Appendix B

Laurens County Long Range Strategic Capital Plan Version 2021

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Laurens County Administrator
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Anyone who keeps on watching the wind won't plant seeds. Anyone who keeps looking at the clouds won't gather crops.

LAURENS COUNTY
South Carolina

Executive Summary:

It is normal for a governmental organization to look short term at the immediate needs of the current fiscal year however a long term strategic plan is needed to ensure the actions we take in the short term (next 12 months) are the best actions for the organization and County in the long term. The purpose of this plan is to quantify all the capital needs of this organization and create potential solutions to manage these very costly needs.

This is version 2021 (4th year) and is being presented for the development of the upcoming FY22 spending plan. This plan should be updated annually to add a year to the five year planning cycle, update the accomplishments from the current year so we can measure progress, and revise the priorities.

This is an update to the first ever plan presented in 2018. Since that time we have had measurable success in reducing our long range capital needs. We have also identified large neglected capital needs that will require significant funding in the future. Through advanced planning we can eliminate or reduce the need for a tax increase by planning ahead and implementing these needs in a phased approach. This plan also shows that underfunding capital needs in one year only compounds the funding needs in the following year(s) and therefore should not be postponed or we will continue to create an increased capital debt that will be harder to fund in the future.

This plan is broken into two parts with three time periods per part. Time period #1 is short term (FY22), #2 is medium term (1-5 years, FY22-27), and #3 long term (greater than 5 years). The parts are non-fixed assets (primarily vehicles and equipment) and fixed assets (mostly buildings).

A rough estimate of the capital listed in this CIP could be in excess of $250,000,000. A summary of the capital items in listed below with desired years of implementation based on short term (FY22), medium term (2-5 years), and long term (year 6 and beyond).

By far the largest capital liability is roads. Road pavement liability short term is over $40,000,000 which is addressed through our short term solution of pavement preservation. The road pavement liability was projected to grow to over $100,000,000 during this planning period however County Council chose to take action in FY21 to implement a road preservations program that is expected to reduce the long term liability and hopefully start to show a reduction in the short term liability. The road pavement liability does not include bridges.

These large numbers can appear daunting to the point we back away but if the reader looks at the details of this long range plan you can see accomplishing these goals is achievable. In fact since CIP v1 Council has already made great strides to reverse our cumulating capital liabilities as highlighted in this CIP report.

Some of the capital identified will not be built ever, some not built for a decade or more away, and some achieved in the short term. It is by planning ahead with no limitations that we can identify all needs plus potential needs, plus those items that are optional. By planning ahead we can also achieve these monumental tasks by breaking these into achievable phases.

It is important to note that this is **not growing government spending**, this is simply managing the people's government like a business to ensure what we do today is in the County taxpayers best long term interests.

The biggest hurdle with addressing capital needs will be financing these needs. However if we chose not to pay for these needs now the needs do not go away, we simply push those needs on to future generations to deal with. We will not be able to fund all of our capital needs now but with a long-term plan we can ensure we have prioritization that looks beyond the next 12 months so the decisions we make in the short term are optimal for the long-term goals.

Long term planning is also beneficial to smooth out the funding for regular capital replacement needs. Purchasing large amounts of capital needs at once drives up the expense today requiring an increase in funding now (tax increase) and the requires us to repeat the cycle in the future when the next wave of replacement capital is required to replace the current wave.

The ideal plan is to smooth out the capital purchases so we are consistently and regularly replacing capital equipment. The deficiency in identifying and/or replacing equipment and vehicles in the past has resulted in a large flood of capital that needs to be funded now or in the near future. It is recommended we extend the current needs out a few years to get out of this backlog plus to prevent future flood of capital as the current wave of needs are replaced in the future.

Funding Options:

The biggest hurdle is the how, what and when, to pay for capital needs identified. A summary list is included below with potential funding sources to consider. A more detailed explanation is included later in this report.

1. Existing Capital Millage (6.1 mills of taxes for capital), generates $1,000,000 annually.
2. Existing Bond millage currently in place.
3. New Bond Millage (GO and revenue bonds).
4. Capital Sales taxes (CPST I approved by referendum 11/3/20).
5. Fund Balances currently in place.
6. Increase annual millage for capital.
7. Existing Operational millage (restricted by Act388).
8. FILOT Special Projects Fund (enacted in FY18).
9. Hospitality Tax (unincorporated areas of County).
10. Grants

Summary:

FY22:

Other Departments Non-fixed Assets: $54,000 (6 mills capital fund 600)
SO Vehicles $250,000 (6 mills capital fund 600)
Roads Non Fixed: $185,000 (6 mills capital fund 600)
EMS Non-fixed Assets: $355,000 (funds 128 and 601 EMS)
Fire Non-fixed Assets: $20,000 (fund 134)
Fire Radios: $1,800,000 (CPST I)
Solid Waste: $1,000,000 (repayment to GF FB, fund 210 over several years)
PRTM Non-fixed Assets: $25,000 (6 mills capital fund 600)
911: $278,000 (funding source TBD)
911 L/P (funded in GF524): $98,000
PRTM Veterans Park and Memorials $414,2000 (CPST 1)
PRTM Parks Improvements: $1,725,000 (CPST1)
PRTM Swamp Rabbit Trail: $300,000 (CPST1)
PRTM Parks: $435,000 (funding source TBD)
PRTM Veterans Park: $415,000 (funding source TBD)
New 911 Center $5,800,000 (GO/IPRB- Bond?)
New EMS HQ $9,700,000 (GO/IPRB- Bond?)
EMS Medic 1: $350,000 (CPST I)
New Fire HQ $2,100,000 (GO/IPRB- Bond?)
HVAC Projects $1,721,000 (build new facilities for some of these?)
Flooring Projects $248,000 (build new facilities for some of these?)
Roof Projects $240,000 (build new facilities for some of these?)
Rest Room Projects $285,000 (build new facilities for some of these?)
Energy Efficiency Projects $86,000 (funding source TBD)
Other Building Projects $839,000 (funding source TBD)
Historic CH Phase 1: $700,000 (GO Bond)
Historic CH Phase 2: $4,100,000 (CPST I)
Roads Fixed Assets: Buildings $110,000 (6 mill capital fund)
Roads Fixed Assets: Pavement $500,000 (road fee)
Roads Fixed Assets: Bridges $TBD (no funding source identified yet)
Airport Terminal Building: $1,300,000 (CPST I)
Airport Non-fixed Assets: $15,000 (6 mills capital fund 600)
Ag Center (if County project): $8,000,000 (CPST I)
Laurens Library: $220,000 (no funding source identified yet)
SO Evidence Facility: $2,000,000 (CPST I)
Sheriffs Office CIP Requests $1,600,000
Detention Center CIP Requests $674,000
Hillcrest Overall Plan (some parts in other items of summary) $500,000

FY23-26:

Roads Non Fixed Assets: $853,000 (six mills capital fund)
SO Vehicles $1,000,000 (six mills capital fund)
EMS Capital Fund: $1,197,000 (no funding source identified)
Fire Non Fixed Assets: $359,000 (fund 134)
PRTM Non-fixed Assets: $127,000 (6 mills capital fund 600)
911: $1,738,000 (funding source TBD)
EMS Substations: $2850,000 (funding source TBD)
Roads Fixed Assets: Pavement $40,000,000 (see short term solution)
Roads Fixed Assets: Bridges $TBD (no funding source identified yet)
Roads Fixed Assets: Buildings $165,000 (6 mill capital fund)
Roads Fixed Assets: Interstate 385 Corridor Plan $60,000,000
Solid Waste Fund Old Landfill: $956,918 (No funds in CIP yet)
Solid Waste: $1,000,000 (repayment to GF FB, fund 210 over several years)
Airport Non-fixed Assets: $43,000 (6 mills capital fund 600)
PRTM Parks: $813,000 (funding source TBD)
Library Fixed Assets: $5,242,000 (no funding source identified yet)
Sheriffs Office CIP Requests $2,402,000
Detention Center CIP Requests $1,712,000

Long Term (10 year planning period beyond FY26):

Historic CH Phase 3: $5,000,000 (CPST II?)
Roads Fixed Assets: Bridges $TBD (no funding source identified yet)
Roads Fixed Assets: Pavement $40,000,000 (see short term solution)
Roads Fixed Assets: Interstate 385 Corridor Plan $60,000,000
Solid Waste Fund Old Landfill: $956,918 (No funds in CIP yet)
Solid Waste: $1,000,000 (repayment to GF FB, fund 210 over several years)
EMS Fixed Assets: $750,000
Fire Capital Fund (L/P): $5,000,000 (FY31)
Gray Court/Hickory Tavern Library $10,350,000

SHORT/MEDIUM NON-FIXED ASSETS NEEDS:

Other Departments:
Assessors: One Truck FY22: $22,000
Building Maint: One Truck FY22: $32,000

Roads:
This section is for equipment and vehicles stock that needs to be replaced or purchased. See attached 5 year non-fixed asset road plan in the appendix.

Year 1 (FY22): $185,000
5 Yard Dump Truck: $105,000
Chipper: $80,000

Year 2 (FY23): $170,000
Year 3 (FY24): $203,000
Year 4 (FY25): $240,000
Year 5 (FY26): $240,000

Recommended funding source: Annual capital millage.

Sheriff Office Vehicles:
Our prior cycle for replacing SO vehicles was to purchase 15 every 3 years with the last full purchase cycle in FY17. This purchasing cycle was not based on long term financial and capital planning. We did not know if this 15 car/3 year cycle was improving or worsening our SO vehicle inventory. We now have a five year rolling replacement schedule for SO vehicles through this CIP to determine what our investment needs to be in order to be sure our SO fleet is not getting worse in condition.

Purchasing numerous vehicles at once creates a problem where we need to put a lot of investment into the SO vehicles in cycles. This will create a need to increase taxes to cover the cost of this lump of vehicles in one year and then a decreased need in the off cycle years. The ideal investment is a steady investment every year to keep the number of vehicles and dollars relatively stable year to year.

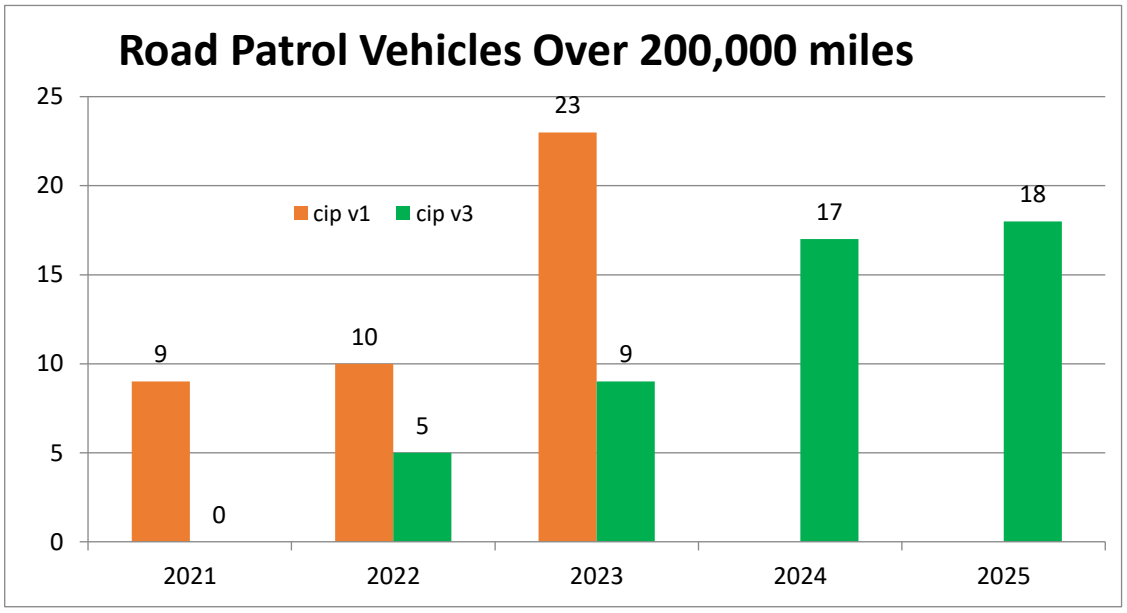
As a result of capital planning and regular annual investments in our SO vehicles the data shows a dramatic improvement over the past 4 years since we have implemented this new CIP planning process.

The most important vehicles are the road patrol. These vehicles must be able to be in good condition so that we can do proper police protection especially pursuits and call responses. We do not want our road patrol breaking down on the way to an emergency call. We set a maximum mileage goal on our road patrol vehicles at 200,000.

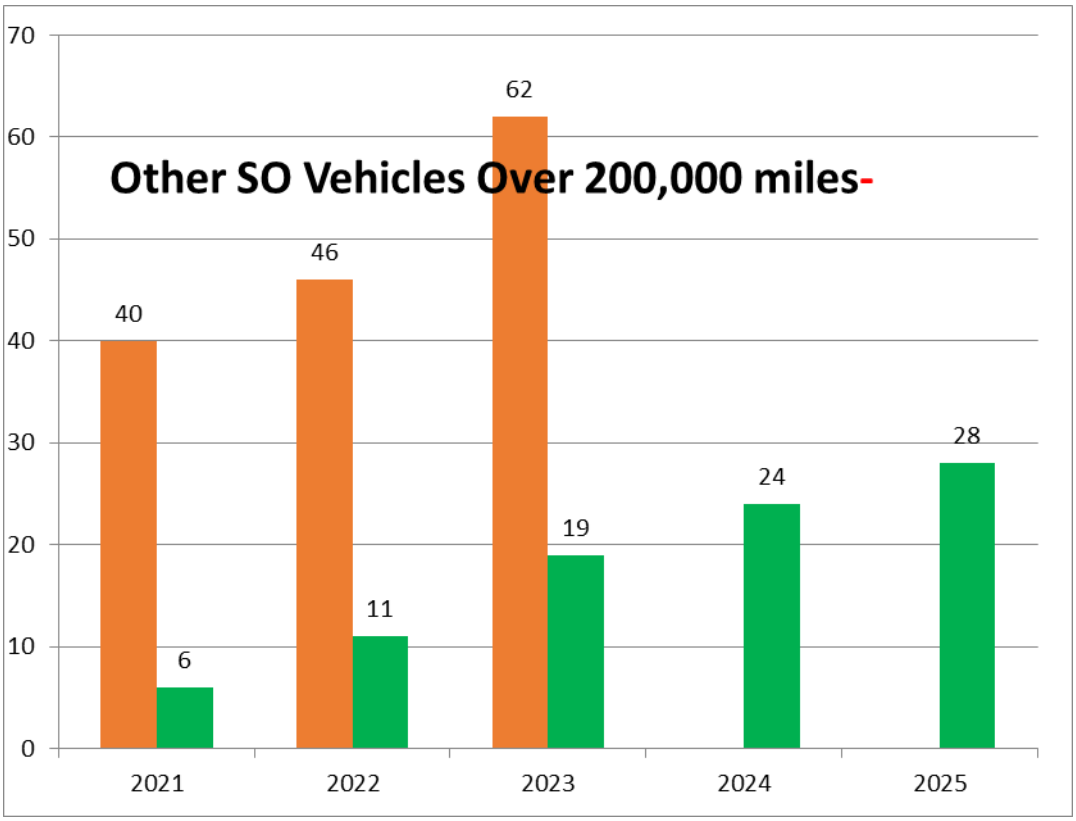
As a result of our CIP process we now have a plan to purchase both used and new vehicles every year rather than waiting for the 3 year cycle. With the purchase of used vehicles rather than waiting until we get to the new 3 year/15 car cycle we had improved the Road Patrol (RP) fleet. The chart below titled "Road Patrol Vehicles Over 200,000 miles" shows the progress we have made through our long range strategic planning. We have successfully reduced the number of road patrol vehicles that were projected to be over 200,000 miles during that 5 year planning period from 23 to 18.

The ideal situation is to continue the investment we are doing now every year and eventually smoothing out the repurchasing needs so that it is the same every year. This will take several cycles to achieve.

The updated CIPv3 (this year) vs the original CIP v1 is shown below. The cumulative number of RP vehicles over the planning period has decreased highlighting the continued success of this CIP process. The original planning period estimate of 23 road patrol vehicles needed by year 2023 has been reduced to 18. The current 2021 (FY22) shows that we are right on schedule with zero RP vehicles projected to be over 200,000. This means we have met and maintained this planning goal.



With the purchase of used vehicles we have also successfully reduced the total SO fleet vehicles (6) currently that have over 200,000 miles on them. See the chart titled "Other SO Vehicles Over 200,000 miles". This Chart shows how we have successfully reduced the overall fleet demand by advance planning and by regularly purchasing quality used vehicles. Our long range plan (V1.0) indicated we would have 62 vehicles over 200,000 miles in during the five year planning period. We are now projecting that we have reduced that to 28 (55% reduction). We are recommending that we continue to purchase quality used vehicles every year.



Year 1 (FY22): $250,000
Year 2 (FY23): $250,000
Year 3 (FY24): $250,000
Year 4 (FY25): $250,000
Year 5 (FY26): $250,000

Recommended funding source: Annual capital millage.

EMS:

In FY20 County Council took action to address the backlog of neglected rolling EMS capital. A dedicated 2 mills of capital tax was added for a new dedicated EMS capital fund 601. EMS also has a separate O&M fund which can also be used to fund capital.

For the period of FY22, 23 and 24, EMS advanced purchased all of the equipment in the CIP other than one vehicle for each FY22, 23, 24. This was done due to a zero interest loan (approved by Council 9/23/20).

Fund 128 (EMS O&M) and fund 601 (EMS Capital) are funded by tax millages directly tied to these 2 funds. Fund 601 is projected to run a large deficit in FY20 of almost $600,000 due to advance purchasing of several large capital items. This will either be set aside as negative FB or will be wiped out through a FB transfer from fund 128. Assuming a transfer from fund 128 occurs for the FY20, a FB surplus is projected in FY21 due to the advanced purchases (currently estimated at $272,000). This surplus in FY21 could then be transferred back to fund 128.

Fund 601 is projected to be balanced (revenues equal expenses) for FY22, 23 and 24. Fund 128 is projected to have sufficient funding and FB to cover the deficits of fund 128 and/or fund 601 through FY21 (current budget).

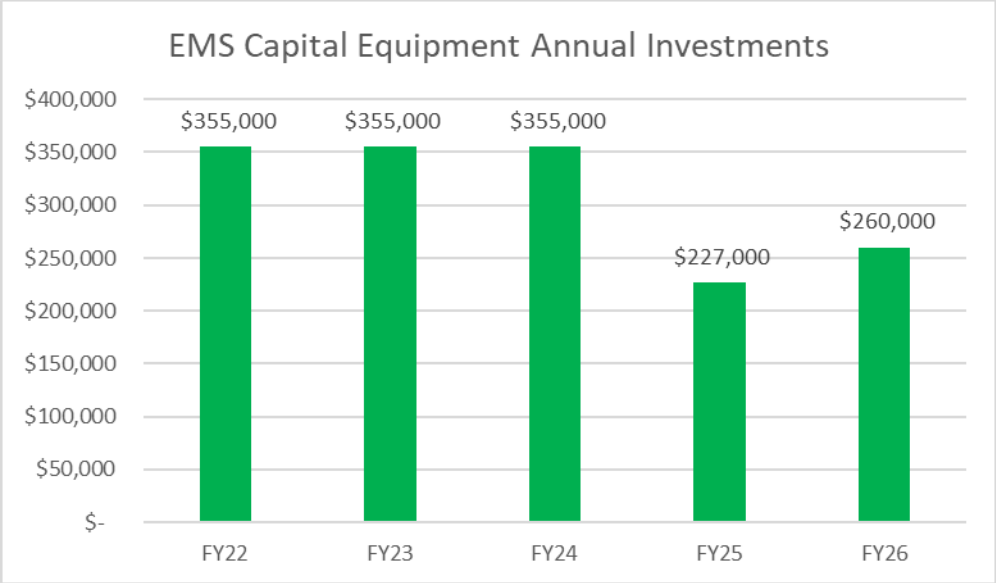
Year 1 (FY22): $355,000
- L/Ps (equipment): $135,000
- Ambulance- $220,000

Year 2 (FY23): $355,000
- L/Ps (equipment): $135,000
- Ambulance- $220,000

Year 3 (FY24): $355,000
- L/Ps (equipment): $135,000
- Ambulance- $220,000

Year 4 (FY25): $227,000
- Equipment: $7,000
- Ambulances- $220,000

Year 5 (FY26): $260,000
- Equipment: $40,000
- Ambulances- $220,000



FIRE:

Short and Medium Term (funded from existing Fire SPTD funds or FB):

Year 1 (FY22): $1,820,000

- $20,000 Fire Marshal Vehicle
- $1,800,000 – 800 Mz radios and 800 pagers for fire service (funded by CPST I)

Year 2 (FY23):

- $36,000 Division Chief Vehicle
- $125,000 Used Pumper Truck (not yet in financial plan)

Year 3 (FY24):

- $36,000 Division Chief Vehicle
- $125,000 Used Pumper Truck (not yet in financial plan)

Year 4 (FY25): $37,000 Director Vehicle

Funding Source:

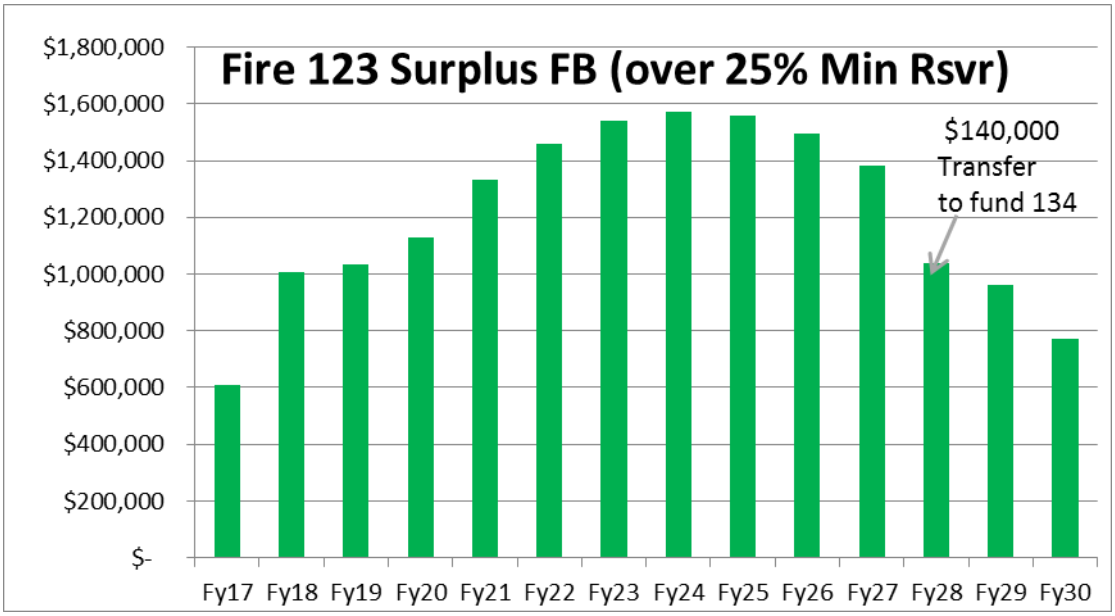
Fire communications (radios) was a large neglected capital need roughly estimated at $1,800,000. This need will be funded with the CPST I (capital sales tax).

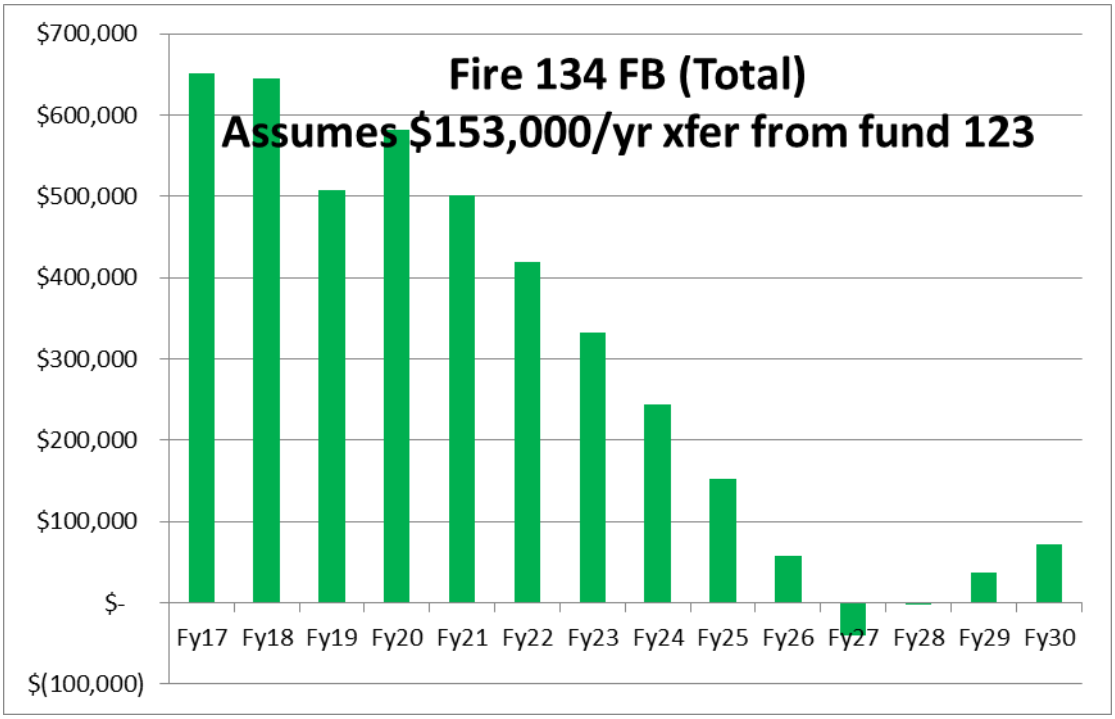
The short, medium, and long term funding for Fire Capital will come from the Fire SPTD funds. There are now two Fire SPTD funds. Fund 123 is for the annual O&M costs. Fund 134 is for the capital although currently some capital is funded by fund 123. Fund 123 is restricted by Act 388 but fund 134 is not restricted by Act 388 and can be increased in the future to cover capital costs if needed.

The goal is to move all capital to fund 134 and have a true O&M fund in fund 123 however fund 134 does not currently need these funds so the financial model below does not show a transfer from fund 123 to fund 134 except one time in FY28.

Two long range financial models for fund 123 and fund 134 are shown below. Fund 123 is the O&M funding source and should have a minimum fund balance reserve of 25%. Fund 123 still is projected to maintain a healthy reserve and fund 134 is projected to have no reserves. There is no need to keep a reserve in fund 134.

Its important to note that O&M expenses and revenues have been projected to increase every year in these financial models however both of those may change in more positive or more negative direction. In addition, both fund 123 and fund 134 currently receive a prorated share of the FILOT funds. These FILOT funds may be needed for other financial needs of the County and could be reallocated by future Councils.





Long Term Goals:

A $3,200,000 long term (10 year) lease/purchase (L/P) was put in action in 2010 for the multimillion dollar fire equipment purchases. This long term plan was refinanced (new purchases) for $3,500,000 in 2019 with the first payment taking place in FY21. The models above include all the lease payments for the entire term of this L/P. This debt was identified in the earlier versions of this CIP and several advanced purchases occurred as a result of long range planning. With these advanced purchases we were able to renew the new debt for the next decade without an increase in taxes. In addition by planning ahead we can financially model to show that a tax increase may not be needed in the next decade to cover this debt. This again proves the power of long range planning through this CIP.

SOLID WASTE:

Solid waste includes the convenience centers, the central operations at the landfill, the old landfill, and a new transfer station. Animal/Litter control was a part of the solid waste enterprise fund but it was transferred to a new fund under the control of the Sheriff starting in FY21. This fund is an enterprise fund where all the revenues from this fund are supposed to cover all the expenses similar to a private sector business.

In FY19 the cost for this service was shown to not be paying for itself through the revenues plus the household solid waste fee. An estimated 20% increase in the fee (from $60 to 72) was recommended but Council only chose to increase the fee to $65 (first fee increase in 12 years). This fee recommendation did not include the capital identified in

CIP V3.0. (note these fees included animal control, which is no longer part of fund 210, the fee for animal control was separated out to a new fund 117 ($10) and the SW fee reduced to $55 for fund 210 in 2020).

In late 2018 (middle of FY19) the private hauling firm that owned and managed the transfer station used by the County for disposal for decades notified the County of their intent to close the transfer station effective 1/1/19. The County was then forced to put in place short and long term plans to replace the existing private hauling and private transfer station system. If we had continued with our operations using the private landfill, the financial models indicated we would need an additional $18 fee increase from $65 to $83.

For the FY20 and FY21 budgets the County was uncertain about the financial impacts of the short term and long term plans however we now have plans in place and should have a clear understanding of our new operations costs after the County owned transfer station begins operations in Q4 2020. We now have a contract in place with Twin Chimneys Landfill that has significantly reduce our operating costs. A new County owned transfer station is expected to be operational by Q4 2020.

We must also consider the DHEC mandated (see appendix) $1,033,725 in reserves for the old landfill based on State law. Because we have apparently deficit spent from our solid waste fund for a long time and we have ignored capital needs we now have a significant backlog of needs that must be funded. Therefore the models presented below do NOTHING to set aside the reserve as required by DHEC and State law.

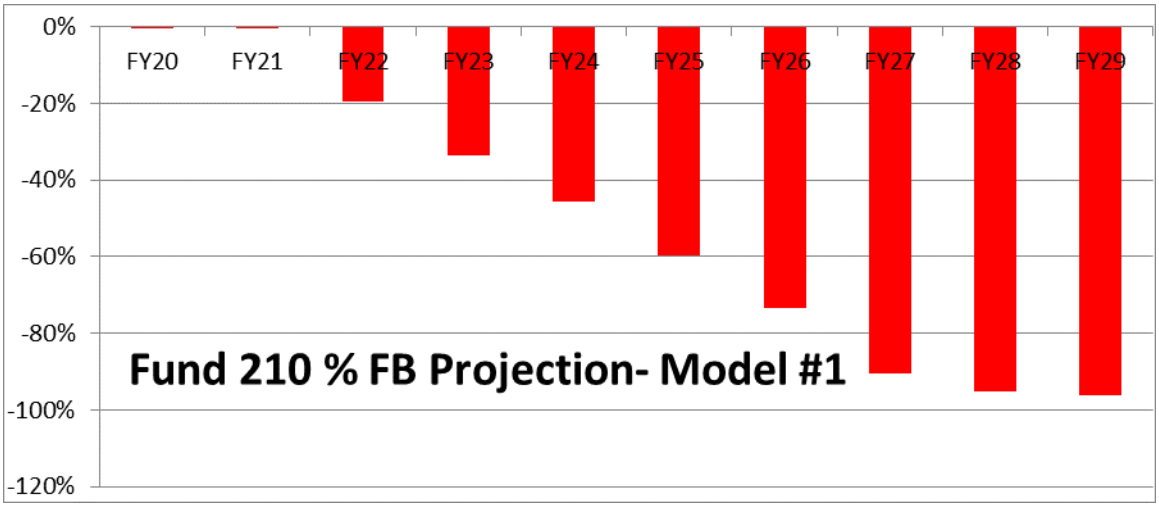
It is important that we set a goal of a 25% O&M fund balance reserve in our accounts.

In FY19 County Council agreed to borrow approximately $2M from the GF FB with repayment back to the GF FB. This $2M was for the construction of the transfer station and the equipment needed to run this station. Fortunately the economic situation decreased the cost of construction and the current estimate is that the 210 fund will only need half of that amount ($1M).

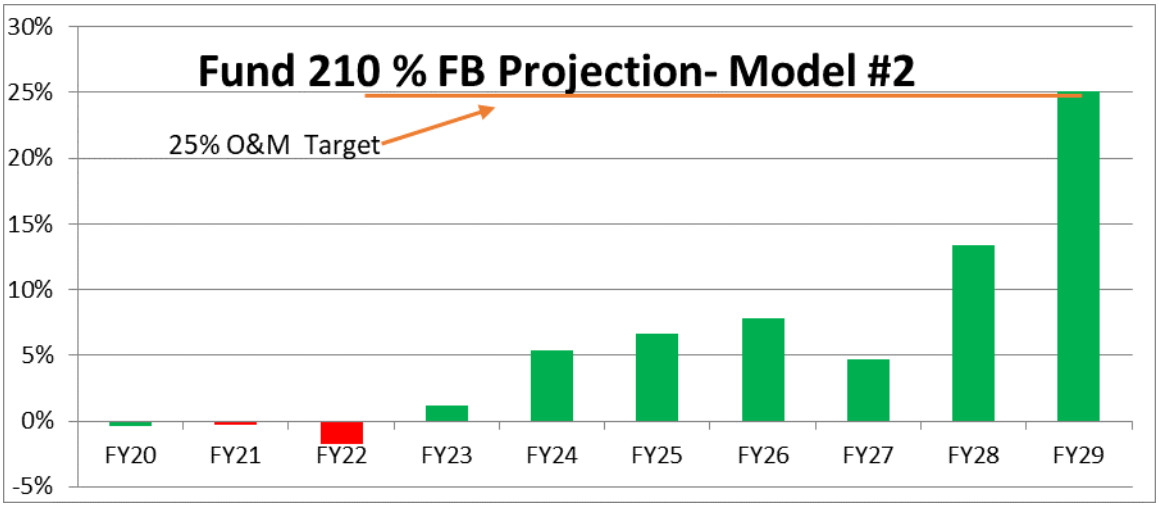
The County had deficit spent in the 210 fund for operations and maintenance (O&M). In addition, the County had failed to invest in our solid waste capital. Many of our convenience centers are not sufficient to accommodate the growth we are witnessing in parts of the County. The County had also failed to replace existing equipment as well as provide the needed equipment for our solid waste operations. All of these failures to financially support our solid waste operations have resulted in a large backlog of neglected capital investment needed for our solid waste operations.

Two long range financial models are presented below. The first model predicts that the 210 fund will not be able to provide revenue needed for O&M, debt service, and capital needs. The second model shows a $10 fee increase may be needed to cover the long term financial needs of fund 210. Because of the fact that we are just starting operations on the new transfer station, a fee increase for 2021 is not yet able to be quantified.

The first model (#1) ignores the $1,033,725 DHEC mandated old landfill reserves, and ignores the capital for animal control. This model shows that we will continue to deficit spend in fund 210 reaching a 100% negative fund balance (negative fund balance will equal the O&M) by FY29 which is unacceptable.

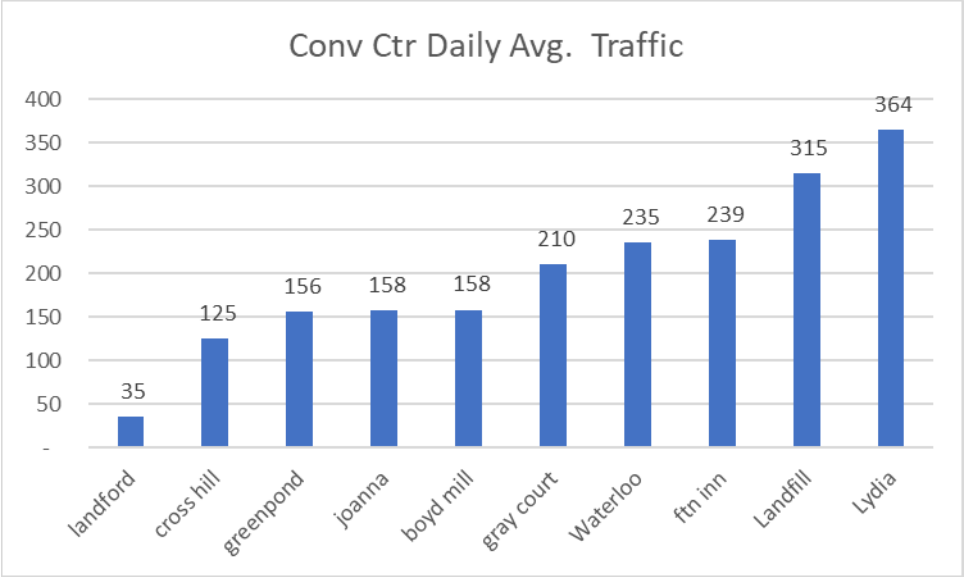


The second model (#2) ignores the $1,033,725 DHEC mandated old landfill reserves, but includes a $10 fee increase starting in FY22 (tax year 2021), This model shows that we will continue to deficit spend for the next 2 fiscal years and then start to move toward a 25% reserve. We will reach the goal of a 25% reserve at the end of the planning period in FY29.



The County lack of investing in our solid waste capital includes the need to remodel some of our convenience centers (CC) as well as replace and augment the capital at these centers. A plan is being developed to address the continued capital needs of our convenience centers and should be in place by V5 of this CIP.

A traffic count is currently being taken to determine which centers have the most traffic and when. With only a few weeks of data the chart below shows the average daily traffic count so far with only a few weeks of data collected. This year we have improved the Landfill CC. Large increases in population are projected in the northern part of Laurens County which are expected to impact the Fountain Inn and Gray Court CCs. The Waterloo CC is expected to also increase in traffic count as the Lake Greenwood area continues to develop.



PRTM:

Quality of life is an important aspect of a vibrant community. Assets such as parks and recreation can greatly enhance the quality of life in a community and have a positive impact on the local economy. Our PRTM department saves the County a lot of money by doing many parks and recreation capital projects in house. To do this the PRTM department needs the right tools. This listing of non fixed assets is to provide the tools needed for the PRTM department to build and maintain these important assets. See the PRTM 5 year non-fixed asset plan in the appendix.

Short and Medium Term Goals:

Year 1 (FY22): $25,500
Year 2 (FY23): $25,000
Year 3 (FY24): $42,000
Year 4 (FY25): $30,000
Year 4 (FY26): $30,000

Recommended funding source: Annual Capital Millage

As part of the CPST I multiple parks projects will be funded. Approximately $1,725,000 will fund improvements to City and County parks including new picnic shelters, playgrounds, and 3 splash pads.

A $414,200 CPST I funding will be utilized to build the County's first veterans park on County owned property at the Laurens library. A $300,000 CPST I funding will be used to build the first section of the Laurens County Swamp Rabbit Trail.

E911 (FROM CIP V3):

Capital in the 911 office is fixed capital but may have a shorter life than typical fixed assets so it is included here in the non-fixed asset plan component. In the past 3 years 8 we have invested heavily in upgrading equipment in 911 investing over $2,100,000 in replacing dated fixed assets.

Several of the recent investments in E911 were eligible for reimbursement from the State E911 fees charged to users. We successfully secured this 80% funding matches for many of recent investments from the E911. It is estimated we will use $1,200,000 in grant funds and $900,000 in local funds. Much of the local match has been paid for already with the exception of a L/P with annual payments of $97,600 in the GF (524) through FY22.

Two of the new investments have been included in the long range CIP to be replaced in 5 years. In addition a very costly 800MHz radio system project needs to be addressed.

The need for a new EOC/911 center has been identified as a part of the CIP. Currently a feasibility study is being conducted to determine the size and scope of this project. That feasibility study will be incorporated into CIPv4 next year.

E911 Short and Medium Term Goals:

Year 1 (FY22):

- $90,000 (voice recorder system)
- $150,000 radios
- $38,000 Vehicle

Year 2 (FY22):

- $150,000 radios
- $700,000 Telco Upgrade/Replacement

Year 3 (FY23):

- $150,000 radios
- $38,000 Vehicle
- $700,000 CAD Upgrade/Replacement

Radios:

FY22: $2,100,000 to be funded with the CPST I (multiple departments).

SHORT/MEDIUM TERM FIXED ASSET NEEDS:

See the fixed assets plans in the appendix for more information.

911/EOC

New 911 center: In partnership with Clemson University a "Practical Community Resilience" long range plan was created for Laurens County. As part of this plan, the 911 and EOC (Emergency Operations Center) was shown to be located in one of the worst locations for such a facility (see appendix). The current facility is housed with the headquarters (HQ) for Fire and EMS. So most of our critical HQ, EOC, and 911 operations are located in this same facility. This facility is located within a flood plain. When a major storm hits Laurens County and the public needs these critical emergency services functions we risk losing these operations due to flooding due a time when these services are most needed.

In addition, this facility is located directly adjacent to a Class 1 railroad carry all kinds of hazardous materials through Laurens County. If a derailment was to occur our key emergency services operations could be left inoperable at a time when they are most needed.

In 2019 a long range study was conducted **(see** appendix**)**. There are several components to this study but for the 911 and EOC operations a 14,392 sf facility is needed to replace our existing 911/EOC center (these operations only). The estimated stand alone cost for this is $4,700,000 to $5,800,000.

It is recommended however that a combined EMS/Fire/911/EOC facility be built for efficiency of operations and better customer service. This combined facility is estimated to cost $12,545,000 to $15,441,000. It will most likely have to be phased in to be able to be funded.

The 911/EOC center is shown in this short/medium term section of this CIP due to the fact that this facility is needed now however it is recognized that with all of the neglected capital investment needed in Laurens County this facility will most likely be built in phases over the short/medium and long term planning periods of this CIP.

EMS:

Priority #1. New Headquarters Complex for EMS administration and Medic #1

This project has been identified as a top priority of Council for many years. As described above in the 911/EOC section, a long range study was conducted in 2019 **(see** appendix**)**. There are several components to this study but for the EMS HQ component a 24,188 sf facility is needed at an estimated stand alone cost of $7,900,000 to $9,700,000.

This facility was originally to include housing Medic #1 however **a** proposed location for this HQ facility is on County owned property near the Detention Center which is a central location to the entire county and in close proximity to the Hospital. Locating the HQ here with Fire and 911/EOC would create the need to have a separate facility for Medic #1 which serves the City of Laurens and surrounding areas.

Medic #1 is currently housed at a worn-out facility near the Ridge in the City of Laurens. This facility will be funded with CPST I . Removing Medic #1 from the HQ facility will reduce the sf needed at HQ by about 5,000 ($1.6M to $2M as part of the new EMS HQ). This reduces the HQ facilty for EMS to around $6M to $7.7M.

As stated above it is recommended that a combined EMS/Fire/911/EOC facility be built for efficiency of operations and better customer service. This combined facility is estimated to cost $12,545,000 to $15,441,000. It will most likely have to be phased in to be able to be funded.

The EMS HQ center is shown in this short/medium term section of this CIP due to the fact that this facility has been identified by County Council for the past 6 years as the top priority. It is recognized that with all of the neglected capital investment needed in Laurens County this facility will most likely be built in phases over the short/medium and long term planning periods of this CIP.

The EMS HQ project can be funded through a future GO bond. The Medic #1 project is to will be funded with the current CPST I.

Priority #2. New Medic #2 Complex and relocate Squad #2 to same location
(Total Estimated Cost - $600,000)

- Building - $450,000
- Land Acquisition - $0
- Site Prep/Grading - $100,000
- Furnishings/Misc - $50,000

Priority #3. Relocate Medic #3 to Gray Court Fire Department (Est. Cost - $150,000) or move to NESS station at $0.

Priority #4. Renovate Medic #4 in Cross Hill (Total Estimated Cost - $67,000 plus sprinkler cost)

Priority #5. Squad #1 in Ware Shoals ($1,00,000)

Priority #6. Squad #2 in Joanna ($1,00,000) or collocate with Fire

Fire:

The final stages of the current fire bond for construction of new fire stations (ISO) and remodel of existing stations is now being conducted. The original projects that were to be included in this bond funding source were not all be able to be completed with the bond moneys alone so Council allocated additional funding from the Fire SPTD to complete these projects. The very first project was overbudget under this bond was extremely overbudget but the County completely changed our process after this project for the remainder of the bonded fire projects. As a result the overage is mostly due to the first project coming in way over budget.

A longer term plan to abandon the current S Harper Street facility is part of the 911/EOC/EMS HQ project described above. This plan has identified the Fire HQ as a 5,221 sf need at a cost of $1.7M to $2.1M.

Currently the County has one service contract remaining (City of Clinton). The City has identified this service contract as a potential problem in the future at the current City staffing levels. The County too has identified the potential need in the future to discontinue this service contract and take over service of these fire service areas outside of the City limits as the County grows in this area. The County has been working on long range plans in the event that this service is no longer viable through contract with the City of Clinton.

Two stations have been identified as being needed to cover this service area. The first station would be a new one in the hospital area and could be accommodated by adding fire bays, and accommodations for a 24 hour paid staff at the Emergency Services Complex when this facility is constructed.

Vehicle Maintanance:

A maintenance facility for solid waste was identified by current Councilman Joe Wood. This facility may also be needed for several other departments for vehicle repairs. This is the first time this idea has been included in the CIP and not yet been quantified and prioritized.

BUILDINGS:

HVAC Systems:

HVAC systems are a very costly repair or replacement. A long range plan should have an inventory of our HVAC systems as well as their expected life. This will allow the County to plan ahead for these costly replacements in the future. Advanced planning has not taken place in the past and therefore many of our existing HVAC systems are beyond

their design life. That alone does not necessarily require us to replace HVAC systems but we must plan ahead for these very costly systems replacement.

1. Sheriff Office HVAC: 50 year old system. Cost $695,000 Should consider long term plans to replace the SO (LEC) before we invest in replacing this system.
2. Historic Courthouse Cost 50 year old system. $900,000? A component of the overall building plan (see related plan).
3. Clemson Extension: $6,000 (for 2022): As part of the Ag Center in the CPST I, Clemson Extension may be relocated in few years to this new center.
4. DSS system. $80,000. With cuts in State funding should push this cost to the State.
5. EMS HQ ? years old $10,000 (build new facility?)
6. E911 HVAC $20,000-2 units, 24 years old (build new facility?)
7. E911 HVAC $10,000-1 unit, 23 years old (build new facility?)

Flooring:

1. Sheriff Office carpet first floor. Cost $10,000? Should consider long term plans to replace the SO (LEC).
2. DSS $176,000. With cuts in State funding should push this cost to the State?
3. Clemson Extension Bldg Flooring 2023-$30,000 As part of the Ag Center in the CPST I, Clemson Extension may be relocated in few years to this new center.
4. Carpet L9 Courtroom $4,000 (see Hillcrest Plan)
5. Service halls etc. flooring $18,000 (see Hillcrest Plan)
6. Judges Area flooring $10,000 (see Hillcrest Plan)

Roofs:

1. Det Center Roof $236,000
2. Springdale EMS Substation Roof $4,000

Building Restrooms:

1. Hillcrest Service Side $40,000. (see Hillcrest plan)
2. FY21 DSS system. $20,000. (State funding?)
3. FY21 Health Dept. $20,000. (State funding?)
4. FY21 Library $90,000 (6)
5. FY22 Sheriff Office $40,000 (Replace LEC?)
6. S Harper Street EM Svcs. $40,000 (Replace Facility?)
7. E911 $35,000 (replace facility?)

Energy Efficiency Improvements:

Energy Efficiency measures require an upfront investment with a payback through utility cost reductions in the future. Multiple were developed from a proposed performance contract model that was rejected by County Council in 2017.

The energy efficiency measures were supported by Council through various smaller projects that were managed by the County. There are still more projects that are in this CIP to save more money in O&M and energy costs.

1. Health Building Lighting Upgrades - Contracted Cost: $64,000, 2.5 year ROI
2. EMS/911 HQ Lighting Upgrades- Contracted Cost: $20,000 (build new facility?)
3. Cross EMS Lighting Upgrades- Contracted Cost: $1,145
4. Grey Court EMS Lighting Upgrades- Contracted Cost: $850, 1.5 yr ROI
5. Ware Shoals EMS Lighting Upgrades- Contracted Cost: $1,725, 1.5 yr ROI

Misc:

3. Library Paint Outside $10,000
4. LEC Elevator; $90,000 (replace LEC?)
5. LEC Generator $58,000 (replace LEC?)
6. Health Building Parking lot $105,000
7. Paint Assessors Office $4,000 (see Hillcrest Plan)
8. Landscaping $25,000 (see Hillcrest Plan)
9. New Signage $40,000 (see Hillcrest Plan)
10. Remodel PD/Solicitor Areas $50,000 (see Hillcrest Plan)
11. Pave Parking Lot $165,000 (see Hillcrest Plan)
12. Expand Building Codes $50,000 (see Hillcrest Plan)
13. EMS HQ Ceiling Tiles $4,000
14. Church Street Renovations $238,000

Historic Courthouse:

The most important historic building in Laurens County is our Historic Courthouse. This building was apparently "updated" in the 1970's but needs work now. We have water damage on the inside and the exterior of the building. See the fixed assets plan in the appendix for more information.

An architect that has experience in restoration of historic courthouses was hired to analyze this structure, its deficiencies, and help the County create an action plan. This study helped the County create a 3 phased approach that we can utilize over time as we identify the funding sources so that we can eventually restore this facility.

Phase 1 was the top priority and is currently under construction. Council allocated $700,000 from a recently issued GO bond to implement phase 1. Phase 1 will do the most we can to stabilize this structure within the funding allowed. The work invested in phase 1 will be added to (not taken out) when future phases are done.

A large part of the phase 1 work focusses on the replacement of the roofing on the dome structure. This dome was covered with a foam during the 1970s replacement covering significant elaborate decorative metal dome features from the early 1900's. More importantly this dome is leaking bad and has allowed animals to enter the structure. This external damage could result in a loss of the roof structure and significant interior

damage. A new copper dome recreating the original detailed metalwork is currently being installed by a roof craftsman who has taken it on as a personal interest to restore the original details as much as possible. This high quality dome will last for generations and is something we can be proud of.

Additional phase 1 work will install some limited fire monitoring systems to minimize the potential from a catastrophic fire loss.

Phase 2 ($4,100,000) will be funded through CPST I plus an additional State grant of $500,000. This phase will build upon the work of phase 1. Phase 2 is primarily focused on the buildings exterior including the roof structure. The external elevator will be moved inside the building. It is also hopeful we will be able to install a fire suppression system inside the building.

Phase 3 will address the inside of the building. The use of this building will ideally be known at that time.

Funding Sources:
Phase 1: $700,000 GO Bond Underway
Phase 2: $4,100,000 CPST I
Phase 3: $5,000,000? CPST II?

Hillcrest Courthouse:

The main facility for the Laurens County Government is the Hillcrest facility. The roof on this facility had been leaking for some time and the HVAC systems were overdue for replacement also. In addition the interior and exterior of this central facility was worn out. Over the past few years we have gradually addressed many of these issues. As a result we have created a more functional, better looking facility the community, visitors, and employees can be proud of. Additional work is still planned to be completed as part of the Hillcrest facility plan.

Northern Emergency Services Station (NESS):

A state grant of $900,000 was utilized to build the first phase of an emergency services building. Growth is coming to Laurens County especially in the Northern section of the County from Greenville growth. Laurens County must improve our services and infrastructure to address this growth. In addition, if we desire to have more growth we much provide the infrastructure and services needed to support more growth.

As a result of these needs a new emergency services station was constructed with the first phase being funded by the $900,000 State grant. The second phase is currently under construction/bid to be funded with local funds. This station will house Fire, Sheriff, and EMS services to serve this rapidly growing area.

ROADS:

Building Needs:
Year 1 (FY22): $110,000 Equipment Storage Shed
Year 2 (FY23): $100,000 Upgrade Shop
Year 3 (FY24): $15,000 Landscaping
Year 4 (FY25): $25,000 Office Upgrades
Year 5 (FY26): $25,000 Sand Shelter

Funding Source: Annual Capital Millage

Road Pavement Plan
Our biggest capital asset and our largest capital liability is our road pavement. We are not aware of a long range capital plan for road pavement ever being developed in Laurens County. A comprehensive County road inventory was created in 2019 listing all of our roads and the condition of the pavement. Approximately $40,000,000 is needed TODAY to take care of our aging asphalt surface.

Our historical investment into our road pavement asset has been the CTC funding. Currently we receive approximately $650,000 annually for County road pavement. At this level of investment our $40,000,000 problem will grow to a $100,000,000 problem in ten years.

Without a long range plan in the past we have not had any analysis of how much money was needed to maintain our road pavement assets. As a result of this we have accumulated a huge debt now. Now that we have a long range CIP for road paving, reversing or stabilizing that debt must now be a priority of Council. Failure to address this asset will pass a huge burden on to future generations. Had this analysis and CIP been done decades ago, we may not have the huge debt we have inherited today.

Funding Source: In FY20 an increase in the road fee was put in place to cover the short term plan to seal our roads and stabilize this debt. Longer term solutions to increase our road paving investment can occur at a future date. A copy of the road preservation plan is included in the appendix to this report.

Road Bridges and Pipes Plan
Another large capital liability are our road bridges and pipes. A first ever comprehensive County road bridge and pipe inventory had been developed in 2019 listing all of the larger road pipes and bridges as well as their condition. There are 2 parts to this

inventory, an engineering study and an internal study. This is the first (V4) CIP that has included the pipe liability.

A detailed engineering study (see portions in the appendix) was conducted analyzing the structural capabilities of the 25 largest bridge structures owned by the County. This study identified a cost of $7,260,000 to $10,090,000 to fix these structures. We DO NOT have a source of funding identified for these structures at this point so we are continuing to monitor these structures and unfortunately having to close structures as they become structurally unsafe (approximately 6 (25%)) of these structures have been closed in the past year or so.

Another list of the remaining larger structures and pipes has begun internally. This has identified additional pipe structures that must be replaced or repaired but the current cost is estimated to be significantly less.

Without a long range plan in the past we have not had any analysis of how much money was needed to maintain our road bridges and pipe assets. As a result of this we have accumulated a huge debt now. Now that we have a long range CIP for road pipes and bridges we have to decide how we can reverse or stabilize that debt and that will take significant amounts of money. Failure to address these assets will pass a huge burden on to future generations. Had this analysis and CIP been done decades ago, we may not have the huge debt we have inherited today.

A portion of the 97 page road bridge analysis is included in the appendix to this report.

Roads and Bridges Improvements

Infrastructure is an important investment in our future growth. Many communities in the Greenville MSA have witnessed growth limitations due to the lack of planning and improvements to road infrastructure. Laurens County needs to plan ahead now so that we don't repeat those mistake and limit our growth. Right now we are witnessing significant residential investments in Laurens County in the area outside Fountain Inn especially on the southeastern side of Fountain Inn in Laurens County.

We are currently evaluating the road network which includes both State and County roads. In particular we are looking at the road network that will feed traffic to exit 22 on I-385. These roads may need to be widened, shoulders added, creek crossings upgraded etc… This plan will hopefully be incorporated into the next CIP V5 in 2021.

A corridor study (see appendix for a portion of this study) was conducted in 2019 investigating the prime growth corridor on the first 5 miles of I-385 into Laurens County from Greenville County. As a result of this study over $60,000,000 in improvements were noted for this 6 mile corridor of I-385.

CORRIDOR PLANNING/IMPROVEMENTS NORTHERN LAURENS COUNTY:
In the past few years over 1,000 new residential units have been built or permitted to be built in Laurens County on the western side of I-385 near or in the City of Fountain Inn. More recently more than two thousand new residential units have been proposed that we know of. This section of Laurens County is rapidly developing in residential. Commercial development will soon follow the residential development.

This new residential development in Laurens County must have a plan of improvement for the road network if we desire to continue the growth in this area. For traffic leaving these residential areas now there are a few main travel corridors. One corridor is Durbin Road to State 418. This is a single lane each way and feeds a lot of areas in both Greenville and Laurens County. Traffic congestion is expected in the near future on this travel corridor. This corridor feeds traffic primarily to exit 23 I-385 (Greenville County).

The County is currently conducting an alternative corridor of feeder roads that will feed to exit 22 I-385 (first I-385 exit in Laurens County). **(see** appendix**)**. This corridor analysis has just been started and will be better defined in CIP V5.

The County also conducted a corridor study on I-385 for the first 5 miles into Laurens County (sections of this report are in the appendix). A key part of this corridor is the exit 22 improvements that are needed. The City of Fountain Inn submitted some of the Exit 22 improvements from this study to the CPST I which will be funded now ($912,000).

Solid Waste:

The Solid Waste fund also manages the old landfill. This old landfill has groundwater impacts, methane impacts, and a cap on the trash that must be maintained. See the fixed assets plan in the appendix for more information. In 2019 we received notice that DHEC requirements are that we ensure a $956,918 as financial assurance will that be a reserve on our fund balance. This is not in place.

Cap: The landfill was capped when it was closed in the 1990's to prevent water from infiltrating the trash below. When water enters the trash it can take contaminants from the trash into the groundwater. That groundwater can resurface as a stream nearby or can enter wells nearby thereby potentially endangering humans.

The groundwater is regularly monitored (tested) by the County and reported to SC DHEC. At times DHEC requires additional testing, additional wells to be placed, and may require us to put a treatment system in place in the future.

One of the most important measures we can take to minimize groundwater impacts is to maintain the cap that was placed on the old landfill. This cap consists of a compacted clay/soil "roof" over the landfill that sheds water away from the top of the landfill thereby preventing the rain water from entering the trash below. Over time the trash degrades and subsides creating depressions in the cap that collect rain water rather than

shed the water as originally designed. We must maintain the cap to prevent more costly groundwater impacts in the future. Subsidence of the cap should minimize 30 years after the cap is in place (2025 era) and is expected to be of less concern after that time period but cap maintenance is included in our 10 year plan.

Recommended funding source: TBD. Long term plan should be to generate a sufficient reserve to plan for future groundwater and/or methane impacts in addition to a 25% UD reserve for O&M. For now the SW EF covers the annual costs of monitoring the landfill.

Methane: As the trash in the old landfill degrades it produces methane which can be flammable or explosive. That methane must remain on our property. The migration of the methane is monitored by the County (tested) on a regular basis to ensure the safety of the surrounding properties.

These methane reports are regularly submitted to DHEC who may require additional testing, additional wells, and potentially a treatment system. A treatment system would be a very costly investment. At this point the long term needs (requirements) are unknown but we must be prepared to be required to do any DHEC mandated investments in the future.

A long term plan has been requested of our landfill consultants so we can potentially prepare for any future needs however quantifying these needs is a very difficult task due to the unknowns. Methane production should minimize 30 years after the cap is in place (2025 era) and is expected to be of less concern after that time period but we should include methane capital investments in our 10 year plan with at least setting aside a reserve.

Recommended funding source: TBD. Long term plan should be to generate a sufficient reserve to plan for future groundwater and/or methane impacts.

Groundwater: Many decades ago we disposed of hazardous materials in unlined landfills such as ours. Over time these hazardous materials can enter the groundwater below. See the cap discussion above as a related part of the groundwater impacts. Groundwater impacts must remain on our property. The migration of the groundwater impacts is monitored by the County (tested) on a regular basis to ensure the safety of the surrounding properties and ensure no contamination is entering surface water such as nearby creeks.

These groundwater reports are regularly submitted to DHEC who may require additional testing, additional wells, and potentially a treatment system. A treatment system would be a very costly investment. At this point the long term needs (requirements) are unknown but we must be prepared to be required to do any DHEC mandated investments in the future.

A long term plan has been requested of our landfill consultants so we can potentially prepare for any future needs however quantifying these needs is a very difficult task due

to the unknowns. Groundwater impacts may be a long term issue for the County to deal with so we should add groundwater impact investments in our 10 year plan with at least setting aside a reserve.

Recommended funding source: TBD. Long term plan should be to generate a sufficient reserve to plan for future groundwater and/or methane impacts.

Solid Waste Transfer Station:

For decades our solid waste management has consisted of a privately run transfer station. The County, Cities of Clinton and Laurens used this transfer station to dispose of their residential waste. Residences in Laurens County also use this transfer station. In late 2018 the County received notice that the private company was closing the transfer station effective 1/1/2019.

The County is now in the final process of building our own transfer station which is expected to open 11/2020. County Council agreed to borrow from the County GF FB UD with an interest rate applied. This will allow the County to utilize our cash flow to minimize borrowing costs and to allow the interest on this borrowing to be paid back to the taxpayers rather than a private sector financial institution. Current estimates are that approximately $1,000,000 will be borrowed from the GF FB UD to cover the cost of the money needed to construct the station and buy the equipment needed by borrowing from the GF FB.

Once the transfer station opens we will have a better understanding of the revenues and expenses of the SW EF. Currently a SW fee increase is anticipated in 2021 to cover the long term liabilities including the repayment of the borrowed GF FD UD.

Airport:

The Laurens County Airport is a critical infrastructure asset for our economic vitality. Corporations use local airports to conduct business. In addition, many corporate decision makers will utilize the local airport when looking to relocate a new investment into Laurens County. It is important that we have attractive and functional airport facilities as you only get one chance at a first impression.

Industrial investments in Laurens County provide significant tax revenues. The investments also provide jobs for our citizens. The money that these jobs create also creates additional roll over economic activity as those employees spend money in our community.

We want industrial recruiters to land at our airport and travel in Laurens County rather than land in a surrounding community and then maybe chose to locate in that County rather than Laurens County. An attractive and functional airport is critical to our economic future.

Airport Equipment:
FY22: $15,000, bush hog
FY23: $25,000 Scissor Lift (use buildings lift?)
Fy26: $18,000 Zero Turn Mower

Funding Source: Annual 6 mil capital.

A $500,000 CPST I funding will be used to match $800,000 in additional grants to build a new $1,300,000 terminal building.

Much of the investment in our airport can be funded from external grants. Primarily the Federal Government invests in our airport for many our improvements at a rate of up to 90% of the cost. An additional 5% is funded by the State. See Airport CIP in appendix.

Funding Source: Local match annual grant match (and carryovers) in the GF Airport Department. Remainder is grant funding from State and Federal.

PRTM:

Quality of life is an important aspect of a vibrant community. Assets such as parks and recreation can greatly enhance the quality of life in a community and have a positive impact on economic development. Our PRTM department saves the County a lot of money by doing many parks and recreation capital projects in house.

These projects are to enhance the quality of life for our citizens but to also promote a quality of life that will attract investment into Laurens County. In addition these projects will also bring tourists into our community to use these assets and then spend money in our community at stores, restaurants, and accommodations. Therefore some of the proposed sources of funding for these projects are the same sources these will enhance such as a future capital sales tax or the hospitality tax in the County where those that use the local accommodations pay a slight tax that will further enhance those attractions that will draw more “heads in beds” (increase traffic to our accommodations).

In the private sector you have to spend money in order to make money. These revenue sources are similar, where we need to spend money in order to create or enhance these revenues. These revenues are then used to build our community and enhance the services and assets in our community.

Sales taxes will also increase through tourist spending. Sales taxes paid by non-property owners help to invest in our community as those revenues are used locally to offset property taxes and pay for investments in our community. With more spending locally

we can minimize the economic leakage of our citizen's spending money in surrounding counties. We must invest in our local community in assets such as parks to promote more local spending. See the fixed assets plan in the appendix for more information.

Short and Medium Term Goals:

Underway Now:

- First Phase Swamp Rabbit Trail (Hospital Section) $300,000 CPST I
- Ora Park
- Exit 60 I-26 and Exit 19 I-385 Landscaping and Signage
- All accessible playground at County Park (Grant applied)

Year 1 (FY22): $435,000

- Ballfield Lighting $120,000
- Enoree River Boat Launch #1 $35,000
- Lake Greenwood Park $230,000
- Northern County Park Phase 1; $50,000

Year 2 (FY23): $450,000

- Swamp Rabbit Trail Phase 2 Hospital to Richloom $450,000

Year 3 (FY24): $108,000

- Enoree River Boat Launch #2 $35,000
- Tumblin Shoals Park Playground and Shelter $45,000
- 3 Picnic Shelters at Central Park $28,000

Year 4 (FY25): $80,000

- Restrooms County Park $65,000
- Joana Walking and Fitness Trail $15,000

Year 5 (FY26): $175,000

- Renovations Cross Hill County Park Restrooms: $10,000
- Renovations Joanna County Park Restrooms: $10,000
- Northern County Park Phase 2; $155,000

Year 6 (FY27): $150,000

- Swamp Rabbit Trail $150,000

CPST I will also fund approximately $8,000,000 for a new Agricultural center (entity not yet known) , $300,000 for the first section of the Laurens County Swamp Rabbit Trail, approximately $1,700,000 for park improvements and splash pads, and approximately $410,000 for the first Veterans Memorial Park in Laurens County.

Recommended funding source: FILOT Special Projects Fund, Future Capital Projects Sales Tax, Future County Hospitality Tax, grants.

Library:

There are smaller capital items (copiers, computers), that may be funded in the O&M budget. County Council has invested in the Laurens Library significantly in the past 2 years replacing the floor coverings, HVAC, and lighting.

Short and Medium Term Goals:

Year 1 (FY22): $218,705

- Remodel of Laurens Library Restrooms

Year 2 (FY23): $5,155,000

- New Clinton Library $3.000,000 CPST I
- New Clinton Library F&F $475,000 CPST I
- New Clinton Library Site Prep and Design $450,000 **CPST I**

Year 2 (FY23): $66,000

- RFID $60,000
- Server $6,000

Year 3 (FY24): $10,000

- Copier $5,000 Laurens
- Copier $5,000 Clinton

Year 5 (FY25): $11,000

- Copier $6,000 Laurens
- Copier $5,000 Clinton

Recommended funding source: Annual capital millage, Capital Projects Sales Tax.

Sheriffs Office:

The SO has 2 very large fixed asset needs a new Law Enforcement Center (LEC) and a new Evidence Storage Facility. The LEC is covered in the long term planning section. The evidence facility ($2,000,000)will be funded in FY21 through CPST I.

See strategic plan in the appendix.

Short and Medium Term Goals:

Year 1 (FY22): $1,606,160

- Evidence and Records Facility Temporary Setup ($175,000)
- Vehicles ($336,000) see non fixed assets above
- Body Scanner at Hillcrest ($175,000)
- Computers ($45,000)

- Records Management System ($425,000)
- Email System ($20,160)
- In Car Cameras ($30,000)
- Tasers ($5,000)
- LEC Flooring, Ceiling, Paint ($25,000)
- Rifles ($35,000)
- Radios ($133,000) Funded through CPST I.
- Evidence Equipment ($107,000) CPST I?
- SWAT Bloodhound Equipment ($95,000)

Year 2 (FY23): $694,160
- Vehicles ($336,000) see non fixed assets above
- Computers ($90,000)
- Records Management System ($35,000)
- Email System ($20,160)
- In Car Cameras ($30,000)
- Tasers ($5,000)
- Rifles ($35,000)
- Radios ($133,000) Funded through CPST I.
- Evidence Equipment ($10,000)

Year 3 (FY24): $681,160
- Vehicles ($336,000) see non fixed assets above
- Computers ($90,000)
- Records Management System ($35,000)
- Email System ($20,160)
- In Car Cameras ($30,000)
- Tasers ($5,000)
- Radios ($133,000) Funded through CPST I.
- Evidence Equipment ($10,000)

Year 4 (FY25): $621,160
- Vehicles ($336,000) see non fixed assets above
- Computers ($125,000)
- Records Management System ($35,000)
- Email System ($20,160)
- Tasers ($5,000)
- Radios ($90,000) Funded through CPST I.
- Evidence Equipment ($10,000)

Year 5 (FY26): $496,160
- Vehicles ($336,000) see non fixed assets above
- Computers ($90,000)
- Records Management System ($35,000)

- Email System ($20,160)
- Tasers ($5,000)
- Evidence Equipment ($10,000)

Animal Control:

Animal Control is now a department under the Sheriff. This department has its own designated O&M and Capital Fee that is charged per household on the tax bills.

Upgrades to the Animal Shelter will be funded through CPST I in FY21 ($280,000)..

See strategic plan in the appendix.

Short and Medium Term Goals:

Year 1 (FY22): $184,000

- Vehicles ($144,000)
- In Car Cameras ($20,000)
- Radios ($20,000) Funded through CPST I.

Year 5 (FY26): $48,000

- Vehicles ($48,000)

Detention Center:

See strategic plan in the appendix.

Year 1 (FY22): $674,000

- Reroof Jail ($500,000)
- Security Cameras ($25,000) Inmate Welfare Fund
- Body Scanner ($149,000) Inmate Welfare Fund

Year 2 (FY23): $316,000

- Vehicles ($96,000) see non fixed assets above
- Parking Fencing ($50,000)
- Pave Parking Lot ($150,000)
- Seal Only ($20,000)

Year 3 (FY24): $500,000

- Security System ($500,000)

Year 4 (FY25): $448,000

- Vehicles ($48,000) see non fixed assets above
- Security System ($400,000)

Year 5 (FY26): $448,000

- Vehicles ($48,000) see non fixed assets above

- Security System ($400,000)

LONG TERM CAPITAL NEEDS (beyond 5 years):

Roads:

Our roads assets are our largest asset and largest asset liability.

Roads infrastructure must be maintained/replaced on a regular basis or the costs will escalate and the conditions of the infrastructure will deteriorate. The investments needed in these assets will overlap the short/medium term and the long term plans. Our roads assets have declined significantly and the cost liability to maintain these assets has increased. This is due to a lack of long term planning in the past as well as a lack of sufficient funding to maintain our assets.

Paved roads have a set design life and must be resurfaced over time to keep the costs from escalating. Once a paved road starts to crack the cost to fix that road can escalate quickly. Ideally we will repave a road when the costs per mile are less rather than waiting until the road declines to a point where the cost per mile is much more than if we had resurfaced that road sooner.

We have already identified the short and medium term needs of maintaining our pavements at in excess of $40,000,000. At the current investment level using only State CTC funding that $40,000,000 liability is projected to grow to in excess of $100,000,000 in 10 years. A plan that will be implemented in 2021 as part of the short/medium term solution is to stabilize and potentially reduce that long term liability.

The second component of our roads assets are our bridges and pipes. These assets have also suffered from a lack of long term asset management planning and a lack of sufficient funding. Just recently 5 or more County bridges have been closed due to the failure of the structures. An engineering feasibility study to analyze our larger bridge structures was just recently conducted **(see** appendix**)** however no funded source has been identified.

EMS:

See the attached EMS fix asset plan. These projects have been identified for long term planning purposes (outside of the 5 year short/medium term cycle).

Priority #5. Medic #5 to Trinity Ridge Fire Department
(Total Estimated Cost - $150,000)

Priority #6. Construct new Medic #6 complex and relocate Squad #1 to same location
(Total Estimated Cost - $600,000)

FIRE:

Current equipment bond

A reup of the $3,500,000 long term (10 year) lease/purchase (L/P) was put in action in 2020 for the multimillion dollar fire equipment. A new L/P will be in the long term plan for 2030.

Solid Waste:

See fixed asset short/medium term plans discussed above. A reserve should be set up in the 210 fund to cover long term liabilities ($950,000). See DHEC mandate.

Building Needs:

E911:

The construction of a new 911 and Emergency Operations Center (EOC) has been identified as part of the long term plan. The current location of the 911 Center and Emergency Operations Center is in a flood zone. The building has had some flooding issues in the mechanical room. The building has some age and will require some extensive renovation to the exterior and interior of the building to repair the flooding issues.

Having a 911 center and EOC in an area that will flood can result in our center being inoperable at the worst time when flooding is occurring. In addition, the 911 center and EOC are located next to a class 1 railroad. A chemical spill or derailment could wipe out our 911 center at the worst time.

Both of these conditions plus the age of the facility have put a new 911/EOC as a CIP need for Laurens County. A feasibility study has been conducted by a design firm to quantify the size and rough cost of this new facility along with the EMS/FIRE.

A portion of a study conducted by Clemson University on our our EOC/911 is attached in the appendix.

Sheriff:

The construction of a new Law Enforcement Center (LEC) has also been identified as part of the long term plan. See the fixed asset plan in the appendix for details. The current evidence storage facility is the old jail which has been condemned and leaks during rains and is scheduled to be replace now with CPST I.

The current LEC/Coroner is lacking sufficient space and is in need of hundreds of thousands of dollars in repairs. Rather than waste taxpayer money on fixing the current LEC those dollars could be used in part to build a new LEC in the 10 year planning period of this CIP.

A feasibility study by a design firm to quantify the size and rough cost of this new facility has been conducted and is included in the appendix.

Historic Courthouse:

The short term stabilization of the Historic Courthouse is currently being constructed (summary of a detailed report is included in the appendix). Longer term the Courthouse will need more extensive and more expensive work. See the fixed asset plan in the appendix for details. This very important structure is in dire shape. With the extent (and cost) of the work needed, the work is being divided into three phases. Sub phases within these individual phases may be needed.

1. Stabilize and Maintain-This phase will keep the degradation from worsening. Underway NOW using bond funds.
2. Renovate and Improve- This phase will bring new life into the structure. To begin in 2021 using CPST I funds. Primary focus is on the exterior of the building.
3. Restore and Preserve- This phase will restore this important structure back to its historic grandeur on the internal and potentially remodel it for a new use. Funded with future CPST II?

Library:

Longer term projects identified are listed here, see the fixed assets plan in the appendix for more information.

2028 Gray Court/Hickory Tavern Library $10,000,000
2032 Bookmobile $250,000

1. New library at Clinton: $4,150,000 plus $450,000 for furnishings, $580,000 for new library construction engineering and design. Underway 2021 using CPST I.
2. Remodel of Laurens Library- $517,000 (2026) (see short-med term priorities also)
3. Reroof Laurens Library- $100,000 (2030)
4. Grey Court/Hickory Tavern Library and furnishings- $10,000,000 (2028)
5. Replace Bookmobile- $250,000 (2032)

Potential funding source: CPST- Capital sales tax referendum(s), Capital Millage.

Sewer:

The Laurens County Water and Sewer Commission (LCWSC) receives some financial support from the County Council for sewer projects. Through this financial support the Council supports the LCWSC's efforts to extend sewer collection and/or treatment services for residential, commercial and industrial development in Laurens County. This support includes providing financial resources through grants such as CDBG or RIA grants, special tax districts, or millage rate increase to fund approved capital sewer projects.

Future plans for Council supported sewer projects are to be developed when appropriate. Land use specifications would benefit sewer planning efforts to identify those areas of the County that support sewer infrastructure and make it a viable option. Planning efforts that include higher density housing, one third acre or less, are paramount in development of centralized waste handling facilities. Areas along the norther part of Laurens County (north of Highway 101) and along Lake Greenwood are the most likely areas that would benefit from that type of effort.

CAPITAL PLAN FUNDING

(see related long range capital and other plans):

OVERVIEW: Prior to the new Adminstrator taking office in 2016, the County operations and maintenance (O&M) funding was commingled with capital funding. In addition there was a comingling of a variety of special revenue funds into the General Fund. As a result of this commingling it was nearly impossible to determine a long range plan for funding capital. The new financial systems have unwound the commingled funds as well as the commingled O&M and capital. As a result of these new financial systems we can now plan ahead for long term capital needs.

Long term capital needs have also never been quantified in Laurens County prior to the first CIP being introduced by the newly appointed County Administrator (version 1.0) in 2017. Now that we have a CIP and have been able to further refine the CIP in this updated annual revision we have a better idea of the volume of capital needs as well as capital "wants".

These staggering numbers at first would lead a reader to conclude that we cannot afford to do anything however there are numerous financial tools we have available. We have already implemented several solutions to start to reverse our capital debt. Below is a listing of some potential financing options.

Option #1: Existing Capital Millage, Increased Capital Millage, & L/P:

Currently we have 6.1 mills of taxes for capital which generates $1,130,000 annually (newly created fund 600). This fund is now separate from the O&M GF.

In the past due to a lack of funding in the current year, we have had to fund capital through lease purchases (L/P) arrangements. While this can be a valuable financial tool, in reality all this does is push the capital needs on to subsequent years rather than fix the problem of insufficient funding. Further this creates problems in the subsequent years when L/P payments use up a majority of the current year's capital funding.

Option #1 should be a pay as you go where we pay for the capital needs for the upcoming year completely rather than pushing this problem further down the road. If the millage is

not sufficient to cover the needs then the millage (not restricted by SC Act 388) should be increased to cover the capital needs in the upcoming year.

FY20 (current fiscal year) was the first time we have not implemented an L/P to cover capital needs from fund 600. Unfortunately we have a 2019 L/P that required payments in FY20 (using 31% of the total 600 fund revenues for FY20). We must repeat that in FY21 (upcoming fiscal year). Now that we have a long term financial and capital plan, hopefully we can reduce or eliminate L/P needs from fund 600 and move this fund to a current year capital needs fund.

In addition when we borrow money, the taxpayers must pay extra money in borrowing costs. Through advance planning we may be able to have less L/P to fund our capital or borrow from our now healthy GF FB allowing the taxpayers to self fund capital needs.

It is important to note fund 600 does NOT include Fire, Solid Waste, or EMS. Fire is funded through a SPTD and addressed in another section of this financial plan. Solid Waste is no longer a component of the General Fund and is supposed to an Enterprise Fund (EF) where the operation runs like a business. Solid waste is addressed elsewhere in this financial plan and is assumed to have capital funded through the fees generated in fund 210. EMS was segregated in FY20 into a new capital fund with a newly created capital millage (2 mills).

Segregated out the special revenue fund capital needs has also resulted in more stability for the 600 fund capital fund.

Option #2: New EMS Capital Millage:

The need for EMS capital was identified in the first long range capital plan (V1.0) and that plan introduced the recommendation that millage be set up solely for EMS as EMS is treated as a special fund with a dedicated millage. EMS capital has been neglected in the past and we have an extensive backlog of EMS capital to make up for.

EMS O&M was separated from the GF as an SRF in FY19. In FY20 an additional 2 mills of capital was applied to EMS only in a newly created fund 601. EMS now has its own source of revenues (including millage) to cover all of the O&M and non-fixed capital assets.

Option #3: Solid Waste Fees Cover Capital:

Solid waste was labeled as an enterprise fund (EF) where the revenues received (NO TAXES) were supposed to be paying for this service. This fund was not established as an EF and was actually a component the GF. Council fixed this in FY18 where fund 210 (Solid Waste and Animal Control) is now an enterprise fund.

All capital should be built into the revenues received for fund 210 and is advised to no longer be funded by taxes. In FY20 and FY21 a restructure of the solid waste services was required due to the closure of the private sector transfer station. A new disposal agreement has saved hundreds of thousands of dollars annually. A new transfer station is being constructed and will soon be in operation. To build and equip the transfer station, the County Council borrowed from the GF FB UD.

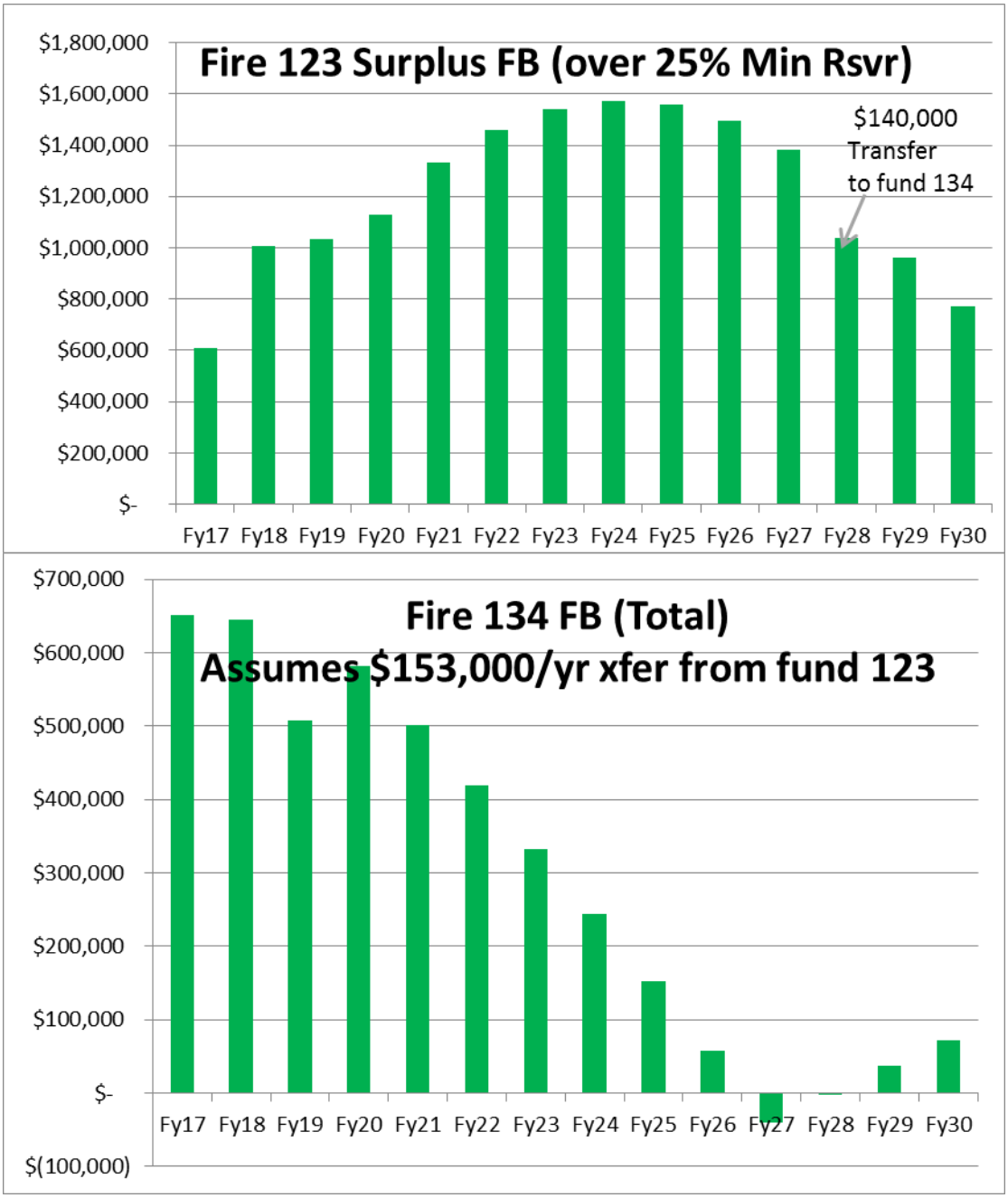
PRELIMINARY data indicates the GF FB UD will be owed $1,000,000 from the SW fund. In addition, more capital investment is needed as highlighted in other sections of this report. Current preliminary estimates are that a $10 SW fee increase will be needed to cover the cost of capital. However, we will have more accurate information once the transfer station is open and operating and we can have real data for the financial impacts both positive and negative.

Option #4: Fire SPTD Capital:

As described in much more detail above, the bulk of our Fire Department non-fixed assets were captured in a 10 year bond cycle in 2020. Fire special purpose tax district (SPTD) is in 2 funds, fund 123 which should be only the O&M, and fund 134 which is only capital. Both these funds have healthy fund balances now.

A long range financial model has been created to model a renewed 10 year L/P starting in FY20 (first payment in FY21). These financial models do not include potentially increase in the number of paid fire service personnel for stations that are having problems with volunteer staffing.

The models below show that the existing taxes from the Fire SPTD is sufficient during the planning period to cover the long term capital needs of Fire.



Option #5: E911 L/P, Grants, & Special Fee Increase:

Laurens County has invested heavily in much needed E911 upgrades investing an estimated $2,100,000 in just 3 years. Of this total amount spent an estimated 70% was recouped through E911 fee reimbursement grants. These grants may or may not be available during the next replacement cycle.

Currently there is an L/P for the radios system upgrade. This is funded through the GF O&M department 524. This L/P is $99,000 per year through FY23.

The update to our 800 Mhz radio system is the costliest item and it will be funded in FY21 through CPST I.

OPTION #6: GO Bonded Debt:

There are some very large fixed asset capital needs that need to be funded. These are long life items that will have to be prioritized by Council. Some of these items have already been identified by Council as top priorities.

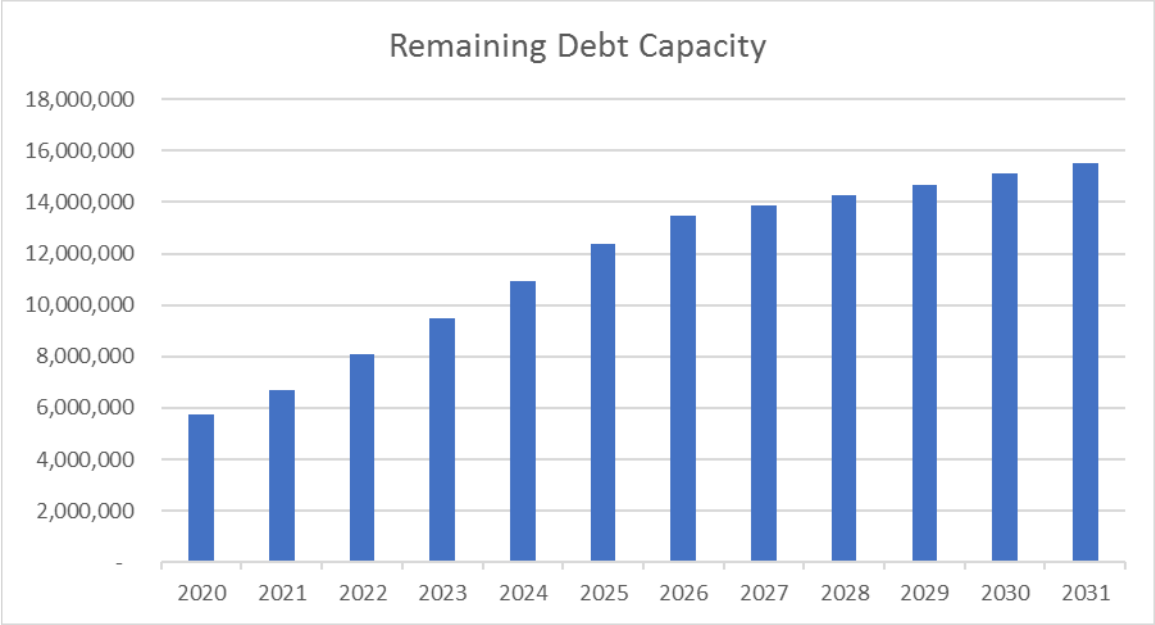
The purpose of this long range strategic capital plan is to identify any and all long term capital needs. Many of these capital needs are outside the short term planning period (next 5 years) but should be considered as we evaluate long term needs. For example is it logical for us to invest $1,000,000 to upgrade the LEC/Coroners Office (Law Enforcement Center/Sheriff Office) in the short term planning period if we plan to build a new LEC in the longer term solution? If not then we would simply plan on patching the existing the LEC while working on plans to invest that money in a new LEC in the near future.

In addition we can take actions now in the short term to address components of the long term solutions for these high cost capital needs. For example the evidence and records storage facility at the old Jail in Laurens needs to be replaced now. By investing now in a phased approach to fix this short term need with our focus also on the long term solution we will be investing now to fix the short term need while simultaneously building for the long term solutions and not wasting tax payer money today on facilities that will be abandoned in the near future.

The cost for the long term solutions is huge. Ignoring these needs is not a solution to these needs. Ignoring these needs also does not allow us to plan ahead to be strategic in our long term investments. It is not feasible that we will be able to address all the capital needs in the short/medium term planning period (5 year) but it is recommended that we plan ahead and implement logical lower cost phased solutions to these long term needs.

This year Council refinanced existing GO debt (term remained the same) which will save $100,000 to $200,000. At the same time Council issued new GO debt of $4,500,000 to cover the costs for major repairs for the Hillcrest Facility, Library, and for phase 1 to stabilize the historic courthouse.

The chart below titled “remaining debt capacity” shows the remaining GO debt projected over the planning period. There is sufficient GO debt to cover the cost for some much-needed capital facilities during this planning period. This chart is based on the current value of the tax digest. It is projected over the planning period that the County will have significant increases in the tax digest which will result in an increase in the debt capacity.

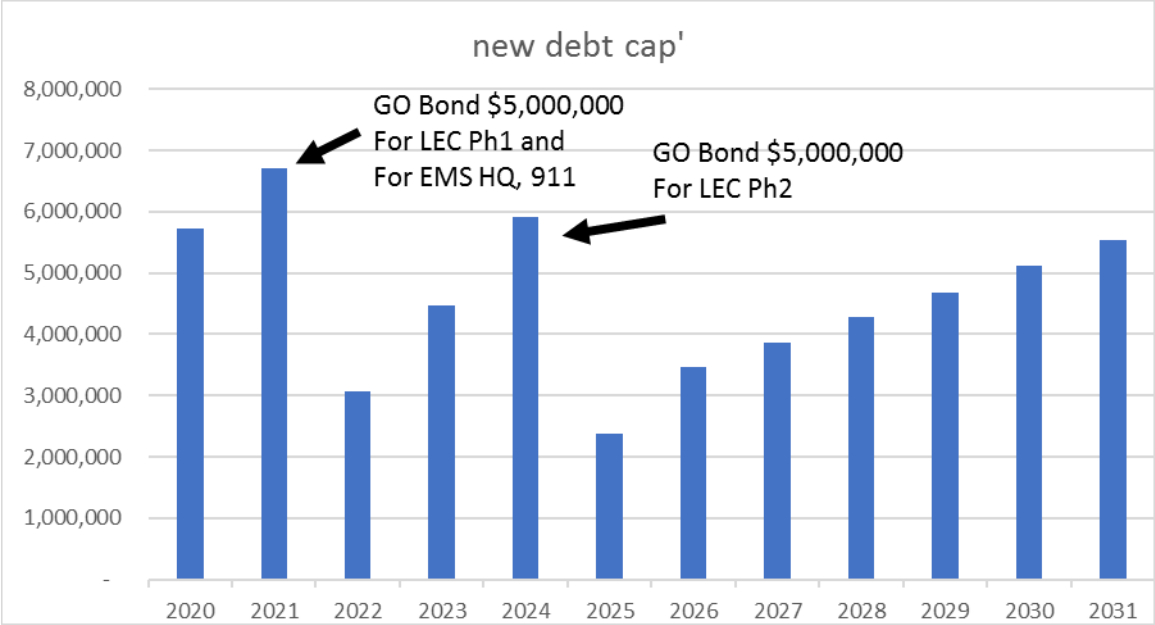


Based on the current debt capacity the chart below titled “new debt cap” shows 2 POTENTIAL additional GO debt lettings. One GO letting in this model is next year for $5,000,000 for a potential LEC phase 1 (evidence facility) plus a new sperate facility to address the need for a new E911, EOC, EMS HQ and Fire HQ.

The second potential GO letting is in 2024 to cover $5,000,000 in additional debt for a project such as a new LEC/Coroners Office (phase 2). The model below is not based on actual numbers. The current feasibility study on the EMS/EOC/E911/Fire facility will give us a better cost estimate of this facility (and potential phases). The proposed LEC/Evidence/Coroners office feasibility study will do the same for this facility if that feasibility study is funded by Council.

The actual debt let, the cost of the projects, and the timing of that debt, has yet to be determined but the chart below shows that Council does have sufficient GO capacity to meet some of these important needs.

In addition there are other funding mechanisms such as an installment purchase revenue bond finance structure that would be available to extend our bonded capacity beyond the limits shown above.



GO DEBT ISSUED 2019:

HVAC system and roof at Hillcrest:

This project is currently under way to replace the HVAC system and roof at Hillcrest Courthouse. With a healthy GF FB Council was able to start these projects ahead of the GO debt letting.

Projects Underway:

1. HVAC Consultant: $50,000
2. Roofing Consultant: $40,000
3. Roof Replacement: $600,000
4. HVAC phase 1: $1,300,000
5. HVAC phase 2: $1,500,000
6. Energy Efficient Lighting: $98,850

Historic Courthouse phase 1:

This project was quantified in a feasibility study conducted in 2019. Our historic courthouse is the most important building in Laurens County and is the responsibility of the County Council to maintain. The facility is in dire shape as highlighted in the feasibility study. Due to the huge cost of this project the project has been broken into three proposed phases.

Budget:

1. Phase 1 Stabilize and Maintain: $700,000
2. Phase 2 Renovate and Improve: $4,400,000
3. Phase 3 Restore and Preserve: $4,800,000

Phase 1 work has been funded now with the GO debt. Phases 2 and 3 could potentially be funded in a future capital sales tax (CPST).

Laurens Library HVAC and Lighting:
This project was also included in the GO debt just issued to pay for the replacement of the HVAC system as well as install energy efficient LED lighting. $310,000

FUTURE GO DEBT:
The model shown above shows one possibility for additional GO debt. The projects listed below may be projects Council choses to fund with GO debt.

EMS HQ:
This project is to build a new EMS HQ identified by Council as a top priority. A feasibility study has been conducted to quantify this project scope and rough cost. No property has been selected for this project however the use of County owned property near the Hospital may be a good location.

New E911/EOC Center:
A feasibility study has been conducted to quantify this project scope and rough cost. No property has been selected for this project however the use of County owned property near the Hospital may be a good location. Our long term capital plan identified the need for a new Emergency Management Center, E911 Center. Researchers at Clemson performed a large analysis of emergency response scenarios for disaster analysis so that we could plan ahead for a more resilient community if we were to be hit with one of the disaster scenarios. This study has resulted in a 179 page report that published by Clemson entitled Practical Community Resilience. This study identified the critical need to relocate our E911 center as described in more detail in another section of this CIP.

New Fire HQ:
A feasibility study has been conducted to quantify this project scope and rough cost. No property has been selected for this project however the use of County owned property near the Hospital may be a good location. Relocation of EMS HQ and E911 would vacate almost all of the County's S Harper Emergency Operations Center. The only remaining office would be the Fire offices (HQ). Therefore a new Fire HQ was presented to County Council to evaluate a complete removal of EMS, Fire, EOC, and 911 from our South Harper Street location to a new facility. This part of the project could be funded through the Fire SPTD.

New LEC/Coroner Office:
A feasibility study has been conducted for this facility quantifying the scope and rough cost for this project. This project could be funded through a future GO bond. See the more detailed discussion in a previous section of this CIP. No property has been chosed for this project however the use of County owned property near the Hospital may be a good location.

OPTION #7: Existing Operational millage (restricted by Act388)

E911 L/P: Currently there is an L/P for the 911 radio system upgrade. This is funded through the GF O&M department 524. This L/P is $99,000 per year through FY23.

Airport Grant Match: The County has traditionally placed $25,000 in the O&M fund of department 513 to match the 95% grant funding we receive from the State and Federal Government. It is assumed this funding source will remain in place for this strategic plan.

Smaller Capital: Smaller capital like computers, computer servers, copiers etc… are assumed to be funded from the O&M millage.

OPTION #8: New Efficiencies Gained:

We have already implemented many energy and utility efficiencies proposals to reduce O&M costs now that we have a healthy GF FB. The return on investment (ROI) for these projects (LED light replacements in particular) are very short periods of time. So an investment of tax payer GF FB reserves now will/has resulted in reductions in O&M costs now and in the future.

OPTION #9: Capital Sales Tax:

Counties in South Carolina have the option to put a referendum out for the taxpayers to consider raising one percent sales taxes for capital needs. The public may support a Capital Sales Tax (CPST) for items that benefit the community such as new parks, Ag center, library, and other projects the public wants to build.

This funding option was introduced in CIPv1 in 2018. In the first quarter of 2019 several community groups presenting various potential projects to County Council for consideration in a potential CPST. Council chose to allow this process to move forward and CPST I passed in November 2020 providing $35,000,000 for 16 projects, some of which are included in this CIP.

The SC DOR has provided an estimate of in excess of $50,000,000 could be generated over 8 years. The referendum however was a more conservative $35,000,000 per year which could be paid off in as early as 5.5 years. In addition the revenue generation was based on the current commercial activity in Laurens County with an increase factor. With more residential and industrial development now being built, the commercial activity will increase.

In addition with new tourism initiatives such as the Ag Center, Swamp Rabbit Trail, festivals, parks, etc… more sales tax will be generated by visitors to LC. Further with 23 miles of I-385 and 15 or so miles of I-26, Laurens County has the potential to draw in transient sales tax revenues from those traveling through the County. Two large truck stop/gas stations are being built right now that will increase the sales tax revenues.

With over $150,000,000 in commercial leakage (money we LC residents spend on goods and services in surrounding counties), we also have more potential to spend our money in LC when the new commercial entities set up in LC. This too will increase the sales tax revenues (which we are currently paying in surrounding counties).

It is anticipated that planning for CPST II should commence soon. The process of introducing CPST II may be able to commence as early as 2024 with a potential referendum for 2026.

This tax would also be paid for from nonresidents and non-property owners.

OPTION #10: FILOT Special Projects Fund:

In FY18 a new revenue sources had been created through a reduction in the capital fund by the LCDC (Laurens County Development Corporation). This fund was established to allow the County Council to invest in programs that will support economic development that are not part of the LCDC mission. Several projects have been funded through this revenue source.

A example of a project that has been funded through this source is I-385 exit 19 and I-26 exit 60 landscape and signage. Thirty thousand (30-40,000) vehicles PER DAY flow into Laurens County. Many travel all the way through the County without ever knowing Laurens County exists. Exit 19 is our Gateway into the County from the high growth area of I-385 heading down the Golden Strip. Exit 60 the first exit in the Upstate of South Carolina on I-26.

First impressions are a lasting impression and if we want to encourage growth and development into our County we should consider focusing attention on our corridors into the county especially from high growth and traffic areas such as the interstates. If we desire development and growth we need to consider how we present ourselves to people who are investigating where to call home and where to invest their money.

These projects are to add landscaping and “Laurens County” signs on these two exits. Please see more detailed report in the appendix.

OPTION #11: New County Hospitality Tax (unincorporated) & existing ATAX:

Currently there is no hospitality tax in the unincorporated sections of Laurens County. The municipalities receive several hundreds of thousands of dollars from this funding source. This tax is charged to those visitors who use short term accommodations such as

hotels. The addition of this tax would be for any hotels that develop outside of the municipalities. Once adopted any area annexed by the municipalities would be subject to at 50/50 split of this revenue.

This revenue is designed similar to ATAX revenue so that the visitors to our County provide revenues that we can use to promote more tourism and more visitors to Laurens County. Tourists provide income for local businesses, provide a boost to the property tax base, pay sales taxes that are used to help pay for residents property taxes and for capital (if enacted). With such a beautiful County with many opportunities to promote tourism we need to provide the resources such as parks, boat landings, etc. to promote more commerce in Laurens County.

OPTION #12: Existing Sewer Bond Millage:

To be developed. Currently the County has a set millage for bond payments to support the LCWSA. Without sewer infrastructure in place we will limit our ability to have certain types of growth we may desire.

Attachments:

A. Roads CIP
B. SO vehicle replacement schedule non fixed assets
C. EMS CIP
D. LEC/Coroner/EMS/E911/EOC/Fire HQ feasibility Study
E. Fire CIP
F. 911 CIP
G. PRTM fixed asset plan
H. PRTM non fixed asset plan
I. Airport non fixed CIP
J. Airport fixed CIP
K. Library CIP
L. SO CIP
M. Energy Efficiency Improvements
N. Solid Waste CIP
O. Animal and Litter Control CIP
P. Roads Pavement Preservation Plan
Q. Roads Bridges CIP
R. Detention Center CIP
S. Historic Courthouse Plan
T. Hillcrest Plan
U. I385 Exit 19 and 60 Landscaping and Signage Projects
V. Clemson Resiliency Study (EOC, 911 center component)
W. I385 Corridor Study
X. Durbin Road Exit 22 In house analysis

Laurens County

Roads and Bridges Department (541)

FY 2021-22 Five Year Capital Plan

Following previous budget sessions there has not been a set mileage or hours for replacement of equipment / vehicles, in the past they have been replaced according to condition or feasibility of repair. I understand that there is a lot of equipment listed in poor condition in the attached spread sheet. Not knowing the amount that will be available, the equipment listed for each year was based on a budget of 100,000 to 225,000 dollars of capital funds for the Roads & Bridges Dept.

FY 2021-22 (Year 1) Total: $185,000

- 5-yard dump Est. cost 105,000
    - 5-yard dump in inventory is in poor condition and will not last another year
- Chipper Est. cost 80,000
    - Chipper in inventory has parts that are becoming obsolete

2022-23 (Year 2) Total: $170,000

- 5-yard dump Est. cost 105,000
    - 5-yard dump in inventory is in poor condition and will not last another year
- 2 pickups Est. cost 65,000
    - 2 pickups in inventory in poor condition and not dependable

FY 2023-24 (Year 3) Total: $203,000

- 3 pickups Est. cost 98,000
    - Pickups in inventory in poor condition and not dependable
- 5-yard dump Est. cost 105,000
    - 5-yard dump in inventory is in poor condition and not dependable

FY 2024-25 (Year 4) Total: $240,000

- 2 pickups Est. cost 65,000
    - Pickups in inventory in poor condition and not dependable
- Tandem axle dump truck Est. cost 175,000
    - Trucks in inventory are in poor condition

FY 2025-26 (Year 5) Total: $240,000

- 2 pickups Est. cost 65,000
    - Pickups in inventory in poor condition and not dependable
- Tandem axle dump truck Est. cost 175,000
    - Trucks in inventory are in poor condition

Laurens County Roads and Bridges Dept. (541) 2021/2022 Five Year Capital Plan

The Roads and Bridges Department would like to respectively request capital funds to satisfy year one. We are in need of 2 structures to keep equipment out of the elements, a concrete slab for aggregate storage, and concrete blocks to prevent aggregate contamination.

Year one:

- Equipment storage (2- 100ft x 30ft steel buildings open) est. 60,000
- Concrete slabs (for aggregate storage) est. 25,000
- Concrete blocks for aggregate separation. 25,000

Year two:

- Upgrade shop (replace) est. 100,000

Year three:

- Upgrade grounds (landscaping) est. 15,000

Year four:

- Upgrade office building (general maintenance) est. 25,000

Year five:

- Sand shelter (10x20 steel building 3-sided) est. 25,000

Sheriff Office Vehical Replacement Schedule
11/17/2020

Dept.: Sheriff		89	90		Esimated mileage		This is FY behind			
VIN	Year	2019	2020	Ave/yr	2021	2022	2023	2024	2025	
706	10	137,000	153,700	16,700	170,400	187,100	203,800	220,500	237,200	R.P. SP
6335	8	172,000	179,000	7,000	186,000	193,000	200,000	207,000	214,000	IT
9733	08	172,000	181,700	9,700	191,400	201,100	210,800	220,500	230,200	SHERIFF/ ADM
9725	08	201,000	209,100	8,100	217,200	225,300	233,400	241,500	249,600	INVEST
2186	09	185,000	197,300	12,300	209,600	221,900	234,200	246,500	258,800	R.P. SP
2185	09	261,200	272,000	10,800	282,800	293,600	304,400	315,200	326,000	COURT SECURT.
512	10	37,250	40,100	2,850	42,950	45,800	48,650	51,500	54,350	D.C. VAN
3993	11	160,330	165,100	4,770	169,870	174,640	179,410	184,180	188,950	R.P.
3990	11	171,500	186,100	14,600	200,700	215,300	229,900	244,500	259,100	SRO H.S.
3995	11	173,500	179,200	5,700	184,900	190,600	196,300	202,000	207,700	COURT SECURT.
3994	11	178,800	180,500	1,700	182,200	183,900	185,600	187,300	189,000	CIVIL PROCESS
9080	10	129,500	143,700	14,200	157,900	172,100	186,300	200,500	214,700	INVEST
2805	11	210,000	219,000	9,000	228,000	237,000	246,000	255,000	264,000	R.P.
6216	14	72,800	82,900	10,100	93,000	103,100	113,200	123,300	133,400	SRO / HT
5085	14	158,600	178,500	19,900	198,400	218,300	238,200	258,100	278,000	R.P.
5013	14	146,000	171,000	25,000	196,000	221,000	246,000	271,000	296,000	R.P.
4812	14	184,500	209,000	24,500	233,500	258,000	282,500	307,000	331,500	R.P.
5833	14	178,500	198,100	19,600	217,700	237,300	256,900	276,500	296,100	R.P.
5674	14	171,000	191,000	20,000	211,000	231,000	251,000	271,000	291,000	R.P.
5794	14	165,600	193,000	27,400	220,400	247,800	275,200	302,600	330,000	R.P.
5823	14	180,000	197,000	17,000	214,000	231,000	248,000	265,000	282,000	R.P.
8980	15	63,600	96,800	33,200	130,000	163,200	196,400	229,600	262,800	R.P.
8982	15	122,000	154,800	32,800	187,600	220,400	253,200	286,000	318,800	CHILD SUPPORT
8981	15	120,000	142,800	22,800	165,600	188,400	211,200	234,000	256,800	CHILD SUPPORT
4748	14	158,500	169,600	11,100	180,700	191,800	202,900	214,000	225,100	R.P.
2821	15	48,100	57,800	9,700	67,500	77,200	86,900	96,600	106,300	D.C. ADMIN
5540	07	171,800	180,200	8,400	188,600	197,000	205,400	213,800	222,200	CHILD SUPPORT
707	17	69,500	101,000	31,500	132,500	164,000	195,500	227,000	258,500	R.P.
3518	17	56,000	68,400	12,400	80,800	93,200	105,600	118,000	130,400	R.P.
709	17	77,500	106,200	28,700	134,900	163,600	192,300	221,000	249,700	R.P.
704	17	74,000	109,400	35,400	144,800	180,200	215,600	251,000	286,400	R.P.
706	17	78,500	105,000	26,500	131,500	158,000	184,500	211,000	237,500	R.P.
711	17	96,500	132,500	36,000	168,500	204,500	240,500	276,500	312,500	R.P.
708	17	80,000	107,700	27,700	135,400	163,100	190,800	218,500	246,200	R.P.
712	17	96,000	123,300	27,300	150,600	177,900	205,200	232,500	259,800	R.P.
3519	17	75,000	103,500	28,500	132,000	160,500	189,000	217,500	246,000	R.P.
703	17	94,000	71,500	(22,500)	49,000	26,500	4,000	(18,500)	(41,000)	R.P.
705	17	90,000	118,300	28,300	146,600	174,900	203,200	231,500	259,800	R.P.
3517	17	61,000	93,500	32,500	126,000	158,500	191,000	223,500	256,000	R.P.
368	14	118,600	148,500	29,900	178,400	208,300	238,200	268,100	298,000	R.P. / TRAFFIC
6572	17	24,500	38,000	13,500	51,500	65,000	78,500	92,000	105,500	D.C. ADMIN
9365	10	176,500	195,300	18,800	214,100	232,900	251,700	270,500	289,300	EVIDENCE

B-1

Sheriff Office Vehical Replacement Schedule
11/17/2020

Dept.: Sheriff		89	90		Esimated mileage		This is FY behind			
VIN	Year	2019	2020	Ave/yr	2021	2022	2023	2024	2025	
6683	10	179,000	179,500	500	180,000	180,500	181,000	181,500	182,000	BLOODHOUND
6682	10	218,500	222,200	3,700	225,900	229,600	233,300	237,000	240,700	SRO H.S.
6681	10	201,800	206,600	4,800	211,400	216,200	221,000	225,800	230,600	SRO WATERLOO
6680	10	246,500	273,200	26,700	299,900	326,600	353,300	380,000	406,700	WARRANTS
3991	11	178,000	181,950	3,950	185,900	189,850	193,800	197,750	201,700	COURT SECURT.
3992	11	271,000	276,700	5,700	282,400	288,100	293,800	299,500	305,200	WARRANTS
9082	10	186,100	197,200	11,100	208,300	219,400	230,500	241,600	252,700	S.R.O.
9640	11	128,000	140,000	12,000	152,000	164,000	176,000	188,000	200,000	D.C. ADMIN
9634	13	149,000	163,570	14,570	178,140	192,710	207,280	221,850	236,420	C.A.T. PROGRAM
5861	14	187,000	207,750	20,750	228,500	249,250	270,000	290,750	311,500	NARCOTICS
6838	14	117,800	137,200	19,400	156,600	176,000	195,400	214,800	234,200	R.P.
6839	14	158,000	175,400	17,400	192,800	210,200	227,600	245,000	262,400	INVEST
6840	14	135,000	154,100	19,100	173,200	192,300	211,400	230,500	249,600	VACANT
6841	14	62,000	67,700	5,700	73,400	79,100	84,800	90,500	96,200	INVEST
6842	14	138,000	162,100	24,100	186,200	210,300	234,400	258,500	282,600	INVEST
8426	14	109,800	122,600	12,800	135,400	148,200	161,000	173,800	186,600	INVEST
7269	16	93,000	115,300	22,300	137,600	159,900	182,200	204,500	226,800	SHERIFF
	21				-					
3144	08	135,500	155,000	19,500	174,500	194,000	213,500	233,000	252,500	INVEST
3235	10	114,400	125,000	10,600	135,600	146,200	156,800	167,400	178,000	INVEST
6451	11	108,700	125,900	17,200	143,100	160,300	177,500	194,700	211,900	COURT SEC.
4151	10	137,000	150,900	13,900	164,800	178,700	192,600	206,500	220,400	D/C TRANSPORT
4271	13	126,500	154,000	27,500	181,500	209,000	236,500	264,000	291,500	R/P K9
TOTAL	14	65,800	85,000	19,200	104,200	123,400	142,600	161,800	181,000	R.P.
980	18	33,000	55,200	22,200	77,400	99,600	121,800	144,000	166,200	COURT
3369	17	28,500	52,200	23,700	75,900	99,600	123,300	147,000	170,700	COURT
157	14	63,000	76,900	13,900	90,800	104,700	118,600	132,500	146,400	NARCOTICS
3947	10	123,500	143,600	20,100	163,700	183,800	203,900	224,000	244,100	INVEST
8176	15	110,500	124,500	14,000	138,500	152,500	166,500	180,500	194,500	INVEST
2045	19	27900	61900	34,000	95,900	129,900	163,900	197,900	231,900	RP
8858	19	31200	64200	33,000	97,200	130,200	163,200	196,200	229,200	WARRANTS
6946	08	127000	138300	11,300	149,600	160,900	172,200	183,500	194,800	D.C.
9195	19	500	24800	24,300	49,100	73,400	97,700	122,000	146,300	RP
8841	13	105500	117200	11,700	128,900	140,600	152,300	164,000	175,700	D.C.
8581	10	122500	133300	10,800	144,100	154,900	165,700	176,500	187,300	D.C.
2526	19	16000	43500	27,500	71,000	98,500	126,000	153,500	181,000	RP
160	14	66000	68100	2,100	70,200	72,300	74,400	76,500	78,600	WARRANTS
2866	12	86200	110200	24,000	134,200	158,200	182,200	206,200	230,200	INVEST
7992	19	23500	44300	20,800	65,100	85,900	106,700	127,500	148,300	RP
3254	15	52800	64500	11,700	76,200	87,900	99,600	111,300	123,000	ADMIN

B-2

COUNTY OF LAURENS

Emergency Medical Services Division

Equipment & Fleet Replacement Plan

C-1

EQUIPMENT & VEHICLE REPLACEMENT PROGRAM

The equipment and vehicle replacement program is administered by the Department of Emergency Medical Services with assistance from the Purchasing Department of Laurens County. The Director of the Department of EMS has also consulted with the Association of Counties of South Carolina to obtain guidance regarding their recommendations on the removal of frontline units into a spare rotation and full replacement of units based on mileage and years of service. Another factor in the decision-making process is the quality of the ambulances that were purchased in the past. While EMS is aware of and always looking at the cost to benefit aspect of purchasing vehicles, the old saying "you get what you pay for" is very true when it comes to the purchase and operation of an emergency vehicle.

The low bidder/or lower cost vehicle may not be the best fit for this department. Several factors are reviewed to include, but not limited to the items listed below:

- The safety of not only the patients that are transported, but the safety of the crew members performing the life-saving skills
- The quality of material used for the construction of the vehicles
- The quality of the workmanship
- The ability of the vendor to provide service after the purchase
- The reputation of the builder and the vendor
- Experience with the builder and vendor
- The availability of unit/equipment
- The cost of the overall unit

ECNOMIC ANALYSIS AND REVENUES

Currently EMS receives funds through a 2-mill tax that is set aside for the purchase of capital items for EMS. At the current rate this tax generates $350,000.00 per year. While this may or may not be enough to fund the essential needs of EMS, we work with the purchasing department to arrange alternative methods of financing at very low interest rates. This is not an ideal means to purchase items but it is one that we must visit and follow to ensure that the essential equipment is replaced in a timely manner to continue to provide the high quality of emergency medical services to the citizens of Laurens County.

All items are reviewed and inspected for replacement based on criteria that is specified either by the manufacture or by the observations and working ideas of other departments with similar operations.

Every effort will be made to show good faith in the planning process and avoid the need for additional charges such as finance charges related to lease purchases. However, there will be times when this would be the most effect and financially responsible means of doing business.

The capital improvement plan will be reviewed often to determine the need to adjust the financial, fleet and equipment needs for Laurens County EMS. From time to time there may be a need to make last minute adjustments to this plan based on the serviceability of the fleet and equipment and/or the introduction of unfunded mandates related to safety features in the fleet and new diagnostics related to equipment.

LIFECYCLE STANDARDS

Life cycle standards are levels of usage/age according to the class of vehicle or piece of equipment. These standards may only be changed through the budget process synchronized with the current amortization schedule.

Vehicle class, not by individual unit, shall establish the life cycle parameters (an exception to this applies only to the unique "one-type" piece of equipment). Most of the usage data shall be from historical fleet records such as analysis of usage patterns for a class or unit for a period of one to two years. Historical data from the current fleet management system may be used to establish these usage patterns. The life-cycle costing approach uses an accumulation of component costs in developing a total cost curve. There is a point in the unit's life where the annualized total cost is a minimum, giving the economic impact/s (if any), this is the optimum life point that resides at the bottom of the cost curve. As total annualized costs increase, the economic cost curve exhibits an upward trend, thus indicating that it is more costly to retain the equipment. Each component cost has its own value and needs to be analyzed individually. Optimum service delivery to the citizens is of paramount importance, as is operational effectiveness and is the primary mission of EMS.

The components are defined as shown in this chart:

Purchase Price	Future cost of vehicle at anticipated time of purchase including inflation
Resale Value	Value of the vehicle at the time of replacement
M&O Cost	Yearly operation and maintenance costs over the life of the vehicle
Age	The age of the equipment. Age may be misleading if replacement parts are not readily available.
Mileage	The number of miles on a vehicle. Mileage is a good historical indicator on the condition of the equipment as to when costly repairs may occur
Mechanical Condition	Relative condition of the vehicle in respect to anticipated major repairs. Do maintenance costs exceed replacement costs?
Usability	Does the equipment/vehicle allow the operator to perform the function in an efficient and effective manner?

RECOMMENDED EQUIPMENT LIFE CYCLES

Vehicle Class/Equipment	Equipment Example Type	Recommended Useful Life
Cardiac Monitors	**Zoll**	**7 years**
Power cot/stretcher	**Stryker**	**7 years**
Stair Chairs	**Stryker**	**7 years**
Ambulance – Heavy Duty – Diesel	**Ford/Horton**	**6 years 175,000 miles – Spare 8 years 225,000 full replacement or Remount**
Pick up ¾ Ton Gas	**Ford**	**200,000 full replacement**

REPLACEMENT BREAK DOWN – VEHICLE

AMBULANCE

8613 is being replaced due to the mileage. This unit is also a TMA where again the construction is not quality. We have cabinets breaking, electrical issues, and poor overall craftsmanship.

VENDOR CHOICE

Currently we have a mix of two vendor's TMA and Horton. We purchase our units through a buying group which eliminates the need for the county to go through the bidding process. By purchasing through a buying group, they have already completed the bidding process. We have chosen Horton as our ambulance vendor; the choice was simple and easy. Horton offers the following features.

- Oxygen system with cylinder control in patient area
- Extruded all-welded, all -aluminum body
- Roll over crash testing
    - Integrated airbag systems in patient area
    - Attendant restraint system that allows for the attendant to be secured and still have access to the patient
- Our current salesperson has provided us with exceptional customer service. If we need anything, he is very quick to respond and willing to do what he can to help.
- With these replacements we could remount these units a minimum of two times which will reduce to overall cost of unit replacement in the future.

REPLACEMENT BREAK DOWN – EQUIPMENT

POWER COTS

We currently utilize power cots for patient movement. The normal life expectancy of this type of equipment is 7 years, these power cots are used numerous times a day to facilitate the movement of patients to the ambulances and then into the facilities. As the age and frequency of use increases on this equipment so does the cost of maintaining them as well as the risk of failure. Also, there are advancements in the operations and over all safety features that will benefit not only the operator but the patient as well. We are asking to purchase five (5) new power cots to finish the replacement our aging fleet of power cots, the old cots will be placed in our spare ambulances to replace the much older manual cots. The oldest cots will be traded in.

Two of these cots have been offered to the coroner's office to help reduce work related injuries and to help them perform their duties in a more effective manner.

CARDIAC MONITORS

We are asking to purchase (5) new cardiac monitors, this purchase would help to replace the remaining E series cardiac monitors. We purchased five (5) cardiac monitors last year, this purchase allowed us to replace the monitors on our QRV's. This purchase will replace the monitors that are on our spare fleet and used for special events or in the event of a disaster. All ambulances, QRV's and administrative staff now have the same type of cardiac monitor, therefore enabling us to help with swaps when we conduct PM's every year. It will help with call responses and it will allow us to also have spare monitors. The goal of having cardiac monitors on spare ambulances is so we can reduce response times to emergencies, and we would have the ability to have ambulances ready in the event of a disaster or severe weather (we currently do not have this ability).

FY 22 CAPITAL

- 5 Cardiac Monitors- $114,503.05
- 5 Power Cots, 3 Power Loads 2 CPR assist devices and a 7-year service agreement $281,280.40

$395,783.45

This amount will be divided over the next three years. With an annual payment in July of each year of $131,927.82

- Ambulance $ 218,072.18

$350,000.00

- Adjustments may be necessary for sales tax

FY 23 CAPITAL

- Stryker/Zoll finance $131,927.82
- Ambulance $218,072.18

$350,000.00

FY 24 CAPITAL

- Stryker/Zoll finance $131,927.82
- Ambulance $218,072.18

$350,000.00

FY 25 CAPITAL

- Ambulance $220,000.00
- Suction Devices $ 7,000.00

$227,000.00

FY 26 CAPITAL

- Ambulance $220,000.00
- Cardiac Monitor $ 40,000.00

$240,000.00

Fixed Assets

As our fixed assets have been ignored in the years past the need for full replacement over repair is greater. With a limited budget to maintain the buildings we have had to make concessions on what repairs are more important to the overall safety of the staff and the effective operation of the system. Safety should be and always will be a top priority for my staff. There are numerous needs, and some wants, however, we must address the critical components of our aging and dilapidated infrastructure. I have provided an overview below; this list is current as of 09/16/2020.

Medic 1

306 Exchange Drive, this location was established in July 1987, it was estimated that this building would work for 15-20 years. We have been at this location for 33 years and have outgrown this location. This location was identified as a priority and was placed on the list of projects for the CPST, it is estimated to be around $400,000.00. This will be addressed should this pass in November of 2020.

Medic 2

Currently housed at the Clinton Fire Department 404 N. Broad St. However, we have relocated a mobile home to Springdale Dr. This mobile home was purchased in the late 1980's to early 1990's. It has served the intended purpose, however, the need for a completely new building is of vital to the safety of our crews. As with most departments we have made what we have work, the need has been identified. This location will need a site-built station with at least two bays for ambulance parking and space for a living quarters to include bunkrooms, a kitchen, and office space. The longer this can is kicked down the road the more this project will cost and the more costly the sustainability of the current location will be. It is estimated that the cost of a site-built building will be about 1 million dollars.

Medic 3 ; 9120 Hwy 14 Gray Court. This location was recently remodeled due to mold issues and leaking roof. However, there are still needs that were not addressed. It is believed that this location will be relocated to the ZF Station when it is completed. If this is not the case the addition of a sprinkler systems needs to be added to this location. We have not yet determined the cost associated with this type of addition.

Medic 4

567 N. Main Cross Hill, this location was one of the last site-built EMS stations. This location has had its fair share of issues as well and it is very much in need of repair. Based on the cost of the Gray Court remodel it could cost as little as $50,000.00 to address the issues of this

building. However, we need to consider the addition of a sprinkler system to this building and the cost of this safety upgrade has yet to be quantified.

Squad 1

8587 Hwy. 252 Ware Shoals, this location again was established in the early 1990's the site location is in a less than ideal location being on the top of hill which has very deep slops on either side of the roadway that restrict the view when entering the station from the roadway and when exiting the station. This location was also placed in a mobile home that was purchases in the late 1980' early 1990's. This mobile home has had significant issues related to leaks at the front door, the hallway, and restroom. This station should be relocated in a more centralized location with good visibility for entering the roadway for both the operator of the emergency vehicle but also for the operator of any passenger vehicle. Due to the distance of travel this location should be a combined location for the current Quick Response Vehicle and an ALS ambulance. To date the estimate to erect a site-built building to house these operations would also be around 1 million dollars.

Squad 2

107 N. Main St Joanna, this location again was purchased and place in a mobile home in the late 1980's or early 1990's. This mobile home has had significant issues just the same as Squad 1. If possible, this could be co-located within a fire department or with Medic 2 in Clinton. It is estimated about 1 million as well to build a site-built building.

EMS HQ

321 S. Harper St. Laurens, EMS HQ is in the old library. The Education Director, training room and EMS Director is located here. The administrative operations are fractured as the Deputy Director is located with Medic 1 on Exchange Dr. The idea of an Emergency Services Complex is a viable and effective choice. The location that has been designated is a plot of land owned by the county across from the detention center. The new EMS HQ will house all administrative functions to include training. There will need to bay space for the storage of spare units and the addition of ambulance operations in the very near future. There will need to be ample space for growth. It is estimated that this could cost over 3 million dollars. The addition of 9-1-1, an Emergency Operations Center, and office space for the fire service would come at a later time.

LAURENS COUNTY
South Carolina

Public Safety Facilities Study

Stewart · Cooper · Newell
Architects

2-25-20

9-1

911 / EOC Facility Needs

911 EOC Administrative Functions	Size	Size
Lobby	160	160
Vending Alcove: (2) Machines (BO) & Water Cooler	36	36
(2) HC accessible Public Toilets	0	128
Clerk / Administative Assistant (Serves as Receptionist also)	168	168
GIS Office	144	144
EM Assistant	144	144
EM Assistant / Sign Tech	144	144
QA/QC Office (Future)	140	140
Director	320	320
Deputy Director	252	252
Conference / Media Room: 12p table and Built-in Break Alcove	294	306
Copy / Work Room	120	120
File Storage (High Density Mobile File Storage) 15x20	300	300
EM / Public Relations Storage	250	250
Subtotal	**2,472**	**2,614**

911 EOC Communications	Size	Size
Communications Room 7 Current Consoles - Plan for 12 + Supervisor at 160 sf per console including circulation space - 6" min raised floor	2,080	2,080
Server Room - 6 Current Racks + 2 Future (Do we need to plan for other County backup servers, or?) + Cabinet UPS's and 2 CRAC Units	620	620
IT Office (Future)	144	144
IT Work Bench / Storage 12x10 Work Area w Bench + 12x8 Storage Area	216	216
911 Break Area / Kitchenette with Lockers (In Secure Area)(Guardian Hood over cook surface)	280	280
911 Toilet Rooms (In Secure Area) 2 at 64 sf Each	128	128
Quiet Room (Outside Secure)	120	120
Subtotal	**3,588**	**3,588**

EOC / Training	Size	Size
Emergency Operations Center - Room for 24 Positions	950	1,200
EOC Storage	80	80
Radio Room - 2 HAM Radio Operators, 2 State Warning Point, 1 800mhz / LGR Radio	300	300
Training Classroom - 25 at Chairs and Tables	720	720
Console Training Room (Adj to Training Classroom with Movable Wall)	160	160
Chair / Table Storage	80	80
Training Storage	80	80
Subtotal	**2,370**	**2,620**

2.0

911 / EOC Facility Needs

911 EOC Support Spaces	Size	Size
Men's Restrooms - 3 Flushing Fixtures, 2 Lavs	220	220
Men's Shower - Shower w/ changing stall	130	65
Women's Restrooms - 3 Flushing Fixtures, 2 Lavs	220	220
Women's Showers - 2 Showers w/ Changing Stalls	130	130
Day Locker's (In Corridor near RR and Showers) 40 - 1/2 Hgt 12x12x20 plus 2' additional Corridor Width at Lockers	60	60
Laundry Room	120	0
Breakroom / Kitchen - Residential Range w/ Guardian Hood, 4 Ref, Ice Maker	360	360
Pantry 8x8	64	64
Outdoor partially covered Patia w/ picnic table	0	75
Janitor's Room: Mop Sink w/ racks - Supply Shelving	64	64
Electrical Room (adj to Server Room)	200	200
Subtotal	**1,568**	**1,458**

Total 911 EOC Net Square Feet	**9,998**	**10,280**
Mechanical / Circulation 40%	3,999	4,112
Total 911 EOC Gross Square Feet	**13,997**	**14,392**

3.0

Stewart · Cooper · Newell Architects

EMS Facility Needs

PSC EMS VEHICLE BAYS & SUPPORT	Size	Size
Apparatus Bays (4) Pull through, Multi-Loaded Bays (~~105'D~~ 80'D x 78'W)	8190	6240
Bay 1: (F)Amb @ 22' / (R)Pickup @ 20' / (R)Amb @ 22' / ~~Rescue Trailor @ 26'~~		
Bay 2: (F)Amb @ 22' / (R)Pickup @ 20' / (R)Amb @ 22' / ~~MCI Trailor @ 26'~~		
Bay 3: (F)Amb @ 22' / ATV Trailor @ 26' / ~~Cart Trailor @ 26'~~		
Bay 4: Supervisor Pickup @ 20' / (R)Amb @ 22' / ~~(R)Amb @ 22' / (R)Amb @ 22'~~		
LED Lights		
High Velocity (BigAss) Fans		
14x14 Sect. OH Doors (w/ full glass) @ Front - Sect OH Doors (w/ one row of view glass) @ Rear		
Door controls located @ each door; @ entry(s) to bay area, plus remotes - Stop & Go lights at each OH Door		
Normal Built-In Bay Exhaust System		
Airvac-style, Filtration Box Exhaust System		
Electric Shorelines Junction Boxes (4) 30A drops per Bay - Cord Reels By Owner (BO)		
Airlines @ Front & Rear walls - Reels (BO)		
(2) Spot Drains per Bay, beneath Apparatus - slope all floors to drains		
Oil Separator required by AHJ		
Normal Inside/Outside Hosebibbs		
Sealed Concrete Floors with Stained Traffic Lines		
Sprinkler Riser in Bays		
Decon/Laundry Configuration: 3 rooms connected internally - separate HVAC & Exhaust Systems		
Dirty Room: Decon Shower - Dbl. Stainless Steel Sink w/ side boards - Stainless Steel Tables & Shelves for bagging	175	175
Emergency Eyewash		
Cleaning Room: Res. Washer & Dryer (Cuts & Equip. BO) - Dbl. Stainless Steel Sink w/ side boards - Floor Mop Sink	200	200
Capital Storage: Stainless Steel Racks & Shelving (BO) for storing boards, straps, AEDs, etc.	150	150
Bay Toilet: Water Closet - Sink - Shower - Bench	120	120
Work Shop: 10' steel workbench (GC); Flam. Cabinet, shelving & cabinets (BO), Tool Air connection	150	150
Compressor/Storage Room: SCBA, Tool Air Comp., & Storage Racks (cuts & equip BO) - for storing (10) Lg O2 Bottles &	200	200
(30) Sm O2 Bottles		
EMS Med Room: w/ shelving and HVAC - adjacent to both Supervisor's Office and Vehicle Bays	300	300
Decon Vestibule: w/ Ice Machine (BO) and Floor Sink for Cooler cleaning	120	120
Outdoor Equip/Vendor Delivery Room: 3' door to Bays - 3' door & 8' OH garage door to exterior - Flam. Cab (BO)	180	180
Mech./Training/Storage Mezzanine w/ steel stairs from bays - 125 SF of Mezz to be chain-linked for Quarter Master Stor.	800	800
TOTAL PSC EMS VEHICLE BAY & SUPPORT SQUARE FOOTAGE	**10585**	**8635**

12-C

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EMS Facility Needs

PSC EMS PUBLIC SPACES	Size	Size
Entry Lobby: 2 Seated Visitors and Wall Display Space	120	120
(2) HC accessible Public Restrooms	128	128
Vending Alcove: (2) Machines (BO) & Water Cooler	36	36
Report Room: 4 3 Built-in Workstations w/ pass window to Lobby - Base Radio & Chargers - Copier/Printer	250	200
Admin Asst. Office: 1 Desk, 2 Visitor Chairs, 2 File Cabs, Closet, pass window to Lobby	180	180
Director's Office: Desk w/ return, 4p Conference Table, 2 File Cabs, 3 Bookcases, Closet	320	320
Dep. Director's Office: Desk w/ return, 4p Conference Table, 2 File Cabs, 2 Bookcases, Closet	264	264
Supervisor's Office: 3 Desks, 2 Visitor Chairs, 4 File Cabs, Closet - adjacent to EMS Med Room	250	250
Conference Room: 12p table & Built-in break alcove	308	308
Ed Dir Office: 1 Desk, 2 Visitor Chairs, 4 File Cabs, Closet - widow to Triage/Sim Room	180	180
Training Room: Narrow table training config for 50p - Built-in break alcove - A/V Clo. (50 SF) - Table/Chair Clo.(50 SF)	1400	1400
EMS Training Clo.(100 SF) - window to Triage/Sim. Room		
Triage/Sim. Room: Set up as exam/procedure room with built in casework and room for center exam table	200	200
windows to Training Room & Ed Dir Office		
Work Room: Upper & Lower Cabs w/ countertop - space for file cabs, copier, etc.	120	120
Quartermaster Storage: space for shelving and cabinets (BO)	200	0
IT Wiring Closet	12	12
TOTAL PSC EMS PUBLIC SPACES SQUARE FOOTAGE	**3968**	**3718**

PSC EMS PRIVATE SPACES		Size	Size
Dayroom: 10 people at recliners - TV - open to kitchen/dining through bar/counter & ceiling counter door		450	450
Kitchen/Dining with exterior door to Patio		550	550
1 Double Sink Deep & 1 HC Food Prep Sink	Solid Surface Countertops		
Gas Oven w/ 4 Burners & 1 Griddle	Wide Dining table for 10		
1 Walk-In Pantry (64 SF)	Supression Hood Required		
3 Refrigerator/Freezers w/ Ice Makers	1 Countertop MW Oven		
Bunn Coffee Maker (plumbed)	Disposal		
1 Dishwasher			
Covered/Screened Outside Patio w/ gas grill connection, and 1 picnic table (200 SF under cover)		75	75
(5) Ind. Bunk Rooms - 1 bed; 3 lockers; 1 desk/night stand (2 @ 130 SF each)(3 @ 100 SF each) (wired for TV)(ceiling fans)		560	560
(2) Single Occupant Toilet/Shower Rooms - 1 tlt., 1 urinal, 1 sink, 1 shower (3x5), bench - (125SF each)		240	250
Exercise Room: (5) Workout Stations - High Ceilings - Ceiling Fans - Mrrors - Prefer exterior door for outside routines		500	500
Laundry Rm: residential washer/dryer (BO), tub sink, base & upper cabinets for linen and supply storage		100	100
Janitor's Room: Mop Sink w/ racks - Supply Shelving		64	64
TOTALPSC EMS PRIVATE SPACES SQUARE FOOTAGE		**2539**	**2549**

Total EMS Net Square Feet	**17092**	**14902**
Mechanical / Circulation 40% not Including Apparatus Bays	8902	8662
Grossing Factor Bays Only - 10%	819	624
Total EMS Gross Square Feet	**26813**	**24188**

D-9

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Fire Administration Facility Needs

PSC FIRE ADMIN SPACES	Size	Size
Entry Lobby: 4 Seated Visitors and Wall Display Space	160	160
(2) HC accessible Public Restrooms	128	128
Vending Alcove: (2) Machines (BO) & Water Cooler	36	36
Admin Asst. Office: 1 Desk, 2 Visitor Chairs, 2 File Cabs, Closet, pass window to Lobby	180	180
Director's Office: Desk w/ return, 4p Conference Table, 2 File Cabs, 3 Bookcases, Closet	320	320
Dep. Director's Office: Desk w/ return, 4p Conference Table, 2 File Cabs, 2 Bookcases, Closet	264	264
Div. Chief's Office: 4 Desks, 2 Visitor Chairs, 5 File Cabs, Closet	300	300
Conference Room: 12p table & Built-in break alcove	308	308
Training Room: Narrow table training config for 50p - Built-in break alcove - A/V Clo. (50 SF) - Table/Chair Clo.(50 SF)	1300	1300
Break Room: Sink, Ref., MW Oven, Coffee Machine, Toaster Oven, Upper & Lower Cabs w/ counters, 4p table	140	140
Staff Toilet/Shower Room: single occupant w/ 1 tlt.,1 unrinal, 1 sink, 1 shower (3x5), bench	120	125
Med. Stor. Clos: 2 cabs (BO)	72	72
Secure File Room: (10) 4d File Cabs.	80	80
Work Room: Upper & Lower Cabs w/ countertop - space for file cabs, flam. Cab., copier, etc.	120	120
Quartermaster Storage: space for shelving and cabinets (BO)	120	120
IT Wiring Closet	12	12
Janitor's Room: Mop Sink w/ racks - Supply Shelving	64	64
TOTAL PSC FIRE ADMIN SPACES SQUARE FOOTAGE	**3724**	**3729**

Total Fire Admin Net Square Feet	**3724**	**3729**
Mechanical / Circulation 40% not including Apparatus Bays	1490	1492
Total Fire Admin Gross Square Feet	**5214**	**5221**

D-6

Stewart · Cooper · Newell Architects

Sheriff's Office Facility Needs

Lobby	Size	Size
Safe Space Entry Vestibule	100	100
Lobby 8 Seats	200	200
Desk Sergeant (in Front of Records Window)	100	100
Report Rooms (2 @ 120 sf)	240	240
M/F Restrooms (2@64)	128	128
Subtotal	**768**	**768**

Administrative Functions	Size	Size
Sheriff's Office	320	320
Restroom	64	64
Chief Deputy (Future)	224	224
Administrative Assistant	168	168
Attorney's Office (Future)	168	168
Conference Room - 8-10 Person	200	200
Administrative Captain	168	168
Accreditation Sergeant	120	120
PIO Office (Future)	144	144
Sub-Waiting Area	100	100
Work Room	144	144
Secure Storage Room	80	80
Single Restroom	64	64
Subtotal	**1,964**	**1,964**

Records	Size	Size
Office Manager / Records Supervisor	168	168
Records Clerks (General - 3 @ 80 sf Workstations + Circulation) Window to Lobby	336	336
Records Clerks (Sex Offendors 2 @ 80 sf Workstations + Circulation)	224	224
Deputy Records Window	10	10
Secure Records Room (High Density File Storage, Fire Resistant)	400	400
Secure Archive Records Storage - Can be Offsite (Fire Resistant)	200	200
Work Room	182	182
Office Supply Storage	64	64
Mail Room	120	120
Mail Boxes (Load from Mail Room)	30	30
Subtotal	**1,734**	**1,734**

C-2

Stewart · Cooper · Newell Architects

Sheriff's Office Facility Needs

Support Services	Size	Size
Captain of Support Services	168	168
Administrative Assistant (Future)	120	120
SRO Sergeant	120	120
SRO's (In Schools)	-	-
SRO Storage	64	64
IT Office	120	120
IT Work Room (Work Area with Bench plus IT Storage Room)	168	168
Server Room (UPS, 2 CRAC Units)	200	200
Subtotal	**960**	**960**

Investigations	Size	Size
Captain of Investigations	168	168
Lieutenant's Office	144	144
Sergeant's Office	120	120
Adminstrative Assistant	120	120
Victim Advocate (1 Current, 1 Future) 120 each x 2	240	240
Narcotics Investigations (100 sf offices)		
Investigators (2)	200	200
Investigators (2 Needed)	200	200
Investigators (2 Future, reduced from 4)	400	200
Secure Narcotics Storage	64	64
Criminal Investigations (100 sf offices)		
Investigators (4)	400	400
Investigators (2 Needed)	200	200
Investigators (1 Future, reduced from 2)	200	100
SVU Investigations (100 sf offices)		
Investigators (4)	400	400
Investigators (4 Needed)	400	400
Investigators (2 Future, reduced from 4)	400	200
Hard Interview Rooms (2 @ 64) - Sound Protection	128	128
Soft Interview Room - Sound Protection	120	120
Conference Room - 6 Person	144	144
Ready / Large Case / Stratagy / Warrant Sweep Room (15 persons)	300	300
Secure File Room	64	64
General Storage	80	80
Subtotal	**4,492**	**3,992**

D-8

Sheriff's Office Facility Needs

Patrol	Size	Size
Patrol Captain	168	168
Shared Lieutenant's Office (4 @ 80 sf Workstations in the same Room)	420	420
Lieutenant's Conference Room (4 Person)	120	120
Shared Sergeants Office (5 Desks in same Room, 4 Patrol Shift Sgt, 1 Traffic Sgt)	234	234
Briefing / Roll Call Room (2 Shifts, Size for 24 to account for future growth)	560	560
Report Desks (Size for 6 computer carrels, room for 2 additional)	156	156
General Storage	64	64
Subtotal	**1,722**	**1,722**

Training	Size	Size
Training Lieutenant	144	144
Training Sergeant	120	120
Training / Community Room (50 at Lecture tables with Chairs, Subdividable into 2 Rooms, full A/V, door to Lobby, secure door to secure portio	1,920	1,920
Chair / Table Storage	100	100
Training Storage	80	80
Community Event Storage	80	80
Catering Kitchen (2 MW, 1 Ref, Ice Machine)	192	192
Mat Room	100	100
Storage Room	100	100
FATS Simulator (Fire Arms Training Sim) 330 degree - 5 Screen - Provide 10' Ceiling (Future)	625	625
Exercise & Tactical Training Room - Access to Outside	864	864
Men's Locker Room - (60) 24x24 Lockers 60 @ 12 avg	720	720
Men's Restroom (2 Toilets, 3 Urinals, 3 Lavatories)	310	310
Men's Showers (6 Shower Stalls with Changing Area)	220	220
Women's Locker Room - (20) 24x24 20 @ 12 avg	240	240
Women's Restroom (3 Toilets, 2 Lavatories)	220	220
Women's Showers (4 Shower Stalls with Changing Area)	154	154
Subtotal	**6,189**	**6,189**

Sheriff's Office Facility Needs

Support Spaces	Size	Size
Weapons Cleaning Room (Counter for 3 Duputies, Compressed Air, Gun Clearing Chamber, Sink, Cleaning Supply Storage)	80	80
Armorer Work Area (Work Counter, Small Compressor, Sink, Cleaning Supply Storage	100	100
Armory	140	140
Quartermaster Office	120	120
Quartermaster Storage with High Density Storage	400	400
General Supply Storage	64	64
Road Storage	120	120
K-9 Kennels (3 Kennels with indoor section and exterior run, dog washing area, supply storage)	267	267
SWAT Ready Room	248	248
SWAT Storage	280	280
Breakroom / Kitchen - Range w / Guardian Hood, 4 Ref, Ice Maker,	300	300
Pantry 8x8	64	64
Christmas for Kids Storage Room	500	500
Vehicle Wash Bay	360	360
Trustee Room / Toilet Room (8x8 room with 8x8 toilet room)	128	128
Loading Dock with 4' Truck Dock and Ramp	100	100
Janitor's Room: Mop Sink w / racks - Supply Shelving (64sf x 2)	128	128
Subtotal	**3,399**	**3,399**

Total Sheriff's Office Net Square Feet (NIC Evidence and Coroner)	**21,228**	**20,728**
Mechanical / Circulation 40%	8,491	8,291
Total Gross Square Feet	**29,719**	**29,019**

Evidence Facility Needs

Evidence	Size	Size
Single Vehicle Evidence Bay	560	560
Deputy's Evidence Bag and Tag Area	140	140
Pass-Through Lockers (Refrigerated, Large and Small Lockers)	24	24
Pass-Through Large Evidence Rooms 2 @ 3x4 each	24	24
Return Evidence Lockers	24	24
Evidence Outtake Room	100	100
Evidence Processing Room	180	180
Evidence Technician Offices (Off of Processing and Corridor) 2@120sf each	240	240
Evidence Storage		
General	2,000	2,000
Weapons	500	500
High Value	300	300
Narcotics	500	500
CSI Office	100	100
ID Lab with Drying Cabinet, Fume Hood, Fuming Chamber	364	364
Electronics Lab	120	120
Storage	64	64
Laundry Room	100	100
Subtotal	**5,340**	**5,340**

Total Evidence Net Square Feet	**5,340**	**5,340**
Mechanical / Circulation 40%	2,136	2,136
Total Gross Square Feet	**7,476**	**7,476**

Coroner's Office Facility Needs

Coroner	Size	Size
Sub-Waiting Area (Family of 6)	120	120
Coroner Office	224	224
Chief Deputy Coroner	168	168
Deputy Coroners - Full Time (2 Offices @ 100 sf each, reduced from 4)	400	200
Deputy Coroners - Part Time (2 Desks)	224	200
Administrative Assistant	120	120
Conference Room (8 Persons - Sound Protection)	200	200
Work Room	120	120
File Storage (High Density Storage, Fire Protected)	210	210
General Storage	64	64
Break Room	140	140
M/F Restrooms (2@64)	128	128
Decon Room (Deep Sink w / Foot Controls, W&D)	100	100
Toilet with Shower	120	120
8 Lockers	80	80
Evidence Storage (Secure, Ventilation, Lg Commercial Ref, Lg Commercial Freezer)	240	240
Outside Morgue with 6 drawer Cooler (at back out of public site, covered area for truck loading/unloading)	160	160
IT Closet	16	16
Notes: Seperate staff entry, shared lobby with Sheriff's Office		
Subtotal	**2,834**	**2,610**

Total Coroner Net Square Feet	**2,834**	**2,610**
Mechanical / Circulation 40%	1,134	1,044
Total Gross Square Feet	**3,968**	**3,654**

D-12

Combined Public Safety Facility Needs

Total Public Safety Complex Net Square Feet	**30,814**	**28,911**
Mechanical / Circulation 40% not Including Apparatus Bays	9050	9068
Grossing Factor Bays Only - 10%	819	624
Total Building Gross Square Feet	**40,683**	**38,603**

Projected Base Construction Costs		
Low Range - New Construction Costs @ $325 / sf	**$13,221,975**	**$12,545,975**
High Range - New Construction Costs @ $400 / sf	**$16,273,200**	**$15,441,200**

Combined Sheriff's Office Needs

Total Sheriff's Office Net Square Feet (Inlusive of Evidence and Coroner)	**29,402**	**28,678**
Mechanical / Circulation 40%	11,761	11,471
Total Gross Square Feet	**41,163**	**40,149**

Projected Base Construction Costs		
Low Range - New Construction Costs @ $325 / sf	**$13,377,975**	**$13,048,425**
High Range - New Construction Costs @ $400 / sf	**$16,465,200**	**$16,059,600**

Short-term needs – Funding to replace 2 to 3 engines that did not get replaced with the Lease/Purchase - $250,000.00 each? When?

With the planned purchases of the Division Chiefs trucks, Deputy Director truck, and maintenance truck, the next purchase of a staff vehicle will not be needed until 2022. That will be for the Fire Marshal, and with the Fire Marshal position not responding to emergency calls at this time, that vehicle could be a used vehicle verses brand new.
2022 – Fire Marshal Vehicle - $20,000 – Used vehicle
2023 – Division Chief - $36,000.00
2024 - Division Chief - $36,000.00
2025 – Director Vehicle - $37,000.00

Also with the current continuing situation with Clinton Fire, I would suggest planning on adding fire bays, and accommodations for 24 hour paid staff at the Emergency Services Complex Plan. Since the fire services offices are planned in that facility. If this was built around the area of the hospital, this would help to move toward a long range plan of taking the Clinton Contract Area. This would then allow the current Wattsville Station located at 94 Ranch Rd, to be a substation and could be used as a maintenance facility for fire services and other county departments for vehicle repairs.

And without knowing the outcome on the 1 penny sales tax, fire communications must still be planned. With using the CIP from last year, that is around $1,800,000.00

Long Term
Looking at the recent purchase of the 10 Pumper/Tankers and two Rescues the CIP for fleet replacement will increase over the next decade. We currently have two engines which are owned by departments that are over 30 years old that did not get replaced in this round of trucks. One is a 1987 and the other is a 1990. Both are still in good mechanical condition and pass pump tests but at some point those will need to be replaced. The 1990 is only a reserve engine, but we are required to have 1 reserve engine for every 8 needed engine companies. We are required to have 33 engines, so we have to have 4 reserve engines. We have had 4 reserve engines but once all of the new substations get open, we will have 3 reserve engines.

Replace Year 2030 – On the current track, in 2030 we will need to replace 13 engines, and 10 tankers. This will be 23 apparatus. If the county fire service continues to move toward Pumper/Tankers then the number of needed apparatus goes down to 16. Looking at current pricing on fire apparatus, the purchase of those trucks would be around $5,600,000.00. So the county needs to be planning for a $6 million dollar purchase around 2030.

LAURENS COUNTY

911 Department

Joey Avery, ENP, CEM
911 / EMA Director
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Tavi H. Hughes
911 / EMA Deputy Director
Thughes@Co.Laurens.SC.US

10 October 2020

Mr. Jon Caime
Administrator
Laurens County
P.O. Box 445
Laurens, S.C. 29360

Mr. Caime

Please find the enclosed update to the 5-year capital replacement Plan for the Laurens County 911 and Communications Department

Should you have any questions or need more details please let me know.

Thank You

Joey Avery
Joey Avery, ENP, CEM
911 / EMA Director
Laurens County

F-1

2021- 2022 Budget

Replace / Upgrade 911 Radio / Telephone Voice Recording System in
911 Center. This records all telephone traffic and radio traffic from all the responders

Approximate Cost $ 97,000.00

Reimbursement will be TBD (80%)

2021 - 2022 Budget / Submitted on CPST

800 Mhz Radio Equipment END User Replacement

All the present 800 mhz portable radios will be at end of life support in late 2018 and

early 2019.
These communications needs are the backbone of emergency services response!
Total Replacement Projection cost approximately $ 2.5 million dollars

Tower additions still needed and to enter a partnership with Motorola will be needed to enhance "hip pocket' coverage for certain areas of Laurens County for the fire service.
$ 1.9 million dollars

2021 – 2022 The construction of a new 12,500 sqf 911 and Emergency Operations Center.

The current location of the 911 Center and Emergency Operations Center
sits in a flood zone and the building has had some flooding issues
in the mechanical room. This building also sits next to a class 1 railroad where hazardous material
are transported by on a dailey basis. This building is the nucleus of the Emergency Services
for Laurens County and should an incident occur this 911 Center would have to be evacuated
and with no backup 911 Center emergency communications with all county-wide emergency responders
would cease to operate.

The building has some age and will require some extensive renovation to the exterior and
interior of the building to repair the flooding issues.

Cost estimates would be approx. **$ 370.00** + per square foot for a hardened
Facility total cost approximately $ **4.5 million**

Estimated total cost for construction a hardened facility including technology, radio tower,
Emergency backup generator for backup power and furniture for the 911 Center
and Emergency Operations Center **would be $ 6.0 million**

2022 - 2023 Budget

911 Telephone Equip Upgrade / Replacement
Upgrade software and equipment to newer technology and preparing for ESInet implementation state-wide. ESInet maybe be available late 2021 for tie in to state managed network. Still has many details to workout

Approximate Equipment Cost $ 800,000.00
ESInet cost $ 100,000 ??

Reimbursement will be TBD (80 % - 100%)

2023-2024 Budget

Computer Aided Dispatch Software / Equipment Upgrade maybe required for ESInet implementation with new phone system. Still has many details to workout

Approximate Cost $ 700,000

Reimbursement will be TBD (50 - 80 %)

2023 -2024 Budget

Vehicle Replacement
Replace a 2015 F 250 pickup that is used for replacing street signs
Replace with a full size crew cab 4x4 Pickup truck

Approximate cost $ 38,000

2024 -2025 Budget

Replace 911 30 kw to Larger Back Up Generator
That provides an alternate power source to the 911 Center.

Approximate Cost $ 60,000.00
Reimbursement will be TBD (50 – 80 %)

PARKS and Recreation CIP		
Improvements	Estimated cost	year
Swamp Rabbit Hospital Section	**Carry over from previous year 60000**	**in progress**
Lake Park	$ 230,000	2021
County Park Field Lighting 2 fields	$ 120,000	2021
Enoree Kayak Launch #1	$ 35,000	2022
Swamp Rabbit Ridge to hospital and Hospital to Richloom	$ 450,000	2022
Enoree Kayak Launch #2	$ 35,000	2023
Tumblin Shoals Playground and Shelter	$ 45,000	2023
3 Picnic Shelters County Park	$ 28,000	2023
Joanna walking Trail Fitness Stations	$ 15,000	2024
Restrooms County Park	$ 65,000	2024
Playground County Park All Accessible	$ 140,000	2025
Park northern part of county	$ 155,000	2026

G

PARKS and Recreation Capital Equipment Plan

Equipment	Estimated cost	year	Replaces
Bendpak 2 post lift with mower attachment	$ 6,500	2021-22	NA
low profile 24' gooseneck trailer	$ 9,000	2021-22	18 foot trailer
Skid steer attachment soil conditioner	$ 10,000	2021-22	NA
skid steer Attachment Brush cutter	$ 12,000	2022-23	NA
Wright Stand on mower 72 inch cut	$ 13,000	2022-23	Grasshopper Front Deck Mower
4 dr 1 ton single rear wheel Pickup 4wd	$ 42,000	2023-24	3/4 ton Ford F-250 2012
Grasshopper Zero turn 72 inch diesel	$ 18,000	2024-25	2007 Kubota Front Deck Mower
Skid steer trencher attachment	$ 12,000	2024-25	NA
Mini Excavator	$ 30,000	2025-26	NA

Airport Capital Equipment Plan

Equipment	Estimated cost	year	Replaces
Bush hog 15 foot	$ 15,000	2021	20 year old bush hog
Scissor Lift	$ 25,000	2022	NA
None		2023	
None		2024	
None		2025	
Grasshopper Zero turn Diesel	$ 18,000	2026	replaces grasshopper mower

I

Airport CIP

Fixed Assets

Capital

Plan

J-1

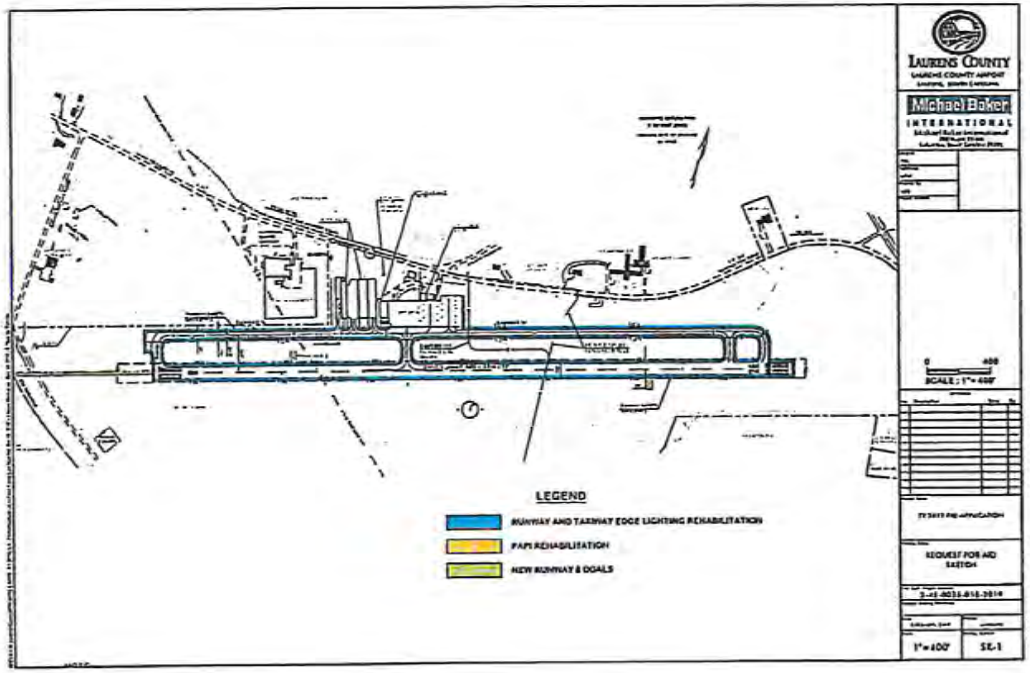
AIRPORT CAPITAL IMPROVEMENT PLAN

FY 2021 - 2025 (including FY 2019 & FY 2020 for reference)

Last Updated: 10/22/2019

LAURENS COUNTY AIRPORT (LUX)

Fiscal Year	Description	Project Total Cost	Eligible Federal Share (90%)				Eligible State Share	Sponsor Share
			Carryover	Entitlements	Discretionary and/or State Apportionment	Total		
2019	CARRYOVER NPE FUNDS INTO FY 2019		$38,471					
	AVAILABLE FEDERAL FUNDS FOR FY 2019		$38,471	$150,000		$188,471		
	Airfield Lighting Rehabilitation - Design & Bidding	**$137,997**	**$38,471**	**$85,726**	**$0**	**$124,197**	**$6,900**	**$6,900**
	Limited Terminal Area Plan Update	**$22,136**	**$0**	**$0**	**$0**	**$0**	**$0**	**$22,136**
	ANNUAL TOTAL:	$160,133	$38,471	$85,726	$0	$124,197	$6,900	$29,036
2020	CARRYOVER NPE FUNDS INTO FY 2020		$64,274					
	AVAILABLE FEDERAL FUNDS FOR FY 2020		$64,274	$150,000		$214,274		
	Airfield Lighting Rehabilitation - Construction	**$963,000**	**$64,274**	**$150,000**	**$652,426**	**$866,700**	**$48,150**	**$48,150**
	ANNUAL TOTAL:	$963,000	$64,274	$150,000	$652,426	$866,700	$48,150	$48,150
2021	CARRYOVER NPE FUNDS INTO FY 2021		$0					
	AVAILABLE FEDERAL FUNDS FOR FY 2021		$0	$150,000		$150,000		
	No Project - Carryover Funds	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
	$157,507	$0	$0	$0	$0	$0	$0	$0
2022	CARRYOVER NPE FUNDS INTO FY 2022		$150,000					
	AVAILABLE FEDERAL FUNDS FOR FY 2022		$150,000	$150,000		$300,000		
	New Terminal Building (±3,000 SF)	**$1,300,000**	**$150,000**	**$150,000**	**$0**	**$300,000**	**$500,000**	**$500,000**
	ANNUAL TOTAL:	$1,300,000	$150,000	$150,000	$0	$300,000	$500,000	$500,000
2023	CARRYOVER NPE FUNDS INTO FY 2023		$0					
	AVAILABLE FEDERAL FUNDS FOR FY 2023		$0	$150,000		$150,000		
	Wildlife Hazard Site Visit Report (not Wildlife Hazard Assessment)	**$15,000**	**$0**	**$13,500**	**$0**	**$13,500**	**$750**	**$750**
	ANNUAL TOTAL:	$15,000	$0	$13,500	$0	$13,500	$750	$750
2024	CARRYOVER NPE FUNDS INTO FY 2024		$136,500					
	AVAILABLE FEDERAL FUNDS FOR FY 2024		$136,500	$150,000		$286,500		
	Perimeter Safety/Security Fencing (±14,000 LF)-Design/Bid	**$93,500**	**$84,150**	**$0**	**$0**	**$84,150**	**$4,675**	**$4,675**
	Perimeter Safety/Security Fencing (±14,000 LF)-Construct	**$865,000**	**$52,350**	**$150,000**	**$576,150**	**$778,500**	**$43,250**	**$43,250**
	ANNUAL TOTAL:	$958,500	$136,500	$150,000	$576,150	$862,650	$47,925	$47,925
2025	CARRYOVER NPE FUNDS INTO FY 2025		$0					
	AVAILABLE FEDERAL FUNDS FOR FY 2025		$0	$150,000		$150,000		
	Jet-A Fuel Farm System (10,000 gallons) and Containment	**$200,000**	**$0**	**$150,000**	**$30,000**	**$180,000**	**$10,000**	**$10,000**
	ANNUAL TOTAL:	$200,000	$0	$150,000	$30,000	$180,000	$10,000	$10,000
	CARRYOVER NPE FUNDS INTO FY 2026		$0					



LAURENS COUNTY

LAURENS COUNTY AIRPORT

Michael Baker

INTERNATIONAL

SCALE: 1" = 400'

REQUEST FOR AID SECTION

1" = 400'

SE-1

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Capital Needs – Laurens County Library: October 9, 2019

1 year

Item	Year	Est cost	comments
Carpeting – Laurens	2020		Funded – 80k
Remodel of two public restrooms at Laurens Library	2020/21	$218705	See attached – will request for 20/21 budget

2 – 5 years

New Clinton Library construction	2021	4,125,000	Based on $275 per sq ft for 15,000 sq ft bldg
Fixtures, Furnishing & Equipment for new Clinton Library	2021	450,000	$30 per sq ft
Site prep, Professional fees and administrative costs for new Clinton Library	2021	580,000	
RFID security system	2022	60,000	Security gates, software and RFID technology terminals that will allow for self-checkout and better control of materials. Estimate is for Laurens only; Clinton RFID included in FF&E above.
Computer Server	2022	6000	Plan to fund with state aid or lottery funds
Copier – Laurens public	2023	5000	Plan to fund with state aid or lottery funds

Long-term

Laurens Remodel: Extend and remodel front entrance and canopy to parking lot; replace windows and update furniture	2026	517000	Size and design of building should be sufficient for foreseeable future but will need updates and remodeling
Laurens roofing	2030	100000	Assuming 20 yr life for roof put on in 2010
Bookmobile	2032	250,000	15 yr. life
Computer Server	2027	8000	
Copier/ Clinton Library	2023	6000	
Copier/Laurens staff	2025	6000	
Gray Court/Hickory Tavern Library Building and Furnishings	2028	10,000,000	

Ann R. Szypulski, Director

Rev 10/9/19

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Public Restroom Renovations:

Demolition: *(Include Haul-Off)*						
- plumbing fixtures	13 EA	0	0	100	1,300	1,300
- doors / frames	2 EA	0	0	85	170	170
- masonry walls	725 SF	0	0	6	4,350	4,350
- toilet partitions / accessories	1 LS	0	0	750	750	750
- floor slab	200 SF	0	0	8	1,600	1,600
- vanity counter	26 LF	0	0	12	312	312
- mech / electrical	1 LS	0	0	2975	2,975	2,975
- tile floor	700 SF	0	0	2.00	1,400	1,400
- ceilings	700 SF	0	0	1.25	875	875
Improvements:						
- patch / level floor slab	700 SF	0	0	9.35	6,545	6,545
- masonry walls	604 SF	0	0	18.40	11,114	11,114
- clean / patch existing walls	960 SF	0	0	2.50	2,400	2,400
- Floor Tile	700 SF	0	0	18.00	12,600	12,600
- Base	170 LF	0	0	12.50	2,125	2,125
- Wall Tile	420 SF	0	0	11.50	4,830	4,830
- Epoxy Paint	1,280 SF	0	0	1.50	1,920	1,920
- Ceilings (ACT - vinyl faced)	700 SF	0	0	5.50	3,850	3,850
- rufurbish existing door	2 EA	0	0	150	300	300
- toilet partition (standard)	2 EA	0	0	1,135	2,270	2,270
- toilet partition (hc)	2 EA	0	0	1,050	2,100	2,100
- urinal screen	2 EA	0	0	495	990	990
- grab bars (set)	2 Set	0	0	195	390	390
- toilet tissue dispenser	4 EA	0	0	85	340	340
- soap dispenser	4 EA	0	0	70	280	280
- electric hand dryer	2 EA	0	0	535	1,070	1,070
- vanity mirror	80 SF	0	0	12	960	960
- Plumbing	1 LS	0	0	48,070	48,070	48,070
- HVAC (Ventilation)	1 LS	0	0	8,400	8,400	8,400
- Electrical	1 LS	0	0	19,320	19,320	19,320
SUBTOTAL		$0	$0		$143,606	$143,606
MARK-UPS:						
- General Requirements	10.00%					$14,361
SubTotal						$157,967
- Sales Tax	7.00%	$0				$0
- Labor Burden	42.00%		$0			$0
SubTotal						$157,967
- Overhead & Profit	20.00%					$28,721
- Bonding & Insurance	2.15%					$3,088
SUB-TOTAL						**$189,775**
- *Design Contingency*	15.00%					$463
- *Escalation Contingency (36 months)*	15.00%					$28,466
TOTAL ESTIMATED PROBABLE CONSTRUCTION COST						**$218,705**

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SHERIFF'S OFFICE 2020-2024 CAPITAL NEEDS

Description	Date Needed	Benefits	Current Year	Future Plan Years				Justification
			2020	2021	2022	2023	2024	
New Evidence and Record Storage	IMMEDIATELY	A updated secure facility to safely store items of evidence	$ 175,000.00					Our current evidence and records are stored in the old detention center, which is dilapidated. Our plan would be to create a modern evidence and record storage facility that is secure, temperature / climate controlled, and easily accessible. Our vision is to have a Law Enforcement complex on the Templeton Rd. property and with the condition of the current evidence/ record storage area phase 1 of the plan would be to temporality setup a portable building at the detention center. The cost of this phase would include a site plan, grading of the selected area, installation of the power and utilities, and setup of the temporary building(s).
Realign the vehicle Fleet Program	7/1/2021	Safe and Dependable Patrol Cars	$ 336,000.00	$ 336,000.00	$ 336,000.00	$ 336,000.00	$ 336,000.00	Integrate 7 new vehicle into the existing fleet yearly. We would also investigate purchasing fairly new used vehicles to replace day personnel or administrative vehicles. These vehicles will finish replacing the vehicles in the uniform patrol division and some aging vehicles in our other divisions.
Body Scanner for Courthouse	7/1/2021	Provide security at courthouse	$ 175,000.00					Purchase a whole body scanner for courthouse security. The current system requires citizens to go through a metal dectector and put purses and other bags through a x-ray machine prior to entering the building causing a "bottleneck" crowding at the entrance. This machine will eliminate both of pieces of equipment and will scan in a matter of a few seconds. The current x-ray machine has reached the end of life and has a issue that is currently being troubleshooted.
Updated Computer/ Laptops/ and Network Items	7/1/2021	Dependable up-to-date computer equipment	$ 45,000.00	$ 90,000.00	$ 90,000.00	$ 125,000.00	$ 90,000.00	In year one the Uniform Patrol Division computers were replaced, and second year the other division's computer were purchased. This year's request will allow us to replace broken laptops and computers currently in use. As technology changes and with the environment the laptops are exposed to, three years is a good amount of time to keep it. Our Network equipment is on the same track; our servers and switches will be due for replacement in year 5. $20,000 of the requested money will be used to purchase a new firewall for the Sheriff's Office, Detention Center, Victim Advocate, Courthouse, and Animal Control This upgrade will allow us to montior network and security from one location and will enable all divisions to operate on one network.
Parking Area Fencing	7/1/2022	Secure Parking Area	$ -	$ -	$ 22,000.00			Officers need a safe and secure parking lot in todays operational environment with targeting of Law Enforcement officials becoming a risk factor. NOT REQUESTING THIS YEAR.

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Update Records Management System	7/1/2021	Up to date and more captiable platform for law enforcment needs. For Sheriff's Office, Detentioon Center, Victim's Assistance, and Judicial Services	$ 425,000.00	$ 35,000.00	$ 35,000.00	$ 35,000.00	$ 35,000.00	The Laurens County Sheriff's Office currently uses Law Traks records management system which was purchased in 2003. This software is outdated and is no longer compatible with newer programs. In order to keep up with the rapid changes in technology and the unfunded mandates imposed by FBI and SLED, the Sheriff's Office is forced to pay software companies to create programs to satisfy these requirements. Being on the same system would eliminate the extra cost of creating an interface to share necessary information between the two agencies. With the recent purchase of a new Computer Aided Dispatch (CAD) system, by Laurens County 911, the Sheriff's Office will be forced to make a change in our records management system to ensure an effective and efficient flow of vital information. This change in CAD system (from Interact to Zuercher) by Laurens County 911 has crippled our ability to perform our necessary law enforcement duties for the citizens of Laurens County.
Upgrade Email Client	7/1/2021	Updating Technology	$ 20,160.00	$ 20,160.00	$ 20,160.00	$ 20,160.00	$ 20,160.00	Purchase Office 365 Business for all employees of the Sheriff's Office. This will allow the Sheriff's Office to have agency wide compatible email and word processing software suite. Currently some user has Microsoft products and other have other products, such as Works or Open Office. These other office suites have limited functions and are not compatible with MS Office. The cost is approximately $144.00/employee and we will need 140 user licenses.
Upgrade In-car Camera	7/1/2021	Replace old in car cameras in patrol vehicles	$ 30,000.00	$ 30,000.00	$ 30,000.00	$ -	-	Purchase and replace in car video cameras in patrol vehicles. Currently we have been removing and reinstalling cameras when new vehicles are purchased. We had most of the cameras nearly 8-10 years and are worn out. This will allow us to purchase approximatley 6 cameras a year to put in extesting vehicles and deadline the broken ones or repurpose them to our spare fleet.
Upgrade Tasers	7/1/2021	Replace old equipment	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	Continue to replace old tasers for deputies.
Update Exisiting Sheriff's Office	7/1/2020	Update Flooring, ceiling tiles, and paint walls	$ 25,000.00					Replace wornout carpeting and floors in the office areas of the existing Sheriff's Office
Replace Patrol Rifles	7/1/2021	Purchase New Patrol Rifles	$ 35,000.00	$ 35,000.00				Replace patrol rifles that were obtained throught the Federal Surplus Program (10-33 Program). These rifles have served their purpose. The weapons are past their useful life and are in need of major rehaul. The weapons belong to the federal government and are subject to be recalled at any time. We fill it is not a good use of money to repair old rifles and take a chance in having to return them. A new rifle is approximatley $1000.00 each. We would like to outfit the uniform patrol division with new rifles and next year purchase rifle for the other divisons and outfit all sworn personnel.
Upgrade Radios	7/1/2021	Provide dependable communications for deputies- OFFICER SAFTEY ISSUES	$ 133,000.00	$ 133,000.00	$ 133,000.00	$ 90,000.00	$ -	Radios are approximatley $4,500 and our current radios are obsolete. Motorola is not making parts for the radios and once they break they are deadlined. We will like to plan a rotation and priortize the issuance of the radios.
Upgrade security At Sheriff's Office		Install access control at Sheriff's Office to provide a safe and secure building	PROJECT FUNDED BY REALLOCATING FUNDS ON 19/20 CAPTIAL FUNDS					Install monitores access control devices on the four main entrances of the current LEC. This will also include updating the camera syatem in the building.

Crime Lab/ Evidence Processing	7/1/2021	Purchase Crime Scene Processing Equipment	$ 107,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	Purchase an AFIS (Automated Fingerprint Identification System) to compare fingerprints from a crime scene to fingerprints stored in a database. We currently have to send prints to different agencies and wait on their time to process the information. Having an in house machine would cut the down time dramastically and increasing the probability of solving the crime and at a faster rate. Purchase a 3D scanner to aid in the processing of scime scenes. This highly techicnal and sensitive machine will scan areas and produce a 3D rendering of that scene to be used in possible prosecution of criminal cases.
SWAT and Bloodhound Tracking Team Equipment	7/1/2021	Provide OFFICER SAFTEY to Deputies assigned to specialized units	$ 95,000.00					Purchase state of the art equipment for our SWAT and Tracking team to safely and effectively perform their duties when called out for a major/ serious incident. These items include a Mobile FLIR which will allow a deputy to view terrain when looking for missing or wanted people to view their heat signature to effectively and efficiently search at nighttime when completely dark, FLIR Night Vision Goggles to be used by team members at night time to veiw terrian in the cover of darkness without giving up his/her location with the use of a flashlight to help see the area during night time operations , a robot to help enter dangerous areas without putting a deputy in harms way on certain types of incident- barricaded supects, suspicious item (possible bombs or other explosives material), and a new precision rifle to provide a specially trained deputy to use in long range and missions when the threat of deadly harm to the public and depuites is suspected, and a "throw phone" used in neogoations with barricaded suspect to communicate to help with a peaceful ending to an critical incident. Riot Gear for specially trained deputies to enusre law and order is upheld during large, high tense gathering within the county, to control large crowds of people during protests and/or other incidents or planned events when law enforcement presence is needed.
Training Equipment		Provide a training simulator for deputies to train	PROJECT FUNDED BY A GRANT					Purchase a Firearms Automated Treaining Simulator (FATS) to aid in scenario based training for depuites that will allowexposure to different situations more so than just shooting a paper target. This video simulator uses real world incidents and allows the deputy to play out the scenario to give a real life view of what he/ she might encounter on a call.
		Total	$ 1,606,160.00	$ 694,160.00	$ 681,160.00	$ 621,160.00	$ 496,160.00	

Other Items needed:* New Law Enforcement Center
Training Facility/ Shooting and Driving Range
Air Conditoning Unit at Current Sheriff's Office
New Elevator at Sheriff's Office

*unknown of costs

LIGHTING SERVICES
GREENWOOD, SC

4

Mr Allen Robertson, Buildings and Grounds Supervisor
Laurens County Administration Building
100 Hillcrest Square
Laurens, SC 29360
arobertson@co.laurens.sc.us

February 21, 2019

Re: Additional Laurens County Facility LED Upgrade Proposals

Hello Allen,

Thanks for another opportunity to survey additional Laurens County facilities for potential upgrade to more efficient and longer life LED (and assistance unlocking all those doors in order that accurate surveys could be completed).

As background info, our US EIA (Energy Information Administration) documents the fact lighting accounts for the largest percentage of energy consumed in an office setting (39%) AND also represents the fastest investment payback to improve such building's efficiency. In general, the LED upgrades recommended will slash lighting related energy consumption 54% (LED tubes) to 85% (LED fixtures), improve lighting quality for building personnel, increase both interior and exterior foot candles (FC's) and provide for practically maintenance free (15) to (25) year life for those facilities surveyed.

Our (8) lighting surveys indicated most exterior building spaces are lighted with poor color rendering and kelvin color HID, CFL or incandescent sources with 95% of interior spaces lighted with 4ft/8ft T12 or CFL inefficient fluorescent fixtures. Additionally, your T12 and CFL fluorescent parts are now difficult to find and costly to purchase since EPACT and ESIA energy laws phased them out of production several years ago. The few T8 lamp fluorescent illuminated spaces began a like-kind phaseout last month. Combined with the fact several buildings are served by Duke Energy (providing some lighting rebate incentives) AND other buildings are served by Laurens CPW (higher than average utility electric rates due to its Catawba Nuclear PMPA affiliation); now is a great time for Laurens County to consider upgrading these facilities to LED.

Following are lighting survey summaries for buildings chosen by Mr Satterfield and yourself. Each survey provides existing fixture counts (plus wattages and types), observations of existing lighting conditions, LED

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photometric design recommendations and turnkey LED installation costs (either complete replacement of an existing fixture with a new LED or retrofit with new LED tubes).

1. Laurens County Library (1017 W Main St Laurens (Laurens CPW)): This beautiful building was adequately lighted with a variety of styles of T12 fluorescent fixtures, CFL exits, incandescent track fixtures and (4) styles of HID exterior fixtures. The total (484) fixture count includes (348) 2X4 ceiling troffers, (17) 2X2 U-lamp troffers, (10) exits, (2) 30 inch strips, 4ft cove fixtures, 4ft ceiling hung 2L up-down pendants, (17) dimmable track fixtures, (4) exterior HID wallpacks, (9) HID parking lot pole mounted shoeboxes and (1) HID flagpole flood. It's our recommendation new LED designs incorporate 40W LED flat panels, 15W and 18W 4ft type B tubes, new LED exits equipped with double 90 min emergency light heads, 40W LED 8ft type B tubes, LED dimmable tracks, 45W LED cutoff wallpacks, a 45W LED flat knuckle flood, 150W LED pole mount shoeboxes and a 30W LED bullet style flagpole flood. Based upon the library's long hours of operation and above average $.138 per kwhr Laurens CPW rate, it is estimated this LED investment will result in a 2.0 year ROI, improved lighting quality, higher FC's and maintenance free 20+ year expected life. **Turnkey LED Upgrade BID @ $42,850.00.**

2. Health Services Building (93 Human Services Rd Clinton SC (Duke Energy)): This large, single story building serves a variety of community social functions and consists of a large number of halls, offices and miscellaneous rooms. Interior and exterior lighting conditions were generally poor due to the wide spacing of interior ceiling fixtures (and exterior lighting poles) along with the old and inefficient T12 fluorescent and HID lighting technology. The total building (550) fixture population consists of (429) T12 ceiling grid fixtures, (23) CFL exits and (64) ea T12 fluorescent lamps operating in surface wraps or strips. Exterior spaces are lighted by (10) low wattage HID building mounted wallpacks, (5) HID entrance located soffits, (4) 30 in strips and (15) pole mounted 400W HID shoeboxes. It's fortunate this facility is served by Duke Energy because this utility provides attractive lighting rebates to help offset these LED upgrade costs. It is our recommendation the LED design incorporate new higher watt (50W) LED flat panels, 15W type B tubes, LED exits equipped with double 90 minute emergency light heads, induction lighting kits for entrance fixtures, LED 45W wallpacks and 150W LED shoeboxes. Based upon the building's operating hours and average $.107 per kwhr Duke Energy electric rate, it is estimated this LED investment will result in a 2.5 year ROI, improved lighting quality, much higher interior and exterior FC's and maintenance free 25+ year expected life. **Turnkey LED Upgrade BID @ $45,850.00.**

3. EMS Headquarters (306 Exchange St Laurens SC (Laurens CPW)): This very small, old and bypass located structure is home to the 24/7 EMS Headquarters. Lighting is as poor here as any location surveyed to date and consists of (46) interior and exterior fluorescent, incandescent and low wattage HID lamps and fixtures. There's not much that can be done without major expense except replacing or retrofitting the existing fixtures with higher lumen LED products. LED upgrade work will include replacement of bathroom located wall sconces with a new LED 2X2 flat panel, upgrade of 2X4 ceiling troffers with (4) new LED 50W flat panels, retrofit of T12 4ft and 8ft surface strips with LED 15W and 40W tubes, upgrade of (1) exit (and the installation of an additional LED exit equipped with 90 minute emergency light heads), replacement of side entrance CFL wall sconces with a single LED 25W wallpack, replacement of front door fixtures with a 17W LED wallpack, replacement of an antenna located low wattage HID fixture with a new LED 100W shoebox and upgrading (2) incandescent A-lamps with LED bulbs. Resultant outcomes of these LED upgrades are higher interior and exterior light levels (FC's) and practically maintenance free 15+ year life. **Turnkey LED Upgrade BID @ $2,760.00.**

4. Cross Hill EMS Station (567 N Main St Cross Hill (Duke Energy)): This 24/7 facility is also small consisting of a vehicle storage area, bathroom, kitchen, common gathering area and sleeping quarters. Both interior and exterior lighting is moderately adequate provided by a system of (4) incandescent A-lamps, (31) ea 4ft T12 fluorescent lamps, (16) ea 8ft fluorescent lamps and (3) very inefficient exterior wall sconces. LED upgrades proposed include retrofitting 4ft and 8ft surface wraps and strips with type B LED 15W and 40W tubes, new LED A-lamps and installation of (3) wallpacks ((2) @ 45W and (1) @ 25W). Outcomes of the LED upgrade will include brighter spaces, energy savings and practically zero future maintenance expense. A small $158 Duke Energy lighting rebate will help incentivize the **Turnkey LED Upgrade BID @ $1,145.00.**

5. Gray Court EMS Station (9120 Hwy14 Gray Court (Laurens Electric Coop)): This similarity small 24/7 facility houses EMS vehicles and technicians for the Gray Court area of Laurens County. Adequate interior lighting is provided by (12) 8ft T12 fluorescent lamps in service bays, (6) T12 34W lamps in technician living quarters and (4) incandescent A-lamps in bathrooms. On the other hand, exterior lighting is poor provided by CFL fluorescent door located wall sconces, HID nema style building corner fixture and a small rear wallpack. LED upgrades will consist of new type B LED 40W and 15W tubes, new LED A-lamps, a small 17W front door mini wallpack and a 30W LED wallpack located at the rear corner of the

facility. LED resulting outcomes are identical to other EMS locations; a rapid 1.5 to 2.0 year ROI due to its 24/7 operation, higher FC's and maintenance free 15+ year life. **Turnkey LED Upgrade BID @ $850.00.**

6. Squad 3 Young's Community EMS Station:

7. Joanna EMS Station:

8. Ware Shoals Area EMS Station:

Mr Robertson indicated EMS stations above are identical in size because each are housed in old double wide mobile homes with a carport awning to cover the EMS vehicle. All (3) locations are served by Duke Energy with kwhr rates averaging $0.16. The Young's Community EMS location was surveyed with assumptions the others are identical. Lighting was poor to marginal; provided by a system of (10) ea incandescent A-lamps, CFL fluorescent front and rear door wall sconces and (2) each 2-lamp 8ft fluorescent strips to light the carport awning. Upgrade work proposed include relamping with LED A-lamps, (2) new LED 17W outside located mini wallpacks and installation of a new 30W LED canopy style fixture to illuminate the carport awning space. Outcomes are 1.5-2.0 year investment paybacks (due to energy savings, high average kwhr rates and 24/7 operations), higher FC's and practically zero future lighting maintenance.**Turnkey LED Upgrade BID Per EMS Station @ $575 Each For TOTAL LED Upgrade BID @ $1,725.00.**

If other type financing is required, the SC Energy Office offers attractive 1.5% fixed rate leasing through a program called ConserFund. Although terms are up to a maximum ten years, the fact these LED upgrades result in quick paybacks will probably result in an overall maximum (5) year lease term should Laurens County elect this form of financing. Our firm just completed a LED upgrade project for the City of Pickens where ConserFund funding was utilized.

GRAND TOTAL (8) Facility LED Upgrade BID @ $95,180.00
ADD: Laurens County 6% Sales Tax @ $5,710.80
GRAND TOTAL LED Upgrade BID w/sales tax @ $100,890.80

In summary, LED is now a reliable, energy saving and longer life alternative to all other lighting sources. Federal energy laws (EPACT and ESIA) are now phasing out most all inefficient fixture components (lamps and ballasts) at these locations resultant in future higher repair costs. Thus, you'll transition to LED sooner or later. Over the last 35 years our 2-state licensed electrical contracting company has designed, installed,

repaired or upgraded all sorts of lighting to include the transition to all LED the last (4) years. Our first 2014 upgrade was to replace all 1000W HID's with new 210W LED fixtures to light the Greenwood Mall parking lots. Recent upgrade installations include the Countybanc, Diana Pet Food, UTC Aerospace, Piedmont Tec, Capsugel-Lonza, ASC Manufacturing, Park Seed, Velux and City of Pickens (1500W metal halide sports lighting system LED replacement). Upgrades now in progress include Laurens County's Hillcrest Square Administrative Building and other LED work at Diana Pet Food.

We appreciate another chance to earn your county's lighting business with an energy and maintenance saving LED upgrade. New DLC and UL listed LED fixtures and tubes used by our firm are sourced from (2) worldwide manufacturers. These LED products feature only tier 1 components and are stocked in our warehouse for prompt upgrade turnaround. Please advise if you have technical or other questions and/or desire our firm to present our lighting findings to your Council.

With Best Regards,

Joey Rudd, CEO/Owner Brick Drummond, Engineering Manager

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LAURENS COUNTY

2021 RECYCLING AND COLLECTIONS DEPARTMENT (590)

Due to budget constraints and policy decisions, the Recycling and Collections Department has lacked re-investment and maintenance of its infrastructure since initial construction. Several Box Sites are in desperate need of repair, or reconstruction to enlarge the operations to meet growing demand. The current construction of the Laurens County Transfer Station along with a new Solid Waste Contract with Greenville County's Twin Chimney Landfill, has resulted in an estimated $500,000 savings annually on landfill disposal.

Our department would like to request the capital funding below to reinvest and bring our facilities up to the standard that our citizens deserve and expect.

FY 22 (Year 1) **Total: $310,000**

▪ Roll Off Truck	$170,000
▪ Relocate Lydia Mill Box Site to include new design (See Note #1)	$50,000
▪ Reconstruct Fountain Inn Box Site to New Design	$90,000

FY 2023 (Year 2) **Total: $214,500**

▪ Roll Off Truck	$172,500
▪ Self-Contained Compactor X 2 ($16,000 ea.)	$32,000
▪ Enhance Appearance at Box Sites, Landscaping	$10,000

FY 2024 (Year 3) **Total: $170,000**

▪ Upgrade Box Site to Improved Design	$25,000
▪ Additional Fountain Inn Box Site	$80,000
▪ Additional Open Top Containers X 10 ($6,500 ea.)	$65,000

FY 2025 (Year 4) **Total: $200,000**

▪ Repave Box Sites	$25,000
▪ Roll Off Truck	$175,000

FY 2026 (Year 5) **Total: $177,500**

▪ Roll Off Truck	$177,500

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LAURENS COUNTY

2021 RECYCLING AND COLLECTIONS DEPARTMENT (590)

(CONTINUED)

FY 2027 (Year 6) **Total: $415,000**

- Tub Grinder $350,000
- Open Top Containers X 6 ($6,500 ea.) $65,000

FY 2028 (Year 7) **Total: $180,000**

- Roll Off Truck $180,000

FY 2029 (Year 8) **Total: $81,000**

- Pickup Truck 4X4 $32,000
- 1 Ton Truck with Lift Gate $49,000

FY 2030 (Year 9) **Total: $66,000**

- Compactors X 3 ($22,000 ea.) $66,000

FY 2031 (Year 10) **Total: $182,500**

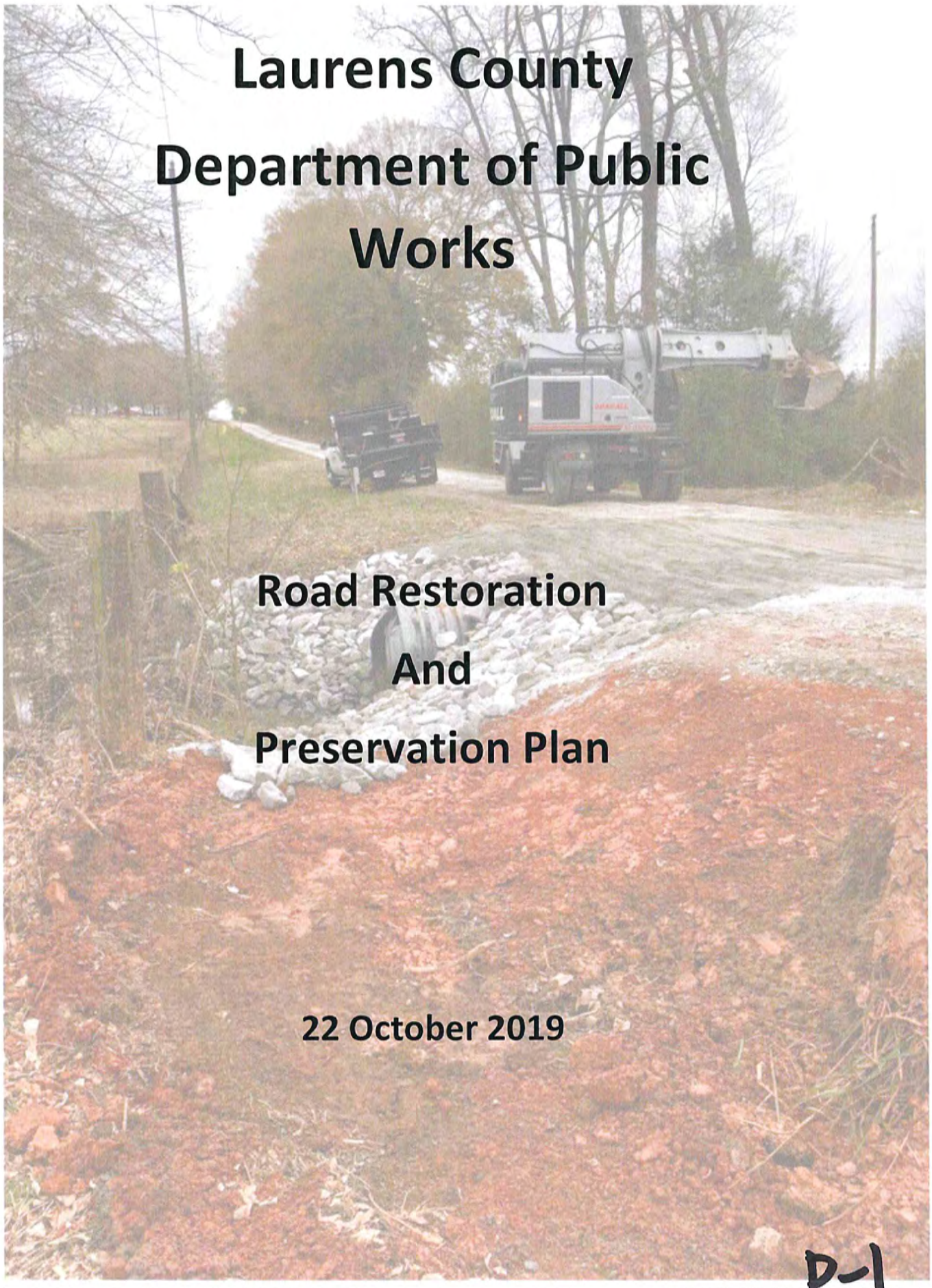
- Roll Off Truck $182,500

NOTES:

1. The Lydia Mill Box Site concrete block retaining wall in failing. We propose to relocate the box site with the new design that provides for full recycling services and eliminates the retaining wall and drive-up ramp. The County owns the proposed site for relocation.

N.2

Description	Date Needed	Benefits	Costs	Current Year	Future Plan Years				Justification
				2020	2021	2022	2023	2024	
Vehicles	7/1/2021	Replace Aging Vehicles	$ 144,000.00	$ 144,000.00				$ 48,000.00	Animal Control is responsible for answering animal/ litter call throughout Laurens County, including calls in Laurens City and Clinton City. These 4 vehciles are constantly moving and accumlatack of the vehicle ing a lot of miles. They also accumulate a lot of idle time in ordere to keep the animal cool while on scene conducting investigation. The current vehicles are in need of replacement. The price includesoutfittin with emergency equipment and the custom shell for the truck's bed.
In Car Cameras	7/1/2021	Provide Animal Control/ Litter Deputies with Cameras to document incidnets (evidence)	$ 20,000.00	$ 20,000.00					Install in-car camera systems into Animal Control/ Litter Deputies vehicles
In car Radios	7/1/2021	Officer Safety/ Communication	$ 20,000.00	$ 20,000.00					Purchase and install in car radios in Animal Control/ Litter Deputy's vehicles. The radios will be able to reach towers better than their current hand held units. Certain areas of the county have "dead spots" and having the more powerful in car will help ensure they are able to communicate with dispatch and ofther officers when needed.
				$ 184,000.00		$ -			



Laurens County Department of Public Works

Road Restoration And Preservation Plan

22 October 2019

P-1

EXECUTIVE SUMMARY

The past and current practice and levels of funding has produced a county road asset that is unsustainable. Laurens County is losing its county road asset.

The Public Works Department proposes to fund an operation within its Roads and Bridges to chip and seal our road asset as it degrades to a Class 3. This practice will fully utilize the initial investment and prolong the surface of the road. Attachment I projects that our current 57 miles of Class 4 roads will grow to 325 miles by 2029. The cost to restore the surface grows exponentially from $29,213,615 to $137,102,336, respectively, using latest contract bid pricing. Based on projected costs with in-house resources, the cost is projected at $15,385,869 to $66,889,237 saving Laurens County $13,827,746 over contract pricing for the current year.

Therefore, we recommend investing $529,000 for equipment, $168,750 labor, and annual materials at $212,000 to begin operations in-house to save our road asset. The total first year investment will be $909,750 capital and Operations and Maintenance. Based on 25 miles per year resurfaced, the Rate of Return on Equipment and Labor is **2.0 Years.** In summary, our current investment proves an unsustainable road model and the recommended investment proves a very attractive Return on Investment (ROI).

FINDINGS

In a report presented in April 2019, the SCDOT reported that South Carolina is #1 in fatality rate in the nation. And, that 60% of the fatalities occur on rural roads. The County received approximately $700,000 this current year through the LCTC which resurfaced approximately 3.5 miles of county roads. The projected funding in 2020 is only $400,000. With 401 miles of county roads to be maintained, we're asking our road infrastructure to last 50 years**. With the current practice and maintenance investment, Laurens County is losing its county road asset.**

The serviceable life of a road deteriorates exponentially faster when cracking appears, and water enters the base beneath the asphalt. It is estimated that a road rated at a class 2 will become a class 3 within 5 years of service. A road rated at a class 3 will become a class 4 within 2 years of service. Once rated at a class 4, it has been determined that subgrade has been lost and complete re-construction of the road is required. Our objective is to resurface the road as it becomes a class 3. This ensures the county has maximized the initial investment in the road surface and, is poised to extend the life of the road surface with the least capital investment. We recommend the Chip Seal (**T**ar and Gravel) method to extend the life of the road asset. Dependent upon traffic type and use, we project the Chip Seal method to extend the life of the road 8 to 12 years.

The rating system is defined as:

1. New/No Cracking	Class 1	Asphalt Surface	$15.00/sq. yd.
2. Minor Cracking	Class 2	Chip Seal Single Layer	$2.50/sq. yd.
3. Patching and Cracking	Class 3	Chip Seal Double Layer	$3.50/sq. yd.
4. Cracked Throughout/ Subgrade Failing	Class 4	Reconstruction	$80.00/sq. yd.

Attachment I show all county roads in their current condition, then, projects their condition in 3, 5- and 10-year intervals. For the purpose of our proposal, we show the model in a static scenario not knowing the future funding through the LCTC. Attachment I give the mileage in each class as rated and data calculates the average width to be 16 feet wide. Class 1 assumes no expenditure due to the surface being new with no cracking. Class 2 estimates cost at $2.50 per square yard for a single treatment of Chip Seal Treatment. Class 3 is estimated at $3.50 per square yard for a double layer of Chip Seal Treatment. Class 4 estimates the cost of subgrade reconstruction with binder course and finished asphalt course. The exponential cost when a road is lost at Class 4 shows how important it is to intervene at a Class 3. Total reconstruction is estimated at $80.00 per square yard. The Staff at The Department of Public Works **does not** recommend total reconstruction currently. We recommend a double layer treatment at $3.50 per square yard (Contractor) and not $80.00 per square yard. This approach will extend the life of the road asset and provide the base needed for future resurfacing. Attachment III shows the cost associated with restoration both contractor and in-house, as well as current and 10-year condition.

PROPOSAL

Therefore, we propose the following Laurens County Road and Preservation Plan. Given that our capital investment to date has proven unsustainable to maintaining adequate county road assets, we recommend investing in capital equipment and personnel to provide safe and sufficient road assets our citizens deserve.

The capital equipment needed is listed below:

1. 5,000 lbs. Vibratory Steel Wheel Packer: ($35,000) Crushes the aggregate into the emulsion and obtains compaction on road.
2. Pneumatic Rubber Tire Roller: ($35,000) Kneads the aggregate into the emulsion and smooths the riding surface for the vehicle.
3. Chip Spreader: ($68,000) Deposits an even layer of aggregate on the roadbed to be sealed into the emulsion.
4. Tack Truck: ($70,000) Spreads an even layer of emulsion on the roadbed to receive the aggregate when spread.
5. Water Truck: ($70,000) Cleans road prior to applying emulsion. An emulsifier adheres more strongly to a damp surface.
6. Belt Loader: ($50,000) Loads dirt from shoulders after scraping and cleaning and, picks up loose aggregate to be used on next chip sealing project.
7. Broom Tractor: ($61,000) Prep road surface prior to chip sealing, and, sweep loose aggregate from road for safety and use on next chip sealing project.
8. Low-Boy Trailer: ($45,000) To transport heavy equipment from project to project.
9. Asphalt Spreader: ($45,000) For full depth patching, leveling before Chip Seal and paving.
10. Road Widener ($50,000) Used to rebuild shoulders on roadway with dirt, gravel or asphalt.

All equipment will be fully refurbished, less than 1,000 hrs. use or new.
The total capital equipment investment to repair and preserve the county road system is $529,000.

The personnel investment (benefits included) is listed below:

1. Crew Chief/Heavy Equipment Operator: $21.50/hour, $7.53/hour benefits, $60,382 annual cost
2. Heavy Equipment Operator: $15.05/hour, $5.27/ hour benefits, $42,266 annual cost
3. Light Equipment Operator: $11.77/hour, $4.12/hour benefits, $33,051 annual cost
4. Light Equipment Operator: $11.77/hour, $4.12/hour benefits, $33,051 annual cost

The total labor investment to repair and preserve the county road system is $168,750 annually.

The capital and personnel requirements listed above is $664,682 initial investment. In the "Executive Summary", is provided the ROI for the total investment to repair and preserve our county road system. Attachment II shows the Equipment, Labor investment and estimated materials per year to resurface our County Road Infrastructure.

OPERATIONAL GOALS

The current assessment on Attachment I shows that 55% (221.2 Miles) of our county roads have degraded to a Class 3 rating. Ideally, it is at this point of wear that we would resurface with the Chip Seal Method. Our goal is to resurface 25 miles per year to not allow the surface to degrade to a Class 4. At 221 miles we estimate that we are about 5 to 7 years behind on resurfacing with in-house resources. However, we are confident that with the requested resources, we can rehabilitate our county road infrastructure.

Work Plan is as follows:

1. Prioritize the Class 3 roads and start with the most deteriorated surfaces to prevent them from becoming Class 4. There will be Class 2 roads that will become Class 3 during this period.

2. All Class 4 roads will be targeted by the LCTC. Currently, with 56.89 miles, we project a 5-year cycle to resurface the current Class 4 roads. These roads require additional construction methods that we will not have the capability to achieve without additional equipment and personnel. The LCTC is now allowing Chip Seal Method as a restoration practice in their contracts allowing additional miles completed.

Attachment I
Road Failure Projection

Estimated Road Failure Current, 3, 5, and 10 Years				
CONDITION	# OF ROADS	Est. % of Miles	MILES	AVG WIDTH
1	31	4.18%	16.76	16
2	231	26.19%	104.93	16
3	385	55.20%	221.20	16
4	124	14.20%	56.89	16
4	124	14.20%	56.89	16
PROJECTED CONDITION IN 3 YEARS	# OF ROADS	Est. % of Miles	MILES	AVG WIDTH
1	21	2.72%	10.91	16
2	154	19.97%	80.04	16
3	335	43.45%	174.10	16
4	261	33.85%	135.64	16
4	261	33.85%	135.64	16
PROJECTED CONDITION IN 5 YEARS	# OF ROADS	Est. % of Miles	MILES	AVG WIDTH
1	16	2.08%	8.32	16
2	130	16.86%	67.56	16
3	308	39.95%	160.07	16
4	317	41.12%	164.75	16
4	317	41.12%	164.75	16
PROJECTED CONDITION IN 10 YEARS	# OF ROADS	Est. % Miles	MILES	AVG WIDTH
1	0	0.00%	0.00	16
2	16	2.08%	8.32	16
3	130	16.86%	67.56	16
4	625	81.06%	324.82	16
4	625	81.06%	324.82	16

Attachment II
Proposed Investment

Investment:

Equipment

Steel Wheel Packer	$35,000	
Rubber Tire Roller	$35,000	
Chip Spreader	$68,000	
Tack Truck	$70,000	
Water Truck	$70,000	
Belt Loader	$50,000	
Broom Tractor	$61,000	
Low-Boy Trailer	$45,000	
Asphalt Spreader	$45,000	
Road Widener	$50,000	$529,000

Personnel

Labor	Hourly Pay	Benefits			
Crew Chief/HEO	$21.50	$7.53			
Light Equip. Operator	$15.05	$5.27			
Laborer	$11.77	$4.12			
Laborer	$11.77	$4.12	$81.12	$168,733	**Annual w/ benefits**

Total Annual Investment.: $697,733 **Based on 25 miles/year:**

Savings	ROI
$328,533	2.12

Materials

Stone	$71,000
Emulsion	$141,000
Total Materials	$212,000

Dale Satterfield

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Attachment III
Estimated Cost to Restore/Preserve
In-House vs. Contractor

PROJECTED SAVINGS 2019 vs. 2029
CURRENT MILES PER CLASS 3 & 4

Rating 2019	Miles	Sq.Yd.	Contr. $	In-House $	Savings
3	221	2,046,165	$7,161,579	$3,069,248	$4,092,331
4	57	535,040	$24,098,202	$12,316,621	$11,781,581
	278	2,581,205	$31,259,780	$15,385,869	$15,873,911

Rating 2029 (10 years)	Miles	Sq.Yd.	Contr. $	In-House $	Savings
3	68	629,589	$2,203,563	$944,384	$1,259,179
4	325	3,009,067	$135,528,363	$69,268,715	$66,259,648
	393	3,638,656	$137,731,925	$70,213,099	$67,518,827

Pricing	Class 3	Class 4	Class 3 (2%-10yr)	Class 4 (2%-10yr)	
Contractor	$3.50	$45.04	$4.27	$54.90	Per Sq Yd
In-House	$1.50	$23.02	$1.83	$28.06	Per Sq Yd

"Laurens County Bridge Inventory Study Summary Report" for

Laurens County, SC

Final Report – December 2019

Laurens County Bridge Inventory Study

D&F Job No.: 013756-02

PREPARED FOR:

Laurens County, SC

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1.0 – Introduction

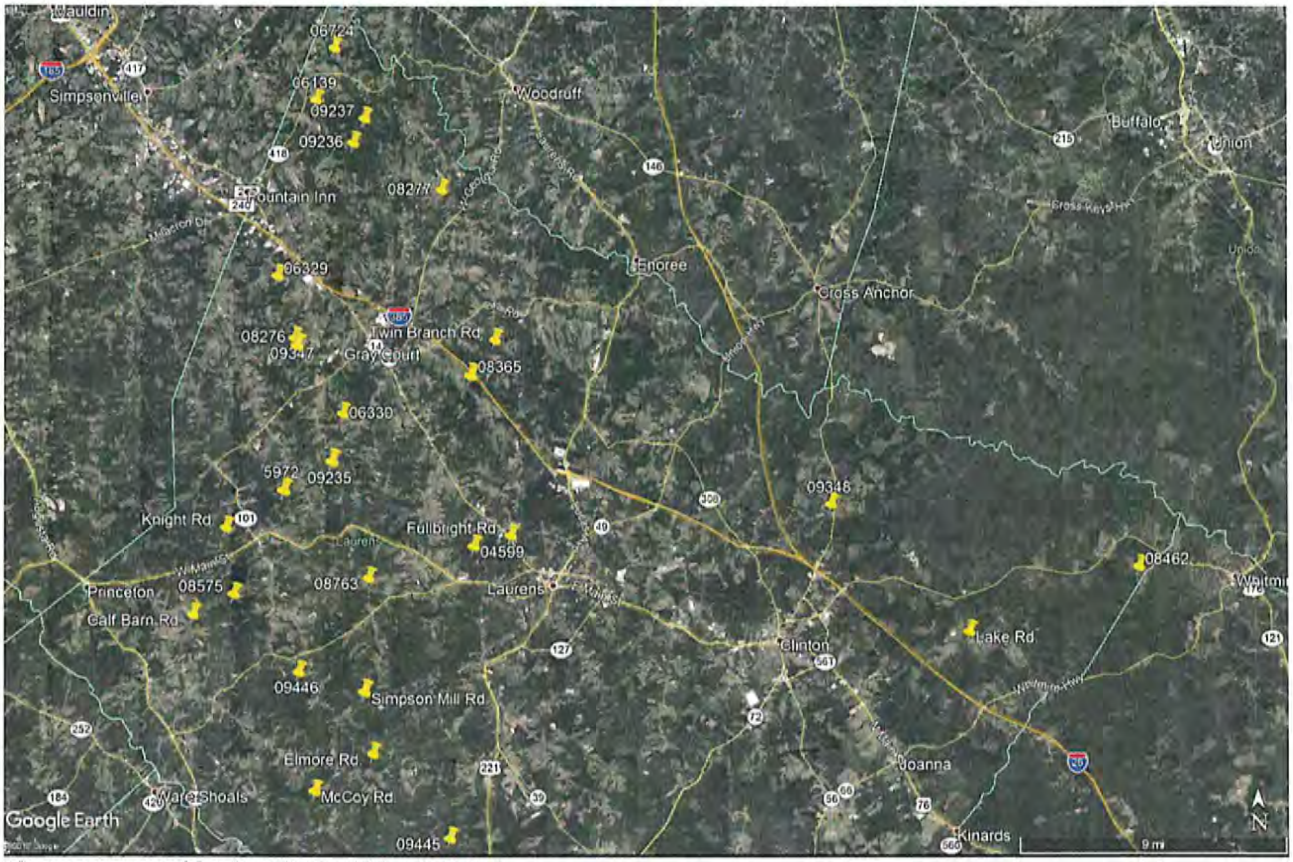

Figure 1-2.1-1: Bridge locations within study list

Laurens County initiated a bridge study to evaluate the County owned timber bridge assets to better understand the current conditions and to seek recommendations to improve the County owned bridge system. The current list of County owned timber bridges includes 27 total bridges. Through this study, Davis & Floyd (D&F) identified that 2 of the timber bridge assets have been previously replaced with corrugated metal pipes. As a result, the County bridge assets are comprised of 25 timber bridges, 1 concrete bridge, 1 aluminum box culvert and 1 aluminum pipe culvert. The approximate locations of the timber and corrugated metal structures have been provided in Figure 1-2.1-1. The study was completed by structural engineers and included field investigations and inspections of each bridge site. Relevant information was documented to determine the structural condition of the bridge, roadway alignment conditions, hydraulic conditions and utilities within the area in order develop recommendations and opinions of probable costs.

2.0 – Field Observations

In addition to field measurements that affect the structural capacity of a bridge, observations of the surrounding area and other critical factors that could influence the proposed recommendations were documented. Descriptions of the types of observations made during the site visits are described in the following sections.

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2.1 – Bridge Condition

Typical bridge inspections are completed on a two-year cycle and each bridge component is observed and rated based on The National Bridge Inventory (NBI) rating system during these routine bridge inspections. A detailed explanation of these condition ratings is included in Appendix A. Where bridge inspection data was not provided, our past inspection and design experience was used to determine the condition of the bridge. These ratings provided as part of this study should not be considered as formal Routine Bridge Inspections as required by the NBI. The SCDOT should be consulted to verify that these bridges are being inspected per state and federal guidelines.

2.2– Roadway Alignment/Condition

Vertical and horizontal alignments, as well as cross sections, were observed for each bridge to determine possible sight distance, geometric and other safety issues. Typical alignments that cause safety issues are sharp curves, compound curves, reverse curves, broken-back curves, and steep grades. Typical cross section elements that cause safety issues are lane width, shoulder width, shoulder slopes, and utilities' proximity to the roadway. The condition of the roadway was also noted at each bridge.

A sharp curve is a general term referring to the sudden change in alignment of road curvature due to a steep angle or small radius of a curve. This results in reduced sight distance and decreases the safety of the drivers. If possible, these curves should be avoided at the end of long tangents (straight) roads or at a transition from a simple curve which is a continuous arc of a determined radius based on speed defined in Section 5 of the SCDOT Roadway Design Manual. This issue is worsened when combined with steep grades along a vertical sag or crest more so at night when headlight beams are projected straight ahead away from the curve.

Compound curve, reverse curve, and broken-back curve is terminology used to describe a set of two curves that are joined. Compound curves may consist of more than two curves and is a composition of simple curves with a different radius oriented in the same direction without a tangent section in between. Reverse curves are a composition of two curves which can be of the same or different radii, however, are oriented in the opposite direction of each other and joined by a tangent section. Broken-back curves are like compound and reverse curves where the orientation of the curve is the same, however, they are joined together by a small tangent section.

2.3– Bridge Hydraulics

Utilizing the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) each bridge has been assigned to a flood zone. The FIRM zones provide the likelihood of an area being flooded based on a 100-year design event. Detailed information about each FIRM zone is included in Appendix B. Bridge replacement projects typically affect the flood elevation within a flood zone, therefore, a detailed flood study is normally required in order to determine a new base flood elevation. Because base flood elevations are not allowed to increase, it is standard practice to design replacement structures that either reduce or do not change the base flood elevation.

2.4 – Traffic Volume

Based on information provided by County staff, D&F utilized the knowledge and assistance of Laurens County Roads and Bridges personnel to determine the type and volume of traffic on the bridges listed in the study. There was no existing official traffic data available from SCDOT. From the classification types shown in Table 1, each bridge is designated a number classification to denote the type of traffic followed by a letter to represent the volume of traffic. For example, a bridge that carries a facility which connects 2 parallel highways with housing along the facility is typically categorized as Type 2B.

Table 1: Traffic type and volume classification

Code Classification	Description
1	Heavy truck traffic (i.e., utility trucks, log trucks, etc.)
2	Mostly cars/some truck traffic
3	All car traffic
A	Heavily traveled road
B	Medium traffic; feeder to subdivisions/shortcuts
C	Low traffic; dead end

2.5– Utilities

Observed utilities are noted for each bridge in section 5.0. Utilities can be significantly impacted as a result of bridge improvements or replacements and are important to the bridge recommendations. These impacts could include but are not limited to total relocation, additional support requirements and scheduling.

3.0 – Recommended Actions

Based on field observations explained in Section 2.0, D&F has provided a recommendation for each of the bridges as to the most feasible option that will not only minimize disruption to the local community but also make efficient use of the County's funding all while maintaining public safety. In addition to the recommended actions, other options may be suitable based on changing priorities and should be continuously evaluated. Under certain situations the recommendation for a bridge can be to do nothing and leave it as is.

3.1 – Repairs

A majority of the repairs for most timber bridges can be completed by utilizing small hand tools and construction equipment, however, most of the materials needed are not always readily available. Timber framing for bridges is typically much larger in size than your standard dimensional lumber readily available in local hardware stores and is usually special ordered. Components that typically require repairs are timber deck boards, timber beams, timber curbs, and slope protection. The foundation components of bridges may be suitable for repair but are generally more difficult due to limited access for the repair work. It should be noted that none of the bridges have appropriate traffic barriers or guardrails to keep vehicles within the travelway. Traffic barriers are a major safety feature of a bridge and should be considered for all bridges. A conceptual timber traffic barrier is shown in Figure 3.1-1 Guardrails should be considered where the slopes adjacent to the roadway are steeper than 4:1 and at the ends of all bridges. Recommendations have also been provided to address roadway repairs as well as standard maintenance items such as debris removal. Finally, D&F suggests that if a bridge is not to be replaced, solid blocking should be provided between all beams at the supports, is generally needed in order to further stabilize the bridge beams.

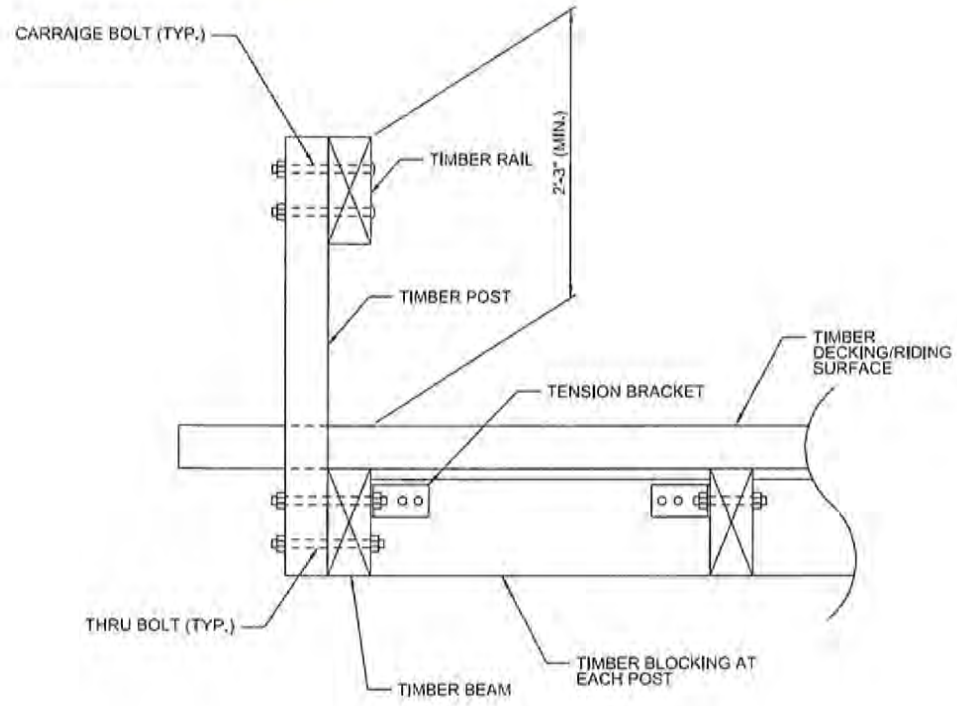

Figure 3.1-1: Conceptual timber traffic barrier

3.2 – Traditional Bridge Replacements

If a bridge is not recommended to be repaired due to concerns with structural integrity or other conditions (i.e. traffic status, traffic volume, roadway alignment, etc.), a traditional replacement may be warranted. The most common traditional bridge would be a single span hollow cored slab on steel pile supported end bents. A single span hollow cored slab can span up to 70' and is suitable for most of the crossings maintained by the County. For crossings greater than 70' in length a SCDOT typical multi-span hollow cored slab, multi-span concrete flat slab, or single span concrete girder bridge will be required. The use of a concrete superstructure bridge as describe above are recommended in order to reduce maintenance cost, increase load carrying capacity and to minimize the number of substructure elements. Traditional bridge replacement projects typically require specialized equipment and experience and should be done by an experienced bridge contractor. Depending on County staff capabilities, certain aspects of a bridge replacement project may be completed by County staff such as demolition, roadway grading, asphalt paving, and slope protection.

3.3 – Non-Traditional Bridge Replacements

Recent advancements in the bridge construction industry have led to several new and innovated bridge construction techniques that can help reduce construction cost, duration, and difficultly. In lieu of the hollow cored slab, Box Beams or NEXT beams may be utilized based on the bridge length and potential time constraints.

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Box beams are an ideal replacement compared to hollow cored slabs due to their ability to extend up to 120' in a single span. These beams are comprised of a prestressed hollow rectangular section varying in depth from 27" to 42" and 48" wide. They can be constructed adjacent to each other similarly to hollow cored slabs or spread similar to a tradition beam bridge. Spread box beams do require a 6" thick concrete deck slab above them. Since the box beam has been utilized for years in other states, standard sections have been developed and they are mass produced and readily available. Box beams require more pieces to achieve the same width, when compared to the NEXT beam, and have higher fabrication costs due to their complexity.

Another possible alternative is the Northeast Extreme Tee (NEXT) beam, while there are many different varieties, the NEXT D beam will be addressed here as it does not require a concrete topping slab. The NEXT beam is an improved version of the Double Tee beam which can span up to 80' and requires less pieces to obtain the same bridge width. It is a great candidate for Accelerated Bridge Construction (ABC) if time is of importance when replacing a bridge. It also provides improved durability over other beam types due to its ease of inspection. Depending on the manufacturer, cost may be an issue since not all fabricators are producing it and standards are not as widespread when compared to other beam sections. In addition, the extra weight of each section may require heavier machinery to be able to construct the bridge superstructure.

If time is a critical component in replacing the bridge, Accelerated Bridge Construction (ABC) may be utilized which is a construction philosophy that is used in time sensitive situations in order to minimize impact on local traffic and where a lack of a suitable detour is available. This in turn will reduce public inconvenience, improve workers safety and reduce negative impact in the nearby region. ABC is a very broad term and can be accomplished many different ways including but not limited to precast concrete elements, fabricated steel sections, and bridge sliding.

As for a support system for either the hollow cored slab, Box Beam or NEXT Beam, which can be used with or without ABC, a Geosynthetic Reinforced Soil–Integrated Bridge System (GRS–IBS) is an ideal replacement for pile driven bents. The GRS-IBS can be constructed with minimal equipment by County employees or third-party contractors. The main benefit of this system is the reduced cost compared to other SCDOT standards as further discussed in Section 4.3. This advantage is largely due to the construction process not requiring specialized equipment or experience and once the construction is completed it is durable and easy to maintain thus lowering the life-cycle cost of the system. In addition, since the GRS-IBS encompasses the surrounding bridge embankment, the SCDOT standard 2:1 slope is no longer required thereby decreasing the footprint of the abutment and possibly the overall bridge length which ultimately decreases the environmental impacts.

4.0– Opinion of Probable Costs

The cost of the recommendations outlined for each bridge are based on recent SCDOT bid data where applicable and current market conditions. It should be noted that these cost opinions are subject to change based on market conditions and should be viewed as an order of magnitude cost only. Engineering fees have not been included in the cost opinions but are typically on the order of 10% of the construction cost assuming a traditional bridge replacement.

4.1 – Repairs

The type of repairs listed for each bridge are assumed to be performed by County staff thus the costs provided are based on current market value of required materials only. The repair cost to install improved traffic barriers is dependent upon the final design of the timber traffic barrier but is based on the conceptual design provided in Figure 3.1-1. The cost to install guardrails is per the latest SCDOT Bid data and assumes the work will not be performed by County staff.

4.2 – Traditional Bridge Replacements

The cost to perform a traditional bridge replacement is dependent upon many different factors such as bridge type, width, span length, number of spans, and site constraints. As a general rule of thumb traditional bridge replacements performed by a bridge contractor currently cost approximately $150-$250 per square foot of bridge deck not including any associated roadway work. For cost estimates at this stage it has been assumed that a traditional replacement bridge will be done by an experienced bridge contractor and cost $200 per square foot. For all bridge replacements it has been assumed that the bridge will have two 10' lanes and the cost for any associated roadway work has been added to the replacement costs of the bridge.

4.3 – Non-Traditional Bridge Replacements

The cost for a non-traditional bridge replacement is very dependent upon the bridge design. The cost of using a box beam or NEXT beam should be similar to the cost of a traditional bridge replacement of $200 per square foot. The cost of the ABC methods are generally higher than traditional bridges but as previously discussed allows bridges to be replaced more quickly. The cost of using GRS-IBS foundation system over traditional pile support foundations can be significant. According to the FHWA:

"(Building a bridge with GRS-IBS is potentially 25 to 60 percent less expensive than traditional methods, depending on the standard of construction and the method of contracting (local forces versus a private contractor). Maintenance costs will likely also be reduced since the GRS-IBS has fewer parts than a conventional bridge system and is jointless. Since GRS-IBS can be built in variable weather conditions, labor costs can also be reduced: few stoppages for weather are needed. Material costs are also reduced. The system is built with common materials and readily available equipment."

It is expected that if the County was to construct the foundation system for a single span bridge using the GRS-IBS foundation system and contract out the superstructure construction it would save the County approximately $250,000 per bridge. The cost to construct a GRS-IBS bridge is anticipated to be approximately $100 per square foot plus the cost of material to construct a GRS-IBS bridge foundation which is expected to be less than $50,000. Additional cost savings could be achieved if the County is willing to act as the general contractor and self-perform some of the work such as purchasing material, installing barriers, and placing asphalt.

5.0 – Bridge Assessments

The following sections provide detailed information about each County maintained timber bridge. The bridges are grouped into 5 categories:

5.1 – Closed Bridges,

5.2– 3 or More Span Bridges

5.3– 2 Span Bridges

5.4– Single Span Bridges

5.5 – Other

A summary of the findings and recommendations can be found in Table 2 and Table 3.

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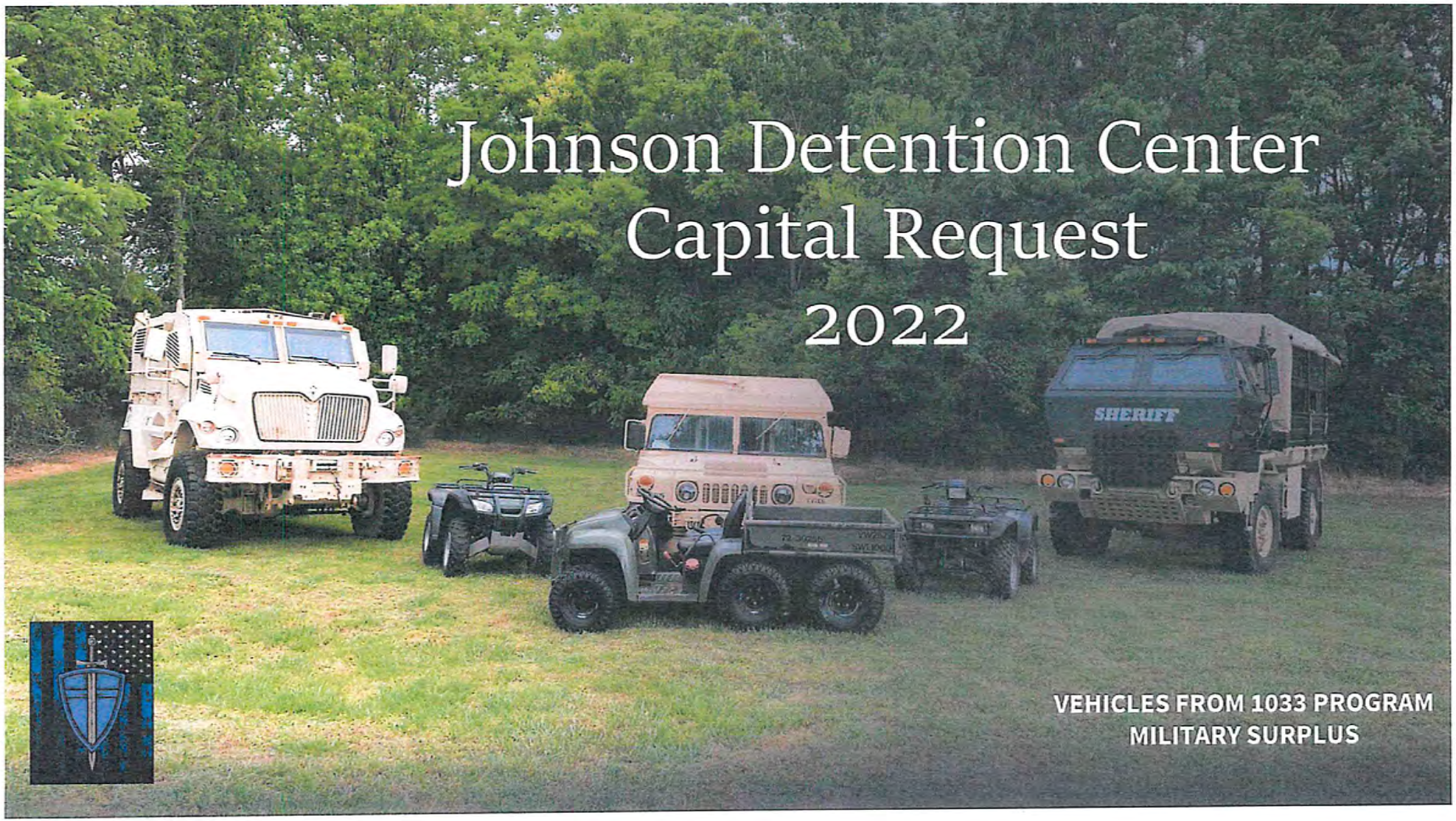
Table 2: Bridge recommendations summary (1 of 2)

SCDOT Asset ID	Crossing Facility	Feature Crossed	Traffic Status	Traffic Class	Latitude	Longitude	FIRM Zone	Total Bridge Length	Number of Spans	Lowest Rating
4599	L-1400 (Gristmill Rd.)	Trib. to Little River	Closed	2C	34°30'47.6"N	82°03'44.7"W	AE	37'	2	5 - Fair
5972	L-532 (Benjamin Rd.)	South Rabon Creek	Posted 4 T/A, 6 TG	3B	34°32'21.7"N	82°10'31.0"W	A	57.5'	4	6 - Satisfactory
6139	L-612 (Garrett Patton Rd.)	Little Durbin Creek	Posted 4 T/A, 6 TG	2A	34°43'44.5"N	82°09'26.1"W	A	68'	5	7 - Good
6329	L-573 (Wells Rd.)	Trib. to North Rabon Creek	Closed	2C	34°38'37.1"N	82°10'45.6"W	X	24'	2	5 - Fair
6330	L-767 (Speedway Dr.)	Mountain Creek	Closed	3B	34°34'37.7"N	82°08'25.4"W	A	47'	3	4 - Poor
6724	L-617 (Hunter Rd.)	Trib. to Enoree River	Posted 4T/A, 6 TG	2B	34°45'16.0"N	82°08'48.6"W	X	36'	2	7 - Good
8276	L-548 (Cooley Rd.)	North Rabon Creek	Posted 4 T/A, 6 TG	3A	34°36'34.1"N	82°10'04.0"W	A	47'	3	5 - Fair
8277	L-874 (Harris Groove Church Rd.)	South Durbin Creek	Closed	2A	34°41'08.5"N	82°04'58.1"W	A	90'	6	4 - Poor
8365	L-513 (Bull Hill Rd.)	Trib. to Warrior Creek	Posted 3 T/A, 4 TG	2A	34°35'42.6"N	82°03'53.5"W	A	45'	3	5 - Fair
8462	L-367 (Little North Carolina Rd.)	Duncan Creek	Posted 4 T/A, 6 TG	3C	34°30'10.9"N	81°40'14.1"W	A	49'	3	6 - Satisfactory
8575	L-148 (Henderson Church Rd.)	Trib. to Reedy River	Posted 4 T/A, 6 TG	3B	34°29'22.7"N	82°12'11.3"W	A	35'	2	7 - Good
8763	L-1381 (Steve Thompson Rd.)	Trib. to North Rabon Creek	Open	2B	34°29'51.2"N	82°07'29.4"W	A	42'	3	7 - Good
9235	L-523 (Baynes Creek Rd.)	North Rabon Creek	Posted 3 T/A, 6 TG	2B	34°33'12.6"N	82°08'49.0"W	A	84'	5	5 - Fair
9236	L-614 (Park Rd.)	Durbin Creek	Closed	2A	34°42'30.4"N	82°08'06.9"W	A	67'	5	5 - Fair
9237	L-620 (Liberty Church Rd.)	Little Durbin Creek	Posted 4 T/A, 6 TG	2A	34°43'13.0"N	82°07'43.2"W	A	50'	3	6 - Satisfactory
9347	L-564 (Burdette Rd.)	North Rabon Creek	Closed	2B	34°36'48.7"N	82°10'09.2"W	A	50'	3	5 - Fair
9348	L-681 (Little Acres Rd.)	Beards Creek	Posted 4T/A, 6 TG	2B	34°32'00.8"N	81°51'07.7"W	AE	38'	2	6 - Satisfactory
9445	L-433 (Milam Heights Rd.)	Long Lick Branch	Posted 3T/A, 6 TG	2B	34°22'19.6"N	82°04'33.3"W	X	48'	3	7 - Good
9446	L-457 (Hood Creek Rd.)	Trib. to Reedy River	Posted 4T/A, 6 TG	2B	34°27'07.5"N	82°09'56.4"W	X	52'	3	7 - Good
N/A	L-1181 (Lake Rd.)	Copeland Pond	Posted 3T/A, 6 TG	2B	34°28'19.4"N	81°46'15.9"W	X	21'	1	6 - Satisfactory
N/A	L-1326 (Knight Rd.)	Trib. to Reedy River	Posted 2 T/A, 3 TG	3B	34°31'26.0"N	82°12'22.2"W	X	20.5'	1	7 - Good
N/A	L-384 (Simpson Mill Rd.)	Trib. to Rabon Creek	Open	3B	34°26'31.9"N	82°07'37.3"W	A	21'	1	7 - Good
N/A	L-421 (Fullbright Rd.)	Trib. to Reedy Fork	Open	3C	34°31'06.2"N	82°02'27.0"W	X	18'	1	5 - Fair
N/A	L-447 (Elmore Rd.)	Trib. to Rabon Creek	Posted 3 T/A, 6 TG	3C	34°24'45.9"N	82°07'20.9"W	X	20'	1	7 - Good
N/A	L-473 (Calf Barn Rd.)	Trib. to Reedy River	Posted 2 T/A, 3 TG	3B	34°28'46.5"N	82°13'36.4"W	X	20'	1	7 - Good

Table 3: Bridge recommendations summary (2 of 2)

SCDOT Asset ID	Crossing Facility	Immediate Action	Recommendation Cost	Long Term Primary Recommendation	Recommendation Cost	Long Term Secondary Recommendation	Recommendation Cost
4599	L-1400 (Gristmill Rd.)	Remain Closed	$0	Bridge Replacement	$465k - $380k	N/A	N/A
5972	L-532 (Benjamin Rd.)	Remove Debris Buildup	$0	Bridge Replacement	$560k - $350k	Timber Rail	$25k
6139	L-612 (Garrett Patton Rd.)	Remove Debris Buildup & Fence	$0	Bridge Replacement	$560k - $350k	Timber Rail	$25k
6329	L-573 (Wells Rd.)	Remain Closed	$0	Bridge Replacement	$300k	N/A	N/A
6330	L-767 (Speedway Dr.)	Remain Closed	$0	Removal and Permanent Closure	$25k	N/A	N/A
6724	L-617 (Hunter Rd.)	No Action	$0	Replace with Pipe	$150k	Timber Rail	$20k
8276	L-548 (Cooley Rd.)	Remove Debris, Monitor Roadway Slopes	$0	Bridge Replacement	$695k-$415k	Timber Rail, Replace Bracing, Stabilize Slopes, Install Guardrail	$150k
8277	L-874 (Harris Groove Church Rd.)	Remain Closed	$0	Bridge Replacement	$700k - $450k	N/A	N/A
8365	L-513 (Bull Hill Rd.)	Request revaluation by SCDOT	$0	Bridge Replacement	$495k-$315k	Timber Rail	$25k
8462	L-367 (Little North Carolina Rd.)	Remove Debris Buildup	$0	Bridge Replacement	$560k-$315k	Timber Rail	$25k
8575	L-148 (Henderson Church Rd.)	Remove Debris Buildup, Repair Curb, Warning Signs	$5k	Bridge Replacement	$700k-$515k	Timber Rail	$20k
8763	L-1381 (Steve Thompson Rd.)	Post Bridge, Slope Protection, Repair Wearing Surface	$5k	Bridge Replacement	$430k-$280k	Timber Rail	$25k
9235	L-523 (Baynes Creek Rd.)	Remove Debris Buildup, Repair Curb, Warning Signs	$5k	Bridge Replacement	$750k-$500k	Timber Rail	$35k
9236	L-614 (Park Rd.)	Remain Closed	$0	Bridge Replacement	$665k - $480k	N/A	N/A
9237	L-620 (Liberty Church Rd.)	Remove Debris Buildup	$0	Bridge Replacement	$495k-$315k	Timber Rail, Asphalt Approach	$40k
9347	L-564 (Burdette Rd.)	Remain Closed	$0	Bridge Replacement	$565k - $380k	N/A	N/A
9348	L-681 (Little Acres Rd.)	Repair Slope Protection	>$50k	Bridge Replacement	$550k - $365k	Timber Rail	$20k
9445	L-433 (Milam Heights Rd.)	Remove Debris Buildup	$0	Replace with Pipe	$175k	Timber Rail	$25k
9446	L-457 (Hood Creek Rd.)	No Action	$0	Replace with Pipe	$175k	Timber Rail	$25k
N/A	L-1161 (Lake Rd.)	Remove Debris Buildup, Inform SCDOT of Bridge	$0	Replace with Pipe	$175k	Timber Rail	$20k
N/A	L-1326 (Knight Rd.)	Inform SCDOT of Bridge	$0	Replace with Pipe	$150k	Timber Rail	$20k
N/A	L-384 (Simpson Mill Rd.)	Repair Slope Protection, Inform SCDOT of Bridge	$15k	Bridge Replacement	$300k-$250k	Timber Rail	$20k
N/A	L-421 (Fullbright Rd.)	Post Bridge	$0	Replace with Pipe	$150k	Timber Rail	$20k
N/A	L-447 (Elmore Rd.)	Inform SCDOT of Bridge	$0	Replace with Pipe	$150k	Timber Rail	$20k
N/A	L-473 (Calf Barn Rd.)	Inform SCDOT of Bridge	$0	Replace with Pipe	$150k	Timber Rail	$20k


Johnson Detention Center
Capital Request
2022
SHERIFF
VEHICLES FROM 1033 PROGRAM
MILITARY SURPLUS

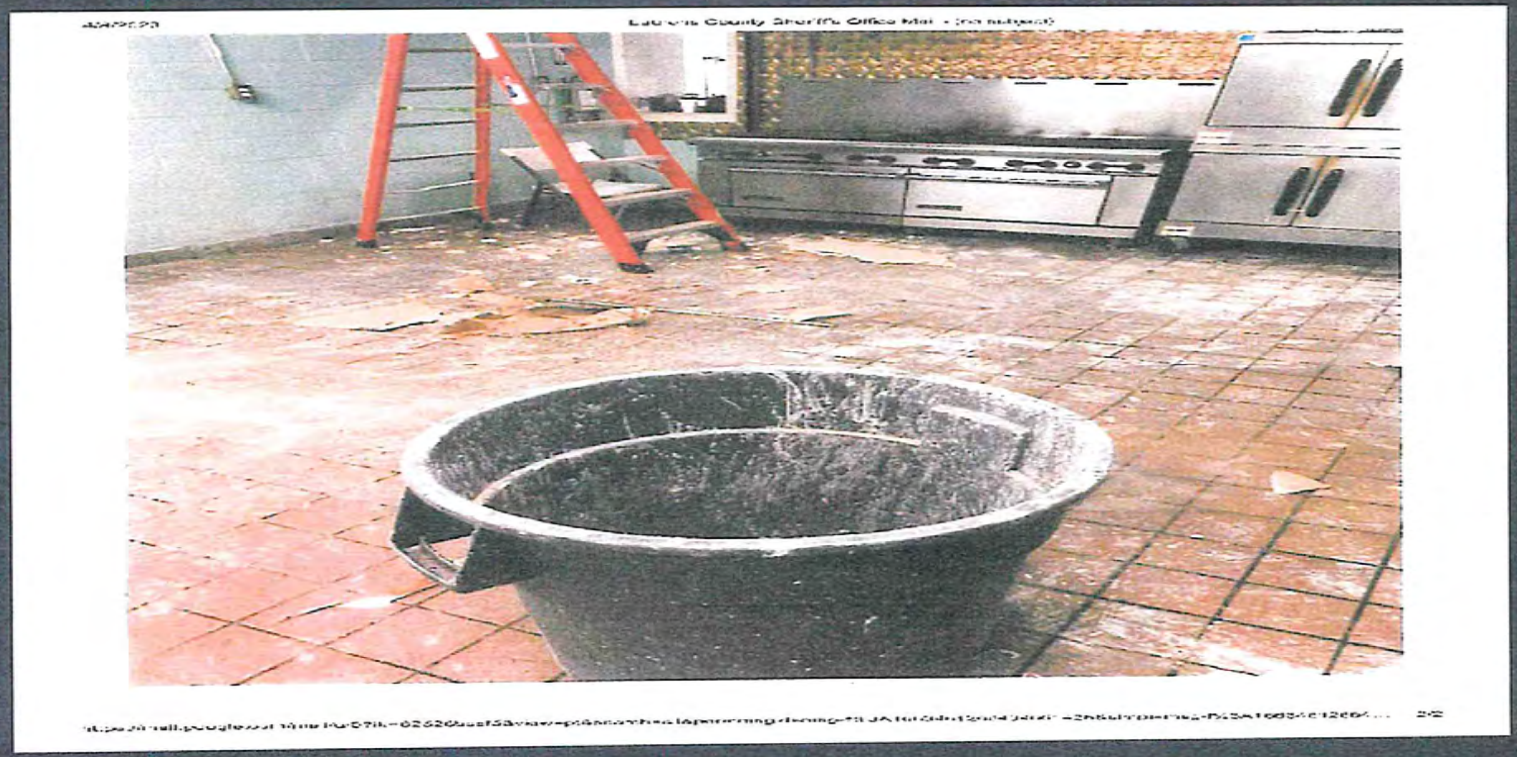
R-1

206 = 277

ROOF REPAIRS / REPLACEMENT

R-2

ROOF REPAIRS NEEDED



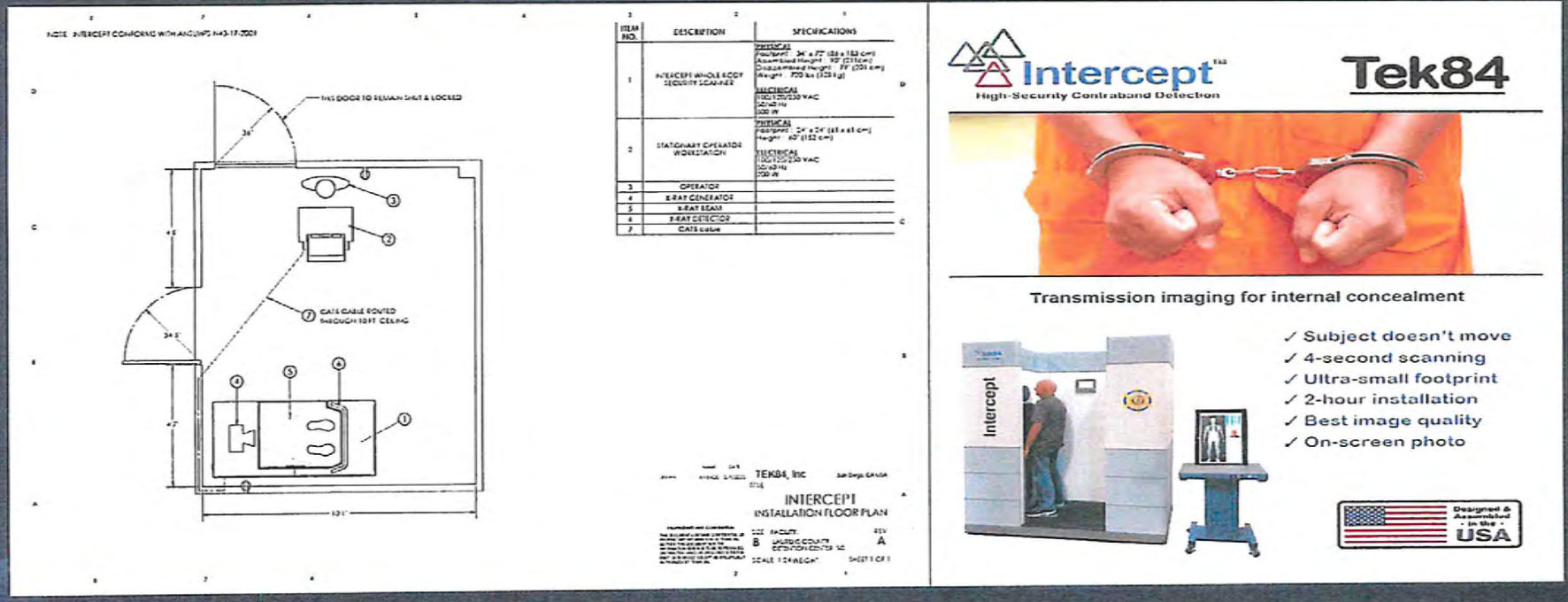
R-3

ROOF REPAIRS

The Roof has major leaks that have caused damage to the property. This has been an ongoing problem over the past several years and several attempts to fix it have failed. The longer it goes without repair or replacement the more damage will be done to the entire building. The repair needs are growing each time it rains, as of now we will have to replace insulation and minor damage inside the facility.

- **This item could also be on building and grounds request.**

BODY SCANNER



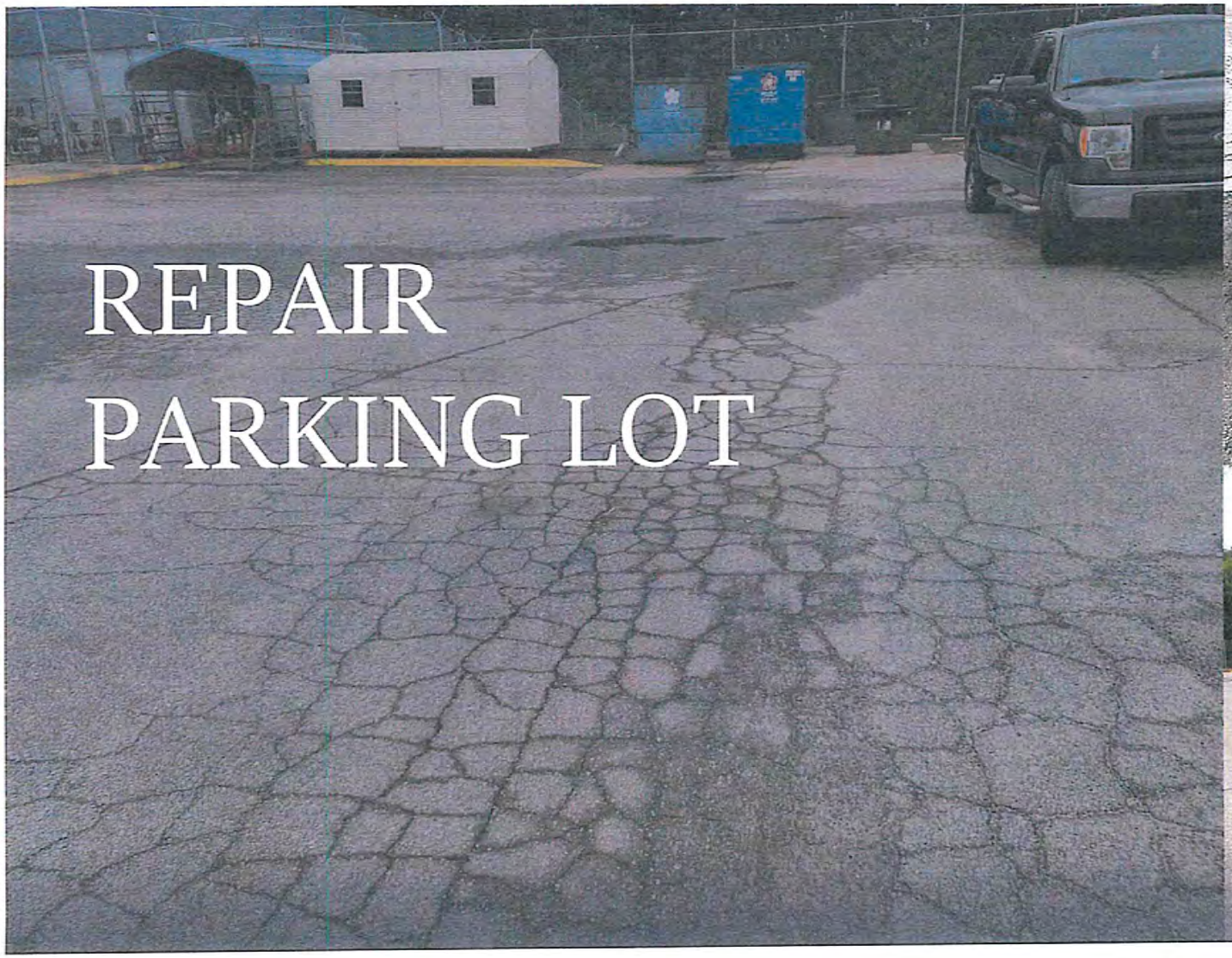
S-21

BODY SCANNER

Body scanner is the best way to locate items on or inside a person being placed into the detention center. The body scanner will allow deputies to fully search a person and discover if they that have ingested or stuffed drugs inside their body that could rupture and cause death due to overdosing on drugs. Body scanners are the safest most effective way to reduce liability during the booking process.

- **We plan on using Inmate welfare funds for this item. The process has started to purchase this item, we can mark this off our list by Nov 2020 depending on Inmate Welfare funds and contracts with the company.**

R-1



R-7

PARKING LOT REPAIRS

The parking lot is showing age and with the amount of heavy vehicles pulling into the area, repairs now could save the county in the long run. Several times a week large trucks 18 wheelers deliver supplies to the detention center, over time the parking lot is starting to crack and develop potholes. Repairs now could save on additional cost in the future.

We could Save money by working with Roads and Bridges using the new paving machine to reducing cost and allowing training on the new equipment. Cost could be cut by 2/3.

8-21

SECURITY CAMERA UPDATE

6-2

SECURITY CAMERA

The security system at the detention center is reaching its end of life. We have 18 Cameras that are no longer working causing blind spots inside the detention center, opening the liability in the case of a major or even a minor incident not on camera for review. The camera system is crucial to the safety and welfare of the Inmates and Deputies alike. Repairing the camera system and upgrading the servers will be a recuring cost as technology improves each year. The system we are looking to add will allow us to update the technology and equipment without having to do a complete replacement. This is a band aide not a complete fix of the problem.

- **We are planning on having the cameras fixed with our current budget this year, I am placing this on the list as future needs because the complete system will need updating over the next 5 years. This year we are looking at $25000.00 to get all the cameras up and running plus adding a few in key locations**

R-10

DEPUTY PARKING AREA SECURED

R-11

PARKLING LOT SECURITY

The parking for detention staff needs to be a secured area that the public cannot have access to. The current state of the detention center places staff in a position where they could be and have been confronted by anyone coming to the detention center for bond or inmates being released after they have bonded out. The deputies that work at the detention center need a secure location to park when arriving and leaving work. Putting a new fence up that separates the Parking area for employees and citizens it will provide a safety barrier for all staff as the enter the building.

- **Move current impound lot out of public view to a more secure location (down the hill from current location). Turning the impound lot into secure parking for Judges, Deputies and Detention Staff and spare Sheriff's Office vehicles. Utilizing inmate work crews to reduce cost by more than 60%.**

R-12

VEHICLES

VEHICLES

Detention Deputies provide inmate transport for Court, Medical, Mental Health and assist road patrol when requested, to provide additional vehicles to transport from crime scenes. It is important to have a proper replacement plan for vehicles that are reaching end of life. Our current fleet of detention vehicles were all purchased used with mileage around 100K. This plan would allow us to replace all the used vehicles over the next 5 years with a new or newer one. We will continue to seek the best deals possible and make sure the vehicles our deputies drive are always in good safe working order. Detention transports are statewide trips for various reason, Mental health evals for court, dropping off inmates to state prisons to name a few. These trips cover the entire state of South Carolina and sometimes into other states. It is vital to the mission of the detention center to have quality vehicles on these operations. A vehicle breakdown with inmates in the vehicle outside of Laurens County places liability on the detention center and the safety of inmates and Deputies.

R-14

COMPLETE SECURTY SYSTEM UPDATE 2023

R-5

COMPLETE SECURITY SYSTEM UPDATE

Our current security system does not allow for updates or upgrading of equipment, once it breaks or starts to have problem, we must use old parts to keep it running. Any system we install into the detention center must have the capabilities to interact with other IT programs and the ability to upgrade and add additional functions as needed over time. Our current system does not allow for upgrades and the parts are no longer made. The availability of parts for our current system drives up the cost of repairs, the Sheriff's Office IT manager can not purchase some of the items needed because they are no longer made be or available. Over the next few years this system can be replaced by section to save on upfront cost. This is the security system that opens and closes doors to all areas of the detention center, the entire safety and security of the facility is at risk when this system fails.

R-16

DETENTION CENTER CAPITAL REQUEST FOR 2022

Description	Date Needed	Benefits	Costs	July / June 2021 / 2022	July / June 2022 / 2023	July / June 2023 / 2024	July / June 2024 / 2025	July / June 2025 / 2026
Replace Roof on Jail	7/1/2020	Repair Damage	$500,000.00	$500,000.00				
Security Camera Repairs	7/1/2020	Security Camera System	$25,000.00	$25,000.00				
Body Scanner	7/1/2020	Locate contraband	$149,000.00	$149,000.00				
SUV x 4	7/1/2021	Transport Inmates	$240,000.00		$96,000.00		$48,000.00	$48,000.00
		Assit Patrol / Dog Team						
Secure Parking Area Fencing	7/1/2021	Secure Parking Area	$50,000.00		$50,000.00			
Parking Lot Paved / Sealed	7/1/2021	Prevent Further Damage	$150,000.00		$150,000.00			
Seal Only			$20,000.00		$20,000.00			
Complete Security System updated	7/1/2024	Security of Detention Center	$1,300,000.00			$500,000.00	$400,000.00	$400,000.00
		Total	$2,434,000.00	$674,000.00	$316,000.00	$500,000.00	$448,000.00	$448,000.00

Long Range Goal
Possibly Complete 2021
2022 NEEDS

INMATE WELFARE FUND

TOTAL COST

2-17

Office Of the Sheriff
Laurens County
Don Reynolds

JOHNSON DETENTION CENTER CIP FY22

1. The Roof has major leaks that have caused damage to the property. This has been an ongoing problem over the past several years and several attempts to fix it have failed. The longer it goes without repair or replacement the more damage will be done to the entire building. The repair needs are growing each time it rains, as of now we will have to replace insulation and minor damage inside the facility.
    - This item could also be on building and grounds request.

2. Body scanner is the best way to locate items on or inside a person being placed into the detention center. The body scanner will allow deputies to fully search a person and discover if they that have ingested or stuffed drugs inside their body that could rupture and cause death due to overdosing on drugs. Body scanners are the safest most effective way to reduce liability during the booking process.
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    - We could Save money by working with Roads and Bridges using the new paving machine to reduce cost and allowing training on the new equipment. Cost could be cut by 2/3.

4. The security camera system at the detention center is reaching its end of life. We have 18 Cameras that are no longer working causing blind spots inside the detention center, opening the liability in the case of a major or even a minor incident not on camera for review. The camera system is crucial to the safety and welfare of the Inmates and Deputies alike. Repairing the camera system and upgrading the servers will be a recuring cost as technology improves each year. The system we are looking to add will allow us to update the technology and equipment without having to do a complete replacement. This is a band aide not a complete fix of the problem.
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P.O. Box 68 • 216 West Main Street • Laurens, South Carolina 29360
Office: (864) 984-4967 • Fax: (864) 984-5754
www.laurenscountysheriff.org

5. The parking for detention staff needs to be a secured area that the public cannot have access to. The current state of the detention center places staff in a position where they could be and have been confronted by anyone coming to the detention center for bond or inmates being released after they have bonded out. The deputies that work at the detention center need a secure location to park when arriving and leaving work. Putting a new fence up that separates the Parking area for employees and citizens it will provide a safety barrier for all staff as the enter the building.

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Office Of the Sheriff
Laurens County
Don Reynolds

7. Our current security system does not allow for updates or upgrading of equipment, once it breaks or starts to have problem, we must use old parts to keep it running. Any system we install into the detention center must have the capabilities to interact with other IT programs and the ability to upgrade and add additional functions as needed over time. Our current system does not allow for upgrades and the parts are no longer made. The availability of parts for our current system drives up the cost of repairs, the Sheriff's Office IT manager cannot purchase some of the items needed because they are no longer made be or available. Over the next few years this system can be replaced by section to save on upfront cost. This is the security system that opens and closes doors to all areas of the detention center, the entire safety and security of the facility is at risk when this system fails.

    - This is the most expensive issue we have at the detention center. Our current system is working, and we have preplanned for damage and repair needs by trying to order replacement parts to keep on hand. Due to the parts no longer being made and interoperability capabilities of this system will not allow us to add updates. We will have to start looking at phasing in a replacement system. This is a computer-based system and was installed at least 16 years ago. Proper planning will reduce our chances of having a security system break down.

Laurens County Detention Center has been able to make major improvements over the last few years. Building maintenance has been crucial and now we are on a program of preventive maintenance. The goal is to reduce long term cost by have a preventive program that identifies potential problems and prioritizes them for a scheduled repair or replacement in advance of total failure. The goal of this program is to save funds and reduce the emergency costly repairs by 75%.

Don Evans
Director of Detention Operations
Laurens County Sheriff's Office

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Office: (864) 984-4967 • Fax: (864) 984-5754
www.laurenscountysheriff.org

R-20

Intercept™

High-Security Contraband Detection

Tek84

Transmission imaging for internal concealment

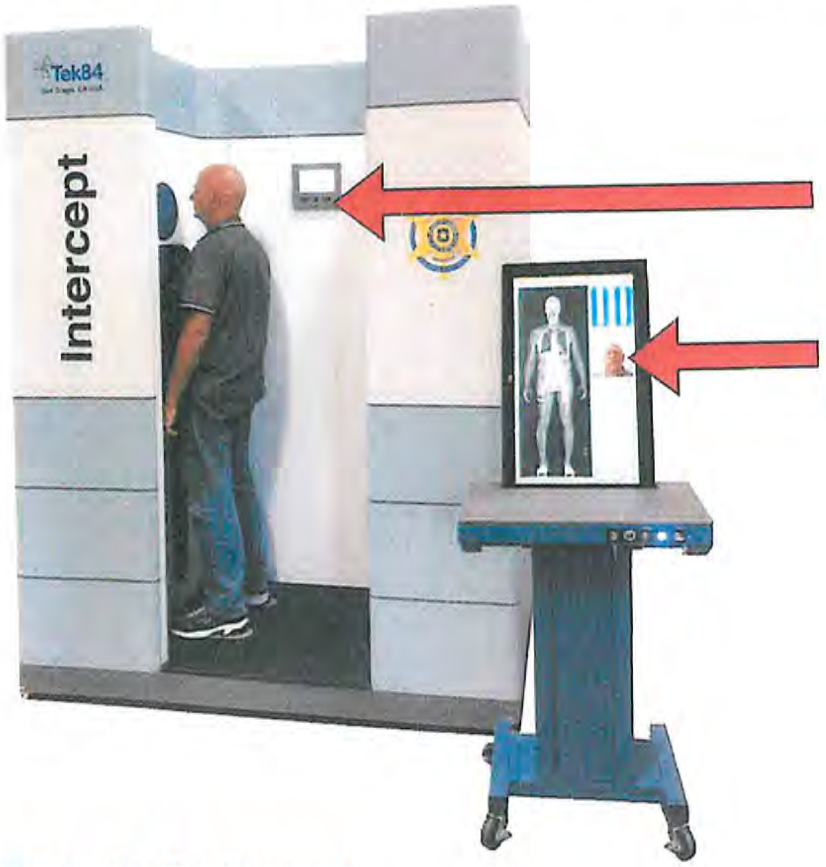
- ✓ Subject doesn't move
- ✓ 4-second scanning
- ✓ Ultra-small footprint
- ✓ 2-hour installation
- ✓ Best image quality
- ✓ On-screen photo

Designed & Assembled in the USA

12-21

Intercept™

Body scanner for High-Security Screening— Prisons, Jails, Customs



Intercept's built-in camera ensures a positive match between the person and their scanned image.

Breakthrough Technology

Prisons and jails are rapidly adopting body scanners to detect weapons and contraband hidden in body cavities and elsewhere on inmates and visitors. Unlike the units used in airports, these scanners use a low-level of x-rays transmitted through the body, similar to medical exams. More than 500 such body scanners are now installed in U.S. correctional facilities, manufactured by companies in Belarus, EU, Brazil and China.

Intercept™ is a true breakthrough in this technology, scanning the person *vertically* instead of *horizontally*. Vertical scanning provides revolutionary benefits:

- The person remains stationary, not standing on a moving conveyer belt or platform;
- A quick 4-second scan, not 7-15 seconds
- Narrow width, removable top, built in wheels; easily clears doorways 34" wide by 80" high
- Quick setup: a few hours, not a few days
- No image distortion, objects appear in the image at the same location as on the body
- No waiting for a daily warm-up period; ready to scan at a moment's notice

Head-to-toe screening including body cavities

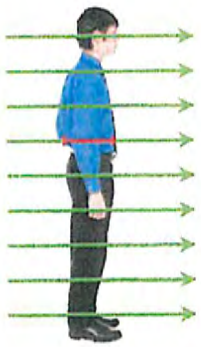
- **Subject doesn't move**
- **4-second scanning**
- **Ultra-small footprint**
- **2-hour installation**
- **Best image quality**
- **On-screen photo**

Tek84 is owned and operated in the USA. Our design staff has been at the forefront of body scanner innovation for 30 years.

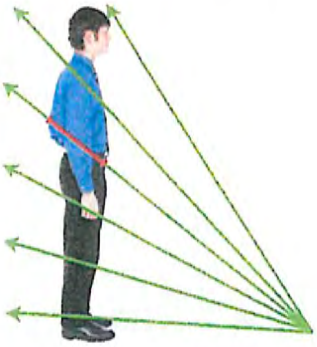
12-22

Better Images, Lower Dose

Intercept's scanning beam passes through the person *straight on*, the shortest distance through the body. In comparison, previous generation products scan at an *angle*, requiring the beam to pass through about five inches of additional body tissue. This has a critical effect on image quality and dose— *the added body thickness reduces the strength of the beam by a factor of 30!* This advantage allows Intercept™ to provide better quality images, with lower subject doses, than the older technology products.



The Intercept™ beam passes through about 11 inches of body tissue in the torso.



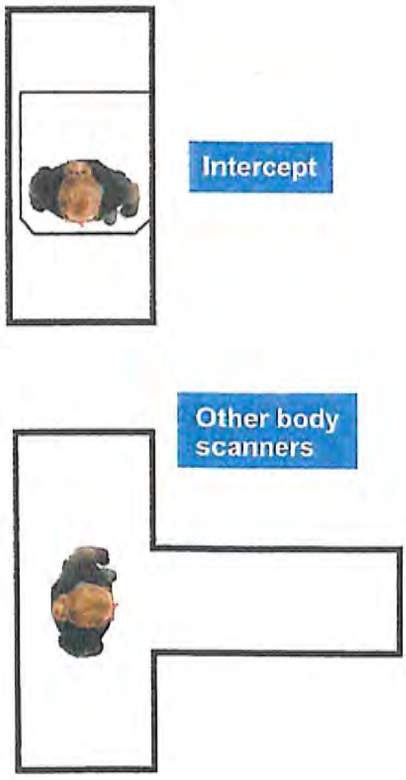
Other scanners use an angled path, making the beam pass through about 16 inches.

Intercept™

Quick, Convenient, Reliable

Ultra-Small Footprint

Intercept is compact , requiring a floor space less than 6'x3'. Other body scanners require up to three times this area. The built-in wheels and a removable roof makes relocation quick and easy.



Intercept is shipped fully assembled and can be moved through doorways as small as 34" wide and 80" high.

Intercept™ Specifications

Physical

Footprint:	34" x 72" (86 x 183 cm)
Height:	90" (211 cm) Assembled 79" (201 cm) top removed for transport
Weight:	720 lbs (328 kg)

Electrical

Power:	100/120/230 VAC, 50/60 Hz, 800 watt Tolerant of poorly regulated power

Environmental

Operating:	32-120°F (0- 50° C)
Humidity:	Less than 95%, noncondensing

Radiation Safety

Dose:	General-use: 25 uRem (0.25 uSv) per scan, suitable for daily screening; Limited-use: up to 300 uRem (3.0) uSv) per scan, suitable for weekly screening; effective dose to subject measured in accordance with ANSI/HPS N43-17-2009
Leakage:	Inspection zone is the scanner footprint; <0.2 mR (2 uGy) in any 1 hour
Standards:	Complies with ANSI/HPS N43.17-2009 (Body Scanner Radiation Safety) Complies with ANSI/IEEEN42.47-2010 (Body Scanner Image Quality)

Intercept is Patent Pending, US and International

Tek84

13495 Gregg Street
Poway, CA 92064
858-676-5382 Contact@Tek84.com

Tek84 develops and manufactures innovative security products. Our engineers developed the world's first body scanner (1991); the highest resolution surveillance camera (2001); and the first drive-through car bomb detection portal (2009).

"Features of the Intercept Scanner are unique and patented for whole body scanning. Patent #10481295"

- Subject does not move!
- Footprint is only 34" x 72"!
- Scanning time is <4 sec.!
- Variable Scanning Doses from 0.25 uSv to 2.0 uSv!
- Dual Virtual-Wall Technology!
- Delivered completely pre-assembled!
- Installation is <1 hour!
- No anchors in the floor!
- Transportable thru any 36" doorway!
- Subject does not face the X-ray Beam! (ANSI/HPS N43.17-2009, Section 6.1)!
- No Magnification or Distortion with final image!
- Accurate object location relative to anatomy!
- 16,000,000 Gray Scales Levels in final image!
- The "Restriction Zone" does not exceed the footprint!
- Subject photo is "fused" with scan for evidence!
- No warmup period required for x-ray generator!
- Fast recycle time-3 subjects/min!
- 27" Hi-Res Hi-Brite Touch Screen Monitor!
- Standard 110 V/15-amp non-dedicated outlet!
- Windows 10 Operating system!
- High Strength Aircraft Aluminum Unibody Framework!

12-25

13495 Gregg Street
Poway, CA 92064
www.Tek84.com

Sheriff Don Reynolds
Laurens County Sheriff's Office
216 W. Main Street
Laurens, SC 29360

9 October 2020

RE: Court House Security Project
Quo: 2020-04-12

Qty	Part Number	Description	Net Ea	Ext. Price
1	SSD-707-1009	Tek84 Defender ATR Body Security Scanning System High Strength Aluminum Unibody Frame Backscatter System 60" x 60" x 95.5" foot print 7 Second Scan Time .035 uSv dosage per scan In accordance with ANSI/HPS N43-17-2009 Radiation Safety Standard Tethered Ethernet Connected Work Station Vertically Mounted Monitor Automated Threat Detection for metallic and NON metallic objects	$219,000.	$175,000.
1	INT- INSTALL	½ Day Installation	INC	INC
1	INT- TRAINING	2+ Days On Site Operator Training	INC	INC
1	INT-WARRANTY-2	Two Year Parts and Labor on Entire System from time Of Delivery	INC.	INC.

This Quotation is subject to Tek84 Terms and Conditions available at www.Tek84.com

FOB:	Destination-Laurens County, SC
Terms:	Net 30 Days from Delivery, Installation, and Receipt of Invoice
Taxes:	All sales are subject to applicable sales tax. Please provide a Tax-Exempt Certificate if applicable
Quote Expiration:	December 31, 2020

Accepted By:
Printed Name and Title:_____

Authorized Signature:_____

Date:_____

Tek84:
Printed Name and Title:_____

Signature:_____

Date:_____

12-26

Tek84
13495 Gregg Street
Poway, CA 92064
www.Tek84.com

9 October 2020

Director Don Evans
Laurens County Detention Center
154 Templeton Road
Laurens, SC 29360

Expiration Date: December 31, 2020

Quote#: 2019-10-23-A

Qty	Part Number	Description	MSRP	Net Price
1	SSD-017-1000	Tek84 Intercept Whole Body Security Scanning System High Strength Aluminum Unibody Frame 160Kv Monoblock Oil Cooled Generator Ultra-compact 34" x 72" footprint <4 Second Scan Time Variable Scanning Dosage from .25uSv to 3.0uSv Adheres to ANSI/HPS N43-17-2009 Regulations Mobile Workstation 27" Mounted Touch Screen Monitor Windows Operating System One Million Image Storage Capacity. Transportable on Built In Heavy Duty Caster System 16 Million Gray Scale Levels 110V/15 A	$205,000	$149,000
1	INT- INSTALL	Installation and Calibration	INC	INC
1	INT- TRAINING	3 Days On Site Initial Operator Training-adhering to ANSI/ HPS N43.17-2009 Section 8.1.5. Administrator, Super User, Standard User Training Programs.	INC	INC
1	INT-WARRANTY-2	Two (2) Year Parts and Labor on Entire System from time of Installation.	INC	INC
		Special Luminary Site Pricing	**TOTAL:**	**$149,000**

OPTIONAL:

1	INT-WARRANTY	Additional Yearly parts and Labor Warranty on Entire System	$10,000/yr

By execution of this Agreement by an authorized signature, the Customer agrees to purchase the Products specified subject to the terms and conditions set forth in the Agreement and subject to Tek84 Terms and Conditions available at www.Tek84.com

FOB: Destination-Laurens County Jail, SC
Terms: 50% payment prior to shipment, remaining balance in four equal payments in 90-day increments.
Taxes: All sales are subject to applicable sales tax. Please provide a Tax-Exempt Certificate if applicable.

Accepted By:
Printed Name and Title: _____

Authorized Signature: _____

Date: _____

Tek84:
Printed Name and Title: _____

Signature: _____

Date: _____

Tek84
13495 Gregg Street
Poway, CA 92064
www.Tek84.com

9-October 2020

Director Don Evans
Laurens County Detention Center
154 Templeton Road
Laurens, SC 29360

Expiration Date: December 31, 2020 Quote#: 2019-10-23-B

Qty	Part Number	Description	MSRP	Net Price
1	SSD-017-1000	Tek84 Intercept Whole Body Security Scanning System High Strength Aluminum Unibody Frame 160Kv Monoblock Oil Cooled Generator Ultra-compact 34" x 72" footprint <4 Second Scan Time Variable Scanning Dosage from .25uSv to 3.0uSv Adheres to ANSI/HPS N43-17-2009 Regulations Mobile Workstation 27" Mounted Touch Screen Monitor Windows Operating System One Million Image Storage Capacity. Transportable on Built In Heavy Duty Caster System 16 Million Gray Scale Levels 110V/15 A	$205,000	$139,000
1	INT- INSTALL	Installation and Calibration	INC	INC
1	INT- TRAINING	3 Days On Site Initial Operator Training-adhering to ANSI/ HPS N43.17-2009 Section 8.1.5. Administrator, Super User, Standard User Training Programs.	INC	INC
1	INT-WARRANTY-2	Two (2) Year Parts and Labor on Entire System from time of Installation.	INC	INC
Special Luminary Site Pricing if Ordered with the Defender			**TOTAL:**	**$139,000**

OPTIONAL:

1	INT-WARRANTY	Additional Yearly parts and Labor Warranty on Entire System	$10,000/yr

NOTE: 60 Day, 100% Money Back Guarantee if the Intercept System does not meet Customer's Satisfaction and all published specifications. Customer is responsible for any and all equipment damages that might transpire during this time period.

By execution of this Agreement by an authorized signature, the Customer agrees to purchase the Products specified subject to the terms and conditions set forth in the Agreement and subject to Tek84 Terms and Conditions available at www.Tek84.com

FOB: Destination-Laurens County Jail
Terms: 50% payment prior to shipment, remaining balance in four equal payments in 90-day increments.
Taxes: All sales are subject to applicable sales tax. Please provide a Tax-Exempt Certificate if applicable.

Accepted By:
Printed Name and Title: _____

Authorized Signature: _____

Date: _____

Tek84:
Steve Smith-President

Signature: _____

Date: _____

Historic Courthouse Project

5-1

An Independent Newspaper Founded in 1885 — The Laurens County Advertiser — South Carolina's Award-Winning Semi-Weekly Newspaper

Courthouse was focal point of Laurens Square

There is a charm about the name of Laurens that means much to those who know the important part Laurens County and Laurens County men and women have played in making South Carolina the grand old state that it is. Honorable traditions and the courthouse square are a part of this heritage.

What is known today as Laurens County was originally a part of the Ninety Six District. In 1785, Laurens, through an Act of the General Assembly, became a separate district.

The new district was to "begin at the Island Ford, thence up Saluda River to the Indian Boundary, thence along the said boundary to the Enoree River, thence to O'Dell's Ford, thence along the old road (Pearris Wagon Road) to the beginning."

A colonial officer, Major Jonathan Downes, headed a group of citizens and was commissioned to survey the territory. They also were authorized "to build and keep in good repair at the charge of the county one good and convenient courthouse with necessary jury rooms and one good and sufficient county Gael together with a pillory, whipping posts and stocks."

A colleague of Major Downes suggested naming the new county "Downes District" but the major refused and suggested that the county be named in honor of his friend Henry Laurens of Charleston because of the service he rendered to South Carolina during the American Revolution.

On Dec. 17, 1779, Henry Laurens presented the first seal of the court to the county which bears his name.

The first recorded court held in Laurens County was in 1785

not necessarily lawyers and some of the early ones were John Hunter, Thomas Wadsworth, Jonathan Downes, Charles Allen, John Rodgers, Charles Saxon, Silvanus Walker, Joseph Downes, William Mitcherson and James Montgomery. The gentlemen justices were appointed by the governor with the specified number of three to preside at each term of court and were referred to as "squires."

The courts had jurisdiction in cases of debt, estate settlements, larceny, bastardy, land piracy and the supervision of roads and bridges.

W.T. Crews in his personal diary wrote that one of the columns supporting the portico roof of the courthouse served for the public whipping post. Horse theft was considered a major offense and offenders were sentenced to the whipping post.

Tradition says that the first Laurens County Courthouse was constructed of logs in the old gin-house style. It was elevated on stilts and left open underneath. It was also used for a school and meeting house.

It was said to have been located slightly northeast of the present courthouse. Before the public square was bricked and later paved, foundation stones of the old building were exposed by the wearing away of the soil, according to early Laurens residents.

In 1799, an Act of the General Assembly abolished the county courts and along with them the justices or judges.

In 1815, the General Assembly appropriated $5,000 for the construction of a new courthouse and jail in Laurens.

In the report for 1820 of the

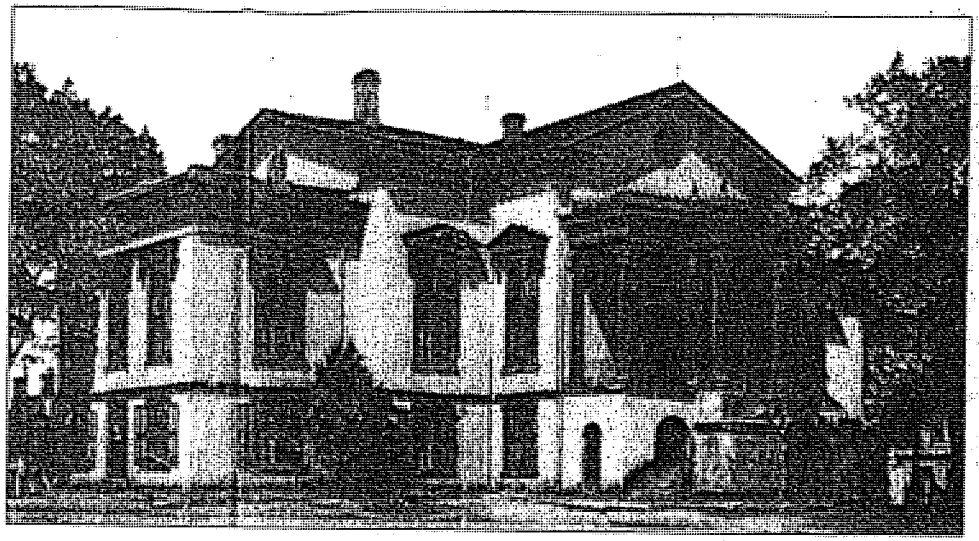


Photo courtesy of Laurens County Library

COURTHOUSE IN 1838 — Dr. John Wells Simpson, a Laurens contractor, constructed the courthouse shown here in 1838.

made, "The court-house is a brick building, 60 by 40 feet, two stories in height. It contains five rooms and is one of the best sized buildings of all the new courthouses in the interior of the state. It is new, but rather coarsely finished, and it stands unenclosed, and being without shutters, the glass is very much exposed."

In 1838, Dr. John Wells Simpson, a leading building contractor in Laurensville, constructed the central portion of the present Laurens County Courthouse and in February of 1840 it was ready for court. The architect was Thomas C. Veal of Columbia. The building, constructed of brick and granite, partakes of both the Corinthian and Ionic styles of architecture.

Marion R. Wilkes, in his "History of Laurens County, South Carolina," wrote, "Doctor Simpson's designing and the handiwork of Bob Satterwhite, his blacksmith, George Giles, his carpenter, and Martin Mills, his

The stone used in the construction came from the Smith Place near Parks Station about one and one half mile east of Laurens.

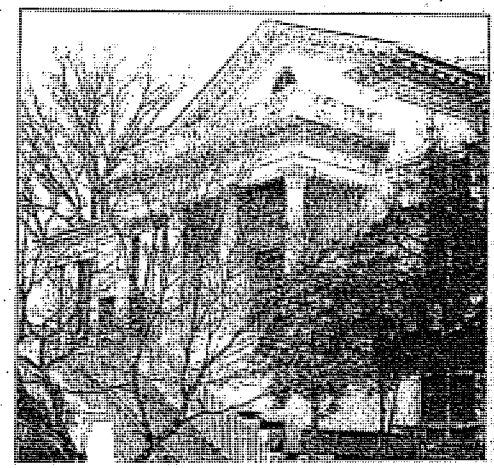
Two brick well houses covered public wells on the north and south sides of the building. They were demolished in 1907, the year the square was paved for the first time.

In 1858, wings to the northeast and southwest were added to the courthouse.

In 1911, further additions were made to the wings, the windows remodeled and the Palladian stairways added. Also the low elliptical dome was constructed.

The historical old building has been replaced by a modern structure and has come to be known as the "old courthouse."

The old Laurens County Courthouse stands as an excellent example of Greek revival architecture in rural South Carolina and even though its court-



2-25

LAURENS COUNTY COURTHOUSE

CONDITIONS ASSESSMENT

CRAIG
GAULDEN
DAVIS
architecture

S Ex-3

TABLE OF CONTENTS

S 12-4

DRAFT

SECTION 1: INTRODUCTION

Assessing the existing conditions of the historic Laurens County Courthouse is part of the ongoing effort to preserve and improve the assets of downtown Laurens. The courthouse remains a key part of Laurens Public Square and central to the both the city and county's history and civic identity even though Court functions of the building have been moved to other county facilities.

Future steps will address adapting the building for new uses, space planning, efficient facility utilization, appropriateness, circulation and way-finding, and other physical plant related issues within the framework of Laurens County's goals. These future steps will identify specific facility improvements necessary to support the anticipated programs. As a means of illustrating potential renovation extents and potential costs, several hypothetical scenarios have been developed for the purpose of envisioning potential scope of work and associated costs.

PURPOSE OF AN ASSESSMENT

The goal of an *Existing Conditions Assessment* is to identify and communicate physical deficiencies to the facility owners. It provides the data necessary to evaluate near term repair or replacement costs to remedy the deficiencies.

- Describe the extent of deferred maintenance. Assess the existing conditions and recommend a timeframe for repair, or replacement. Visit all major building areas, especially the mechanical/service areas and roofs. Focus on current or near-future system repair or replacement.
- Document floor plan layouts and usable building areas.

An *Existing Facilities Assessment* is intended to be a brief description of the building's vital statistics, a description of current use, and analysis of the physical condition. It can be used as a management tool, for capital planning, facility planning, and for addressing the extent of deferred maintenance. Normal maintenance and repair costs are not included in this report, as they are assumed to be part of ongoing operational expense.

EXECUTIVE SUMMARY

- The courthouse contains approximately 14,000 gross square feet of conditioned area.
- The overall condition of the facilities is fair for a building that is 180 years old.
- ADA: An exhaustive accessibility audit for conformity to the ADA (Americans with Disabilities Act) was not performed, but several comments are included. The ADA's physical requirements for buildings is incorporated into the modern building codes and must be met in future renovations. However, the ADA is civil rights legislation, and thus presents a legal liability for building owners even for pre-existing conditions. Correcting obvious issues should be considered a priority.
- Building Codes: The current SC building code is the 2015 International Building Code with SC amendments. The common phrase "...bring it up to code..." is misleading in that the building code is an evolving standard. "Deficiencies" are not required to be corrected unless a building is renovated, changes use, or an application for a building permit is made. However, issues of life safety can be urgent and should be addressed immediately.
- An asbestos and hazardous materials survey should be performed to determine the extent and condition of potentially hazardous building materials such as asbestos and lead-based

paint and their potential abatement costs. These materials should be removed before commencement of demolition and construction activities.

- Some systems are near the end of their service lives, and should be scheduled for replacement. This is especially urgent in the case of roofs and water proofing, where continued neglect can lead to more serious issues, such as degradation, mold and associated air quality issues.
- Testing of systems was not performed. Systems were visually inspected and observations noted. Sampling of building materials and laboratory analysis is outside of the scope of this Assessment.
    - Roofs are especially vulnerable to the elements and maintenance is critical. The existing roofs were visually observed but not cored or tested. We recommend an inspection by a qualified roofing contractor or consultant on a 2-year schedule.
    - Mechanical equipment in the attic space is difficult to access for routine maintenance.
    - Routine inspection and maintenance can extend the service lives of roofs and other equipment many years.
    - Older systems should be evaluated individually for repair or replacement.
- A current, complete, topographic survey of the site showing buildings, underground structures, utilities, and other improvements was not available or reviewed at this time.
- Recommendations for future adaptive re-use of the building as a meeting and events space for business and tourism, continuing education, or some other use and additional facility needs will be addressed in a future planning and design exercise. Comments addressing function and appearance are included for consideration in future planning.

RECOMMENDATIONS AND NEXT STEPS

Craig Gaulden Davis was asked by Laurens County to prioritize repairs, maintenance and renovations into several categories for budget planning purposes. Some comments addressing function and appearance are included for consideration in future planning.

Stabilize and Maintain

- Work that should be undertaken without delay to be completed within 24 months.
- Stabilize the building envelope against further damage from water intrusion and investigate measures to take to avoid a potential calamity by fire.
- Identify deferred maintenance and safety hazards to repair. This is intended to be temporary while funding and design for either Option 2 or 3 is finalized.
- Existing building is assumed to remain in use for county functions, Council meetings, and current internal functions are assumed to remain basically "as-is."
    - Place additional EXIT signs with battery back-up emergency lighting.
    - Install a fire alarm system to enhance safety.
    - Perform maintenance and repair work on roofing, gutters and downspouts.
    - Further examination of apparent termite damage to roof trusses. Repair as required.
    - Repair and repaint exterior wood elements to protect from weather.
    - Remove loose and spalling stucco. Patch holes and open cracks.
    - Remove rust and flaking from exterior steel lintels.
    - Improve attic and HVAC equipment access via ladders and catwalks.
    - Mechanical systems remain on "repair as needed basis."
    - Interior finishes remain as-is.
    - Maintain operation and inspection schedule of HC lift.

SR-6

Renovate and Improve

- Work that should be planned for over the next 2-5 years.
- Renovate the exterior to be an appropriate centerpiece to the square while maintaining the current design. Renovate the interior layout and building systems to function more efficiently as "non-court" related functions. Enhance accessibility, safety, and circulation. The building occupants will need to vacate for the renovations.

    - Repair or replace areas of deteriorated concrete and stucco.
    - Repair or replace rusting steel lintels.
    - Repair or replace wood and metal details to preservation standards.
    - Replace single-glazed aluminum storefront windows and doors with similar (modern) aluminum system and insulated glass.
    - Add at least one interior egress stair, perhaps two.
    - Install an interior elevator.
    - Add fully accessible restroom facilities.
    - Add insulation and improve air tightness where feasible.
    - Install an automatic fire sprinkler system to protect the building.
    - Add an emergency power generator.
    - Replace boiler, chiller, and other mechanical and plumbing systems.
    - Improve indoor air quality through HVAC and humidity control.
    - Replace all lighting with energy efficient LED fixtures.

Restore and Preserve

- Work that could be planned for over the next 2 or more years.
- Conceived as a historical restoration of the entire building, including the historic courtroom, to restore the centerpiece of Laurens Square back to its former glory and serving as an attraction and point of civic pride for the county and city.
- Repurpose the former courtroom as a new ballroom type space that could host county council meetings or other large events. A building program for this restored and renovated option has not been developed, but it could include a catering kitchen for the event spaces, a museum, classrooms, or other meeting space. It could serve as county council chambers, or rental space for weddings, funerals, convocations, graduations, etc. Currently seating about 150 on fixed benches in the audience, 200 total. If the benches are removed to create a larger restored space, HVAC, restrooms, and other support spaces should be planned for about 400 persons total.

    - Remove c.1972 additions.
    - Restore window design and detail from early 20th century period.
    - Replace shingle roofing with metal standing seam roofing.
    - Replace exterior gutters and downspouts with internal roof drains.
    - Restore metal dome details.
    - Re-create historic courtroom space.
    - Create galleries and pre-function spaces on 2nd floor.
    - Create support spaces as needed for new functions.
    - Screen outside mechanical yards.
    - Install exterior accent lighting.

RECOMMENDATIONS FOR RENOVATIONS
LAURENS COUNTY COURTHOUSE

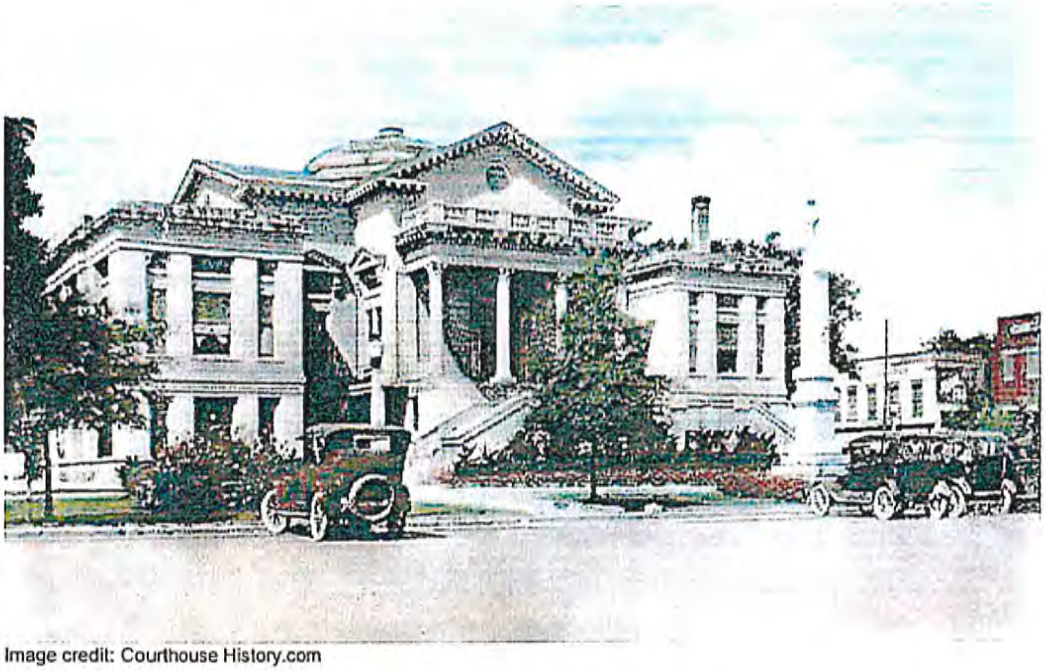


Image credit: Courthouse History.com

Figure 1 – Court Square, Laurens, SC Postcard from Early 20th Century

As the focal point of Laurens Town Square, the Laurens County Courthouse was an object of civic pride, particularly during the first half of the 20th century, before a series of unsympathetic additions in the 1970s that destroyed or seriously altered many significant architectural features.

The recommendations of this preliminary building assessment are to renovate the building and restore the architecturally prominent features of the period following the c.1911 additions.

CRAIG GAULDEN DAVIS
architecture

S 13-8

Figure 2 – South Elevation c. 1910

This photograph was attributed to the dedication of the war memorial in 1910. The original front façade and portico with its projecting center bay are visible and the c.1858 wings. The c.1911 side wings have not yet been constructed. Notice the second story window with the pediment to the left (west) of the portico column, where it is apparent one can see through the courtroom to the window on the opposite (north facing) side. Note also the standing seam metal roof, elaborate window cornices, roof parapets on the side wings, and polychromatic color scheme.

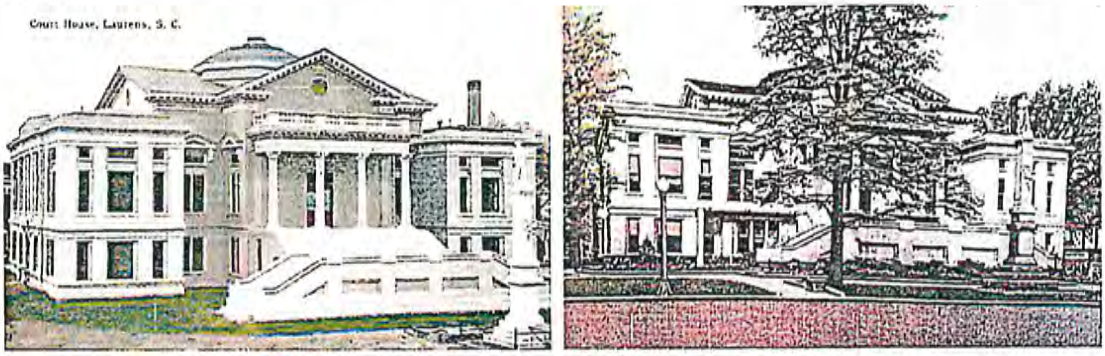


Figure 3 – South Elevation c.1911 and c. 1940s Postcard

The courthouse was a source of civic pride, and depicted on postcards of the time. The additions in 1911 were extensions to the 1858 wings, adding area to the north and south. The dome was also added at that time. The original double- and triple-hung, multi-paned windows were all replaced with monumental double-hung windows and transoms. The entrance stairs were also enlarged into monumental Palladian split stairs. The paint scheme is more monochromatic.

5 42-9

Figure 4 – South Elevation Today

Showing recommended renovations to restore the c.1911 design.
Repair cornice and stucco.
Recreate main entrance doors and transom.
Remove aluminum storefront windows and doors. Recreate spandrel beams and transom windows over double-hung windows.
Replace shingle roofing with metal standing seam roofing. Restore ornamental metal dome.
Remove external gutters and downspouts.
Screen mechanical and electrical equipment.

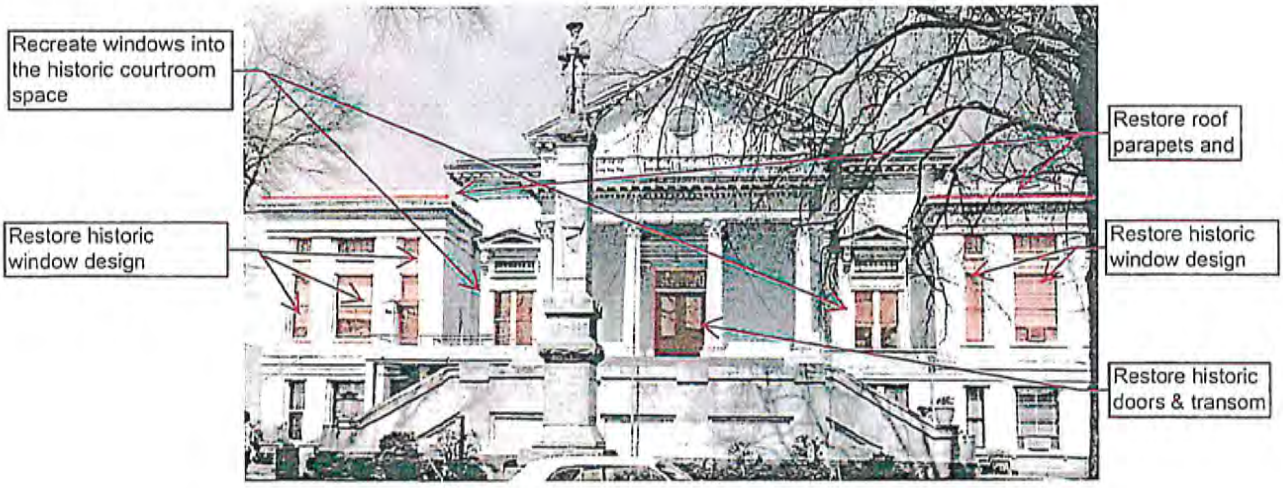


Figure 5 – South Elevation c.1910-11

Note the open courts between the portico and side wings at the courtroom floor. Paired windows with pediments on brackets open directly to the courtroom beyond. Windows in the side wings have transoms above a spandrel beam and double-hung windows.

S R-10

Recommendations

Figure 6 – East Elevation Today

Recommend window replacement to the c.1911 design.
Restore parapets and internal roof drains.
Remove aluminum storefront and recreate spandrel beams and transom windows over double-hung windows.
Replace shingle roofing with metal standing seam roofing. Restore ornamental metal dome.
Remove external gutters and downspouts. Restore roof parapets and internal roof drains.

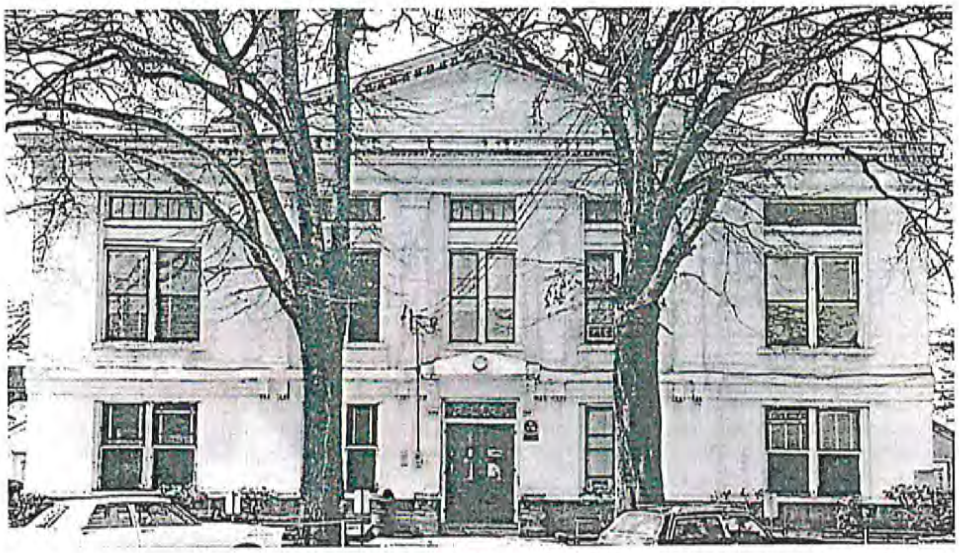


Figure 7 – East Elevation c.1972 - National Register of Historic Places nomination

Note the low sloping parapet, second floor window transoms, and the absence of external gutters and downspouts.

S R-11

Figure 8 – North Elevation (from the NE) Today

Refer to comments for south elevation.

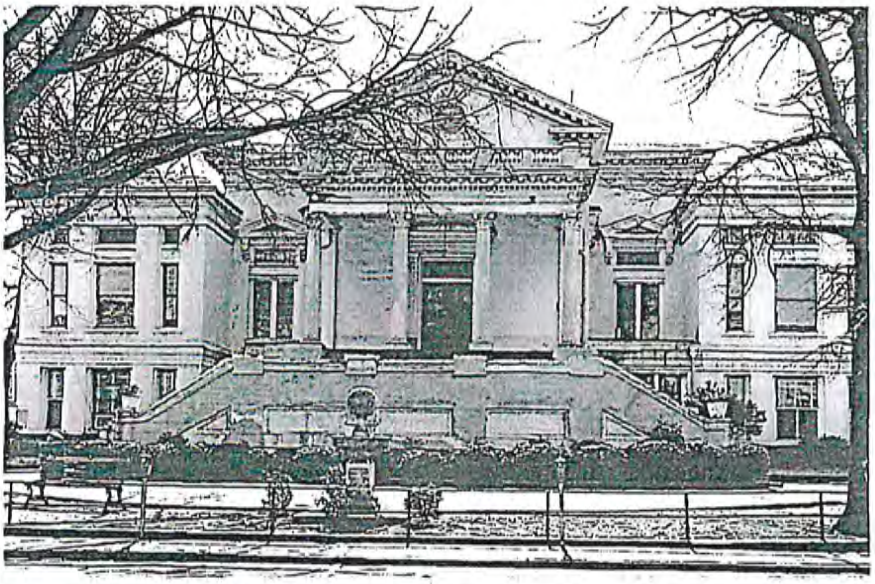


Figure 9 – North Elevation c.1972 - National Register of Historic Places nomination

Refer to south elevation comments. Open courts between the portico and side wings extend to the ground floor on the left side of this elevation.

S 9-12

Figure 10 – West Elevation Today

Recommend window replacement to the c.1911 design.
Restore parapets and internal roof drains.
Replace aluminum storefront with paired windows and transoms.

Figure 11 – West Elevation c. 1972 - National Register of Historic Places nomination

Similar to the East Elevation. Note the low sloping parapet, second floor window transoms, and the absence of external gutters and downspouts. Taller entrance doors with decorative transom glazing.

S R-13

Figure 12 – County Council Chambers in remodeled courtroom

Both walls in this photograph were added inside the former courtroom to create corridors, reducing the room length and width by five feet and obscuring wall details, pilasters, and crown molding. The 2x4 lay-in ceiling was suspended six feet below the original plaster ceiling to provide for air conditioning and fluorescent lighting. The existing ceiling height is 15 feet.

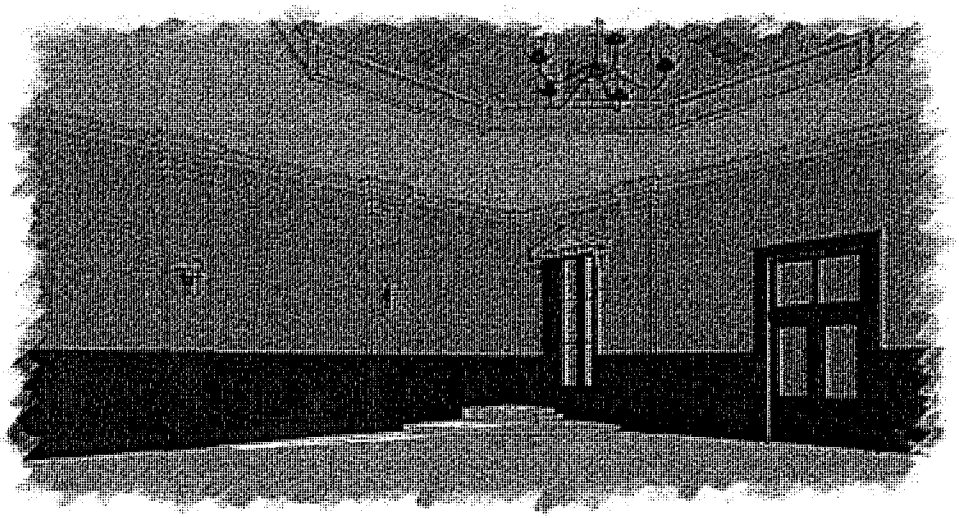


Figure 13 – Conceptual Re-creation of the Courtroom

The walls and ceiling described in Figure 12 removed and original walls and ceilings restored. Four monumental windows on the south and north walls will be restored to flood the room with natural light. Double doors lead to an entrance vestibule and the exterior Palladian stair beyond. The octagonal ceiling feature over the center of the room, concealed by the c.1972 lay-in ceiling, is visible at the center of the room. Ceiling height is 21 feet.

S R-14

Hillcrest Square Renovations Phase 5

West Wing of Hillcrest Square Painting and Flooring in Offices Including...

- Assessor
- Building and Codes
- Auditor
- Left and Right Employee Hallways
- Magistrate's Office Area
- DJJ Office Area

Project total $172,000

- (Place Marker Only) Building and Codes Expansion $45,000 (Not included in the $172,000)

East Wing of Hillcrest Square Painting and Flooring Including...

- L9 Court Room
- Family Court
- Small Magistrate's Court
- Single Solicitors Office
- Victims Advocate Office
- DJJ Meeting Room
- Main Court Room
- Attorney Conference Rooms

Project total $ 120,000

Rear Hallways and Offices Behind the Court Room Painting and Flooring Including...

- Judges Offices
- Judges Hallways
- Holding Cells
- Jury Rooms
- Breakrooms
- Sherriff's Department Security Offices

Project total $ 95,000

Hillcrest Square Renovations Phase 6

- Exterior Paint
- Exterior Wash Total $ 55,000
- Landscaping Total $ 25,000
- Parking Lot Total $ 235,000
- Signage Total $ 40,000
- Flagpole Total $10,000

20

I-385 Exit 19

And

I-26 Exit 60

Landscape

& Sign

Projects

VT-1

Projects #4 & #5: Exit 19 Landscaping and Sign:

Thirty thousand (30,000) vehicles PER DAY flow into Laurens County. Many travel all the way through the County without ever knowing they have "arrived". I say "arrived" because our home, Laurens County, is where they have come to even if to just spend the 45 minutes or so it takes to drive through our County on the interstate.

There is discussion in other parts of this report about the growth potential for commercial, residential, and further industrial. We have so much potential plus we have already been blessed to have growth. Exit 19 is our Gateway into the County from the high growth area of 385 heading down the Golden Strip.

First impressions are a lasting impression and if we want to encourage growth and development into our County we should consider focusing attention on our corridors into the county especially from high growth and traffic areas such as the interstate. If we desire development and growth we need to consider how we present ourselves to people who are investigating where to call home and where to invest their money.

Travelers going through our County including tourists and commuters that may want to stop to spend some money. Those travelers come to our County spend money which invests in local businesses. They pay taxes such as accommodation and prepared food taxes (HOST, ATAX) as well as sales taxes that invest their money into our communities. In return we don't have to spend much if any money to generate that investment. We don't educate their children, pave their roads, provide courts and police services, EMS, fire, etc... The net effect is that we export our Laurens County taxpayers' taxes. These outsiders pay taxes for our citizens, our taxpayers.

Right now, Andy Howard and his crew are beautifying the entrance to the City of Laurens on Exit 9. Clinton has proposals to beautify their exits on I-26. These efforts let you know you have arrived somewhere. That somewhere is Laurens County. These interstate exits are our front door mat. When you see an area that has a nice front door mat it can make you think that this is a "nice place".

We intend to place a sign on exit 9 welcoming travelers to the City of Laurens. We intend to use a similar sign base as the one shown below that Clinton is proposing.

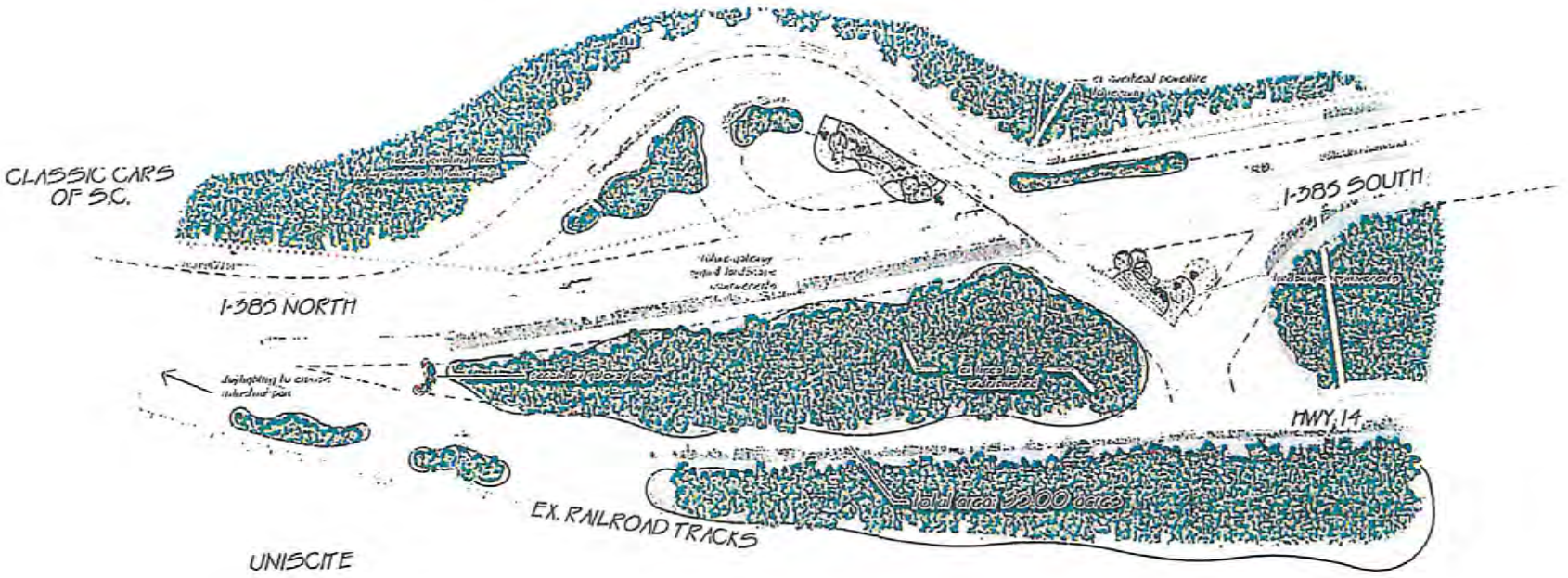
Our next proposal is to clear out the underbrush for pines on exit 19 (there are about 10 acres of these pines now with thick underbrush. This is a low cost way to create a park like atmosphere. We are hopeful we can get the equipment ourselves to be able to do this work as well as many other projects we are proposing. We also want to plant landscaping and place a Laurens County sign on exit 19. See attached. For exit 9 the

proposal was for about $225,000 worth of work. County Council agreed to $110,000. We are asking for less for this as part of the first phase of the work on exit 19.

Future plans are to work on the entrances into the County on I-26 both the Columbia end and the Spartanburg end.

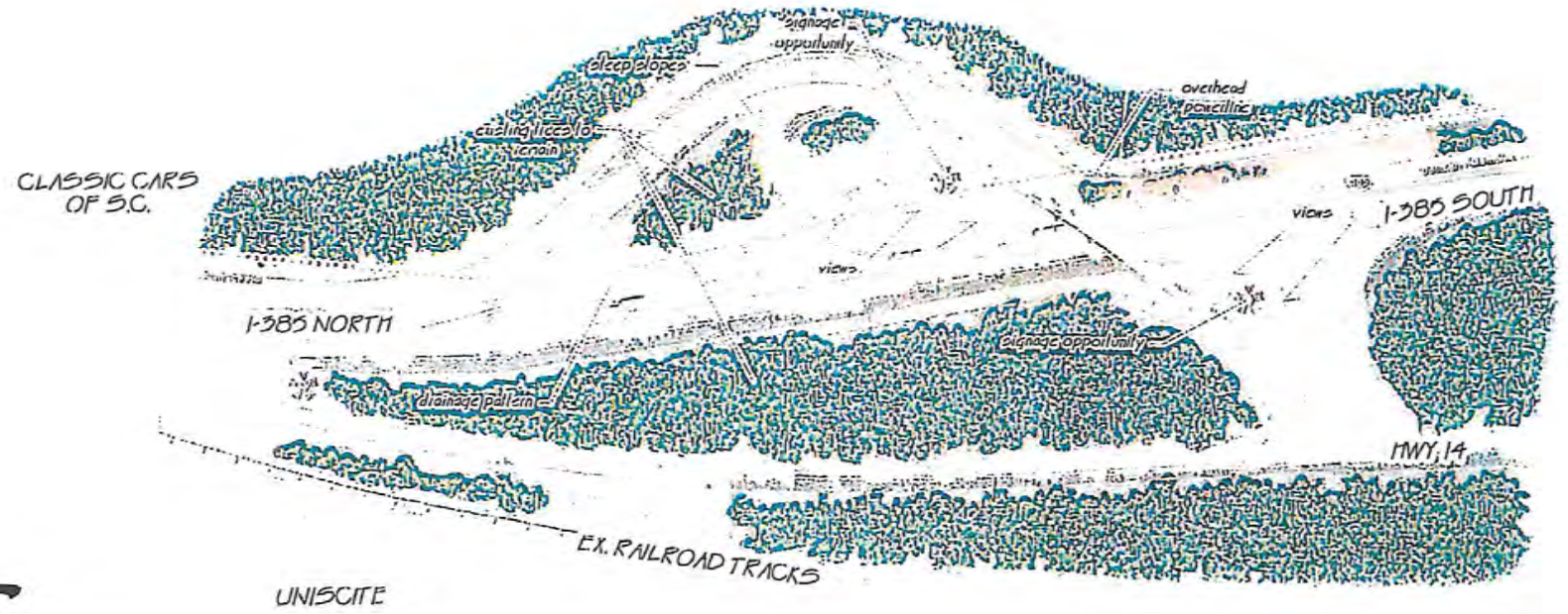
REQUESTS: Fund $60,000 for landscaping (possibly to help fund the equipment purchase) and $30,000 for a sign.

V 3-4



ITEM	UNITS	QUANTITY	PRICE/UNIT	TOTAL PRICE
			TOTAL	

CONCEPTUAL LANDSCAP
EXIT 19 INTERCHANG
LAURENS COUNTY DEVELOPMENT AUTHOR

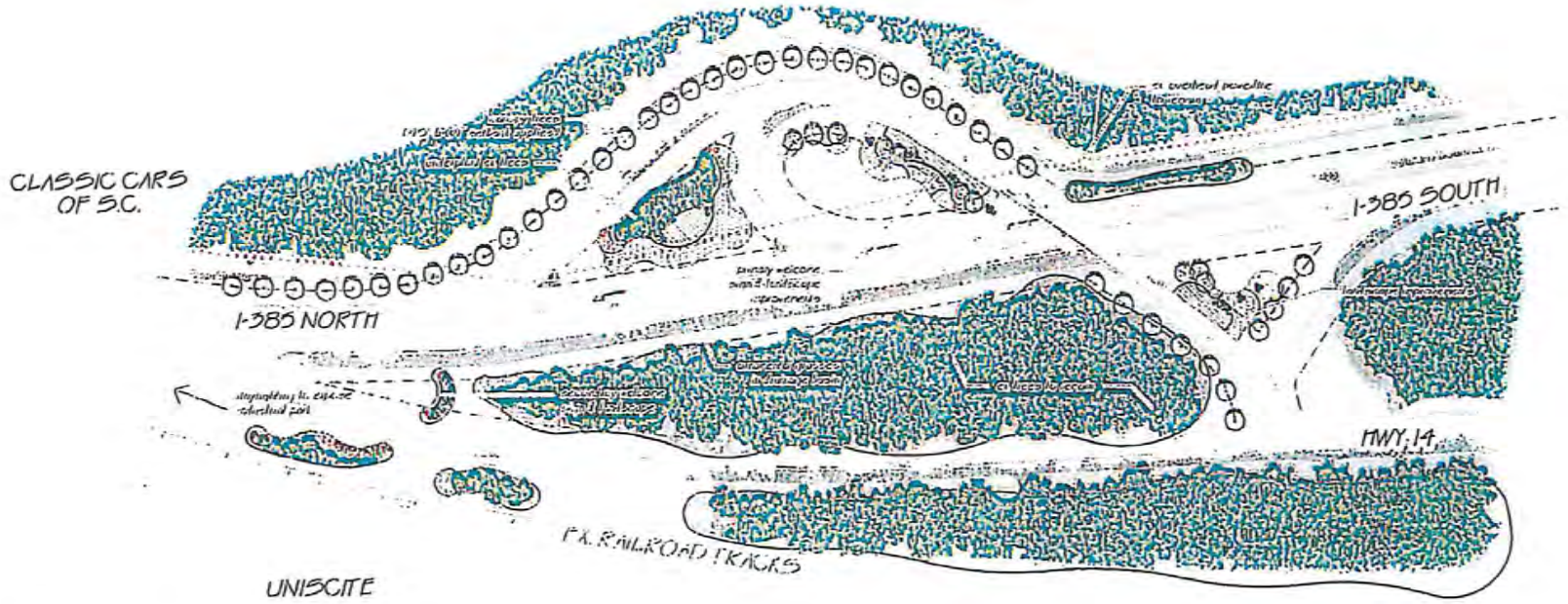


C

SITE ANALYSIS

EXIT 19 INTERCHANG

LAURENS COUNTY DEVELOPMENT AUTHORI



ITEM	UNITS	QUANTITY	PRICE/UNIT	TOTAL PRICE
			TOTAL	

SEAMON WHITESIDE

CONCEPTUAL LANDSCAPE
EXIT 19 INTERCHANG
LAURENS COUNTY DEVELOPMENT AUTHORI

Practical Community Resilience

A PILOT EFFORT TO EVALUATE AN INTEGRATED COMMUNITY RESILIENCE ASSESSMENT FOR LAURENS COUNTY, SC

David Vaughn
CLEMSON UNIVERSITY – RISK ENGINEERING AND SYSTEM ANALYTICS CENTER |
JUNE 11, 2018

Appendix F
Emergency Operations Center Hazard Evaluation for Laurens County (Report No. 2018-006)

By David Vaughn, Warner Mahn, and Seth Gruendling

F-8

V-2

Emergency Operations Center - Hazard Evaluation
A Pilot Effort to Evaluate an Integrated Community Resilience Assessment
Laurens County, SC

Special Evaluation

At the request of the Laurens County Administrator the Emergency Operations Center (EOC) was evaluated to determine risk / vulnerabilities and has been included as a separate section within the resilience assessment report to help facilitate immediate mitigation actions.

The EOC is the heart of Laurens County's emergency operations and serves as the central command and control facility responsible for carrying out disaster management functions at a strategic level during an emergency. This facility is located in a low lying area in downtown Laurens and is positioned adjacent to a railroad track that runs along a crevasse in the town.

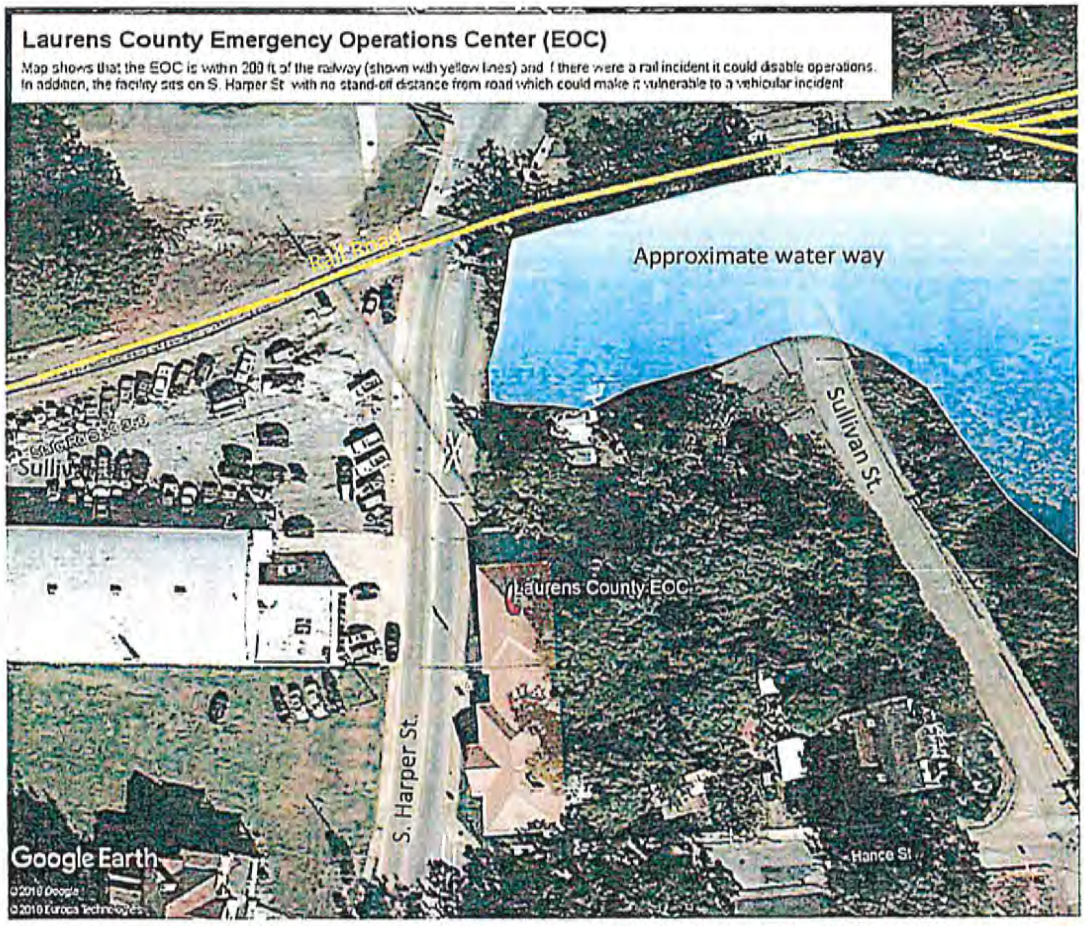


Figure 1 – EOC Aerial View indicating close proximity to S. Harper St., Sullivan St. access, rear waterway and rail road tracks.

Figure 2 – View from S. Harper St at rail road tracks viewing rear of EOC.

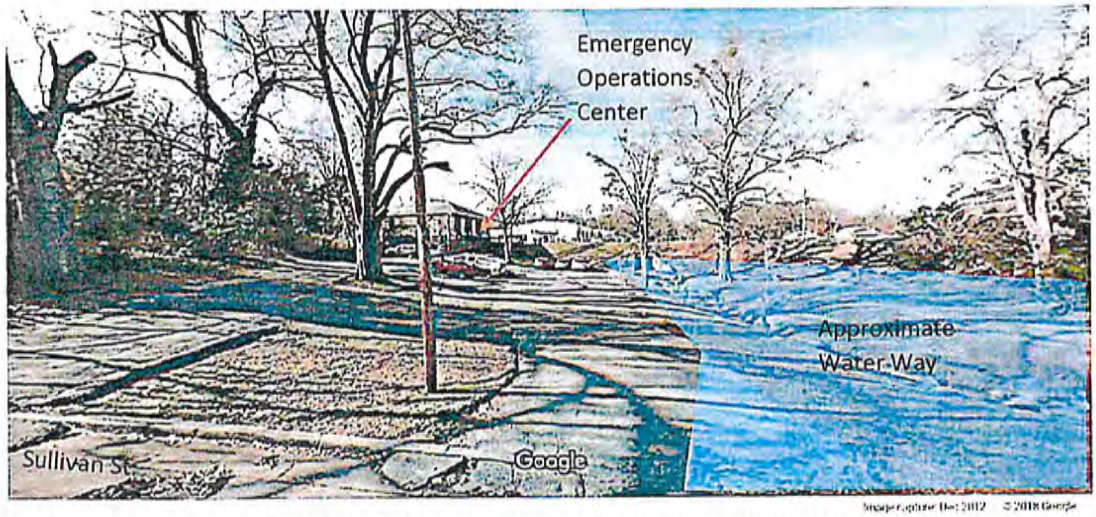


Figure 3 – Rear view of EOC from Sullivan St. showing adjacency of EOC to waterway.

Flood

A basic stepwise flood analysis revealed an inundation threat for the facility and its capabilities should water levels rise only moderately above the 100-year floodplain. At 5-feet above the 100-year floodplain, flood waters would enter at the front-entrance of the building and fill the basement of the structure where all servers, backup server and the County's 911 Center are located. If these systems were to go offline in a flood hazard event, the absence of this facility could slow or cripple the county's response capabilities.

A Digital Elevation Modelling (DEM) approach was used to estimate flood levels for the watershed close to the EOC. Base flood elevations (e.g. 100 year floodplain) were established using FEMA Flood Insurance Rate Maps. Water levels were raised to one foot, then two feet, then five feet and water elevations were calculated using the Triangulated Irregular Networks method through ArcMap on the ArcGIS Desktop[1].

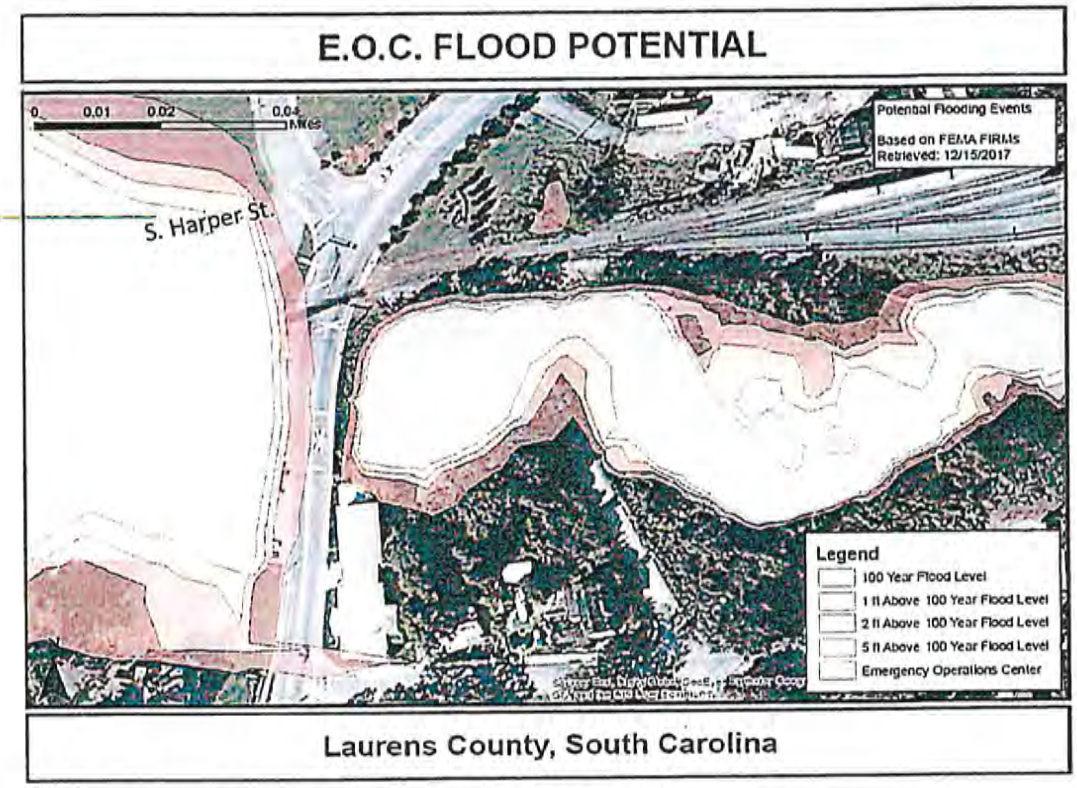


Figure 4 – Stepwise flood analysis of Laurens County EOC

The results of the assessment indicate that if flood levels were to rise 5-feet above the 100-year flood level, the Laurens County EOC could be at risk for flooding. In particular, inundation would be expected near the front and rear entrances of the facility. Further, the main access road would likely become covered making travel to and from the EOC difficult

The results of this analysis indicate that the EOC is at real risk for damage due to flood inundation. Specifically, there appear to be two key threats:

1. access to the facility, and
2. operability of critical emergency response equipment and functions.

[1] At the time of this analysis, a multidimensional and integrated flood analysis could not be completed. This augmented approach was therefore suggested by the Army Corps of Engineers.

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This analysis was conducted using available input data, but does not consider watershed hydrology (e.g. watershed flow, soil conditions, evaporation, rainfall). Additional analysis is needed to provide a more detailed analysis of potential flood hazards.

Access to the Facility
Northern access to the facility is achievable through Harper Street, which runs north to south and adjacent facility. Although alternate north-south access points are available (e.g. Chester Street), however, it is anticipated that decommissioning of the main access road might inhibit emergency workers.

Critical Equipment
Site visits to the EOC confirm that all county servers and backup servers are located in the basement-level of this facility. Further, the 911 operation center is also located in the basement -level. Should inundation occur, flood waters would immediately pool in these subterranean levels of the facility and may cause damage to this critical equipment. Other considerations to this analysis should recognize that the results include only water elevations rising. The topography of area the EOC lies in would suggest in a severe rain event it should be considered runoff from higher elevations could compound the flooding effect.

Adjacencies
The location of the EOC may be convent to downtown but there are factors to be considered due to the close proximity and potential likelihood of an incident at the following locations:

1. Railroad tracks located to the North could pose chemical, fire or explosive threats which is exacerbated being that the EOC is located in a low lying area which makes the EOC susceptible to heavy fumes and gases
2. S. Harper St. is literally within feet away from the EOC and without passive barriers this could pose a vehicular impact threat
3. The intersection of S. Harper St. and the rail road tracks establishes the potential of a collision, which compounds 1 and 2 listed above
4. There are no access control points, fences nor passive barriers from adjacent properties or from Sullivan St. to limit access from pedestrians or passenger / delivery vehicles

Conclusions
The Laurens County Emergency Operation Center (EOC) is one of the most critical assets in the County but due to its location it is one of the most vulnerable facilities we have observed. Despite the physical constraints of the facility and the proximity of known threats, the EOC management and staff have taken numerous actions to ensure the that 911 call center and emergency operations are compliant with State and Federal standards but the facilities location, construction, and proximity makes the facility vulnerable to potential threats.

Recommendation
Relocate the EOC to higher ground that is away from flood plain, has good post event access, is physically located in the absence of potential threats, ensure proper access controls / passives barriers are included as part of the design, and that the facility should be constructed in compliance with "FEMA - Emergency Operations Center Assessment Checklist" and "FEMA 543 – Design Guide".

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THOMAS & HUTTON

HIGHWAY 14 CORRIDOR STUDY

BETWEEN I-385 EXITS 19 AND 22

LAURENS COUNTY, SC

Prepared for:

LAURENS COUNTY DEVELOPMENT CORP.

J – 27743.0000

JULY 2019

W-1

thomasandhutton.com

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1. INTRODUCTION

Significant industrial development has taken place along I-385 in northwestern South Carolina, between Laurens and Greenville, in Laurens County. ZF Transmissions, Teknorapex, D+W Finepack, REMA USA, LLC, and many other industries are located in and around the Fountain Inn and Gray Court areas. Interstate 385 provides regional access to the area via Exits 19 and 22. Local access to the industrial sites is limited to two-lane roads; namely SC 14, known as South Main Street, and Old Laurens Road. An existing railroad, the Gennessee and Wyoming, runs through the area, roughly parallel to I-385.

According to the Laurens County Development Corporation, 2.3 million square feet of industrial space has been developed in the area over the last five years, accounting for 3300 new jobs. This growth equates to development of 460,000 square feet of commercial space, and over 600 jobs per year, for the past five years. There are several thousand acres of land available for development in the Fountain Inn and Gray Court areas; however, economic development will likely be limited by the insufficient roadway access that exists today. **Figure 1** shows the project location.

This study will evaluate existing and future traffic conditions along the SC 14 and Old Laurens Road corridors. A study area has been established, and it extends from Friendship Church Road on the southeast end, to I-385 Exit 22 on the northwest end. Synchro will be used to model intersections, and generalized highway capacity concepts will be used to evaluate freeway and ramp conditions. No capacity analyses are provided with this "concept" level of study for the freeway elements.

In May 2019, turning movement traffic counts were collected at the following intersections.

- Friendship Church Road and Frontage Road
- Friendship Church Road and SC 14
- SC 14 and Owings Road
- Old Laurens Road and Owings Road
- SC 14 and I-385 Exit 19 Access Road
- I-385 Exit 19 Access Road Split
- Old Laurens Road and Stoddard Mill Road
- Old Laurens Road and Wells Road
- Old Laurens Road and Abercrombie Road
- SC 14 and Abercrombie Road
- Old Laurens and South Nelson Road
- South Nelson Road and Andrews Road
- Old Laurens Road and I-385 SB Off Ramp (Exit. 22)
- SC 14 and I-385 NB Off Ramp (Exit. 22)
- Old Laurens Road and Hunts Bridge Road @ I-385 NB On Ramp

In addition, 24-hour traffic counts were collected at the following locations.

- Old Laurens Road, north of Owings Road
- SC 14, S Main Street, south of Owings Road
- Old Laurens Road, north of Abercrombie Road

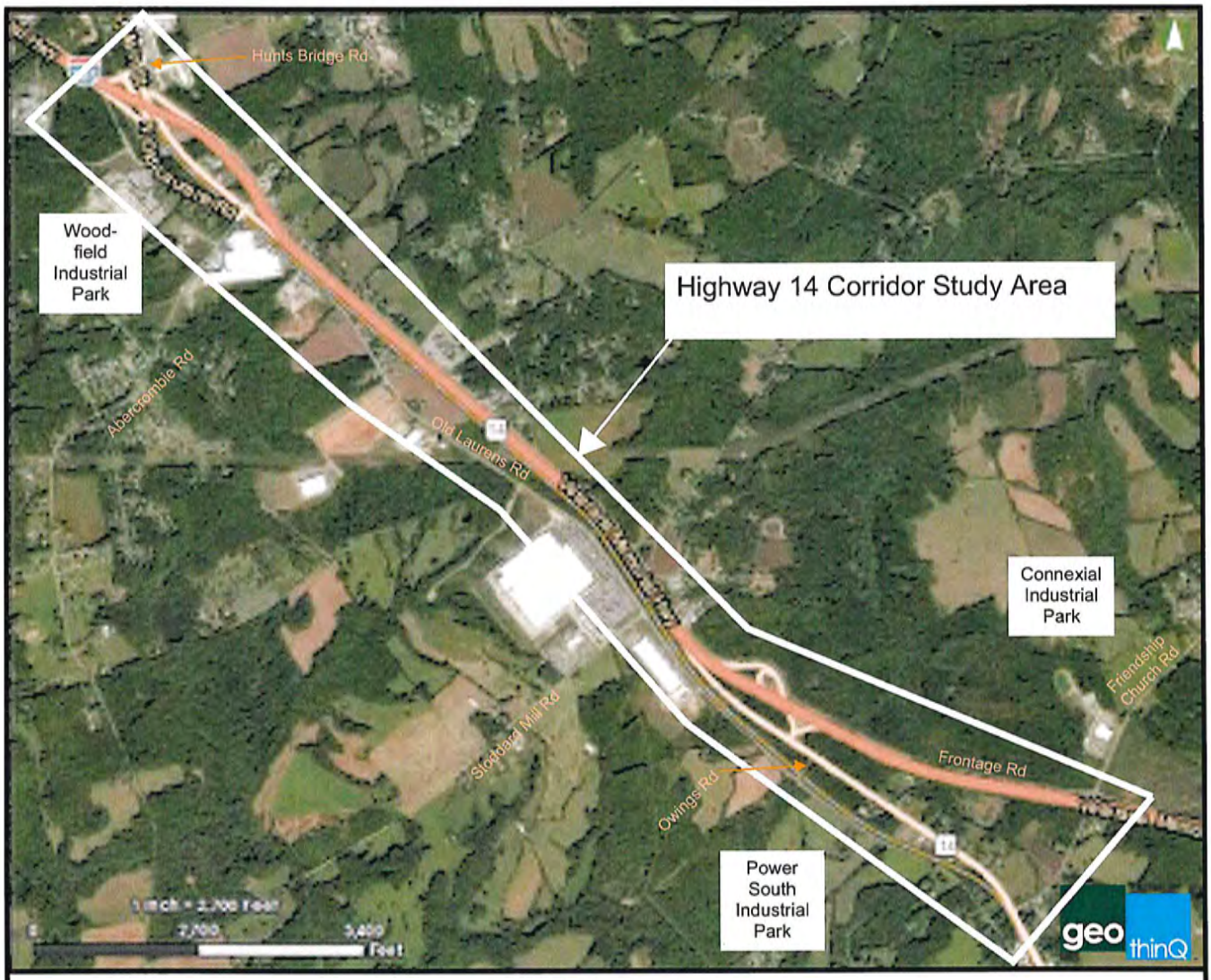


Figure 1

Project Location Map
Highway 14 Corridor Study

Laurens County, SC

J-27743.0000

THOMAS & HUTTON

This map was created using geothinQ | www.geothinQ.com | Mapping Smart Land Decisions

W.4

In addition to the above counts, SCDOT maintains a real-time traffic count station on I-385 between Exits 19 and 22. The traffic counts are shown in Figures **2a, 2b, and 2c**, and the count data are included in Appendix A.

2. EXISTING CONDITIONS

Roadway Conditions

SC 14, S Main Street, is an existing two-lane roadway that runs north-south and is approximately parallel to I-385. At I-385 Exit 22, Hwy 14 intersects with the northbound off ramp. Further south, Highway 14 leads to a one-way on-ramp for I-385 southbound. South of Owings Road, 24-hour traffic counts on Highway 14 showed a traffic volume of 10,431 in May 2019. The posted speed limit on SC 14 is 45 mph.

Old Laurens Road is an existing two-lane roadway that runs north-south, parallel to and west of Highway 14. May 2019 traffic counts on Old Laurens Road indicated an existing 24-hour volume of 5,689 just north of Abercrombie Road. The posted speed limit on Old Laurens Road is 35 mph.

Interstate 385 runs along SC 14 and Old Laurens Road, on the eastern side of the corridor study area. The SCDOT count station on Interstate 385 shows that this four-lane limited access freeway carries an approximate ADT of 40,600 between Exits 19 and 22. The Exits serve the Fountain Inn and Gray Court areas in Laurens County, SC. Within the Exits, all ramps are one lane, and all intersections are unsignalized.

Owings Road is a two-lane roadway that connects Old Laurens Road and SC 14, at the southern end of the study area. Some traffic travelling to and from the industrial sites in the study area and I-385 use Owings Road to access Exit 19.

Stoddard Mill Road is a two-lane roadway that is adjacent to ZF Transmissions. This road extends west of the study area, eventually intersecting with Greenpond Road. There are several parcels of undeveloped land along Stoddard Mill Road.

Abercrombie Road is a two-lane roadway that intersects with SC 14 and Old Laurens Road, where only 150 feet separate the two stop-sign controlled intersections. Between SC 14 and Old Laurens Road, there is an at-grade rail crossing on Abercrombie Road at the Gennessee and Wyoming Rail line. To the southwest, land use along Abercrombie Road is residential, while within the study area, land use is industrial. The posted speed limit on Abercrombie Road is 45 mph. D+W Finepack is located at the intersection of Abercrombie Road and Old Laurens Road. In the pm peak hours, there is existing congestion along Abercrombie Road at the two stop-controlled intersections.

South Nelson Drive intersects with Old Laurens Road just south of I-385 Exit 22. South Nelson Drive is a two-lane roadway that provides access to the Woodfield Industrial Park. In the study area, there is no posted speed limit on South Nelson Drive. South Nelson Drive extends to the north of the study area, where it runs parallel to I-385 and provides access to commercial areas and, further north, to residential areas.

Hunts Bridge Road is a two-lane roadway that runs approximately east-west. Hunts Bridge Road intersects with Old Laurens Road at the On Ramp to I-385 at Exit 22. To the east, Hunts Bridge Road provides access to residential and commercial property.

Traffic Conditions

Traffic operations at intersections are typically evaluated in terms of "Level of Service" or LOS. The LOS is a measurement of delay incurred at an intersection or for a particular movement. LOS is defined by the Transportation Research Board's Highway Capacity Manual (HCM) from which LOS A represents free flow conditions with minimal delays; LOS F represents congested conditions. Generally, a LOS D or better is considered acceptable.

Table 1 shows the HCM criteria for both signalized and unsignalized intersections.

Table 1. Level of Service definitions

LEVEL OF SERVICE	Control Delay per Vehicle (seconds)	
	Unsignalized Intersection	Signalized Intersection
A	≤ 10	≤ 10
B	>10 and ≤ 15	>10 and ≤ 20
C	>15 and ≤ 25	>20 and ≤ 35
D	>25 and ≤ 35	>35 and ≤ 55
E	>35 and ≤ 50	>55 and ≤ 80
F	>50	>80

Traffic operations at Exits are typically evaluated in terms of "Level of Service" or LOS. On freeways and ramps, and at merges and diverges, LOS is a measurement of density as defined by the Transportation Research Board's Highway Capacity Manual (HCM). LOS A represents free flow conditions; LOS F represents congested conditions. Generally, a LOS D or better is considered acceptable.

The signalized and unsignalized intersections were modeled, using Synchro, and the results of the analyses are summarized in Table 2.

Table 2. Current Levels of Service (2019)

Intersection	Control	2019 LOS	
		AM Peak Hr	PM Peak Hr
Friendship Church Road and Frontage Road	Stop		
NB approach Lt (Friendship Church Rd)		A	A
SB approach Lt (Friendship Church Rd)		A	A
EB approach (Frontage Rd)		A	A
WB approach (Frontage Rd)		B	B
Frontage Road and SC 14	Stop		
WB approach (Friendship Church Rd)		C	C
SB approach Left (SC 14)		A	A
SC 14 and Owings Road	Stop		
EB approach (Owings)		D	C
NB approach Left (SC 14)		A	A
Old Laurens Road and Owings Road	Signal		
SB approach (Old Laurens Rd)		A	A
NB approach (Old Laurens Rd)		A	A
WB approach (Owings Road)		B	B
Intersection Overall		A	A
SC 14 and I-385 Exit 19 Access Rd	Stop		
EB approach Left (SC 14)		A	A
SB approach (I-385 Off)		B	B
Old Laurens Road and Stoddard Mill Rd	Stop		
EB approach (Stoddard Mill Rd)		B	B
NB approach Left (Old Laurens Road)		A	A
Old Laurens Road and Wells Road	Stop		
EB approach (Wells Road)		A	A
NB approach Left (Old Laurens Rd)		A	A
Old Laurens Road and Abercrombie Road	All-way Stop		
SB approach (Old Laurens Road)		C	B
NB approach (Old Laurens Road)		B	B
EB approach (Abercrombie Road)		B	B
WB approach (Abercrombie Road)		B	A
Intersection Overall		**B**	**B**

SC 14 and Abercrombie Road	Stop		
EB approach (Abercrombie Road)		A	B
Old Laurens Road and S Nelson Road	Stop		
EB approach (S Nelson Road)		B	B
WB approach (Private Driveway)		C	C
NB approach Left (Old Laurens Road)		A	A
SB approach Left (Old Laurens Road)		A	A
Old Laurens Road and I-385 SB Off Ramp (Exit. 22)	Stop		
EB approach (I-385 Off Ramp)		B	B
SC 14 and I-385 NB Off Ramp (Exit. 22)	Stop		
WB approach (I-385 Off Ramp)		A	A
Old Laurens Road and Hunts Bridge Road	All-way		
WB approach (Hunts Bridge Road)		B	A
NB approach (Old Laurens Road)		C	C
SB approach (Old Laurens Road)		A	A
Intersection Overall		**B**	**C**

All of the study intersections currently operate at acceptable levels of service; however, there are peak hour delays at Owings Road and at Abercrombie Road that are not reflected in the Synchro model. These delays are probably due to the location of the Gennessee and Wyoming Rail, which runs north south and is immediately adjacent to Old Laurens Road as it intersects with both Owings and Abercrombie Roads.

3. FUTURE DEVELOPMENT – PHASE 1 YEAR 2022

Extending the recent trend of development for the next three years, an additional 1,380 ksf of industrial development is expected. (460 ksf per year) This includes two projects that are currently under way, an 800 ksf expansion of ZF Transmissions, and development of Parcel 44, located in the Connexial Center Industrial Park, with clearing and grading of the site underway and construction of a Spec building to begin soon.

The development included in the Phase 1 Buildout, in the year 2022 includes the following:

- 800 ksf expansion of ZF Transmission
- 580 ksf building(s) in Connexial Industrial Park
- 50 single family residences near Abercrombie Road.

Traffic projections for these uses are summarized in Table 3. Appendix C includes more detailed calculations and the distribution of trips to the roadway network.

Table 3. Trip Generation – Phase 1

ITE Category	Land Use	Daily	AM Peak		PM Peak	
			Enter	Exit	Enter	Exit
130	Industrial Park 580 ksf	2,342	188	44	49	183
110	General Light Industrial 800 ksf	3,090	183	25	20	135
210	Single Family Detached Houses 50 Dwelling Units	472	9	28	32	18
	Total Site-Generated Trips	5,904	380	97	101	336

The site-generated traffic is assigned to the roadway network, as shown in **Figures 3a**, **3b**, and **3c**. The site-generated traffic and three years of background growth at 1% per year are added to the existing traffic volumes, and the resulting Year 2022 Phase 1 traffic projections are shown in **Figures 4a**, **4b**, and **4c**.

The results of the capacity analyses for the Phase 1 projected traffic volumes are shown below in Table 4 for the unsignalized and signalized intersections.

Table 4. Phase 1 Levels of Service (2022)

Intersection	Control	2019 LOS	
		AM Peak Hr	PM Peak Hr
Friendship Church Road and Frontage Road	Stop		
NB approach Left (Friendship Church Rd)		A	A
SB approach Left (Friendship Church Rd)		A	A
EB approach (Frontage Rd)		B	B
WB approach (Frontage Rd)		B	B
Friendship Church Road and SC 14	Stop		
WB approach (Friendship Church Rd)		E	C
SB approach Left (SC 14)		A	A
SC 14 and Owings Road	Stop		
EB approach (Owings)		F	F
NB approach Left (SC 14)		A	A
Old Laurens Road and Owings Road	Signal		
SB approach (Old Laurens Rd)		B	A
NB approach (Old Laurens Rd)		A	A
WB approach (Owings Road)		B	B
Intersection Overall		**B**	**A**
SC 14 and I-385 Exit 19 Access Rd	Stop		
EB approach Left (SC 14)		A	A
SB approach (I-385 Off)		B	B
Old Laurens Road and Stoddard Mill Rd	Stop		
EB approach (Stoddard Mill Rd)		C	C
NB approach Left (Old Laurens Road)		A	A
Old Laurens Road and Wells Road	Stop		
EB approach (Wells Road)		A	A
NB approach Left (Old Laurens Rd)		A	B
Old Laurens Road and Abercrombie Road	All-way Stop		
SB approach (Old Laurens Road)		D	C
NB approach (Old Laurens Road)		C	C
EB approach (Abercrombie Road)		B	B
WB approach (Abercrombie Road)		B	B
Intersection Overall		**C**	**C**

SC 14 and Abercrombie Road	Stop		
EB approach (Abercrombie Road)		B	B
Old Laurens Road and S Nelson Road	Stop		
EB approach (S Nelson Road)		B	B
WB approach (Private Driveway)		C	C
NB approach Left (Old Laurens Road)		A	A
SB approach Left (Old Laurens Road)		A	A
Old Laurens Road and I-385 SB Off Ramp (Exit. 22)	Stop		
EB approach (I-385 Off Ramp)		B	B
SC 14 and I-385 NB Off Ramp (Exit. 22)	Stop		
WB approach (I-385 Off Ramp)		A	A
Old Laurens Road and Hunts Bridge Road	All-way		
WB approach (Hunts Bridge Road)		B	B
NB approach (Old Laurens Road)		C	D
SB approach (Old Laurens Road)		A	A
Intersection Overall		**C**	**C**

The overall intersection level of service for all of the study area intersections will remain at LOS D or better in the Phase 1 Build condition. There are several approaches, specifically at SC 14/Owings Road and Friendship Church Rd/SC 14, that would benefit from some minor turn lane improvements and possibly signalization. These minor improvements would provide acceptable levels of service for all approaches through the year 2022.

4. FUTURE DEVELOPMENT – PHASE 2 YEAR 2029

A build out year of 2029 has been established for Phase 2, which is ten years out from the existing condition. Development included in Phase 2 is envisioned to occur in the locations that are most likely to be developed after the Phase 1 site developments, which are already planned. Specifically, development at the northwestern end of the study area, in and near the Woodfield Industrial Park, which is currently partially occupied, is expected. At the southeastern end of the study area, further development of the Connexial Industrial Park, and development within the Power South Industrial Park is expected. In addition, development of additional residential subdivisions near Abercrombie and South Nelson Roads will likely occur as the industrial sites are built. There are existing partially occupied residential subdivisions in this area. Retail development is also anticipated west of I-385.

The development included in the Phase 2 Buildout, in the year 2029 includes the following:

- 1100 ksf building(s) in Woodfield Industrial Park
- 1100 ksf building(s) in Power South Industrial Park
- 1160 ksf building(s) in Connexial Industrial Park
- 225 ksf retail shopping center
- 200 single family residences near Abercrombie & South Nelson Roads

Traffic projections for these uses are summarized in Table 5. Appendix C includes more detailed calculations and the distribution of trips to the roadway network.

Table 5. Trip Generation – Phase 2

ITE Category	Land Use	Daily	AM Peak		PM Peak	
			Enter	Exit	Enter	Exit
130	Industrial Park 1160 ksf	3,358	376	88	97	367
110	General Light Industrial 2200 ksf	8,454	462	64	50	336
820	Shopping Center 225 ksf	10,435	164	100	475	515
210	Single Family Detached Houses 200 Dwelling Units	1888	37	111	125	73
	Total Site-Generated Trips	24,135	1039	363	747	1291

The site-generated traffic is assigned to the roadway network, as shown in **Figures 5a**, **5b**, and **5c**. The site-generated traffic from phases 1 and 2, and ten years of background growth at 1% per year are added to the existing traffic volumes, and the resulting Year 2029 Phase 2 projections are shown in **Figures 6a**, **6b**, and **6c**.

The results of the capacity analyses for the Phase 2 projected traffic volumes are shown below in Table 6 for the unsignalized and signalized intersections.

Table 6. Phase 2 Levels of Service (2029)

Intersection	Control	2029 LOS	
		AM Peak Hr	PM Peak Hr
Friendship Church Road and Frontage Road	Stop		
NB approach Left (Friendship Church Rd)		A	A
SB approach Left (Friendship Church Rd)		A	A
EB approach (Frontage Rd)		C	E
WB approach (Frontage Rd)		D	E
Friendship Church Road and SC 14	Stop		
WB approach (Friendship Church Rd)		F	F
SB approach Left (SC 14)		A	A
SC 14 and Owings Road	Stop		
EB approach (Owings)		F	F
NB approach Left (SC 14)		B	A
Old Laurens Road and Owings Road	Signal		
SB approach (Old Laurens Rd)		B	A
NB approach (Old Laurens Rd)		B	A
WB approach (Owings Road)		F	B
Intersection Overall		**D**	**A**
SC 14 and I-385 Exit 19 Access Rd	Stop		
EB approach Left (SC 14)		A	A
SB approach (I-385 Off)		E	C
Old Laurens Road and Stoddard Mill Rd	Stop		
EB approach (Stoddard Mill Rd)		C	C
NB approach Left (Old Laurens Road)		A	A
Old Laurens Road and Wells Road	Stop		
EB approach (Wells Road)		A	A
NB approach Left (Old Laurens Rd)		A	B
Old Laurens Road and Abercrombie Road	All-way Stop		
SB approach (Old Laurens Road)		F	F
NB approach (Old Laurens Road)		E	F
EB approach (Abercrombie Road)		D	E
WB approach (Abercrombie Road)		C	C
Intersection Overall		**F**	**F**

SC 14 and Abercrombie Road	Stop		
EB approach (Abercrombie Road)		B	B
Old Laurens Road and S Nelson Road	Stop		
EB approach (S Nelson Road)		F	F
WB approach (Private Driveway)		D	D
NB approach Left (Old Laurens Road)		A	A
SB approach Left (Old Laurens Road)		A	A
Old Laurens Road and I-385 SB Off Ramp (Exit. 22)	Stop		
EB approach (I-385 Off Ramp)		C	B
SC 14 and I-385 NB Off Ramp (Exit. 22)	Stop		
WB approach (I-385 Off Ramp)		B	B
Old Laurens Road and Hunts Bridge Road	All-way		
WB approach (Hunts Bridge Road)		B	B
NB approach (Old Laurens Road)		E	F
SB approach (Old Laurens Road)		A	A
Intersection Overall		**E**	**F**

With the build out of Phase 2, many of the intersections in the study area will have one or more approaches that operate at LOS D or worse, and minor widening and traffic control improvements will not be sufficient to provide the necessary capacity to accommodate projected traffic volumes through the entire corridor study area.

Specifically, at Exit 19, access to and from the east side of I-385 is poor. The route to and from the interstate to the east is circuitous and the geometry of Exit 19 is substandard based on current standards and traffic volumes. A more direct connection from I-385 to Friendship Church Road is desirable, as this connection would eliminate travel along SC 14 and Owings Road to reach Friendship Church Road.

Exit 19 provides more direct access to the area immediately west of I-385; however, even this access requires travel along Owings Road, and requires vehicles travelling northbound to first travel southbound (to Owings Road.)

At Exit 22, with minor widening and traffic control improvements, there is sufficient access to the northern portion of the study area; however, for locations south of Abercrombie Road, access is hindered by closely spaced intersections and limited right-of-way. The Abercrombie Road intersections act as a bottleneck for north and south travel on SC 14 and Old Laurens Road within the study area.

5. FUTURE DEVELOPMENT – PHASE 3 YEAR 2039

A build out year of 2039 has been established for Phase 3, which is twenty years out from the existing condition. Due to the length of time between the present condition and 2039, development included in Phase 3 is not assigned to specific locations, instead, it is generally assigned to regions. For purposes of the corridor study, 2400 ksf of industrial building space is assigned east and west of I-385. The projected size of the building space is based upon the recent actual development of 460 ksf of building space per year, for five years, in this region of Laurens County.

Traffic projections for this use are summarized in Table 7. Appendix C includes more detailed calculations and the distribution of trips to the roadway network.

Table 7. Trip Generation – Phase 3

ITE Category	Land Use	Daily	AM Peak		PM Peak	
			Enter	Exit	Enter	Exit
130	Industrial Park 2400 ksf	4,900	778	182	202	758
130	Industrial Park 2400 ksf	4,900	778	182	202	758
	Total Site-Generated Trips	9,800	1,556	364	404	1,516

The site-generated traffic is assigned to the roadway network, as shown in **Figures 7a**, **7b**, and **7c**. The site-generated traffic from phases 1, 2 and 3, and a total of twenty years of background growth at 1% per year are added to the existing traffic volumes to calculate the Year 2039 Phase 3 projections. The Phase 3 projections are shown in **Figures 8a**, **8b**, and **8c**.

The results of the capacity analyses for the Phase 3 projected traffic volumes are shown below in Table 8 for the unsignalized and signalized intersections. The Synchro results are included in Appendix F.

Table 8. Phase 3 Levels of Service (2039)

Intersection	Control	2039 LOS	
		AM Peak Hr	PM Peak Hr
Friendship Church Road and Frontage Road	Stop		
EB approach Left (Friendship Church Rd)		B	B
WB approach Left (Friendship Church Rd)		A	A
NB approach (Frontage Rd)		F	F
WB approach (Frontage Rd)		F	F
Friendship Church Road and SC 14	Stop		
WB approach (Friendship Church Rd)		F	F
SB approach Left (SC 14)		F	F
SC 14 and Owings Road	Stop		
EB approach (Owings)		F	F
NB approach Left (SC 14)		E	A
Old Laurens Road and Owings Road	Signal		
SB approach (Old Laurens Rd)		E	C
NB approach (Old Laurens Rd)		D	F
WB approach (Owings Road)		F	F
Intersection Overall		**E**	**F**
SC 14 and I-385 Exit 19 Access Rd	Stop		
EB approach Left (SC 14)		A	A
SB approach (I-385 Off)		F	D
Old Laurens Road and Stoddard Mill Rd	Stop		
EB approach (Stoddard Mill Rd)		D	F
NB approach Left (Old Laurens Road)		A	A
Old Laurens Road and Wells Road	Stop		
EB approach (Wells Road)		B	B
NB approach Left (Old Laurens Rd)		A	B
Old Laurens Road and Abercrombie Road	All-way Stop		
SB approach (Old Laurens Road)		F	F
NB approach (Old Laurens Road)		F	F
EB approach (Abercrombie Road)		E	F
WB approach (Abercrombie Road)		D	C
Intersection Overall		**F**	**F**

SC 14 and Abercrombie Road	Stop		
EB approach (Abercrombie Road)		B	B
Old Laurens Road and S Nelson Road	Stop		
EB approach (S Nelson Road)		F	F
WB approach (Private Driveway)		F	D
NB approach Left (Old Laurens Road)		A	A
SB approach Left (Old Laurens Road)		A	A
Old Laurens Road and I-385 SB Off Ramp (Exit. 22)	Stop		
EB approach (I-385 Off Ramp)		F	B
SC 14 and I-385 NB Off Ramp (Exit. 22)	Stop		
WB approach (I-385 Off Ramp)		B	B
Old Laurens Road and Hunts Bridge Road	All-way		
WB approach (Hunts Bridge Road)		C	B
NB approach (Old Laurens Road)		F	F
SB approach (Old Laurens Road)		B	A
		F	**F**

With the build out of Phase 3, most of the intersections in the study area will have one or more approaches that operate at LOS D or worse, and minor widening and traffic control improvements will not be sufficient to provide the necessary capacity to accommodate projected traffic volumes, particularly in the southern half of the study area.

In the northern portion of the study area, traffic signal installation and minor widening improvements were modeled at failing intersections. As shown in Table 9, the intersections north of Abercrombie Road can be expected to operate at LOS D or better with improvements in place.

Table 9. Phase 3 Levels of Service w/ Improvements-North of Abercrombie (2039)

Intersection	Control	2039 LOS	
		AM Peak Hr	PM Peak Hr
Old Laurens Road and I-385 SB Off Ramp	Signal		
EB approach (I-385 Off Ramp)		B	B
NB approach (Old Laurens Road)		A	A
SB approach (Old Laurens Road)		A	A
Intersection Overall		**A**	**A**
Old Laurens Road and Hunts Bridge Road	Signal		
WB approach (Hunts Bridge Road)		B	C
NB approach (Old Laurens Road)		B	A
SB approach (Old Laurens Road)		B	B
Intersection Overall		**B**	**B**

At Exit 19 and the southern portion of the study area, level of service problems cannot be eliminated with the installation of traffic signals and minor widening. This situation, in addition to the poor access to I-385 at the southern end of the study area evoke the need to evaluate improvements to I-385 Exit 19. By eliminating the circuitous route to and from I-385, improved levels of service can be achieved. A more direct connection from I-385 to Friendship Church Road is desirable, as this connection would eliminate travel along SC 14 and Owings Road to reach Friendship Church Road. Similarly, a more direct connection from I-385 to the industrial sites east of Exit 19 is desirable as it would eliminate indirect travel routes that exist today.

Table 10 shows levels of service for select intersections in the southern portion of the study area, with widening for auxiliary turn lanes and traffic control improvements in place. As shown, unacceptable levels of service are expected unless without more extensive improvements to the roadway network. Synchro reports for these analyses are included in Appendix G.

Table 10. Phase 3 Levels of Service w/ Improvements - Southern Portion of Study Area (2039)

Intersection	Control	2039 LOS	
		AM Peak Hr	PM Peak Hr
SC 14 and Owings Road	Signal		
EB approach (SC 14)		E	C
WB approach (SC 14)		D	F
NB approach (Owings Rd)		F	F
Intersection Overall		**F**	**F**
Old Laurens Road and Abercrombie Road	Signal		
SB approach (Old Laurens Road)		F	E
NB approach (Old Laurens Road)		C	A
EB approach (Abercrombie Road)		D	B
WB approach (Abercrombie Road)		C	B
Intersection Overall		**E**	**D**
Friendship Church Road and Frontage Road	All-way Stop		
EB approach (Friendship Church Rd)		F	C
WB approach (Friendship Church Rd)		D	B
NB approach (Old Laurens Road)		F	F
SB approach (Old Laurens Road)		F	C
Intersection Overall		**F**	**F**
Friendship Church Road and SC 14	Signal		
WB approach (Friendship Church Road)		E	C
NB approach (SC 14)		F	B
SB approach (SC 14)		F	A
Intersection Overall		**F**	**B**

Figure 9 shows the intersections that have unacceptable levels of service in Phases 2 and 3. **Figure 10** shows the recommended improvements in the northern section of the study area.

6. I-385 EXITS 19 AND 22

Existing Exit 22

The layout of I-385 Exit 22 is a modified diamond Exit, with the southbound off ramp and the northbound on ramp intersecting with Old Laurens Road. The northbound off ramp intersects with SC 14, while the southbound on ramp, which uses SC 14, is displaced to the south.

The projected peak hour traffic volumes on the Exit 22 ramps at the build out of Phase 3 are well within the generalized capacity limits for one lane ramps. The southbound off ramp is projected to have a peak hourly volume of 914, and the northbound off ramp, 210. The northbound on ramp is projected to carry 951 vehicles in the pm peak hour, which is also within the capacity limit of a one lane ramp.

The intersection of the northbound off ramp and SC 14 is expected to operate at level of service B in the Phase 3 build out condition. With minor widening and signalization, the touch down points of the northbound on ramp at Old Laurens Road, and the southbound off ramp at Old Laurens Road, will operate at level of service B or better in the Phase 3 build out condition.

Existing Exit 19

Existing I-385 Exit 19 has an unconventional layout. The single-lane southbound off ramp leads directly to SC 14. (SC 14 travels with I-385 between Exits 19 and 22.) The northbound off ramp is a loop ramp that intersects with SC 14 at a tee intersection. The northbound and southbound on ramps begin at the same unsignalized tee intersection, which is expected to operate at level of service F and D in the am and pm peak hour, respectively, of the Phase 3 build out year, 2039. To access the industrial parks, all traffic from I-385 must use Owings Road or SC 14. The Exit does not provide convenient access to the area east of the Exit, and access to the west of I-385 is hindered by an indirect route, as well as a bottleneck at Abercrombie Road.

The projected peak hour traffic volumes on two of the Exit 19 ramps at the build out of Phase 3 approach the idealized capacity limits for one lane ramps. The southbound off ramp is projected to have a pm peak hourly volume of 1573. The passenger car equivalent volume for the southbound off ramp is 1807, assuming 10% trucks. The northbound on ramp is projected to carry 1671 vehicles in the pm peak hour (1922 passenger car equivalents.) Based on the Highway Capacity Manual, 10th Edition, the maximum capacity of a single lane ramp with an operating speed between 30 and 40 mph is 2,000 vehicles per hour. Due to the short lengths of the ramps, and the congestion at the single intersection point, travel speeds may be lower than 30 mph, restricting ramp capacity, and resulting in a failing level of service.

The southbound on ramp is expected to carry 510 vehicles, and the northbound off ramp, 512, both of which are within the capacity limit of a one lane ramp.

Traffic volumes at the northbound merge are expected to approach the idealized capacity limits for a merge condition. There are 3127 vehicles expected to enter the merge point in the pm peak hour of the Phase 3 build out condition,

equating to 3597 passenger cars. With ideal geometry and sufficient merge lengths, this volume can be accommodated; however, given the existing geometry, the northbound on ramp merge point will need improvement. This is currently being experienced in the pm peak hours as the northbound traffic from SC 14 experiences difficulty merging.

The projected traffic on I-385 in the pm peak hour of the Phase 3 build out condition, 5009 vehicles, is within the generalized capacity limit of a four-lane highway, given the existing operating speed of 72 mph.

7. SUMMARY

Due to the significant industrial development that has taken place along I-385, between Laurens and Greenville, in Laurens County, the Laurens County Development Corporation requested a study of traffic conditions along the SC 14 corridor. Interstate 385 provides regional access to the industrial parks in the area via Exits 19 and 22. Local access to the industrial sites is limited to two-lane roads; namely SC 14, known as South Main Street, and Old Laurens Road. An existing railroad, the Gennessee and Wyoming, runs through the area, roughly parallel to I-385.

Traffic projections were developed to model traffic conditions through three phases; Phase 1 in 2022, Phase 2 in 2029, and Phase 3 in 2039. Rates of industrial development were based upon the recently experienced development rate of 460 ksf per year. There are several thousand acres of land available for development in the Fountain Inn and Gray Court areas, and this study assumes development of a small portion of available land.

This study evaluated existing and future traffic conditions along the SC 14 and Old Laurens Road corridors. The results of the study are summarized below:

Northern portion of study area

Based upon traffic projections, the existing roadway facilities, with some minor improvements, including widening for auxiliary lanes, roadway relocation and signalization, can accommodate future volumes. (The improvements modeled herein are shown in Figure 10.)

Widening for turn lanes will be needed at:

- the southbound I-385 off ramp at Exit 22,
- relocation of Woods Road as it approaches Old Laurens Road
- Nelson Road at Old Laurens Road (in the Woodfield Industrial Park)

Signalization will be needed at:

- the southbound I-385 off ramp and Old Laurens Road
- Old Laurens Road & Hunts Bridge Road at the I-385 northbound on ramp
- Nelson Road and Old Laurens Road when signal warrants are met

Middle portion of study area

There is an existing bottleneck at Abercrombie Road where it intersects with Old Laurens Road and SC 14. Although Synchro doesn't accurately reflect actual conditions, there are regular delays and queues at Old Laurens Road and Abercrombie Road in the midweek peak hours. With only 150 feet separating Old Laurens Road and SC 14, and the Gennessee and Wyoming Rail intersecting Abercrombie Road between the two roadways, there is no room for roadway widening to accommodate auxiliary lanes and increase capacity.

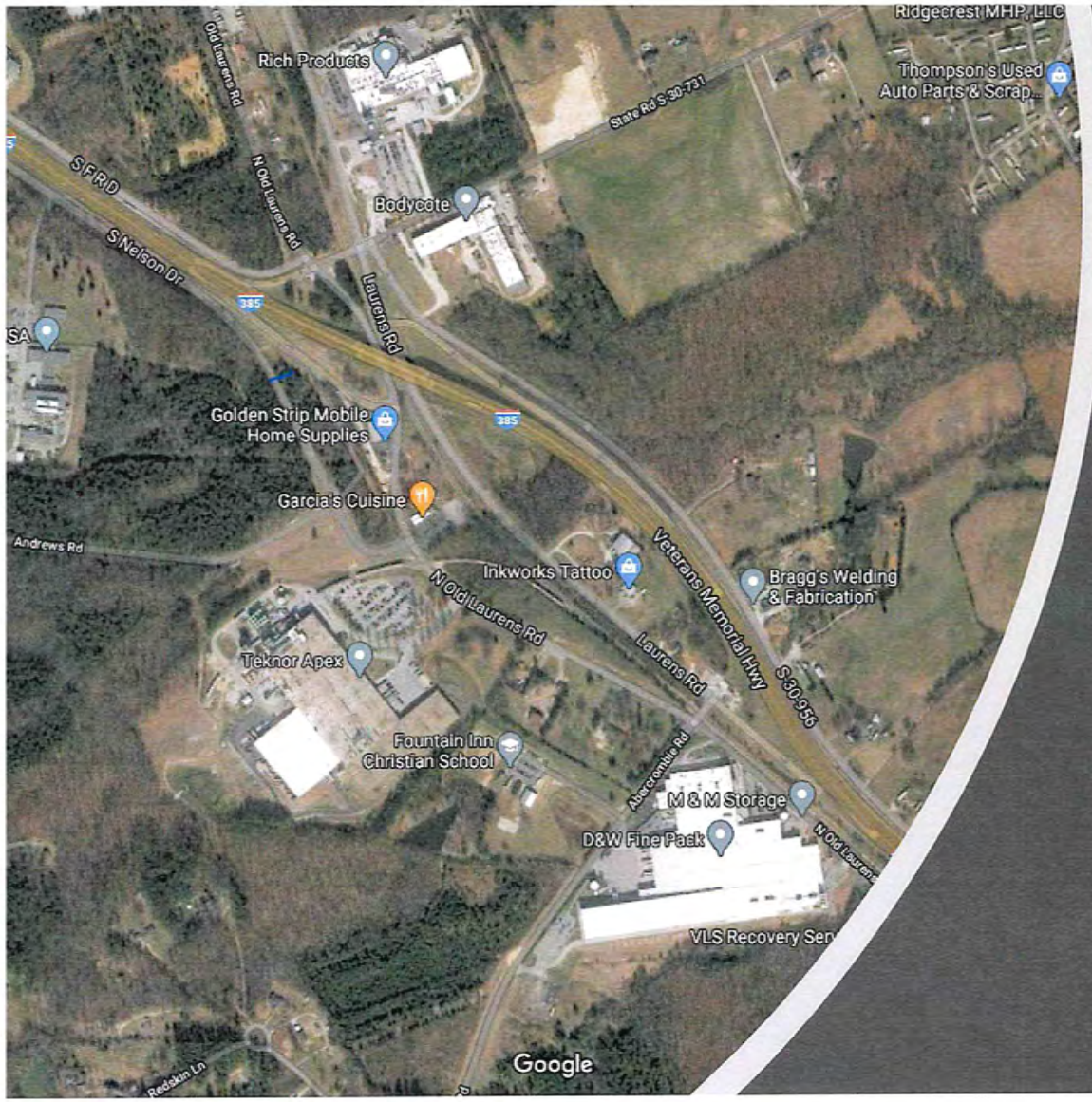
A bypass around the bottleneck could be considered, although it must be located where traffic will use it. Another option is to improve access to and from I-385 at Exit 19 so that northbound and southbound traffic volumes are reduced on SC 14 and Old Laurens Road at Abercrombie Road. (For example, if there were better access to ZF Transmissions, the Owings Industrial Park and nearby areas, more traffic would use I-385 Exit 19 instead of Exit 22, thereby reducing north south volumes at Abercrombie Road.)

Southern portion of study area

Based upon traffic projections, the existing roadway facilities are not expected to accommodate future volumes within the southern portion of the study area. The unconventional geometry of Exit 19 presents access issues for areas that are otherwise open for development. Specifically, the Exit does not provide sufficient access to areas east of I-385. Modification or replacement of the Exit can provide improved connections to the local road network, thereby eliminating the poor levels of service that will exist with no improvements.

FHWA requires that state DOT's seek permission to revise interchange access points on interstate highways. An interchange justification report should be prepared to fully evaluate Exit 19 of I-385 and recommend improvements as necessary.

This corridor study has revealed that existing conditions cannot accommodate expected growth in the Highway 14 corridor study area of Laurens County, particularly in the middle and southern portions. The study was based on traffic projections, given assumptions on where future development is likely to occur, and using ITE equations for industrial uses. Should development occur at parcels different than those assumed in this study, and/or should specific developments differ from the ITE land uses in the model, then the specific highway capacity analyses at the affected locations would change. Given that clarification, the general conclusions reached in the corridor study are expected to be valid.



Durbin Area Road Assessment

Hunt's Bridge Road

Road Data:

- Ownership: SCDOT
- Width: 18 Feet
- Condition: 2
- Bridge: 1
- Traffic Count: 1,600/day
- No Current Improvements Planned

2-X

Hunts Bridge Road

Bridge Condition:

- **Very Good**

E-3

Willis Road

Road Data:

- Ownership: SCDOT
- Width: 20 Feet
- Condition: 2
- Culverts: 1
- Traffic Count: 425/Day
- No Current Improvements Planned

Culvert is not visible due to severe overgrowth

h-4

Chapman Road

- **Road Data**
  - Ownership: County
  - Surface: Pavement
  - Length: 1.49 miles
  - Width: 15 feet
  - Bridges: 0
  - Culverts: 1
  - Condition: 3

X-5

Chapman Road Culvert

Note:
Floods when heavy rain events occur.

9-X

Chapman Road Culvert

Single 60" Pipe

Note:
Void under asphalt at edge of culvert above edge of pipe. LCWSC and ReWa will Be straightening the creek Just above influent in November.

Sullivan Road

Road Data:

- Ownership: County
- Surface: Asphalt
- Length: 1.24 miles
- Width: 21 Feet
- Bridge: 0
- Culvert: 1
- Condition: 2

28

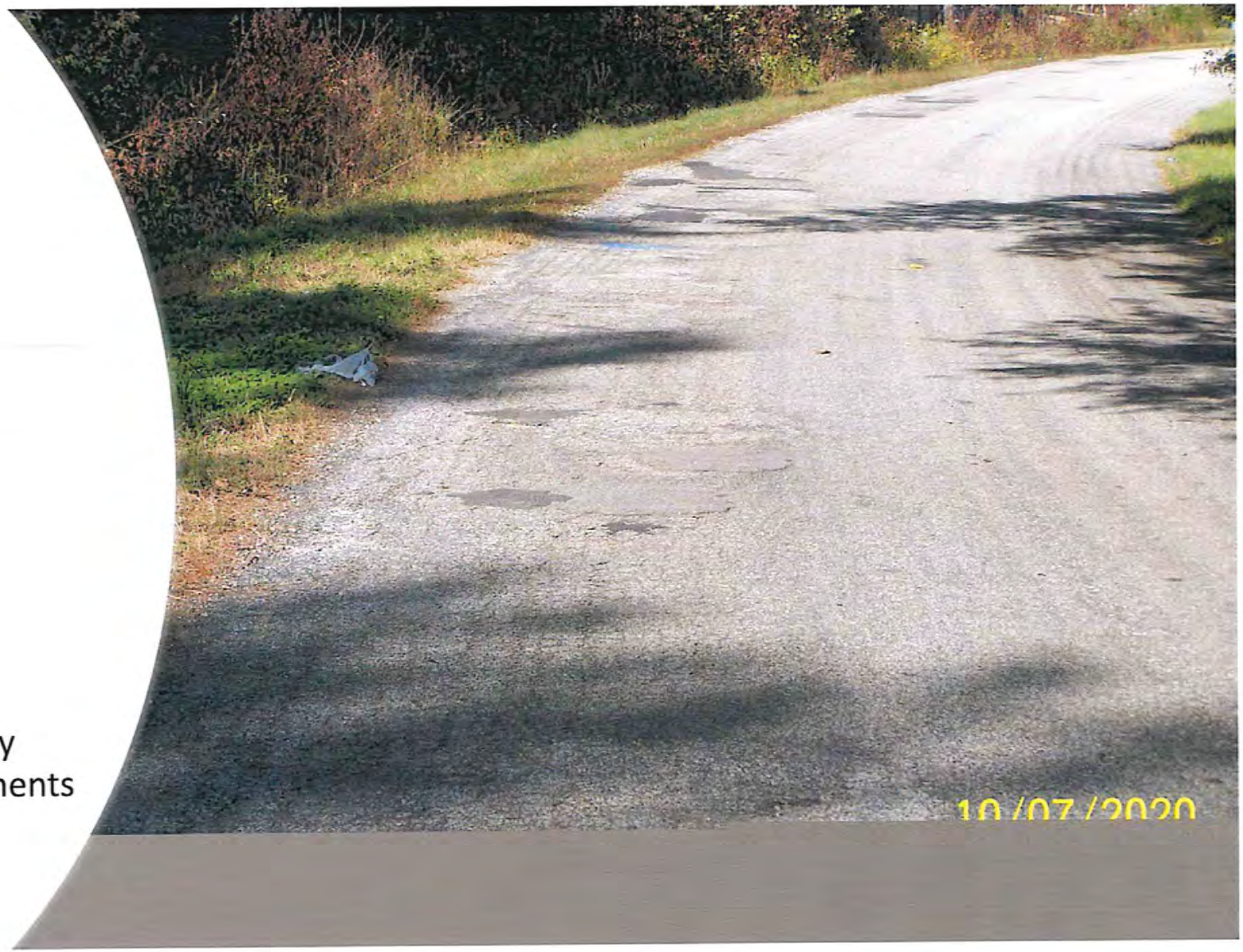
Sullivan Road Culvert

Culvert is double pipe 48". Culvert does flood over road with heavy rainfall events.

b-X

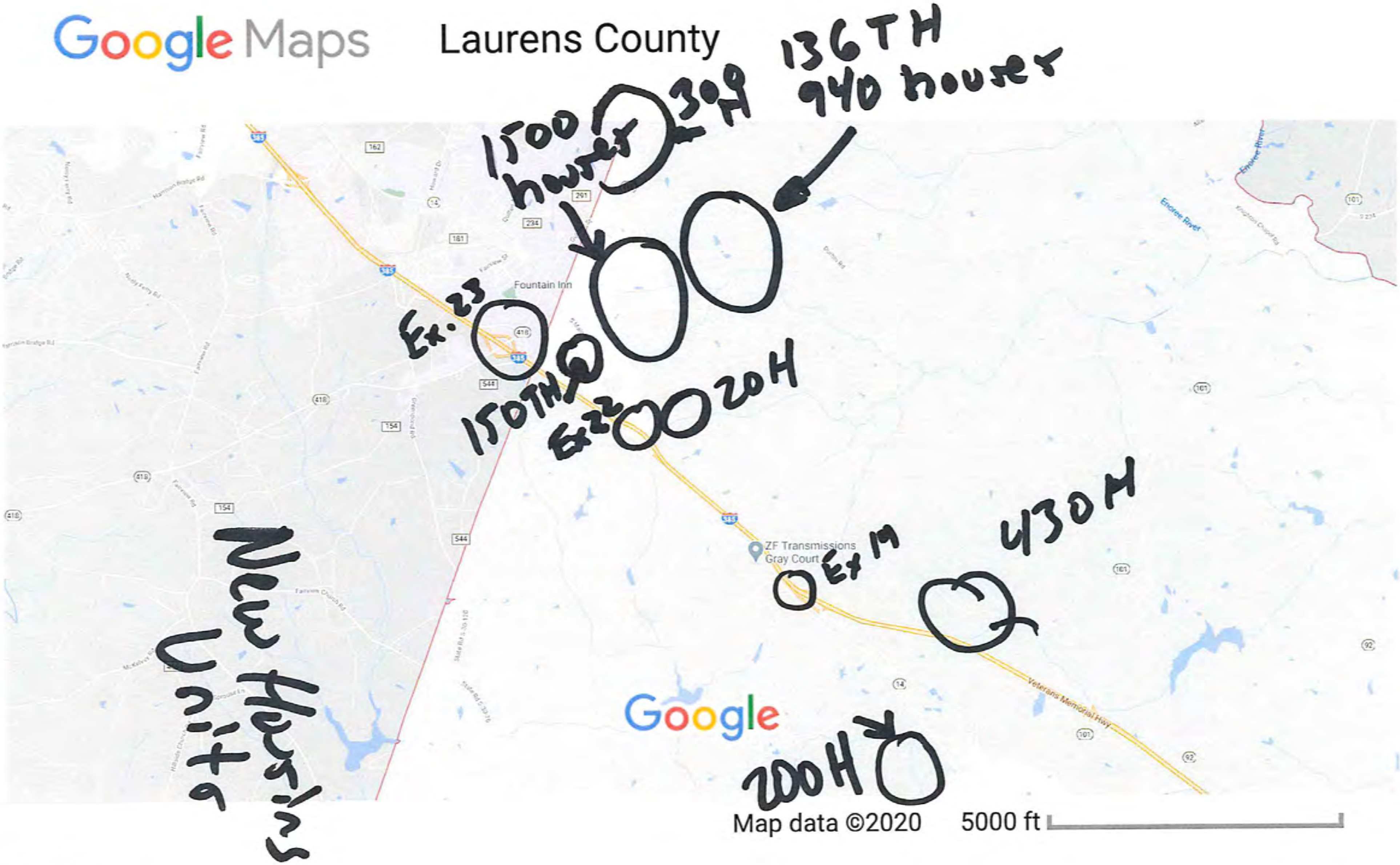
Jones Road

- **Road Data:**
- Ownership: SCDOT
- Surface: Pavement
- Length:
- Width: 20 Feet
- Bridges: 0
- Culverts: 0
- Condition: 3
- Traffic Count: 125/Day
- No Current Improvements Planned



X-19

Google Maps Laurens County



X-11