



TRANSPORTATION & STREET IMPROVEMENTS PROGRAM

Project: Highland Road (Perkins Road to Airline Highway)

Green Light Program ID: CC
 Project Length (feet): 6,600
 Existing Typical Section: Two-lane undivided
 Proposed Typical Section: Four-lane curb and gutter boulevard

Project Overview

This project will add additional lanes and a raised median to Highland Road from Perkins Road to Airline Highway. The project will require new bridge crossings at both Ward's Creek and Old Ward's Creek and will tie to completed intersection improvements at Perkins Road and at Airline Highway. The project will include an at-grade crossing at the Kansas City Southern Railroad.

TABLE OF CONTENTS

Assumptions	1	
Utilities	1	
Hydrology / Hydraulics	1	In association with:
Traffic	1	PBS&J
Signalized Intersections	2	GOTECH, Inc.
Right of Way Impacts	2	Neel-Schaffer, Inc.
Environmental Concerns	2	Compliance Consultants, Inc.
Soils	2	Jones Walker, LLP
Cost Estimate	3	John C. Doiron MAI Appraisal Services
Project Schedule	4	Rampart Resources
Exhibit A—Typical Sections	5	SSA Consultants, LLC
Exhibit B—Layout Sheets	6	



ASSUMPTIONS

- No design/concept work has been previously done on this project.
- Kansas City Southern (KCS) railroad will allow reconstruction of the roadway as an at-grade crossing.
- Tie to improved five-lane curb and gutter section at Perkins Road and Airline Highway.

UTILITIES

Possible Utilities	Existing	Adjust / Relocate
Underground Electric	●	
Overhead Electric	●	●
Overhead Electric Transmission	●	●
Water	●	●
Sanitary Sewer		
Telephone	●	●
CATV	●	●
Gas Distribution	●	●
Gas HP Pipeline	●	●

A subsurface utility engineering (SUE) will be performed, and related cost is included in the final engineering cost estimate.

HYDROLOGY / HYDRAULICS

- Existing roadway has open ditches which will be internalized with storm drain systems to outfall structures at the KCS railroad, Ward’s Creek and Old Ward’s Creek.
- Preliminary bridge hydrology requires 2-200’ bridges crossing Ward’s Creek and Old Ward’s Creek.
- Existing cross drainage culvert near Airline Highway will remain in place between the retention ponds on both sides of the road.

TRAFFIC

- Based on the traffic analysis with the projected traffic volume of approximately 32,243 vehicles per day, the proposed five-lane roadway section will operate at a level-of-service C for the design year of 2030.



SIGNALIZED INTERSECTIONS

- Existing signalized intersections at Perkins Road and Airline Highway will remain in place.
- A traffic signal will not be provided for the intersection of Highland Road and Barringer Foreman. Eastbound Highland Road will be provided with one left turn lane and two through lanes, westbound Highland Road will be provided with two through lanes, southbound Barringer-Foreman will be provided with one left turn lane and one right turn lane.

RIGHT OF WAY IMPACTS

- Existing right of way width is approximately 80' based on field investigation.
- Provide 100' of right of way width to reconstruct the existing road and provide a four-lane roadway section with a raised median.

ENVIRONMENTAL CONCERNS

- Approximately five acres of potential wetlands exist in the roadway open ditches near the KCS RR and for the segments near Ward's Creek. Wetland delineation and mitigation is required for the project.
- There are two retention ponds on the north end of the project near Airline Highway that will be avoided.
- Potential hazardous substance at the Plantation Tire and Car Care and Exxon Pipeline sites.
- Possible cultural impacts include Healing Place Church.
- Noise study is not anticipated for this project corridor.

SOILS

- Project area soils are level to gently sloping, somewhat poorly drained and moderately well drained, loamy soils and steep escarpments.



COST ESTIMATE

Project Description: Four-lane curb and gutter boulevard

Project Length: 6600 Feet (1.25 miles)

	CONSTRUCTION COST	
Section 200 -	Earthwork	\$ 905,685
Section 300 -	Base and Subbase Courses	\$ 1,452,367
Section 400 -	Surface Courses	\$ -
Section 500 -	Pavements	\$ 2,920,896
Section 600 -	Structures	\$ 2,944,000
Section 700 -	Drainage Work	\$ 1,188,920
Section 800 -	Sanitary Sewer Work	\$ 633,500
Section 905 - 906	Pavement Markings & Signalization	\$ 606,200
Section 907 - 911	Concrete Curbs & Sidewalks	\$ 769,600
	SUBTOTAL CONSTRUCTION COST (2006 \$)	\$ 11,421,168
MOBILIZATION		\$ 913,693
	SUBTOTAL	\$ 12,334,861
CONTINGENCY & UNFORESEEN CONDITIONS		\$ 2,466,972
	SUBTOTAL	\$ 14,801,833
	TOTAL CONSTRUCTION COST (2006 \$)	\$ 14,801,833
UTILITY RELOCATIONS		\$ 677,700
TESTING		\$ 370,046
LIGHTING, LANDSCAPING, SEEDING		\$ 592,073
ENVIRONMENTAL STUDY		\$ 145,000
ENGINEERING		\$ 1,480,183
ENVIRONMENTAL MITIGATION		\$ 160,000
RIGHT-OF-WAY		\$ 11,652,811
	SUBTOTAL	\$ 29,879,647
PROGRAM & CONSTRUCTION MANAGEMENT		\$ 1,493,982
	TOTAL PROJECT COST (2006 \$)	\$ 31,373,629

Comments:

- Unit costs are assumed to include contractor overhead, profit and mark-ups
- Environmental mitigation will include environmental and protection of cultural resources
- Mobilization is expected to be 8% of construction cost
- Contingency and Unforeseen Conditions are expected to be 20% of construction cost
- Testing is expected to be 2.5% of construction cost
- Lighting, Landscaping, and Seeding is expected to be 4% of construction cost
- Note: Percent Cost is for the GLP Program Average and NOT project specific obligation
- Engineering is expected to be 10% of construction cost
- Program & Construction Management is expected to be 5% of project costs

