3. Highway departments are not, of course, properly responsible for development of off-road parking space under private or public ownership, where such development is designed for large crowds and numbers of vehicles. Highway authorities will, however, necessarily cooperate with private operators and take the lead in design and development of the entrances and exits of larger off-road parking spaces, as a safeguard to highway traffic.

4. Highway engineers are properly responsible for the design and development of types of turnouts and wayside rest areas described in this report. Wayside rest areas should be provided with complete facilities for driver services, as far as such development can be carried out on well selected, adequately designed areas of from about 1 to 3 acres.

5. Wayside rest areas and turnouts should be designed to meet the particular traffic, climate, topographic and land use conditions in each highway region.

#### Problems Requiring Further Study and Research.

Experience has not yet demonstrated the design relationship between density of traffic and number and capacity of wayside rest areas and turnouts.

We do not yet fully understand the peculiar requirements of design for (a) commercial and (b) recreational types of traffic.

Much work is needed in proper design of facilities for wayside rest areas for both of these two types of traffic. For recreational types, existing wayside facilities designed by such States as Connecticut and Michigan should be studied by the Committee on Roadside Development together with those on State and National Parks and metropolitan parkways.

Photographs and typical layout plans for wayside rest areas and turnouts now in use are requested by the committee for use in the comprehensive report planned for 1951.

Many States still require legislation to authorize roadside rest area development, and land acquisition for such purposes. Many States depend on gifts of land for rest area development. Various ways of acquiring right-of-way, are used by the States.

There is a strong feeling on the part of the Project Committee that right-of-way for turnout and rest area development must be acquired before highway construction or reconstruction. This implies that driver service facilities should receive the same careful consideration in highway design in future years as traffic service facilities do receive at present.

This thought is, in fact, the main reason for this report. We cannot continue to design highways as though they were traveled by vehicles driven by automats "wired for light, speed and sound." The motorist, as highway departments are learning, needs a place to stop in safety as well as traffic lanes on which to drive his vehicle.

In conclusion, the Project Committee on Parking Turnouts and Rest Areas fully recognizes the fact that it has not adequately covered the subject of this preliminary report. Comments and suggestions by highway engineers interested in this parking and rest area problem, are requested. We shall particularly appreciate suggestions regarding special regional aspects of development of off-road parking space under the special traffic and land use conditions on varying regions of the country. Above all, the committee suggests that, like other phases of roadside development, these turnout problems will only yield to the collaborating effort of engineers of design, right-of-way, construction, and maintenance with the landscape engineer who in the long run can do very little without such team work.



Figures 18 and 19. Various types of signs are used at points a half mile or more away from wayside rest areas, and at entrances to such areas.



Figure 20. Shelter building on a wayside rest area in Minnesota. An excellent and well constructed feature, located on a hillside above, and out of sight of the road.



Figure 21. Early type of wayside rest area, northeastern Appalachian Highlands region. Log structures of this type are subject to decay, and are a hazardous feature not usually to be recommended for roadside installation.



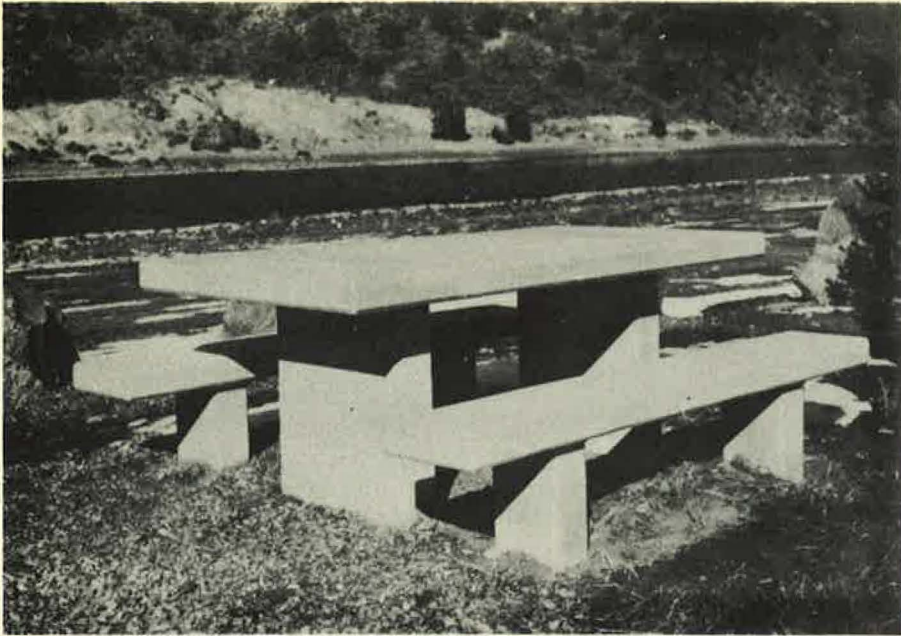


Figure 22. Concrete table and bench--durable, but uncomfortable in use.



Figure 23. Heavy timber table and bench. Creosoted where it meets the ground.  
Excellent in design, except for stubs on cross pieces that are a hazard to clothing.



Figure 24. Brick is not usually the most appropriate of materials for roadside rest areas.



Figure 25. Close-up of typical pump shelter (Ohio).



Figure 26. A roadside fireplace, costly, bordering on the grotesque in appearance, and requiring too much fuel for economical use. Note excessive bulk of chimney and over-large fire compartments, out-of-scale with parklike surroundings.

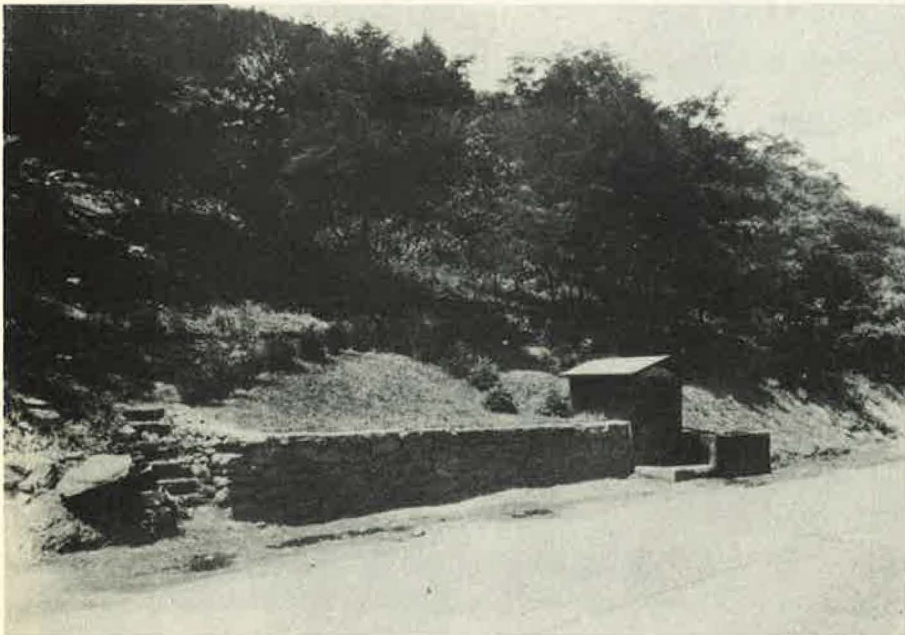


Figure 27. Local stone, where available, is usually to be recommended for roadside rest area structures.



Figure 28. Order in arrangement of driver service facilities is essential. Lack of orderly arrangement is evident here.



Figure 29. The essence of good wayside rest area lies in orderly control of vehicles by appropriate barriers of local timber or stone. A restful atmosphere results from the studied relation between vehicles, fireplaces, tables and benches and other service facilities shown here.

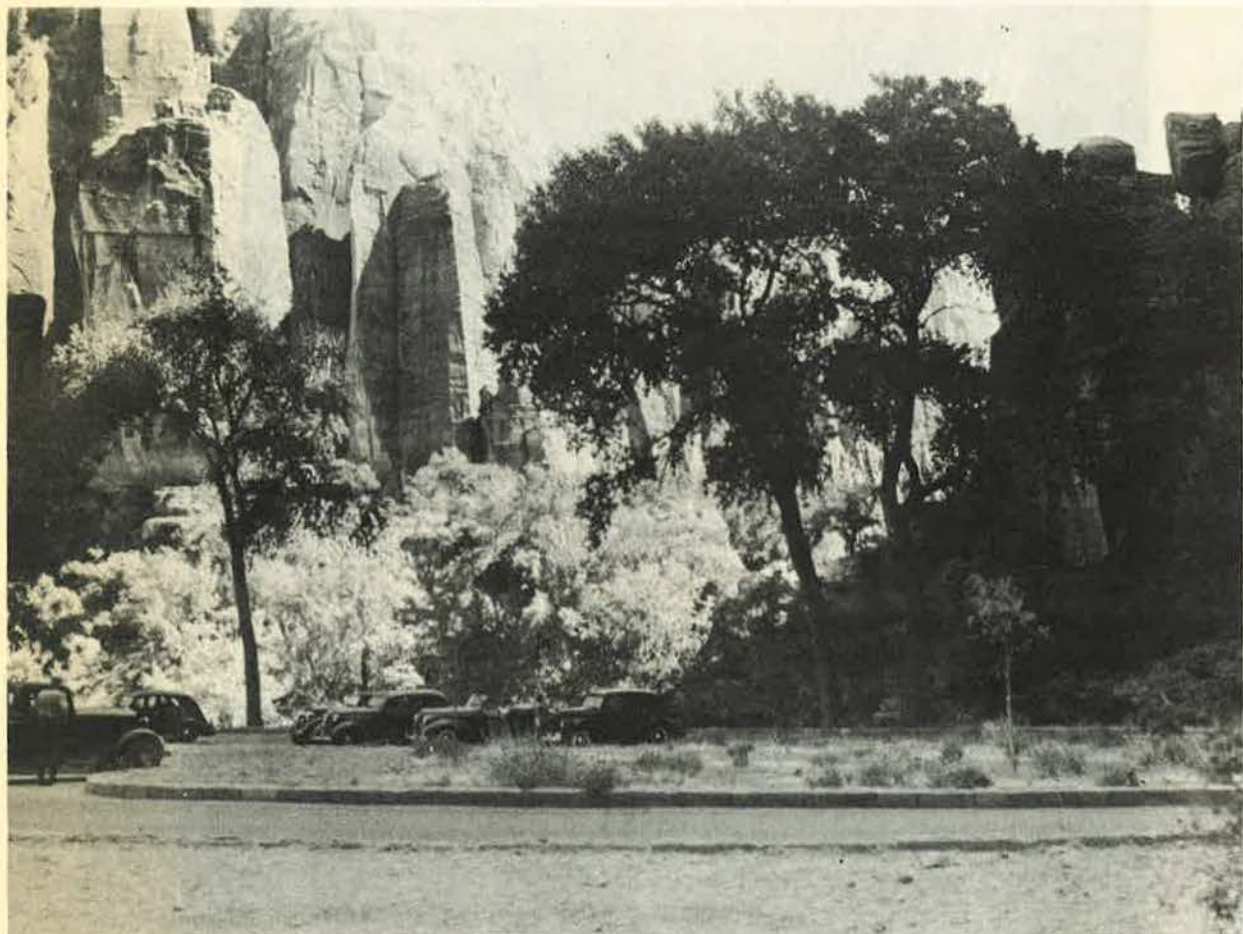


Figure 30. A parking area at this terminus of a road in Zion National Park. The silence of the cliffs, the shade, and the safe and orderly control of vehicles by the designer of this place are not soon forgotten by the traveler.

COMMENTS ON SUBJECT OF TURNOUTS AND WAYSIDE PARKS

Mr. Waters, Division Engineer, New York: What did that small park in Ohio, shown on the slide, cost to develop?

Mr. Garmhausen: Average cost of these Ohio roadside parks (with wells, tables, benches, fireplaces and comfort facilities) is about \$3,000.

Mr. Slack: Will the Federal Government participate in roadside park development on old established highways?

G. B. Gordon: The selection and development of a single roadside park might be open to question as regards use of Federal-aid highway funds. Roadside parks developed as part of a complete highway development covering several miles of highway construction or reconstruction would be considered eligible, as provided in the March 22, 1946 memorandum to Division Engineers covering roadside improvements on Federal-aid projects.

Why not submit one of these projects including a wayside park development to your District Engineer. Then you will find out the answer to your question as regards that type of highway construction.

H. J. Neale: Any other questions?

M. A. Mendel: We have eliminated many springs as sources of water supply in our roadside parks. Wells are the present solution of this problem. We cannot keep springs clean. Speaking of roadside parks near centers of population, we find in West Virginia that maintenance costs increase greatly as you approach towns.

H. J. Neale: On one of our waysides we drove a well 235 feet deep. It was contaminated. We had to install chlorination equipment.

Mr. Wilson, Pennsylvania State College: Mr. Gordon questioned the development of roadside parks for recreational purposes. One of the present definitions of a highway is "a strip of land devoted to transportation and recreation." There is an increasing trend toward development of both scenic and recreational features along highways. The Ohio Act sanctioning roadside parks mentions considerations of the "safety and convenience of the public." The Michigan Act speaks of recreation as one of the purposes of roadside park development. Perhaps the real question is in the definition of the word recreation.

G. B. Gordon: You are quite right there, Mr. Wilson. There are, I might add, two kinds of recreation defined as active and passive. Passive recreation, resting, eating and viewing of the countryside is a main purpose of roadside park development. Turnouts, parking spaces and driveways in connection with athletic fields and stadiums are not uncommonly a part of normal highway development, but the facilities for such active recreation as softball, tennis or golf, are not properly, I believe, to be developed in any part of a highway right-of-way. Such activities usually interfere with the rest and normal safety functions of roadside park development.

As one State highway department puts it, "it is not up to us to provide facilities for large crowds of people."

Mr. Wells: I would like to add that there are many important safety factors in turnout and roadside park development. For example, the selection of a site, a safe place for vehicles to stop, avoid inside of curves and places where sight distance is short. Barrier strips are needed between the traveler and standing or moving traffic.

Sites should be selected where all parts of the area are visible from the traveled way. Deceleration and acceleration lanes should be provided at park entrances. We install a 300-foot length of stabilized shoulder particularly on the approach side.

G. B. Gordon: In my brief outline I failed to bring out the point that safety factors and considerations will be covered in our preliminary subcommittee report.

Mr. Slack: We have found in Louisiana that, as Mr. Mendel says, it does not pay to develop wayside parks near a town. After a town spreads out we have no roadside left.

H. J. Spelman: The first thing needed (in all roadside development) is stability of your right-of-way. A permanent highway location is the first requirement. A fairly permanent (roadside park) location is also necessary.

#### REPORT OF PROJECT COMMITTEE ON ROADSIDE EQUIPMENT

W. J. Garmhausen, Chairman  
Chief Landscape Architect  
Ohio Department of Highways

The following compiled data and photographs will serve to explain the mechanism and use of new roadside equipment. Your questions and suggestions for the use and promotion of mechanized equipment in roadside development and maintenance will be helpful and welcome. Please contact any of the members of this committee, so that we may benefit and also pass on to others, information concerning roadside equipment and maintenance.

##### 1. Power Sod Cutter (Picture 1-2)

It is powered by a 5.8 h.p. twin motor built by D. W. Onan, Minneapolis, Minnesota. The transmission, consisting of ballbearing and a spur gear, is completely sealed in gear oil. It has an enclosed ballbearing eccentric drive which oscillates. The cutting blade is driven by two V-belts. Special knee action enables the machine to follow the contour of the ground, cutting even sod in rough ground. The machine is guided by a man walking behind it. He operates levers which control the progress of the machine and the cutting blade. The cutting blade is adjustable to any depth while the machine is in operation. The machine weighs approximately 300 pounds. Its use is as a sod cutter and its cutting capacity is up to 1,000 yards per hour.