INTRODUCTION

I may be the new “kid” on the block as far as the Indiana Department of Highways (IDOH) is concerned but that doesn’t mean I lack of experience in the highway field. Being a former county commissioner, I have experienced the same problems and decisions present county commissioners now face in planning a good county road program. To develop and maintain a good county road system, there is a need to stretch your local road dollars as far as possible. The use of federal-aid highway dollars to the maximum extent can assist the county but there should be a sound long-range planned program. County commissioners have the same responsibility to develop a planned short-range and long-range road program as the IDOH—except it would be on a smaller scale.

To get the most out of the road dollar and to provide orderly improvements for the total county road system requires patience, perseverance and above all it requires a plan. Many commissioners point to the frustration of being caught between increased demands and insufficient road funds as the reason why county road planning lags. Yet, when funds are limited there is even a stronger argument for better county road planning, for getting the most out of the road dollar, for avoiding costly errors and for better overall county road management.

OBJECTIVE OF COUNTY ROAD PLANNING

The objective of county road planning is to provide a network of county roads that will accommodate all the traffic needs—safely, efficiently and economically. To achieve this end-result requires a continuing collection of facts and information about the county road system, including its condition, traffic use, needs and costs. Because all of these items are subject to change, county road planning must be a continuing process, which seldom ever reaches a terminal point where it is finished.

PLANNING ELEMENTS

Determining the improvements needed (needs), and the order in which the improvements are made (priorities), are basic goals in developing a planned road program. However, certain basic standards must be established and certain items of information collected in order to
measure needs and set priorities. The standards and information needed are planning elements which allow the planning effort to proceed in an orderly and logical sequence. These planning elements are:

1. Road Numbering and Marking
2. County Road Inventory
3. Functional Classification of Roads
4. Geometric Standards for County Roads
5. Traffic and Accident Records
6. Rating County Roads and Bridges for Condition

All of these items should be reviewed and updated annually. However, it should be noted that the first four elements listed above change rather slowly once the original determination has been made. The last two elements “Traffic and Accident Records” and “Rating County Roads and Bridges for Condition” often change from year-to-year and therefore need to be up-dated annually.

SETTING PRIORITIES AND MATCHING AVAILABLE FUNDS

How does one develop a planned road program? By setting priorities and matching available funding in a systematic plan derived from the collection of road data. Setting priorities is simple in principle but one of the most difficult and frustrating decisions to be made. The problem lies with the fact of the present road system conditions that the demands for improvements usually exceed available funds; this situation often provides relief for a very small group of problems; while leaving a great number of otherwise justifiable requests unsolved. True, these hard-line decisions of what-comes-first often draws criticism; yet this is one of the main planning functions—to set policy; to up-grade the total county road service; and to get the most out of the road dollars available. In an effort to satisfy pressure groups, counties have all too often used standards that would stretch the road dollar rather than standards that would produce long-term benefits.

Development of a short-range (one year) and long-range (five to ten years) road plan is simply a matter of matching the list of priority projects and corresponding needs against the funds available for road improvement. The plan must be matched to available funds. Therefore, there is a need to estimate the yearly incomes for the road program. Available funds are, or can be, derived from the following sources:

1. PRIMARY SOURCES OF FUNDS
   A. Motor Vehicle Highway (MVH) Funds
   B. Local Road and Street (LRS) Funds
   C. Cumulative Bridge Funds

2. SECONDARY SOURCES OF FUNDS
   A. Federal-Aid Highway Funds
   B. Federal Revenue Sharing Funds
C. County Excise Surtax and Wheel Tax  
D. Carry-Over Funding from Previous Year

The maintaining of good road department records will assist in the development of the road program both for the short-range and long-range plan. The history records that should be maintained relate to the cost of operating the highway department such as:

1. Personnel Costs  
2. Contractual Costs  
3. Supply Costs  
4. Material Costs  
5. Overhead Costs (Fringes, Insurance, etc.)  
6. Properties Costs (Land, Equipment, Buildings, Road and Bridge Improvements)

PROCEDURES FOR A PLANNED ROAD PROGRAM

In assembling the planned road program, take into account the following items:

1. Based on department records, project costs for personnel, contractual costs, supply costs, material costs, and overhead costs. Take into account inflation factors for succeeding years. The department's responsibility for general road maintenance and traffic services makes it necessary to satisfy the budget requirements for salaries, personnel, equipment needs and operating expenses ahead of an improvement program. Likewise, the budget requirements for a minimum-level maintenance program must be satisfied ahead of the improvement program.

2. Determine the funds remaining that can be used for a road improvement program.

3. Determine if a change in the work-methods and/or personnel-organization of your highway department would produce more and better road improvements with the available dollars.

4. Develop road improvement needs from your road and bridge inventory. Estimate the costs for each needed improvement.

5. Prioritize the road improvement needs.

6. Select projects to be funded with federal-aid highway funds. Estimate the costs for both the federal and local share and the time periods the costs will occur for the preliminary engineering, right-of-way, and construction costs.

7. Determine if the one-year program is a reasonable balance between construction and maintenance.

8. Determine if projects selected for construction are based on need as measured by road classification, traffic counts, hazardous locations, etc.
9. Determine if selected projects have a reasonable balance as to location and type of project with the available funding.

10. Does the program include road safety improvements such as road and bridge signing?

**Long-Range Program**

A federal-aid highway project will normally take from three years to six years for completion from the time you include the project in your plan. The time period is dependent on the type and complexity of the project. Budgeting and planning to account for the local match requirements means P.E. costs the second year, right-of-way costs the third or fourth year, and construction costs the fifth or sixth year. If you are planning multiple federal-aid projects phasing during different years, the different phasing costs must be accounted for each year in the long-range program. Think about it as encumbering funds in the future so as to systematically progress your projects. Don’t be caught short later and not be able to advance a project because of a failure to account for the future costs.

**Short-Range Program**

Develop a planned program on a yearly basis for county needs and priorities taking into account the yearly needs (expenses) in developing the long-range program. Some years may require carrying over funds to meet the next or succeeding year funding requirements. It is necessary to balance the available funds of different categories with an overall view of the total county highway program. Don’t get tunnel vision and see the trees when you should see the forest.

**Annual Review**

Short- and long-range programs should be reviewed annually and updated as needed. New projects need to be brought into the plan as others are completed. Remember, when committing to a federal-aid program using federal funds, county commissioners are not only committing themselves to the program and selected project(s) but may be also committing future county commissioners to the project(s). Repayment of federal funds will be required if a project is not constructed. Select projects on the need of the county for the best benefit to the citizens of the county and monitor the progress of a project if outside firms are developing the project.