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To: Mr. Stevie Cox, Trinity City Manager

From: Rick Austin, PE, Abbotts Creek Engineering

Subject: **Street construction using Powell bill funds**

Background:

I was asked to investigate the possibility of paving Jordan and Cedardale Streets by Council at the November meeting and asked to report back in January. Both of these projects have been considered by staff for several years and added to proposed paving lists.

Review:

In 2016, Trinity had just finished a resurfacing round, and the Powell Bill program rules changed regarding the cap. They were required to drawdown the account by half over a five-year period. To manage the fund they paved Grove, Warren, Circle and Kimberly Streets using Powell Bill funds to stay below the maximum allowed account balance. These construction projects were similar in nature to the proposed Jordan Street Project. The Grove and Warren contract and work are the best match to the Jordan Street project available. They are not a perfect match as they were slightly further along toward completion with sewer lines being recently installed and the street re-stoned and ditch lines restored. The recent building of the middle portion of Jordan Street made it a much better match. I am using the final invoice as a basis for a costs per foot budget number for the Jordan St. project. Their total combined length was 1,500 feet as compared to Jordan at 1,700 feet.

From the final costs from the invoice from 2016 the total cost of the project was \$233,000. Using the only street construction inflation chart that I could find, from 2016 to 2024, the costs increased about 90% while the overall inflation for

the same period was 32%. Doing the math, using 90% and adjusting for the longer length, this yields a rough estimate for Jordan of \$502,000.00.

There is a Davidson Water Inc. line in Jordan Street's right of way. They do not allow water lines under pavement, are working on locating their line and an estimate of cost to relocate, if needed. A new line would cost about sixty dollars a foot or \$102,000.00 for the length of the street, however all or most seems to be against the northern edge of the right of way and can be avoided.

These numbers have no design, inspection or contingency included, which usually totals about twenty-five percent of construction costs. All together this gives us a rough maximum cost estimate, with limited information available, of \$775,000.00. Looking at current NCDOT contract unit costs and backing out the water line the minimum costs could be as low as \$575,000.00.

The existing dirt driveway at Cedardale St. is too narrow to qualify for Powell bill funding and there is no right of way. There will be extra costs of surveying, plat recording, clearing and grubbing the wooded area, removing topsoil and replacement fill to build a road bed and have recorded right of way. This is the point in the construction process that all the other streets paved were in when the City elected to complete them. I am using a cost of \$75,000 for this work. Once this is completed using the same numbers and assumptions as Jordan St., Cedardale St. would cost roughly \$ 265,000.00 to complete. With all the pieces totaled- grading, paving, contingency, surveying and engineering costs, I get a budgeting number of \$425,000.00.

In the past, Council has resisted dropping the account balance to below 50% of the cap (the total of the last ten payments made to Trinity). the account would not fund both projects and the resurfacing at the same time, but could over a twenty year period.

Jordan Street alone will cost more than half the account balance at cap. We can exceed the cap balance for short periods by up to two checks, before the two newest payments are reported on the annual report. If the water line is installed and paid for first, or the project is staged, the account impact can be reduced.

There is a legal description prepared for a right of way on the Ball property alongside the existing Cedardale access easement. Someone has had property owners to sign easement agreements. I was told that the property was in process of being sold for development.

If a new right of way for Cedardale Street is made available centered on the property line, then its construction could be easily staged and the need for relocating a water line back on the access easement would be eliminated. NCDOT

often completes a project up to the paving and leaves it until funds are available for completion. The clearing and grubbing is outside the scope of some paving contractors and would be better done by a grading contractor. This would move the project to the status of all the other streets paved by Trinity.

We could do the preliminary work, wait for the fund to be replenished and spend down the account as needed to finish both or either project.

Recommendation:

The City of Trinity will need to do a construction project or other expenditure from the Powell Bill fund until the maintenance liability on the city owned streets increases closer to the funding level to stay below the cap. Jordan Street would be a good fit and provide value, while managing the fund. If the impact to the fund balance is to be reduced, while staying below the cap and developing the plans and receiving permits, it would need to be scheduled into a multi-year capital improvements plan. For everything to align, it would take two or three years before the award of a contract

The best and usual way for a street to be constructed is by developers. It seems that this is still a possibility on Cedardale Street and should be given time to occur. The streets that have been paved by Trinity were stone streets, not dirt driveways, with the original developer long gone and right of ways in place. There seems to be someone in the process of improving this property and I would recommend waiting.

The approved resurfacing will spend the amount needed to stay below the cap for the next two years. I would program Jordan Street at least three years out when the fund was at the maximum balance and schedule Cedardale Street much further out with a repair and resurfacing contract between the two constructions.