



## Lakewood Village Update

February 15, 2015

*Hello Everyone,*

**FINAL ROAD UPDATE.** On Tuesday February 10th, we had the final walk-through on the project, and on Wednesday the job was officially completed. Jagoe will continue to water the sod through-out the Winter and Spring and replace any grass that does not take root. Of course, there is a maintenance bond, and the road warranty extends for two years. Jagoe is standing-by in the unlikely case anything should arise. Now that the largest public works project ever undertaken by the Town is over, lets go over the final details.

**UNDER BUDGET.** That's right. Let me briefly go over the financial numbers with you. Lets start with the costs - or the "uses of funds". The initial road construction costs included the preparation of the legal documents and the marketing of our bonds (running the auction to let the banks bid on our debt).

Uses of Funds	Budget	Actual	+/-
Bond Underwriting	\$32,000	\$29,925	<b>(\$2,075)</b>
FNI - Design	\$95,798	\$95,798	-
FNI - Construction QC	\$101,464	\$101,464	-
Jagoe	\$1,580,405	\$1,604,459	<b>\$24,054</b>
Change Orders	\$79,000	\$15,650	<b>(\$63,350)</b>
<b>TOTAL</b>	<b>\$1,888,667</b>	<b>\$1,847,296</b>	<b>(\$41,371)</b>
Sources of Funds	Budget	Actual	+/-
Bond Issuance	\$1,600,000	\$1,600,000	-
Interest	\$2,333	\$4,550	<b>\$2,217</b>
FNI Reimbursement	-	\$7,755	<b>\$7,755</b>
Reserve Funds	\$286,334	\$234,991	<b>(\$51,343)</b>
<b>TOTAL</b>	<b>\$1,888,667</b>	<b>\$1,847,296</b>	<b>(\$41,371)</b>
General Fund Reserve: <b>Start of Project</b>		<b>\$497,000</b>	
Budgeted G. Fund Reserve: <b>END of Project</b>		<b>\$210,666</b>	
<b>General Fund Reserve TODAY</b>		<b>\$261,801</b>	

some of these costs related to us having to provide proof to the Texas Attorney General that we are in fact a lawfully created municipality. We have proven that we do exist - and despite what some people think, we are not Little Elm. The Town Engineers, Freese-Nichols (FNI) provided the engineering design and, during the construction phase they performed inspections, quality control, and engineering support. Their fee for services was a not-to-exceed number of \$197,262, which they did not exceed. Of course, the largest cost was the construction fee which Jagoe Public won with the low bid of \$1,580,405. The last piece of the budget was change orders. Typically on a public works project like this, we were told to expect change orders to be 5~10% of the cost. What are change orders from ? Lots of possibilities. When

you are excavating the roads, you might hit a water or sewer line that was not buried deep enough. Or, you might hit a pipe under the road that is not shown on any of the Town's documents (that happened several times). More generally, once you start pushing dirt you often realize that, in a few instances, the design on paper doesn't line up with what we want. Shoreline was the perfect example of this. Whatever "shoreline" they were thinking of when they named that road, it wasn't a straight one. The road changes direction and none of the intersections are square - we had to redesign all of the "corners" to accommodate the utilities, culvert crossings, street signs, and fire hydrants at each intersection. We budgeted on the low side for changes, 5% or \$79,000 in costs and crossed our fingers. So overall, the budgeted costs were \$1,888,667. OK, spending is the easy part, the hard part is figuring out where are we going to get the money - the "sources of funds".

**SOURCES.** We decided that we would borrow money only for the road construction itself - we would fund all of the engineering and financing costs from our reserve funds. We didn't want to borrow the money and pay interest on our "closing costs", that's why we built up our reserves over the previous couple of years. We knew we would get a little interest while we paid out the construction draws - but basically we were expecting to spend down \$286,334 of our reserve, dropping it from just under a half-million dollars to \$210,666. Borrowing \$1.6M was as far as we were comfortable.

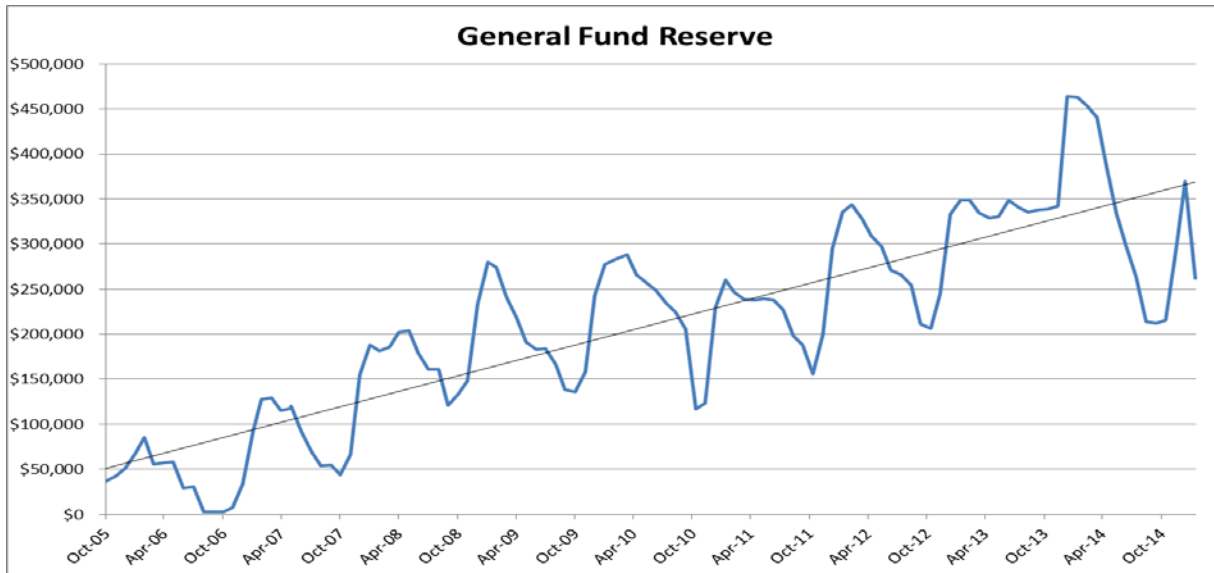
**GOOD PLAN, BUT WHAT REALLY HAPPENED ?** The financing came in slightly under budget and our interest rate was fantastic. I will talk more on that later. Lets talk about the construction. How many driveway approaches did we have to tear out and rebuild ? **118.** The road design called for portions of the approaches to all of the driveways to be removed so they could be rebuilt and tied into the street. We immediately had some issues. On some of the driveways, the design called for the concrete to be removed just short of an expansion joint on the driveway. So for example, the existing driveway had an expansion joint (wood) 6 feet from the street and the road design called for sawing off 5 feet. We could do it, but it wouldn't be look good to have two joints 12 inches apart. So I approved removing the additional driveway to take it back to the homeowners original expansion joint and pouring additional concrete. Our goal was to do it right. Jagoe also wanted it done right. At the beginning of the project, Chris Roberts (Jagoe) and I met daily to talk about driveways. In several cases, Jagoe requested permission to extend approaches because the existing driveway was cracked or broken at the designated location. Overall, I approved 66 design changes to driveways. I'm seeing driveways in my sleep. Similarly, there were a few instances where once we removed the driveway, we discovered the culvert underneath was useless, so we replaced it. A couple of our neighbors had special needs and could not be out of their driveways for the typical two or three days while the concrete cured. In these cases, I authorized the use of "fast-early" special concrete that cured in a matter of hours. Throw in some extra sod, and these quantity overruns increased the road cost by \$ 24,054 or 1.5 percent. Obviously I am very happy with the final product.

One of the forgotten aspects of the road project was the replacement of all of the underground drainage pipes that crisscross the town at every intersection. These pipes consist of several segments of reinforced concrete pipe (RCP). We have had past problems throughout town when these pipes separate and holes develop on the surface of the street. We replaced all of the pipes and installed them with the proper foundations to minimize potential shifting. We also found several pipes under the street that we didn't know existed. Our biggest engineering challenge was what we referred to as the "**bermuda triangle**" - we found three underground drainage pipes coming together and meeting UNDER a driveway on Peninsula. This was our largest change order (\$14,458). We had to redesign and build a junction box, NOT under the driveway and reinstall pipes to the new location. Peninsula really challenged us. I spent quite a bit of time working with FNI and Jagoe looking at the steep drop on some of the shoulders. We ended up installing additional pipe, back-filling along the road edge, installing rip-wrap, and we even built a curb along one section. It's not all bad though, we also made some design changes that saved money. We made changes to the Shoreline design near the wastewater plant that resulted in savings of \$13,900. One last change was especially memorable. We had known for years that there had to be a manhole somewhere on Shoreline - it was too far from the last known manhole to the plant. For some reason, forty years ago, the road was placed over the top of the manhole. Sam Morgan and I used to joke that it was the LWV time capsule. Well, we found it, actually the excavator found it, right in the road as we thought. It is perfect shape - we raised the lid to street level and you can now see it as you drive on Shoreline. The net cost of all change orders totaled \$ 15,650, far less than the \$79,000 we budgeted for, and we didn't hit a single water or sewer line.

Included in the change orders was one due to a calculation error by FNI. It is not uncommon for there to be a mistake when there are thousands of calculations. The uniform public works contract assumes that it is likely that minor errors will occur and, to save time and headaches, the customer will bear those minor costs (roughly a maximum of \$35,000 on our contract). You will see under sources of funds that FNI reimbursed us for \$7755, which was the additional cost due to their miscalculation. I asked them to reimburse us and they did. They were **not** legally obligated to do this. They took responsibility and handled it very professionally. It was a classy thing to do, and we appreciated it.

**OVERALL,** we came in \$41,371 under our original budget. More importantly, our cash expenditure of reserve funds was \$51,343 less than we planned on. So instead of ending the project with approximately \$210,000 in the reserve fund, we have today in reserve \$261,801.

**LETS TALK ABOUT FINANCING.** We issued \$1,600,000 in bonds, which is actually made up of 1,600 separate \$1000 bonds. Each year we redeem and cancel some of the bonds. The Chart below shows the history and trend of our General Fund Reserve - our savings. We also have a Utility Fund Reserve which we use to fund capital projects like the Lakecrest water main replacement. The Utility Fund has no debt. As you can see, in late 2006 and early 2007 the Town had little money - approximately \$2,000 in savings - and the utility fund was heavily in debt.



Since 2007, we have built the reserve up with a purpose. As you can see our funds increase when we receive property taxes, and then we spend some of the reserve during the year for operations and sometimes roads (asphalt on Meadowlake & Stowe). As we have become more efficient we have grown the reserves, as you can see from the steady upward trend-line. Here's an example. We spend just under \$10,000 annually for town mowing. Last month we purchased a commercial mower (four year warranty, four year maintenance contract) and trailer for \$6,600 and have contracted with Little Elm services to mow for approximately \$2000 per year. We purchased weed trimmers, edgers, and other equipment by converting our points from the Town credit card into Home Depot gift cards. So over the next four years, instead of spending \$40,000 we will spend just about \$15,000. So we will have saved \$25,000 and the equipment will be fully paid off leading to even more savings going forward. And, no you can't rent the mower like you can with Town hall.

The large dip you see in 2014 is the Town using reserves to pay for the road project. Our first scheduled bond payment in February was \$151,437.78 which includes us redeeming \$128,000 in bonds. We already made the payment. **Early.** Our scheduled payment in February 2016 is \$159,646 when we will cancel another \$145,000 in bonds. **We have \$261,801 currently in reserve and we already have made our 2015 payment.** So we currently have the 2016 bond payment in the bank and an additional \$100,000 on top of that. I wish I had *my* entire 2016 mortgage payment in the bank.

**WHEN IS PHASE TWO ?** Its the most common question I have been asked since we started. Well, I could tell you that we are planning to finish the rest of the town in three years, assuming that we get 25 new houses a year, LandPlan develops their property this year, property appraisals increase at 10 percent a year, our sales tax collections quadruple, and the price of concrete falls by 50 percent. But, that's not going to happen. The simple answer is that we will pay off the debt as fast as possible and begin phase two when we can afford it. Our debt has a ten-year term and can be paid off in five years without penalty. But that doesn't mean that we can't refinance the debt and repackage it with a new loan for new construction before then. So, for example if new development does happen, we can use the additional revenues to support a higher level of debt to finish the town. **Let me be clear about one thing.** Not all development is desirable. We are financially sound, we are not going to compromise on our Lakewood Village quality of life in a quest for developer money. No amount of concrete is worth ruining our special town.

**ANOTHER RELATED QUESTION** I get asked, is how do we know our street will be paved ? I think that's a fair question. The problem with our roads is the foundation - the underlying base and our soils. Tests revealed that we have sulfides in our soils which, when wet, cause the road to heave vertically. You could try and lime stabilize it, like they did on Eldorado near the town entrance, but we saw how well that worked. The solution is to excavate the material, use a poly liner, and rebuild with new base, just like we did. Chip and Seal is not an option. Chip and seal is a topping, it adds no structural integrity, it is only for wear. If you had a four inch tall vertical crack in your living room floor, you can't fix it with carpet. And the carpet won't keep the foundation from failing - it has no structural properties.

Assuming you rebuild the road, then the next question is whether to use asphalt or concrete on top. That's simple. We don't have curbs, so as you can see from the asphalt overlays on Stowe, the asphalt just breaks off the edges and develops more cracks. The heavy garbage trucks ride along the edge to pickup the cans which makes it even worse. This leads to a never ending cycle of overlays. You could always put in a curb, but that causes another problem. If you do that, then hydraulically you have created a river - the water can't flow over the sides - it is trapped on the road. This would now require a storm water collection system complete with gutters, drains, and underground pipes. If that's what you want, then I can suggest any one of a hundred subdivisions with curbs, gutters, and sidewalks located to the east of us. Concrete roads are the solution that is best for us. They have the lowest life-cycle costs, the longest life, and have very little maintenance, which is good since Linda doesn't fix roads.

**NEXT MONTH.** The Town Council has been working on our ambitious goals for 2015. I look forward to updating you on our upcoming infrastructure projects and telling you of some new initiatives.

### **Final Notes:**

- ★ On April 25th we will host the annual fun run for the Oak Point/ Chavez PTA 5K. More information as that gets closer. The new streets will be a surprise.
- ★ The next regular Town Council meeting is scheduled for March 12th at 7p.m.
- ★ Bulk trash is March 3rd - there's plenty of time - lets not bulk trashify too early.

Spring is getting closer.



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