



1901 NW Military Highway, Suite 201, San Antonio, Texas 78213
TBPE No. F-2573

January 9, 2013

Mayor Mark Perry
2 Mecca Drive
Hollywood Park, Texas 78232

Re: 2013 Concept Plan for Street and Drainage Improvements
Project No. HWP-006E

Dear Mayor Perry:

As you requested, I have briefly reviewed the condition of the streets and I have researched the information gathered over previous years relating to known drainage problems. The purpose of collecting this information and summarizing it in this letter is to provide enough information to the Town of Hollywood Park to help it to make decisions about proceeding with a maintenance and repair plan for the street and drainage infrastructure.

This first pass is "conceptual", meaning that it is based on easily accessible information and not any design effort. It is intended to provide enough information at limited engineering cost to help the Town to establish priorities and an approximate Scope of Work for the next construction project. Based on this information, the Town may decide to stop the project, to obtain a little more information, or to proceed with a project. If the City wishes to proceed with a project, then the process would continue with the following phases: preliminary design, detailed design, bidding, and construction.

A conceptual repair plan and an engineering opinion of cost are attached. The 2013 Street Repair Conceptual Plan shows that the conditions of the streets and the appropriate repairs vary:

1. Some streets may be repaired simply by sealing the cracks and covering the pavement surface with a light surface treatment, also known as chip seal. This is desirable on street surfaces that are aging and oxidizing to protect them from becoming brittle and to restore the wearing surface. An example of a good surface treatment can be found on Voight Street in Hollywood Park.
2. Some streets that have heavier surface damage should be resurfaced with a heavier surface treatment, called "hot paver". An example of a good "hot paver" installation is found on Blanco Road between West Avenue and Lockhill Selma. Although "hot paver" is more durable, it is about 25% more expensive than surface treatment.
3. Some streets are structurally compromised and should be removed and reconstructed. In areas where the structural compromise is limited, "cut and

replace” is called for. In areas where much or all of the full pavement width is structurally compromised, “full-depth reconstruction” is called for.

4. Certain streets are frequently inundated by runoff and are compromised by the cyclic wetting and drying of the pavement base and subgrade. While these areas may need to be reconstructed, flush curb (also known as “ribbon curb”) is recommended for reducing the amount of moisture penetration under the pavement. Flush curb will also help to stabilize the pavement edge and reduce structural cracking.
5. Swales (shallow ditches) are also recommended for areas without normal header curbs. These swales will help the water drain better, protecting the pavement subgrade and base. They will also reduce flooding problems on private property.
6. At some culvert locations, the pavement approaches have failed and need to be repaired. This requires excavating the soft soil that is next to the culverts, replacing it with granular material that will not be adversely affected by water, and repaving the approaches.

It should be noted that construction costs change over time. Although construction costs have been fairly stable over the last 6 months, we anticipate that costs will continue to go up over the next year. Some contractors have gone out of business and there is less competition than there was a few years ago. The bids are, consequently, becoming less competitive. Our opinion of construction costs assume that the work would begin 6 to 12 months from now and that prices would be, on average, 7.5% higher than construction costs for municipal projects that bid three months ago.

Generally, we feel that projects performed earlier will costs less. Waiting will probably result in increased construction costs.

Different types of construction have different costs and life expectancies. The following table shows expected costs and life spans for the recommended types of pavement repairs.

<u>Construction Method</u>	<u>Life Span (years)</u>	<u>Cost Per SY</u>
Chip Seal	4-7	\$ 3.71
Hot Paver	5-10	\$ 4.25
Pavement Mill & Overlay	6-12	\$14.00
Pavement Reconstruction	12-24	\$50.15

If all of the street and drainage repair projects identified were to be performed in the near future, we would expect a project costs as follows:

<u>Project Type</u>	<u>Project Costs</u>	
	<u>Low</u>	<u>High</u>
Streets	\$10.00 million	\$12.49 million
Drainage	\$1.62 million	\$2.04 million
Total	\$11.62 million	\$14.53 million

From an engineering standpoint we recommend priorities based on safety (such as access for emergency vehicles during wet weather) and structural deterioration. Safety matters are considered more urgent than structural matters. Of the structural matters, higher degrees of deterioration are considered more urgent than lower degrees of deterioration.

<u>Overall Priority</u>	<u>Description</u>	<u>Project Cost</u>
1	Drainage at Rua de Matta	\$1.15 mill - \$1.44 mill
2	Drainage at Tiger Tail and William-Classen	\$144,000 - \$180,000
3	Repair Culvert Approaches on Several Streets	\$115,000 - \$144,000
4	Reconstruct West El Portal with Swales	\$667,000 - \$834,000
5	Reconstruct East Donella with Swales	\$1.08 mill - \$1.35 mill
6	Remaining Pavement Reconstruction on Several Sts.	\$3.86 mill - \$4.83 mill
7	Cut & Replace (Patching)	\$888,000 - \$1.11 mill
8	Mill & Overlay on Several Streets	\$755,000 - \$944,000
9	Hot Paver	\$ 20,250 - \$ 25,313
10	Crack Seal & Chip Seal with Flush Curb	\$2.94 mill - \$3.68 mill

This study is based only on information that was readily available to our office. We suspect that there may be other issues of concern to residents. Therefore, we recommend supplementing the information in this report with a resident survey and/or hearing to determine if additional infrastructure problems should be added to the priority list.

It is also important to note that most of Hollywood Park is served by septic systems. If the Town intends to change to a municipal sewer collection system within the next 10 years, then it would be better to install sanitary sewer mains in the street rights-of-way before implementing the more expensive street repairs.

I hope that you find this summary on concepts for infrastructure repair and maintenance helpful. Please do not hesitate to contact me if you have questions.

Sincerely,



L. David Givler, MSCE, PE
Givler Engineering, Inc.

attachments: Town of Hollywood Pk. 2013 Str. & Drng. Repairs, Jan. 2013 (Plan)
 Hollywood Park - 2013 Conceptual Street & Drng. Impr. Costs, Jan. 9, 2013

