District Multi-Year Work Plan Guidelines

June 7, 2006

District Multi-Year Work Plans - Guidelines

I: Introduction

A. General

Ellis, the department's Web-based project management system, contains the contracted portion of ODOT's long term plan for maintaining ODOT's assets. The District Multi-Year Work Plans are a subset of this long term plan. The goal of the District Multi-Year Work Plan is to develop a fiscally constrained work program that assures safe, reliable, efficient and accessible, travel conditions, while maintaining bridge and pavement assets at agreed upon performance levels.

Each District Multi-Year Work Plan consists of a listing of rehabilitation and maintenance projects and an evaluation of current and forecasted system conditions.

Development and maintenance of the District Multi-Year Work Plans requires a collaborative effort between the district Planning, Production, Highway Management and Business and Human Services administrations. This process identifies priorities and coordinates work efforts between administrations.

ODOT's Program/Funds Management Committee, responsible for recommending policies involving the allocation of capital funds and the administration of all Highway capital programs, will use the Districts' Multi-Year Work Plan systems conditions forecasts and the State of the System report as the basis for establishing system condition goals and funds allocations. **It is very critical that the Districts maintain an up to date Multi-Year Work Plan and forecast of conditions.** * Reference Section II. F. System Goals - pg. 8

The Office of Systems Planning and Program Management will act as the administrator of the District Multi-Year Work Plans. On a monthly basis they will provide a summary of each District's system conditions. On a quarterly basis the office updates the Work Plan webpage with project and systems conditions maps and project lists. The office also responds to special requests from ODOT leadership and outside entities.

Annually, a complete report of the planned projects and system condition assessments will be published. Publication and distribution of this report will coincide with the start of the Departments fiscal year, July 1.

B. Acronyms and Definitions

<u>District Multi-Year Work Plan Team</u>
The District standing team is responsible for working together in maintaining and updating the District Multi-Year Work Plan in accordance with the processes laid out by this guideline. The District Multi-Year Work Plan Team consists of the district planning administrator, production administrator, highway management administrator, work plan coordinator, all county managers, the district bridge expert, the district pavement expert, appropriate business and human resource

staff, and other appropriate staff. Maintenance of the District Multi-Year Work Plan is a collaborative effort.

Bridge Standards

The following bridge condition level factors will be used as goals for state bridges:

Rating Categories	Rating
General Appraisal Rating (GA)	5 or greater is acceptable
Floor Condition Rating (FC)	1 or 2 is acceptable
Wearing Surface Condition Rating (WS)	1 or 2 is acceptable
Paint Condition Rating (PC)	5 or greater is acceptable

These numeric ratings are defined in ODOT's Bridge Inspection manual.

Categories Improved - Incorrectly titled Deficiency in Ellis GQL - Refers to the bridge inspection rating category impacted by a project - If a project is expected to correct a current or projected deficiency(s), the category(s) improved should be selected when entering the project in Ellis. If a project returns a non-deficient rating(s) to an As-built condition, the category(s) improved should be selected when entering the project in Ellis.

Improved PCR - The expected PCR on a pavement section following completion of a project. The Improved PCR figure is entered in Ellis along with the project location and treatment information. This data field is critical to the PCR projection process. Projects addressing less than 1/3 continuous centerline mile typically do not impact PCR. An Improved PCR figure should not be entered for projects less than 1/3 continuous centerline mile in length.

Pavement Policy Systems

All highways governed by the Ohio Department of Transportation are classified into one of three policy systems. The priority system, general system or urban system.

Priority System - 1) All interstate routes, excluding the turnpike.
2) All divided National Highway System (NHS) routes inside incorporated areas with populations of 5,000 or more that have a functional class of 12 (other urban freeways and expressways).
3) All divided NHS routes outside of incorporated areas with populations of 5,000 or more.

General System - Includes all non-priority routes outside of municipalities with populations of 5,000 or more.

Urban System - Includes all non-priority routes within municipalities with populations of 5,000 or more.

Pavement Condition Rating (PCR)
A visual survey of pavement deficiencies, reported on a scale of 100 to zero with 100 being perfect.

Pavement Standards
Pavement Condition Ratings (PCR) below these standards are considered deficient.

Policy Systems	PCR
Priority System	65
General System	55
Urban System	55

Road Inventory
An inventory of the state's roadways that uses a linear referencing system to identify roadway locations and features. The road inventory identifies features such as log points, jurisdiction, section length, system class, etc.

Steady State
A state of relatively low and stable level of deficiencies which are small enough that a predictable rate of preventive maintenance and regular repairs can sustain that level of acceptable conditions.

Work Plan Coordinator
District staff member responsible for assuring the District Multi-Year Work Plan is up to date and accurate.

II. Guidelines

A. Reporting Mechanism/Data Requirements

Ellis is the primary tool for recording and reporting the District Multi-Year Work Plans.

Ellis Business Rules, located on the ODOT webpage under Business Documents, detail data entry requirements and responsibilities.

In accordance with Ellis Business Rules, the Districts record pavement and bridge projects assigning PID numbers, project parameters, improved pcr, treatment categories, treatment types, conditions improvements, cost estimates, project milestone, letting types, etc.

Note: Definitions of Pavement Treatment Categories and Pavement Treatment Types are located on the ODOT webpage - Ellis - Business Documents - Ellis Ref. Materials - Pavement Treatment Types

B. Planning Horizons

PCR projections and projects listed in the District Multi-Year Work Plan should cover the following planning horizons:

PCR Projections

Components	Planning Horizons
Priority System	10 fiscal years of projections
General System	6 fiscal years of projections
Urban System	4 fiscal years of projections

Work Plan Projects

Components	Planning Horizons
Pavement Projects - Priority System	10 fiscal years of projects
Pavement Projects - General System	6 fiscal years of projects
Pavement Projects - Urban System	4 fiscal years of projects
Bridge Projects (District and Major)	6 fiscal years of projects

Planning horizons reflect the minimum requirements in effect at all times. Districts may identify additional years of projects as desired or requested. With the passing of each fiscal year, the Districts will add an additional fiscal year of projects. These projects should be added to the work plan by May 31, each year.

C. Updating the District Multi-Year Work Plan

Annual District Multi-Year Work Plan Updates

Road Inventory Updates

The road inventory is updated on a calendar year basis. Due to processing requirements, the year end results are not available until July. Once the data has been processed, the Office of Application Services updates the PCR Projections and RI State Basic sections of Ellis GQL Model to reflect the current road inventory.

The work plan coordinator should review the data for accuracy and assure roadways have been assigned the proper Policy System designation, etc.

Bridge Condition Rating Updates

The state of Ohio defines a bridge as any structure 10 feet or longer. In accordance with state law, each bridge is evaluated annually by trained inspectors to monitor and record its condition. The inspection includes the bridge's deck, wearing surface, paint, supporting members, piers, abutments, railings, and foundations. A composite rating of these factors, General Appraisal Rating, is also used to provide an overview of the condition of the state's bridges.

Bridge inspections reports are entered into the Bridge Maintenance System by district bridge engineers on an ongoing basis.

Current inspection ratings and a listing of projects, past and proposed, can be acquired using Ellis GQL.

Pavement Condition Rating Updates

Each year, a crew from the Office of Pavement Engineering inspects the state's roadways surveying and recording current pavement condition ratings (PCR).

Non-Interstate Routes

Non-Interstate route surveys are completed from March thru November each year. These routes are completed one district at a time.

As each District's non-interstate route PCR data becomes available, the Office of Application Services will update current year PCR data reported in the Ellis GQL Model. The Office of Systems Planning and Program Management will inform the Districts when the update is completed.

Interstate Routes

Interstate routes are surveyed from October thru December each year. These routes are surveyed one route at a time.

When the results of the entire Interstate PCR survey are complete, the Office of Application Services will update current year PCR data reported in the Ellis GQL Model.

The Office of Systems Planning and Program Management will inform the Districts when the update is completed.

Following the completion of the non-interstate PCR surveys, and **again** following completion of the interstate surveys, the Multi-Year Work Plan Coordinator will:

Step 1 Review current year PCR data for errors and omissions. The coordinator will contact a representative of the Office of Pavement Engineering to resolve questions and concerns.

Step 2 Update the PCR Degradation Rules to reflect changes in degradation rates (if necessary).

Step 3 Assure the impact of Work Plan Pavement Projects are reflected in the PCR Projections. Projects impacting PCR Conditions must have an Ellis Improved PCR, an Actual or Estimated Award Date, a Construction Phase Cd. of 3, Construction Contract Subphase Cd. of 12. The Construction Subphase must have at least one funding event with a committed funding status. The project status cannot be inactive or cancelled (project_status_code not = 3 or 4). Projects addressing less than 1/3 continuous centerline mile typically do not impact PCR. An Improved PCR figure should not be entered for projects less than 1/3

continuous centerline mile in length.

Step 4 Assure the correct Bridge Treatment Category Name, Treatment Name and Category Improved have been selected. The project should have an Actual or Estimated Award Date, a Construction Phase Cd. of 3, Construction Contract Subphase Cd. of 12. The Construction Subphase must have at least one funding event with a committed funding status. The project status cannot be inactive or cancelled (project_status_code not = 3 or 4). If a project is expected to correct a current or projected deficiency(s), the category(s) improved should be selected when entering the project in Ellis. If a project returns a non-deficient rating(s) to an As-built condition, the category(s) improved should be selected when entering the project in Ellis.

Step 5 The Work Plan Coordinator should produce maps and reports that identify existing projects, potential projects, and communicate current and projected system conditions. The District Multi-Year Work Plan Team will use this information to make decisions when updating the Multi-year Work Plan. Suggestions:

- Work Plan Project List
- Work Plan Project Map
- PCR Spreadsheet, PCR Maps, PCR Graphs
- Pavement Deficiency Map and Charts
- Deficient Bridge List and Map

Step 6 Schedule a meeting with the District Multi-Year Work Plan Team.
At this point the District Multi-Year Work Plan Team will meet to:

Step 7 Review maps, charts, reports, and graphs produced in Step 4 above.

Step 8 Determine if the current Multi-Year Work Plan is valid. Did pavements deteriorate as anticipated? Are bridges deteriorating as anticipated? Should any projects be advanced or delayed? Are previously recommended treatments and categories still valid? Are project termini valid?

Step 9 Identify additional needs. Define new project critical elements - termini, estimated cost, section length, number of lanes, lane miles, etc.

Step 10 Evaluate secondary factors. Secondary factors include fiscal constraint, coordination with other projects in the same area, coordination with projects in other districts, areas with the most complaints, unexpected detrimental weather, maintenance of traffic, capacity restraints, coordination of bridge and pavement projects, local participation, OPI - pavement and bridge goals, strategic initiatives, major program manager concerns, desire for “steady state” systems.

Step 11 Using the results from steps 7, 8, 9, 10, and working within budget constraints, update the District Multi-Year Work Plan. This step will include updating project attributes for new and existing multi-year work plan projects. Reminder: Prior to the start of a new fiscal year, you will need to identify and enter an additional year of projects.

As a member of the Multi-Year Work Plan Team, each County Manager will develop a County Work Plan based on existing and projected system conditions, system condition

goals, and scheduled capital projects. The County Annual Work Plans, in conjunction with the Multi-Year Work Plans, will coordinate the efforts of county and contracted work forces assuring the timely delivery of projects and services throughout the state.

In preparation for their annual submittal (Section D), the District Multi-Year Work Plan Team will meet during March or April and repeat steps 6 thru 10 (above).

Note: The District Multi-Year Work Plan Team might find it necessary to meet more often to address changes in the program.

The final list of projects must include a preventive maintenance program. The Pavement Preventive Maintenance Training Manual, PMS GQL Standard Queries and the Managing the General System Report (Draft), all provided by the Office of Pavement Engineering, can be referenced for assistance in identifying projects that are candidates for preventive maintenance.

Projects identified in the District Multi-Year Work Plan shall be fiscally feasible and are not to exceed the available district funding allocations as determined by the Funds Management Committee. Capital program budgets and balance information will be provided by the Office of Finance. Standard GQL queries are also available in the Ellis GQL Model under Program Details/Capital Program Report

D. Annual Submittal

Once each year, the Districts will submit their multi-year work plan. Hard copies of this document should be distributed to the District Deputy Director, District Administrators, County Managers and the Office of Systems Planning and Program Management.

An additional electronic copy of the District work plan will be transmitted to the Office of Systems Analysis Planning. The Office of Systems Planning and Program Management will combine all twelve District work plan submittals into one document. This document will be distributed to the Director, Assistant Directors, District Deputy Directors, District Administrators, and various other Central Office staff members.

Due Date: June 30
To: Office of Systems Planning and Program Management
Contents:

District Multi-Year Work Plan

Systems Analysis - The systems analysis should include a description of current conditions, recent accomplishments, the District's strategy for maintaining/and or improving their bridges and pavements, and a summary of future bridge and pavement projects. The analysis should indicate whether or not the District will achieve it's bridge and pavement goals. Reference Sample Format - Section IV page.

Safety and Congestion Annual Work Plan - High crash and highly congested locations to be addressed statewide. In addition the work plan includes highway safety program locations. Reference Sample Format - Section IV page 16
County Annual Work Plan
District Multi-Year Work Plan Project List* - A list of projects covering the required planning horizons.
Deficient Bridge With Projects List* - A list of deficient bridges and projects scheduled to address deficiencies.
Policy System PCR Graphs* - Graphs displaying the percent of lane miles in various PCR ranges.
Project Map* - Map of projects covering the required planning horizons.
Deficient PCR Map* - Map identifying deficient pavements.
Bridge Deficiencies Map* - Map identifying deficient bridges and projects correcting these deficiencies.

* **Required in the hard copy** submittal but **not in the electronic transmittal** to the Office of Systems Planning and Program Management - The document combining twelve district work plans will not contain a project list or deficient bridge list.

The project list and deficient bridge list can be generated using queries located in the at O:\Planning\Multi Year Work Plan Guidelines\2006 MYWP Submittal_Queries. The Maps listed above can be created using GeoMedia work spaces located at O:\Planning\Multi Year Work Plan Guidelines\2006 MYWP Submittal_Maps.

All submittals should be on 8 ½ x 11 paper- hard copy and electronic formats.

E. Training

Administration of the District Multi-Year Work Plans will require familiarity with pavement and bridge management, knowledge of project funding procedures, and the ability to utilize computer programs applicable to the maintenance and analysis of work plan information.

The Office of Systems Planning and Program Management will provide training on the Ellis Asset Management GQL Model. Training for GeoMedia used for mapping is provided by the Office of Technical Services.

F. System Goals

FY2001 Strategic Initiative One established a Departmental goal to reduce priority system pavement deficiencies to 9 percent by FY2004.

Since FY2004, additional goals have been established for priority, general and urban systems pavement conditions as well as bridge conditions.

The Department's Bridge and Pavement Conditions Goals are as follows:

Pavements

Policy System	FY2008 Goal
Priority	90% Acceptable
General	90% Acceptable
Urban	90% Acceptable

Bridges

Appraisal Category	FY2008 Goal
General Appraisal	96% Acceptable
Floor Condition	95% Acceptable
Wearing Surface	96% Acceptable
Paint Condition	89% Acceptable

G. Quality Assurance Review (QAR)

The Office of Systems Planning and Program Management will perform quarterly QARs of the Districts' Multi-Year Work Plans. The QARs will assure fields critical to the work plan are complete

H. Time-line - Reference next page.

District Multi-Year Work Plan - Timeline - *Sample*

Event	Month											
General:	J	F	M	A	M	J	J	A	S	O	N	D
Draft STIP due for public comment												
Road Inventory Updated												
Quarterly Performance Measures												
Safety Annual Work Plan - July 31												
County Annual Work Plan - April 15												
Capital Program Lockdown - Jan 15												
Pavement - Non-Interstate System:	J	F	M	A	M	J	J	A	S	O	N	D
Pavement Condition Rating Survey taken by the Office of Pavement Engineering												
Work Plan Coord. Update PCR Degradation Rules as new data becomes available (if nec.)												
Work Plan Team meets to update Multi-Year Work Plan - **Date based on receipt of PCR data**												
Work Plan Coord. updates Ellis Project List to account for changes in project schedule/list												
Pavement - Interstate System:	J	F	M	A	M	J	J	A	S	O	N	D
Pavement Condition Rating Survey taken by the Office of Pavement Engineering												
Work Plan Coord. Update PCR Degradation Rules as new data becomes available (if nec.)												
Work Plan Team meets to update Multi-Year Work Plan - **Date based on receipt of PCR data**												
Work Plan Coord. updates Ellis Project List to account for changes in project schedule/list												
Submittals:	J	F	M	A	M	J	J	A	S	O	N	D
Annual Multi-Year Work Plan Submittal - Due - June 30												

Attachment H

IV. Sample Format - Annual Submittal

District XXXXX Multi Year Work Plan **June 30, 2006**

Counties: XXXX, XXXX

District Funding Allocations

Allocations (in millions)	FY2007	FY2008	FY2009	FY2010
District Maintenance Contracts				
District Preservation (Pavement & Bridge)				

Pavement

Summary

Pavement System Summary

Policy System	Lane Miles	Truck VMT	Total VMT
Priority			
General			
Urban			
Total			

Policy System	FY2008 Goal	Projected FY2008	Current Status
% Priority System >=65 PCR	90%		
% General System >=55 PCR	90%		
% Urban System >=55 PCR	90%		

Pavement Project Summary

Policy Systems Total

Project Category	FY 2007	FY 2008	FY 2009	FY 2010
Major Rehabilitation - Lane Miles				
Minor Rehabilitation - Lane Miles				
New Construction - Lane Miles				
Preventive Maintenance - Lane Miles				

Priority System

Project Category	FY 2007	FY 2008	FY 2009	FY 2010
Major Rehabilitation - Lane Miles				
Minor Rehabilitation - Lane Miles				
New Construction - Lane Miles				
Preventive Maintenance - Lane Miles				

General System

Project Category	FY 2007	FY 2008	FY 2009	FY 2010
Major Rehabilitation - Lane Miles				
Minor Rehabilitation - Lane Miles				
New Construction - Lane Miles				
Preventive Maintenance - Lane Miles				

Urban System

Project Category	FY 2007	FY 2008	FY 2009	FY 2010
Major Rehabilitation - Lane Miles				
Minor Rehabilitation - Lane Miles				

Urban System - *continued*

Project Category	FY 2007	FY 2008	FY 2009	FY 2010
New Construction - Lane Miles				
Preventive Maintenance - Lane Miles				

Major Rehabilitation Projects - FY2007 - FY2010

Location	Lane Miles	Estimated Cost ($M)	Fiscal Year of Award	Construction Period

Bridges

Summary

Bridge Summary

Bridges*	Number
Number of Bridges	
Total Bridge Deck Square Footage	
Longest Bridge Ft.	
Number of Bridges Carrying Interstate	

Major Bridges	Number
Number of Major Bridges	
Total Bridge Deck Square Footage	
Longest Bridge Ft.	
Number of Bridges Carrying Interstate	

Rating Category*	FY2008 Goal	Current Status
% General Appraisal Acceptable		
% Floor Condition Acceptable		
% Wearing Surface Acceptable		
% Paint Condition Acceptable		

Rating Category	Sq. Ft. Deficient**	% of Deck Area with a Project
General Appraisal		
Floor Condition		
Wearing Surface		
Paint Condition		

Major Bridge Projects - FY 2007 - FY 2010	
Location	Length (ft.)

* State Owned - Excluding Major Bridges - Excluding Bridges with ODNR & Other Ohio State Agency Maintenance Resp. - Excluding Bridges without an inspection

Safety/Congestion Work Plan

Threshold Locations (All Freeway/Nonfreeway Crashes)										
Crash and Congestion History										
Locations	Beg Log	End Log	Type	V/C Ratio	CONG	# of Crashes	Fatal - Injuries	Acc Types RE/FO/ANG/ SW/Other	HSP Rank (S/I)	Avg Crash Per Month

County Work Plan Summary

April 1, 2006 - March 31, 2007 - Planning Period

Contact Mike McColeman - Maintenance Mgt - 740-644-7155 or District Hihway Mgt Adm.

Pavement & Bridge Projects

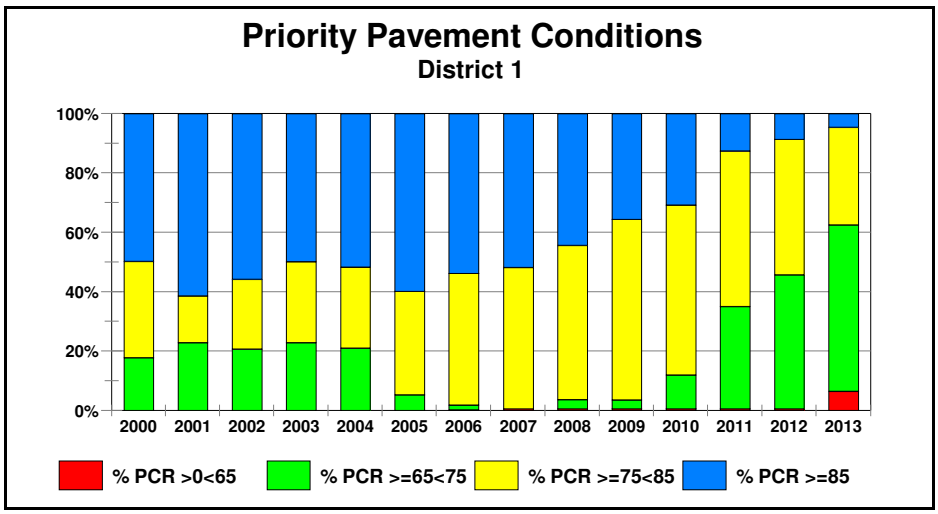
Priority, General and Urban Systems

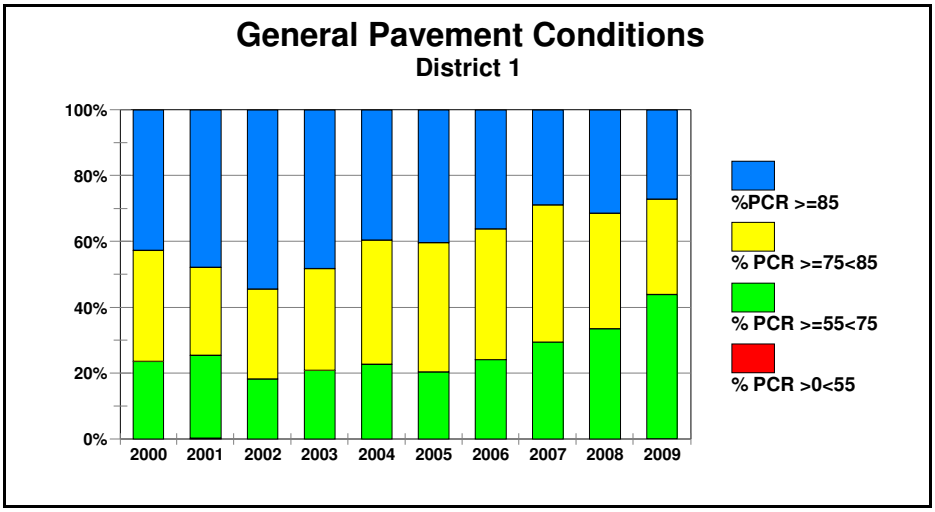
GQL Query provided by the Office of Systems Planning and Program Management

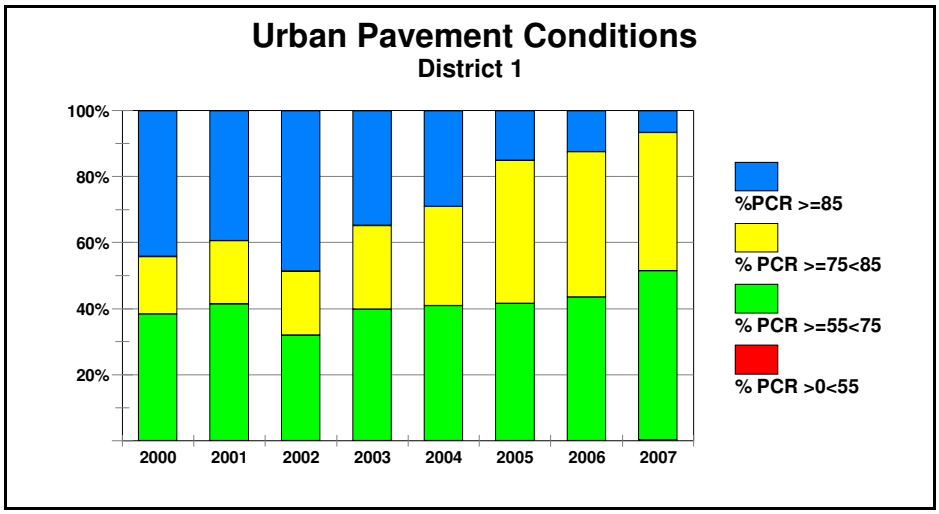
Deficient Bridges With Projects

GQL Query provided by the Office of Systems Planning and Program Management

Pavement Conditions by Policy System







Work Plan Project Maps
Map workspaces provided by the Office of Systems Planning and Program Management

Deficient PCR Map
Map workspaces provided by the Office of Systems Planning and Program Management

Deficient Bridges Map
Map workspaces provided by the Office of Systems Planning and Program Management

One map each for Floor, Wearing Surface, Paint & General Appraisal