

**PROGRAMMING STUDY  
CLARK-ESTILL-POWELL COUNTIES  
POWER PLANT CONSTRUCTION  
TRANSPORTATION IMPACT STUDY**



Prepared by the  
KENTUCKY TRANSPORTATION CABINET  
DIVISION OF PLANNING  
March, 2006

## TABLE OF CONTENTS

|       |  |    |
|-------|--|----|
| I.    | INTRODUCTION .....                                       | 1  |
|       | Study Purpose  |    |
|       | Scheduled Projects                                       |    |
| II.   | PRELIMINARY PURPOSE AND NEED .....                       | 2  |
| III.  | PROJECT LOCATION, EXISTING CONDITIONS, AND TRAFFIC ..... | 2  |
|       | Project Location   |    |
|       | Existing Highway Features                                |    |
|       | Highway Systems  |    |
|       | Vehicle Crash Analysis                                   |    |
|       | Traffic and Level of Service                             |    |
| IV.   | CABINET, PUBLIC, AND AGENCY INPUT .....                  | 19 |
|       | Project Team Meetings                                    |    |
|       | Local Officials and Group Meetings                       |    |
|       | Public Meetings  |    |
|       | Resource Agency Coordination                             |    |
|       | Other Input  |    |
| V.    | ENVIRONMENTAL AND SOCIOECONOMIC OVERVIEW .....           | 26 |
|       | Environmental Base Data                                  |    |
|       | Environmental Justice                                    |    |
| VI.   | TRAVEL TIMES .....                                       | 28 |
| VII.  | ESTIMATED IMPROVEMENT COSTS .....                        | 29 |
| VIII. | RECOMMENDATIONS.....                                     | 30 |
|       | Preferred Improvements                                   |    |
|       | Priority Segments  |    |
| IX.   | CONTACTS.....  | 35 |

## TABLES, EXHIBITS, AND APPENDICES

### TABLES

|   |    |
|---|----|
| Table 1: Horizontal Curves Greater Than 9.5 Degrees.....  | 4  |
| Table 2: Vertical Grades Greater Than 4.5% .....  | 8  |
| Table 3: Lane and Shoulder Widths.....  | 10 |
| Table 4: Average Right-of-Way Width .....   | 10 |
| Table 5: Posted Speed Limits and Adequacy Ratings .....   | 10 |
| Table 6: Structural Data.....   | 11 |
| Table 7: Functional and State Maintenance Classification of Roadway Segments.....                 | 11 |
| Table 8: Truck Weight Classification, Extended Weight, and Coal Haul Highway<br>System Data ..... | 13 |
| Table 9: Crash Data Overview .....  | 15 |
| Table 10: Crash Data Spots.....   | 16 |
| Table 11: Crash Conditions .....  | 16 |
| Table 12: Current Year Average Daily Traffic Volumes and Levels of Service .....                  | 18 |
| Table 13: Future Year (2030) Average Daily Traffic Volumes and Levels of Service .....            | 19 |
| Table 14: Known Threatened and Endangered Species .....   | 27 |
| Table 15: Selected Census Data for Study Region .....   | 28 |
| Table 16: Estimated Travel Times.....   | 29 |
| Table 17: Cost Estimate for Segment Improvements .....  | 31 |
| Table 18: Cumulative Cost of Recommended Projects.....  | 33 |
| Table 19: Phase Costs of Recommended Projects.....  | 33 |

### EXHIBITS

|  |    |
|--|----|
| Exhibit 1: Project Location .....                          | 3  |
| Exhibit 2: Horizontal Curves Greater Than 9.5 Degrees..... | 7  |
| Exhibit 3: Vertical Grades Greater Than 4.5% .....         | 9  |
| Exhibit 4: Bridge Sufficiency Ratings .....                | 12 |
| Exhibit 5: Truck Weight Classification.....                | 14 |
| Exhibit 6: Vehicle Crash Information .....                 | 17 |
| Exhibit 7: Current Traffic and Level of Service.....       | 21 |
| Exhibit 8: 2030 Traffic and Level of Service .....         | 22 |
| Exhibit 9: Recommended Priorities.....                     | 34 |

### APPENDICES

|                                     |
|-------------------------------------|
| Appendix A: Meeting Agendas         |
| Appendix B: Resource Agency Letters |
| Appendix C: Other Project Input     |