

PAVEMENT ASSESSMENT & MANAGEMENT PLANS

THE CITY OF BOILING SPRING LAKES, NC



Prepared By

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ATTACHMENTS:

- A BSL – Pavement Assessments
- B 25-Year Pavement Management Plan Opinion of Probable Costs

Introduction

One of the primary goals of the City of Boiling Spring Lakes Mayor and Board of Commissioners has been to perform a roadway assessment of the City roads. Based on Powell Bill records and mapping, there are approximately 53.58 miles of paved roads, 9.22 miles of unpaved rock roads (underdeveloped sections of paved roads), 35.5 miles of rocked roads, and 15.15 miles of dirt/unimproved roads maintained by the City Public Works Department that were assessed.

This report describes the field surveys and evaluation criteria, presents a recommended 5-Year and 25-Year Pavement Management Plan, and also provides information that can be used in developing current and future budget projections.

Section 1 Pavement Assessment

The roadways were evaluated by visually inspecting the pavement's wearing surface, shoulders, and immediate surroundings. Field notes were taken to record the representative condition of each roadway section at the time of inspection.

Section 2 Assessment Criteria

The method implemented for the pavement condition assessment was based on the North Carolina Department of Transportation (NCDOT) Pavement Management Unit (PMU) criteria. Pavement conditions were assessed based on observed severity of alligator cracking, transverse cracking, rutting, pavement edges, ride quality, and previous patching. A general description of the distress rating criteria is as follows:

2.1 Alligator Cracking



Description: Alligator cracking is a load-associated structural failure. The failure can be either in the surface, base, or subgrade. Alligator cracking was the most commonly observed distress in performing this assessment.

(L) Light: Longitudinal disconnected hairline cracks about 1/8-inch wide running parallel to each other, initially may be only a single crack in the wheel path but could also look like an alligator pattern.

(M) Moderate: Longitudinal cracks in wheel path(s) forming an alligator pattern; cracks may be lightly spalled and are about 1/4-inch wide.

(S) Severe: Cracking has progressed so that pieces appear loose with severely spalled edges; cracks are probably 3/8 - 1/2-inch wide or greater; pumping of fines through the cracks may be visible on the pavement surface; potholes may be present.

2.2 Transverse Cracking



Description: Block cracks divide the pavement into roughly rectangular pieces. Block cracking is not load-associated. Cracks are generally caused by shrinkage of the asphalt concrete and daily temperature cycling. Wheel path loads can increase the severity of block cracking if water is allowed to penetrate into the cracks. It is therefore very important to seal these cracks to prevent water penetration into the base materials.

(N) None: Transverse cracking is not present on the pavement surface.

(L) Light: Cracks, usually only transverse, are less than 1/4-inch wide and are not spalled; block pattern may not be visible yet; sealant is satisfactory if cracks have been sealed; transverse cracks are usually 10 to 20 feet apart.

(M) Moderate: Block pattern may be visible with blocks 10 square feet or greater present; cracks are 1/4-inch wide to less than 1/2-inch wide; cracks may or may not be spalled; transverse cracks are usually 5 to 20 feet apart.

(S) Severe: Cracks may be severely spalled with smaller blocks 2 to 10 square feet present; cracks usually about 1/2-inch wide or greater; transverse cracks may be 1 to 2 feet apart throughout portions of the surface.

2.3 Rutting



Description: A rut is a surface depression in the wheel path(s) or at the edge of pavement. Rutting comes from a pavement deformation in any of the pavement layers or the subgrade, usually caused by consolidation or lateral movement of the materials due to traffic loads. Movement in the mix in hot weather or inadequate compaction during construction is the main cause of rutting.

(N) None: Rutting is not present on the pavement surface.

(L) Light: Rutting 1/4 to less than 1/2-inch deep.

(M) Moderate: Rutting 1/2 to less than 1-inch deep.

(S) Severe: Rutting 1-inch deep or greater.

2.4 Raveling



Description: Raveling is the wearing away of the pavement surface caused by the dislodging of aggregate particles or loss of asphalt binder. Raveling indicates either a hardening or poor application of asphalt binder.

(N) None: Raveling is not present on the pavement surface.

(L) Light: Aggregate loss within the pavement lanes is not great; small amounts of pitting may be detected; aggregate or binder has started to wear away.

(M) Moderate: Some pitting or stripping evident; random stripping with small areas (less than one square foot) or strips of aggregate broken away.

(S) Severe: Stripping very evident; aggregate accumulations may be a problem; large sections (greater than one square foot) of stripping with aggregate layer broken away.

2.5 Pavement Edge Cracking



Description: The pavement edge is the transition where the pavement drops off vertically to the shoulder of the roadway. When the drop offs are in the range of more than 2 inches, the potential exists for a vehicles front tire to scrub against the pavement edge and not be able to return to the road surface without an abrupt and excess angle.

(N) None: Broken edges are not present on the pavement surface.

(L) Light: Condition is present on 10 to 25 percent of the section.

(M) Moderate: Condition is present on 26 to 50 percent of the section.

(S) Severe: Condition is present on greater than 50 percent of the section.

2.6 Ride Quality



Description: Riding quality is what the general public perceives as the indicator of how well a road is holding up. It is the absence of potholes and other roadway deficiencies.

(A) Average: Pavement texture may cause minimum tire noise; isolated cases (up to 1/4 of the section) of bumps and dips, operating speed can be maintained safely.

(S) Slightly Rough: 1/4 to 1/2 of the section is uneven and bumpy with dips, rises, and ruts; pavement may be broken and cracked with a resulting increase in tire noise; slight difficulty in maintaining operating speed over section.

(R) Rough: Greater than 1/2 of section is uneven and bumpy; rider is frequently jostled; rather large and frequent pavement failures and rough texture may be present causing a high increase in tire noise and jolts; operating speed cannot be maintained safely.

2.7 Patching



Description: Patching is defined as any surface area of the existing pavement that indicates some type of maintenance repair has taken place. They may be in spot locations, along one or both edges, in the wheel paths, across the entire surface for short distances, or a combination of any of these.

(N) None: Patching is not present on the pavement surface.

(L) Light: Condition is present on 6 to 15 percent of the section.

(M) Moderate: Condition is present on 16 to 30 percent of the section.

(S) Severe: Condition is present on more than 30 percent of the section.

Section 3 Road Ratings

3.1 Ranking System Description

In order to rank the assessed roadways by repair/rehabilitation priority, each type of distress was assigned a numeric value, a distress factor, according to severity. For each section of roadway, the distress factors for each type of distress were summed to determine its Pavement Condition Index (PCI), which was used for ranking.

For Transverse Cracking, Rutting, Raveling, Pavement Edges, and Patching, the distress factors for None (N), Light (L), Moderate (M), and Severe (S) are 0, 1, 2, and 3, respectively.

The distress factors for the Ride Quality and Alligator Cracking categories are weighted more heavily than the other distresses due to their effects on life span of the pavement, public perception, and safety. For ride quality, the distress factors for Average (A), Slightly Rough (S), and Rough (R) are 0, 3, and 6, respectively.

The PCI rankings were then used to separate the roadway sections into four separate letter grades ranging from 'A' (good condition) to 'D' (dirt/unimproved condition).

3.2 Pavement Condition Grades

The Pavement Grades are included in the attached "BSL Pavement Assessment" and "25-Year Pavement Management Plan Opinion of Probable Costs" tables.

A (PCI from 90 to 100):

The roadway sections with PCI values ranging from 90 to 100 exhibit an overall minor level of surface defects with 'average' ride quality.

B (PCI from 80 to 90):

The roadway sections with PCI values ranging from 80 to 90 exhibit an overall light to moderate level of surface defects with 'average' to 'slightly rough' ride quality. These roadways should be closely monitored for further deterioration.

C (PCI less than 80):

Roadway sections with PCI values less than 80 exhibit an overall moderate to severe level of surface defects with 'slightly rough' to 'rough' ride quality. Due to the level of deterioration, full rehabilitation of roadways with a 'C' rating will be relatively expensive in comparison with maintaining roadways with a rating of 'B' or better.

D A roadway section with a letter grade of 'D' indicates that the roadway is unpaved.

3.3 Road Summary

Within the City Limits, there are approximately 113 miles of City maintained roadways. Of the 113 miles, 53.58 miles are paved roadways, 44.43 miles are rocked roadways, and 15.15 miles are dirt/sand/unimproved roadways. Of the approximately 44.43 miles of rocked roadways, 9.22 miles are underdeveloped portions of already paved roads.

Of the 113 miles of roadways assessed, approximately 16 miles (14%) received an 'A' rating, 28 (25%) received a 'B', 9.5 miles (8%) received a 'C' rating, and 59.5 miles (53%) received a 'D' rating.

Section 4 Description of a Pavement Management Plan

Managing pavement assets has become increasingly important as pavements continue to age and deteriorate while funding for roadway improvements is constrained by limited budget and human resources.

Asphalt pavements are a large part of the City's fixed asset portfolio, and are probably worth more than most expect and average asphalt pavement replacement costs are many times more than the initial installation cost. It is important to protect these assets just as we would maintain our buildings. A successful pavement management plan provides the tools needed to address management challenges and to provide a consistent and rational management method that helps in directing the optimal use of funds, pavement rehabilitation cost reductions, pavement treatment selection for pavement life extensions, and increased credibility with citizens and taxpayers.

4.1 Pavement Management Plans

5-year and 25-year Pavement Management Plans have been developed to present two options for repair/rehabilitation and continued maintenance of the roadways within the City.

Under the 5-year Pavement Management Plan, it is assumed there are limited funding resources for pavement maintenance and given the amount and condition of the roadways, along with the available budget, it is suggested we prioritize the maintenance and repairs of the roadways. Roadways will cost less to maintain in the long run if further degradation is prevented. Therefore, repairs for roadways that are currently in poor condition will be made first to bring them to a manageable state. This plan will minimize the budget required to rehabilitate the Grade C roads for the next 10 years.

Under the 25-year Pavement Management Plan, pavement maintenance would consist of a sustainable repair and maintenance cycle for all roadways assessed. Roadways in moderate condition (Grade B) will receive preventative maintenance and repairs as needed. Roadways in good condition will be maintained as needed with crack sealer or micro-surfacing.

4.2 Steps to creating a Pavement Management Plan

Evaluation:

The first thing to be done is to inspect and evaluate the existing pavements. The pavements should be rated and prioritized by usage and condition, and any preventive maintenance work that needs to be completed should be documented. A pavement rating system needs to be implemented in order to develop a means for prioritization. This pavement rating system should take into account pavement distresses, drainage and other conditions that have an impact to its serviceable life. Be sure to check not only the condition of the pavements, but also the drainage

structures, car stop bars, street signage, and pavement markings as these are all integral parts of the pavement system. Also note, any safety issues that need immediate attention and scheduled repairs should be identified for these areas. The evaluation process is essentially an inventory of all pavement distresses and associated conditions that utilize a systematic approach for applying a pavement rating and prioritization.

Prioritization:

Once the sites have been evaluated and a rating system applied, the pavements should be divided into categories by condition, which is generally grouping them by how they should be managed and treated. For the purposes of this plan, we have prioritized the road conditions as Grade A, B, C, and D.

Treatments:

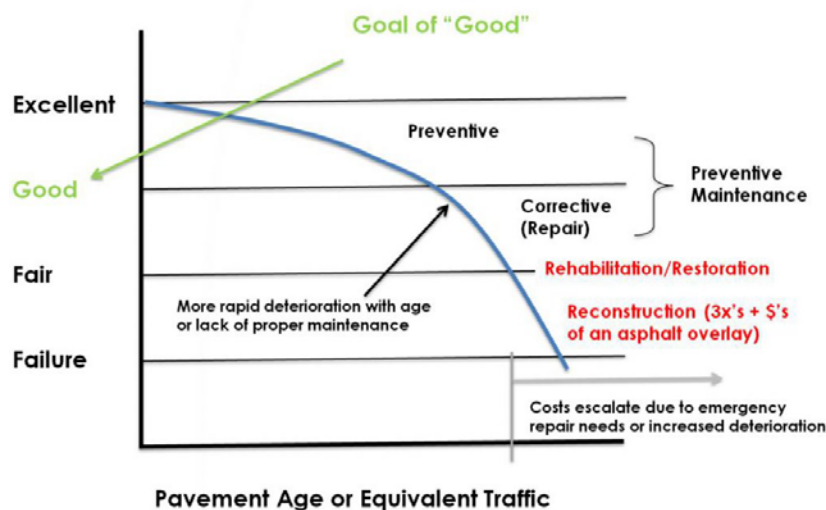
Treatments performed increase the PCI, moving up the curve, as if turning back the clock and adding more life to the pavement. Some activities affect the PCI more than others. For instance, an asphalt overlay increases the PCI (adds life to the pavement) much more than does sealing cracks. However, each treatment is only appropriate for a certain range of PCI values. For example, it doesn't make sense to apply a thin seal coat that prevents ultraviolet rays from damaging the asphalt to a roadway filled with "alligator" cracking.

The figure (Pavement Deterioration Curve) plays a critical part in understanding a Pavement Management Program. It shows a general asphalt pavement deterioration curve and the importance of preventive maintenance and rehabilitation procedures in the early stages of a pavement's life. The information can be summarized in two important points:

1. The deterioration rate of a pavement increases rapidly with age.
2. The renovation costs of a pavement increases rapidly in the final portion of a pavement's life.

Pavement Condition Index (PCI) is the most common tool of a pavement rating system to apply a condition rating that allows for prioritization and ability to categorize conditions. Pavement naturally deteriorates over time, so the PCI of a new road begins to drop as time passes. The relationship between PCI and time is a pavement deterioration curve. With each year that passes the PCI declines along the curve.

Pavement Deterioration Curve



Description of Pavement Grades:

Grade A Roads:

The first group should include pavements that are in good, very good, or excellent condition overall. These pavements may require minor repairs along with routine maintenance, but won't need any major work completed within the next five years. Routine Maintenance includes sealing cracks and filling potholes. It is work performed on a routine basis to maintain and preserve the condition of the asphalt, which can slow aging and restore serviceability of a roadway.

Grade B Roads:

The second group (Grade B) includes pavements that are in fair or moderate condition. These pavements may require a greater number of preventative maintenance repairs, but still have useful life remaining. Preventative Maintenance includes surface treatments such as adding a thin coat of material such as high-density mineral bond seal coats, to the application of micro-surfacing. Micro-surfacing allows road owners to maintain their roadway infrastructure at a higher level of service for less money. High quality aggregates are combined with polymer-modified asphalt emulsion to create a long-lasting, high performance wearing course. Micro-surfacing is most effectively used as a pavement preservation technique on roads that have started to show signs of aging, cracking, oxidation and other minor distressing. Additionally, by preparing the existing asphalt with crack seal, road owners are able to dramatically reduce reflective cracking and eliminate base failures caused by surficial moisture intrusion.
(Estimated Cost: \$2.75 to \$3.75 per square yard)

Grade C Roads:

The third group (Grade C) includes pavements that are in poor, failing or failed condition. These pavements may no longer be serviceable and are likely past the point where preventative maintenance type repairs would be a cost-effective management technique. A form of pavement "reconstruction" would be the only alternative for restoring serviceability in the long term. There are two types of pavement reconstruction/rehabilitations, Minor and Major.

Minor Rehabilitation: Minor pavement rehabilitation is the placement of a thin structural pavement overlay of usually no more than 2-inches over existing asphalt. This activity is appropriate on asphalt with a high level of deterioration that requires increased structural capacity. An asphalt overlay increases the ability of the pavement to withstand the forces of traffic loading, thus adding to the life of the pavement. It also restores serviceability and provides a finished look to the road. An asphalt overlay may first include "spot" patching and/or milling out some of the old asphalt as well as a geotextile under the overlay.
(Estimated Cost: \$38.00 to \$43.00 per square yard)

Major Rehabilitation:

Major rehabilitation is full replacement of the asphalt, and replacement of isolated pockets of unstable subgrade soil and base course. This is necessary when the asphalt has deteriorated beyond the point of providing a suitable surface for an overlay, but when the base course is deep enough and the subgrade is stable. It may be accomplished by removing and replacing the asphalt, or by reclamation (pulverizing the asphalt with the base course, removing excess material, reshaping and compacting the pulverized materials to comprise the new base course layer) prior to placing a new asphalt layer. It is effectively equivalent to a new road.
(Estimated Cost: \$46.00 to \$75.00 per square yard)



Budgeting:

Preventive Maintenance: To most, the first inclination may be to spend money on the major rehabilitation of Group C, our worst pavements. This is not always the best approach. Maintenance money is actually most wisely spent in the first portion of a pavement's life because once the pavement falls below moderate condition, the majority of its useful service life is over. Costs to replace a pavement, whose useful life is over, are greatly increased compared to utilizing preventive maintenance measures or pavement rehabilitation options in lieu of reconstruction. The best way to increase the overall condition of pavements, at any site in the long run, is to protect the pavements in fair and moderate average condition (Grades A and B). Budgeting should focus on preventive maintenance repairs such as filling potholes, pavement patching, asphalt crack/chip sealing, and micro surfacing.

Only critical repairs to the pavements in the worst condition should be completed to address safety issues or any other repairs necessary to keep the pavement serviceable while planning and budgeting for reconstruction/replacement.

Overlays & Resurfacing: After preventive maintenance repairs have been performed, the next items to budget for are structural overlays or asphalt resurfacing projects. Overlays and resurfacing protect the underlying pavement structure and improve or restore structural strength. These can extend a pavement's life span significantly, and may be able to be performed more than once in a pavement's life cycle (if conditions allow). Timing for scheduling an asphalt overlay or resurfacing can be crucial. The window of opportunity can be lost if declining conditions don't allow for building upon and enhancing the structural integrity of the pavement as it deteriorates towards a larger degree of failure. Pavements in fair condition may require a high level of monitoring and a conservative approach to planning for an asphalt overlay.

Section 5 5 – Year Pavement Management Plan Budgeting/Funding Assumptions:

This Pavement Management Plan assumes that funding for pavement maintenance and repair is the Powell Bill Fund and the City Vehicle Tax. Given the condition of the roadways, along with the available budget of approximately \$268,500 per year for paving, it would take

approximately 16.5 years to fully reconstruct and repave roadways that are currently in poor condition (Grade C) to bring them to Grade A condition.

It is recommended that severely distressed areas of roadways in poor condition (Grade C) be repaired prior to repaving. Repair and resurfacing should begin with the most severely distressed areas working toward the least distressed areas, as budget allows. Any remaining available funds should be used to keep A and B Rated Roadways in a good state of maintenance while repairing C Rated Roadways in preparation for repaving.

The paved roadways in moderate condition (Grade B) should be maintained with applications of crack sealer and micro-surfacing in addition to asphalt patching where necessary until they should be resurfaced. These roadways will cost less to maintain in the long-run if further degradation is prevented.

Assumptions made for the Pavement Management Plans are as follows:

Costs

- Cost estimates for repair and repaving, and/or rehabilitation for all assessed paved roadways, including the rocked and unimproved roadways are provided in “25-Year Pavement Management Plan Opinion of Probable Costs” attachment and based on 2020 dollars.
- Estimated costs are based on recent paving bids, conversations with local paving contractors and review of NCDOT Bid Averages.
- Pavement Overlays will consist of a 2.0-inch asphalt surface course. **Cost was estimated at \$40 per square yard.**
- It was assumed that paving of unpaved roadways would include fine grading, 6-inch compacted aggregate base course along the shoulders, and 2-inch asphalt surface course. **Cost was estimated at \$42 per square yard.**
- **Micro-surfacing estimated cost is \$3.50 per square yard.**
- **Crack Seal estimated cost is \$1.00 per square yard.**
- The paved roads in “very poor” condition (Grade C) will most likely some level of repair prior to repaving. This repair was assumed to be full depth pavement and aggregate base course removal and replacement with aggregate base (reclamation) and 2-inch asphalt surface course. **Cost was estimated at \$47 per square yard to include repair and overlay paving. No City roads were found in this condition.**

- **Asphalt Life Span**

The typical life span of asphalt pavement is approximately 20–25 years, but will vary depending on a number of factors, such as quality of the mix design, materials and construction, traffic loads, etc. Roadways with heavier traffic and/or poor subgrade or other construction/asphalt deficiencies will also show signs of wear prior to reaching their life expectancy.

- **Powell Bill Funding**

Powell Bill funding allocation is based on annual N.C. gasoline tax revenues (36.2 cents per gallon), municipal population, and municipal length of roadways. However, due to the variability of gasoline sales, it is difficult to predict the amount of Powell Bill funding allocated to the City annually. These funds are used for materials and equipment to maintain, repair, and improve both rock and paved streets in the City with an average of

\$130,000 allocated exclusively for paving/repaving projects. For this report, it was assumed that the City would receive and allocate approximately \$130,000 exclusively for paving/repaving projects this fiscal year and every year thereafter.

- **City Vehicle Tax Revenue**

Effective July 1, 2018, the City levied a \$25 Vehicle Tax on all self-propelled motor vehicles located in the City Limits. These funds are used exclusively for maintaining, repairing, constructing, reconstructing, widening, and improving the paved public streets in the City. Estimated annual revenue from this tax is \$132,000 (5,280 vehicles at \$25/each)

5.1 “Grade C” Road Recommended Repairs and Rehabilitations

There were eight (8) “Grade C” Roads identified in the Pavement Assessment. Below is a recommended repair and/or rehabilitation for each in order of their PCI ranking from worst to best.

1) Alton Lennon (South of Sanford Dam)

The section of Alton Lennon Road from the Sanford Dam to Crestview Drive appears to have been asphalt coated or even thinly repaved at some point, but Alligator and Transverse Cracking is severe and this section of the road will eventually need an “overlay” paving in the next 5 to 10 years. Suggested repairs at this time include crack sealing and micro-surfacing. (Estimated Repair Cost - \$45,550)

2) Fifty Lakes Drive – Highway 87 to Railroad Tracks

As one of the most heavily traveled City maintained roads, this roadway will require approximately 2,000 square yards of additional patch paving (NCDOT patch/paved after Hurricane Florence) in the short term and will eventually require a full asphalt overlay in the next 5 to 10 years. The section from the railroad tracks to Highway 133 was repaved in 2005 and is in fair condition. (Estimated Repair Cost - \$86,000)

3) South Shore Drive

The entire length of South Shore Drive, although in overall moderate condition, suffers a large number of pavement edge fragmentations mostly likely due to vehicles dropping off the edge because of the perceived narrowness of the roadway. This road will require approximately 500 square yards of patch paving along the road edge prior to crack sealing and micro-surfacing the entire length of the road. These repairs should delay the need for a full asphalt overlay at least 10-15 years. (Estimated Repair Cost - \$140,000)

4) Bay Road

Bay Road has had some previous patch paving done over sunken waterline installations and now requires approximately 600 square yards of additional patch paving due to the degradation of the pavement from stormwater over-wash between Cherry Rd and Elm Rd. (Estimated Repair Cost - \$24,000)

5) Elm Road

Elm Road will require approximately 400 square yards of patch paving on the road edge prior to crack sealing and micro-surfacing the entire length of the road. These repairs should delay the need for full asphalt overlay at least 10 years. (Estimated Repair Cost - \$49,500)

6) North Shore Drive (East Loop)

North Shore Drive requires regular pothole maintenance/repair and will require approximately 500 square yards of patch paving on the road edge and over some previously repaired potholes prior to crack sealing and micro-surfacing the entire length of the road. These repairs should delay the need for full asphalt overlay at least 10 years. (Estimated Repair Cost - \$57,300)

7) Mirror Lake Road

Mirror Lake Road sees regular traffic to Schneiders Park and will require approximately 400 square yards of patch paving on the road edge prior to crack sealing and micro-surfacing the entire length of the road. These repairs should delay the need for full asphalt overlay at least 10 years. (Estimated Repair Cost - \$25,500)

8) North Shore Drive (Middle Loop)

North Shore Drive (Middle Loop) requires regular pothole maintenance/repair and will require approximately 1,000 square yards of patch paving on the road edge and over some previously repaired potholes prior to crack sealing and micro-surfacing the entire length of the road. These repairs should delay the need for full asphalt overlay at least 10 years. (Estimated Repair Cost - \$105,500)

NOTE: The total estimated repairs on these 8 “Grade C” road totaling approximately \$533,500 are projected to delay \$2,950,000 in asphalt overlay repaving costs at least 10 years.

GRADE C ROADWAYS – REPAIR AND REHABILITATION COST ESTIMATES

ROADWAY NAME	PCI	Total Existing Pavement Area (SY)	Estimated Repair Area prior to Repaving (SY)	Estimated Repair Cost (\$/SY)	Total Estimated Repair Cost (\$)	Estimated Repaving Cost (\$/SY)	Total Estimated Repaving Cost (\$)	Total Cost including Repairs & Repaving (\$)
Alton Lennon Dr (repaved 2005) - South	75.33	7,111	7,111	\$5	\$45,500	\$40	\$ 284,440	\$ 329,940
Fifty Lakes Dr - NCDOT Spot Patched - Fall 2018	76.00	18,444	2,000	\$38	\$86,000	\$40	\$ 737,760	\$ 823,760
South Shore Drive	76.00	21,648	21,648	\$6	\$140,000	\$40	\$ 865,920	\$ 1,005,920
Bay Rd	76.67	3,098	350	\$40	\$24,000			\$ 24,000
Elm Rd	77.33	5,632	5,632	\$7	\$49,500	\$40	\$ 225,280	\$ 274,780
North Shore Dr 3 (East Loop)	78.00	6,758	6,758	\$7	\$57,500	\$40	\$ 270,320	\$ 327,820
Mirror Lake Dr	78.67	3,849	3,849	\$4	\$25,500			\$ 25,500
North Shore Drive 2 (Middle Loop)	78.67	14,080	14,080	\$7	\$105,500	\$40	\$ 563,200	\$ 668,700
TOTALS					\$533,500		\$2,946,920	\$ 3,480,420

5.2 Paving Rocked Roads Based on Density of Homes per Lots

After the repairs are completed on the eight (8) Grade C paved roads, the paving of Rocked Roads with the highest percentage of density of homes per lots can be implemented followed by Rocked Roads that are extensions of already paved roads within the 5-Year Funding Plan.

These rocked roads are as follows:

1) Laruinburg Road	63%	
2) Shelby Road (North)	55%	
3) Shebly Road (South)	50%	
4) Greensboro Road (South)	53%	
5) Tarheel Road	50%	
6) Fieldcrest Road	43%	
7) Argonne Road (Extension of paved section)	35%	
8) Salisbury Road (Extension of paved section)	32%	
9) Greenmoss Road (Extension of paved section)	23%	

ROCKED ROADS	** LISTED BY HIGHEST NUMBER OF HOMES PER SECTION								
Roadway Name	Begin Description	End Description	Section Length (ft.)	Estimated Width	Estimated Square Yards	Rock	No. of Lots	No. of Homes	% Built Out
Fieldcrest Rd	Argonne Rd	Argonne Rd	2,112	18	4224	0.4	30	13	43
Greensboro Rd (South)	E. BS Rd	Wilmington Rd	1,901	18	3802	0.36	19	10	53
Shelby Rd (South)	E. BS Rd	Wilmington Rd	792	18	1584	0.15	14	7	50
Shelby Rd (North)	E. BS Rd	E. Lake Keziah Dr	581	18	1162	0.11	11	6	55
Myrtle Ln (20' ROW?)	Fifty Lakes Dr	Dead End	739	18	1478	0.14	5	5	100
Laurinburg Rd (South)	Salisbury Rd	Reidsville Rd	686	18	1373	0.13	8	5	63
Greendale Rd	Palmetto Rd	Cul-de-sac	792	18	1584	0.15	8	4	50
Corral Dr	E. BS Rd	Dead End	1,426	18	2851	0.27	6	3	50
Jack Rd (Cul-de-sac)	Filmore Rd	Dead End	317	18	634	0.06	2	2	100
Skyward Cir	Argonne Rd	Cul-de-sac	158	18	317	0.03	2	2	100
Bream Rd	Charlestown Rd	Dead End	158	18	317	0.03	3	2	67
Tarheel Rd	Salisbury Rd	Reidsville Rd	686	18	1373	0.13	4	2	50
Alcor Lane	Orion Rd	Dead End	475	18	950	0.09	1	1	100
Dogwood Dr (Cul-de-sac)	Fieldcrest Rd	Cul-de-sac	158	18	317	0.03	1	1	100
Hamlet Rd	Raeford Rd	Reidsville Rd	370	18	739	0.07	2	1	50

5 YEAR PAVEMENT MANAGEMENT FUNDING PLAN

Fiscal Year	Roadway	REVENUE			EXPENSES		Annual Fund Balance
		Powell Bill Funding for Paving	Vehicle Tax Funding for paving	Powell Bill Funding for Rock Roads	Roadway Maintenance/Repairs Short-Term	Miscellaneous Costs Engineering, Soils Testing, Centerline Paint Striping	
	PROJECTED ANNUAL	\$ 136,584.00	\$ 132,000.00				\$ 268,584.00
				\$ 68,273.00			
2021							
	Alton Lennon Dr (South of Dam)				\$ 35,550.00	\$ 10,000.00	\$ 223,034.00
	Fifty Lakes Dr (Hwy 87 - RR)				\$ 76,000.00	\$ 10,000.00	\$ 137,034.00
	South Shore Drive				\$ 130,000.00	\$ 10,000.00	\$ (2,966.00)
2022							\$ 268,584.00
	Bay Road				\$ 14,000.00	\$ 10,000.00	\$ 244,584.00
	Elm Road				\$ 39,424.00	\$ 10,000.00	\$ 195,160.00
	North Shore Drive (East Loop)				\$ 47,306.00	\$ 10,000.00	\$ 137,854.00
	Mirror Lake Drive				\$ 15,396.00	\$ 10,000.00	\$ 112,458.00
	North Shore Drive (Middle Loop)				\$ 95,560.00	\$ 10,000.00	\$ 6,898.00
	Rocked Roads to be Paved				Overlay Paving	Miscellaneous Costs	
2023							\$ 268,584.00
	Laurinburg Rd (South) - 63%				\$ 58,000.00	\$ 10,000.00	\$ 200,584.00
	Shelby Rd (North) - 55%				\$ 49,000.00	\$ 10,000.00	\$ 141,584.00
	Shelby Rd (South) - 50%				\$ 67,000.00	\$ 10,000.00	\$ 64,584.00
2024						*	\$ 333,168.00
	Greensboro Rd (South) - 53%				\$ 160,000.00	\$ 10,000.00	\$ 163,168.00
	Tarheel Rd - 50%				\$ 58,000.00	\$ 10,000.00	\$ 95,168.00
2025						*	\$ 363,752.00
	Fieldcrest Rd - 43%				\$ 178,000.00	\$ 10,000.00	\$ 175,752.00
	Argonne Rd - 35%				\$ 129,000.00	\$ 10,000.00	\$ 36,752.00
2026						*	\$ 305,336.00
	Salisbury Rd - 32%				\$ 178,000.00	\$ 10,000.00	\$ 117,336.00
	Greenmoss Rd - 23%				\$ 170,000.00	\$ 10,000.00	\$ (62,664.00)
						* Includes Previous Years Ending Fund Balance	

Section 6 Twenty-Five Year Pavement Management Plan

The Twenty-Five Year Pavement Management Plan will consist of a sustainable repair and maintenance cycle for all Grade A and Grade B roadways assessed.

Under this Pavement Management Plan, it is recommended that severely distressed areas of roadways in poor condition be repaired prior to repaving. Roadways in good condition would be maintained as needed with crack sealer or patching until repaved. Repair and resurfacing should begin with the most severely distressed areas working toward the least distressed areas as the yearly budget allows.

An Opinion of Probable Costs for the 25-Year Pavement Management Plan is provided in a separate attachment

Section 7 Conclusion

Two Pavement Management Plans are presented in this report. It should be noted that the average life expectancy of asphalt pavement is around 25 years. Therefore, even if the 25-year Pavement Management Plan is implemented, roadways with heavier traffic and/or poor subgrade or other construction/asphalt deficiencies may show signs of wear prior to being repaved in the next cycle. If the 5-Year Pavement Management Plan is selected, it should be understood that the cost for full rehabilitation at a later date will increase exponentially.

All cost estimates are in 2020 dollars.

All projected pavement projects should be outsourced to a professional engineering consultant for preparation of technical specifications/details and bid documents. Note: This may require the use of soils testing and roadway coring to fully assess any subgrade issues.

An annual assessment of the roadways should be completed to prioritize projects and facilitate the allocation of available budget funds.

PAVED ROADWAYS													Alligator Cracking (1,2,3..... 10)				Transverse Cracking	Rutting	Raveling	Edges	Ride Quality	Patching		
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Average Pvmt Width	Square Yards	Road Surface		No. of Lots	No. of Homes	% Built Out	N	L	M	S	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(A,S,R)	(N,L,M,S)	PCI	Grade	
5	Alton Lennon Dr (repaved 2005) - South	Sanford Dam	Lisa Rd	3,200	20	7,111	0.61		13	9	69		1	6	3	M	N	N	N	A	L	75.33	C	
5	Fifty Lakes Dr - NCDOT Spot Patched - Fall 2018	Hwy 87	RR	8,300	20	18,444	1.57		160	30	19		4	6		L	N	N	L	A	M	76.00	C	
9	South Shore Dr East	Hwy 87	Lisa Rd	10,824	18	21,648	2.05		181	133	73		4	6		L	N	N	L	A	M	76.00	C	
1	Bay Rd	Ash Rd	Crabapple Rd	1,742	16	3,098	0.33		N/A	N/A	N/A		5	5		L	N	N	L	A	M	76.67	C	
1	Elm Rd	E. BS Rd	Juniper Rd	3,168	16	5,632	0.6		77	35	45		6	4		N	N	N	M	A	M	77.33	C	
8	North Shore Dr 3 (East loop)	E. BS Rd	Forest Ln	3,802	16	6,758	0.72		63	43	68	1	5	4		L	N	N	L	A	M	78.00	C	
6	Mirror Lake Dr	Fifty Lakes Dr	Berryhill Rd	2,165	16	3,849	0.41		50	31	62	1	6	3		M	N	N	L	A	L	78.67	C	
10	North Shore Dr 2 (middle loop)	E. BS Rd	E. BS Rd	7,920	16	14,080	1.5		106	58	55	1	6	3		N	N	N	M	A	M	78.67	C	
8	Pine Shore Dr	E. BS Rd	Alton Lennon Rd	528	16	939	0.1		10	3	30	1	6	4		L	N	N	L	A	L	80.67	B	
5	Fifty Lakes Dr - (repaved 2005)	RR	Hwy 133	4,108	20	9,129	0.78		40	25	63	1	5	4		L	N	N	L	A	L	81.33	B	
2	Long Leaf Rd	North Lake Dr	Ash Rd	3,168	16	5,632	0.6		64	42	66	1	5	4		N	N	N	M	A	L	81.33	B	
1	Ash Rd	E. BS Rd	Juniper Rd	3,010	16	5,350	0.57		76	34	45	1	5	4		L	N	N	L	A	L	81.33	B	
6	Pinedale Rd (Woodcrest and 50 Lakes)	Fifty Lakes Dr	Dead End	370	16	657	0.07		1	1	100	1	5	4		L	N	N	L	A	L	81.33	B	
6	Woodcrest Rd	Poplar Rd	Pinedale Rd	2,587	15	4,312	0.49		41	37	90	1	5	4		L	N	N	L	A	L	81.33	B	
7	Palmetto Rd	Fifty Lakes Dr	Springdale Rd	898	16	1,596	0.17		13	7	54	1	5	4		N	N	N	M	A	L	81.33	B	
10	Turner Rd	E. BS Rd	N. Shore Dr	898	16	1,596	0.17		14	8	57	1	5	4		L	N	N	M	A	N	81.33	B	
13	Goldsboro Rd	Fifty Lakes Dr	Cougar Rd	3,326	18	6,653	0.63		46	3	7	1	5	4		L	N	N	L	A	L	81.33	B	
1	Cedar Rd	E. BS Rd	Juniper Rd	3,115	16	5,538	0.59		80	42	53	1	6	3		N	N	N	L	A	M	82.00	B	
6	Acacia Rd	Pinecrest Road	Dead End @ RR	528	16	939	0.1		5	5	100	1	6	3		L	N	N	L	A	L	82.00	B	
6	Cambridge Rd (Needs Patch-Paved 840-827)	Dartmouth Rd	Wimberely Rd	1,690	16	3,004	0.32		38	21	55	1	6	3		L	N	N	L	A	L	82.00	B	
6	Bayside Ln	RR	Pinecrest Rd	581	16	1,033	0.11		13	8	62	1	6	3		L	N	N	L	A	L	82.00	B	
6	Dartmouth Rd	Wimberley Rd	Lumbee Rd	370	16	657	0.07		2	2	100	1	6	3		L	N	N	N	A	M	82.00	B	
7	Fillmore Rd (Fifty Lakes Dr to Polk Rd)	Fifty Lakes Dr	Polk Rd	1,637	16	2,910	0.31		32	20	63	1	6	3		L	N	N	L	A	L	82.00	B	
7	Fillmore Rd (Rocked Section)	Polk Rd	Charlestown Rd	792	14	1,232		0.15	20	4	20													
8	Canal Rd	E. BS Rd	Cul-de-sac	1,003	16	1,783	0.19		17	9	53	1	6	3		L	N	N	L	A	L	82.00	B	
10	Burton Rd	E. BS Rd	North Shore Dr	1,373	16	2,441	0.26		30	16	53	1	6	3		L	N	N	N	A	M	82.00	B	
10	Willets Dr	E. BS Rd	N. Shore Dr	1,320	16	2,347	0.25		28	13	46	1	6	3		L	N	N	M	A	N	82.00	B	
3	Fayetteville Rd (North)	E. BS Rd	East Lake Keziah Dr	528	16	939	0.1		10	8	80	1	4	6		N	N	N	L	A	L	82.67	B	
1	Holly Dr	Redwood Dr	Juniper Rd	1,848	16	3,285	0.35		48	21	44	1	5	4		N	N	N	L	A	L	84.67	B	
1	Sycamore Rd	Redwood Dr	Juniper Rd	3,010	16	5,350	0.57		73	39	53	1	5	4		N	N	N	L	A	L	84.67	B	
2	Spruce Rd	North Lake Dr	Spring Lake Dr	1,003	16	1,783	0.19		14	8	57	1	5	4		N	N	N	L	A	L	84.67	B	
3	Albemarle Rd	Dunn	Greenville Rd	370	16	657	0.07		7	7	100	1	5	4		N	N	N	L	A	L	84.67	B	
3	Albemarle Rd	Greenville Rd	N. Greensboro Rd	1,056	16	1,877		0.2	21	6	29											B		
3	Dunn Rd	Albemarle Rd	Pinehurst Rd	370	16	657	0.07		1		0	1	5	4		N	N	N	L	A	L	84.67	B	
5	Batton Rd	Palmer Dr	Cul-de-sac	845	17	1,596	0.16		50	13	26	1	5	4		L	N	N	N	A	L	84.67	B	
5	Souchak Rd	Fifty Lakes Dr	Trevino Rd	528	18	1,056	0.1		9	7	78	1	5	4		N	N	N	L	A	L	84.67	B	
6	Berryhill Rd (Needs Patch-Paved 1047-1052)	Wimberley Rd	Mirror Lake Rd	792	16	1,408	0.15		16	10	63	1	5	4		L	N	N	L	A	L	84.67	B	
7	Pierce Rd	Fifty Lakes Dr	Grant Circle	1,056	16	1,877	0.2		17	9	53	1	5	4		N	N	N	L	A	L	84.67	B	
7	Pierce Rd (Rocked Section)	Grant Circle	Charlestown Rd	370	16	657		0.07	6	2	33													
13	Charlestown Rd	Goldsboro Rd	Morehead Rd	1,531	16	2,722	0.29		48	27	56	1	5	4		N	N	N	L	A	L	84.67	B	
13	Charlestown Rd (Rocked Section)	Morehead Rd	Springdale Rd	4,752	16	8,448		0.9	18	0	0													
1	Juniper Rd (repaved 2005)	Ash Rd	Redwood Rd	3,168	16	5,632	0.6		63	9	14	1	6	3		N	N	N	L	A	L	85.33	B	
1	Juniper Rd (Rocked Section)	Pine Rd	Ash Rd	2,851	16	5,069		0.54	70	0	0													
2	Hickory Rd	Grace Rd	Maple Rd	264	16	469	0.05		6	4	67	1	6	3		N	N	N	L	A	L	85.33	B	
2	Hickory Rd (Rocked Section)	Grace Rd	Juniper Rd	370	16	657		0.07	4	0	0													
5	Casper Rd	Sanders Rd	E & W Cul-de-sacs	1,162	18	2,323	0.22		15	10	67	1	6	3		N	N	N	L	A	L	85.33	B	
5	Twin Lakes Dr (Circular Rd)	Eden Rd	Summit Rd	2,851	16	5,069	0.54		58	25	43	1	6	3		N	N	N	L	A	L	85.33	B	
6	Cherokee Dr	Tuscarora Dr	Lumbee Rd	2,376	16	4,224	0.45		52	21	40	1	6	3		L	N	N	N	A	L	85.33	B	

PAVED ROADWAYS													Alligator Cracking (1,2,3..... 10)				Transverse Cracking	Rutting	Raveling	Edges	Ride Quality	Patching		
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Average Pvmt Width	Square Yards	Road Surface		No. of Lots	No. of Homes	% Built Out	N	L	M	S	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(A,S,R)	(N,L,M,S)	PCI	Grade	
6	Greenbay Rd	Pinecrest Rd	Mirror Lake Dr	581	16	1,033	0.11		15	7	47	1	6	3		L	N	N	N	A	L	85.33	B	
6	Oakhurst Rd	Wimberley Rd	Cambridge Rd	475	16	845	0.09		5	5	100	1	6	3		L	N	N	N	A	L	85.33	B	
6	Pinecrest Rd	Fifty Lakes Dr	Warmouth Rd	1,478	18	2,957	0.28		12	3	25	1	6	3		L	N	N	N	A	L	85.33	B	
6	Poplar Rd (N)	Fifty Lakes Dr	Acacia Rd	400	16	711	0.08		10	5	50	1	6	3		N	N	N	L	A	L	85.33	B	
6	Poplar Rd (S)	Fifty Lakes Dr	Woodcrest	339	16	603	0.06		9	3	33	1	6	3		N	N	N	L	A	L	85.33	B	
7	Kennedy Cir	Morehead Rd	Cul-de-sac	1,214	16	2,159	0.23		27	8	30	1	6	3		N	N	N	L	A	L	85.33	B	
7	Morehead Rd	Fifty Lakes Dr	Charlestown Rd	2,112	16	3,755	0.4		34	18	53	1	6	3		N	N	N	L	A	L	85.33	B	
7	President Rd	Fifty Lakes Dr	Charlestown Rd	1,584	16	2,816	0.3		38	13	34	1	6	3		L	N	N	L	A	N	85.33	B	
8	Cottage Lane	Glenwood Dr	Canal Dr	792	16	1,408	0.15		11	3	27	1	6	3		L	N	N	N	A	L	85.33	B	
8	Forest Ln	End of North Shore Dr	E & W Cul-de-sacs	581	16	1,033	0.11		16	7	44	1	6	3		L	N	N	N	A	L	85.33	B	
8	Glenwood Dr	Oak Rd	North Shore Dr	1,109	16	1,971	0.21		10	8	80	1	6	3		L	N	N	N	A	L	85.33	B	
8	Lakewood Rd	E. BS Rd	Canal Rd	1,003	16	1,783	0.19		10	6	60	1	6	3		L	N	N	N	A	L	85.33	B	
9	Birdie Ln	Windemere Dr	E & W Cul-de-sacs	422	18	845	0.08		10	4	40	1	6	3		N	N	N	M	A	N	85.33	B	
9	Eagle Ln	Masters Dr	Cul-de-sac	528	18	1,056	0.1		8	6	75	1	6	3		N	N	N	M	A	N	85.33	B	
9	Fairway Dr	Hwy 87	Cul-de-sac	3,696	18	7,392	0.7		66	25	38	1	6	3		N	N	N	M	A	N	85.33	B	
9	Longwood Rd - Between S. Shore and Fairway	South Shore Dr	Fairway Dr	792	18	1,584	0.15		4	2	50	1	6	3		N	N	N	M	A	N	85.33	B	
9	Masters Dr	Windemere Dr	Cul-de-sac	2,218	18	4,435	0.42		44	17	39	1	6	3		N	N	N	M	A	N	85.33	B	
9	Windemere Dr	S. Shore Dr	Birdie Ln	3,432	18	6,864	0.65		41	14	34	1	6	3		N	N	N	N	A	M	85.33	B	
14	Garage Rd (repaved 2004)	Hwy 87	Dead End	898	16	1,596	0.17		7	3	43	1	6	3		N	N	N	M	A	N	85.33	B	
1	Cherry Rd (paved 2005) - EBSR to Juniper	E. BS Rd	Juniper Rd	3,115	16	5,538	0.59		71	38	54	1	7	2		N	N	N	L	A	L	86.00	B	
1	Cherry Rd (Rocked Section)	Juniper Rd	Quail Rd	3,432	16	6,101		0.65	19	1	5													
2	Grace Rd	Pine Rd	Ash Rd	3,590	16	6,383	0.68		69	23	33		9	1		N	N	N	L	A	L	86.00	B	
2	Gum Rd	Grace Rd	Grace Rd	739	16	1,314	0.14		17	10	59	1	7	2		N	N	N	L	A	L	86.00	B	
2	Oak Rd	Spring Lake Dr	N. Shore Dr	1,056	16	1,877	0.2		6	6	100	1	7	2		N	N	N	L	A	L	86.00	B	
2	Pike Rd (Cul-de-sac off Spring Lake Dr)	Spring Lake Dr	Cul-de-sac	475	16	845	0.09		10	3	30	1	7	2		N	N	N	L	A	L	86.00	B	
2	Pine Rd (Paved from EBSR to Juniper)	E. BS Rd	Juniper Rd	3,010	18	6,019	0.57		32	22	69	1	7	2		N	N	N	L	A	L	86.00	B	
2	Pine Rd (Rocked Section)	Juniper Rd	Partridge Rd	3,907	18	7,814		0.74	23	0	0													
2	Spring Lake Dr	Pine Rd	Longleaf Rd	2,323	16	4,130	0.44		35	19	54	1	7	2		N	N	N	L	A	L	86.00	B	
3	Ariel Ln	Oakdale Drive	Cul-de-sac	475	16	845	0.09		13	5	38	1	7	2		N	N	N	L	A	L	86.00	B	
3	Burgaw Rd	Harper Lake Dr	E. BS Rd	264	16	469	0.05		2	2	100	1	7	2		N	N	N	L	A	L	86.00	B	
5	Crestview Dr	Lisa Rd at S. Shore Dr	S. Shore Dr	1,003	18	2,006	0.19		24	8	33	1	7	2		N	N	N	L	A	L	86.00	B	
1	Redwood Dr (EBSR to Robin)	E. BS Rd	Robin Rd	4,752	18	9,504	0.9		85	37	44	2	7	1		N	N	N	L	A	L	87.33	B	
1	Walnut Rd	Redwood Dr	Juniper Rd	1,214	16	2,159	0.23		23	11	48	2	7	1		N	N	N	L	A	L	87.33	B	
3	Clinton Rd	N. Lake Keziah Dr	Harper Lake Dr	686	16	1,220	0.13		9	4	44	2	7	1		N	N	N	L	A	L	87.33	B	
3	Gastonia Rd (paved 2004)	Greenville Rd	N. Greensboro Rd	1,320	16	2,347	0.25		27	27	100	2	7	1		N	N	N	L	A	L	87.33	B	
3	Greenville Rd (North and South)	Gastonia Rd	Reidsville Rd	2,165	16	3,849	0.41		24	15	63	2	7	1		N	N	N	L	A	L	87.33	B	
3	Harper Lake Dr (Circular Road)	Circle Rd	Circle Rd	3,274	16	5,820	0.62		54	19	35	2	7	1		N	N	N	L	A	L	87.33	B	
3	High Point Rd (North) - Paved to W. Lake Keziah	E. BS Rd	W. Lake Keziah	1,320	16	2,347	0.25		31	19	61	2	7	1		N	N	N	L	A	L	87.33	B	
3	High Point Rd (North) - Rocked Section	W. Lake Keziah	Charlotte Rd	845	16	1,502		0.16	21	4	19													
3	High Point Rd (South)	E. BS Rd	Argonne Rd	1,320	16	2,347	0.25		19	12	63	2	7	1		N	N	N	L	A	L	87.33	B	
3	Lake Keziah Dr (W.N.E)(Circular Rd)	North High Point Rd	North High Point Rd	3,590	16	6,383	0.68		35	21	60	2	7	1		N	N	N	L	A	L	87.33	B	
3	Mt Airy Rd	E. Lake Keziah Dr	Dead End	422	16	751	0.08		6	2	33	2	7	1		N	N	N	L	A	L	87.33	B	
3	Oakdale Rd (Paved to Ariel Ln)	Polaris Dr	Libra Ln	1,267	16	2,253	0.24		14	10	71	2	7	1		N	N	N	L	A	L	87.33	B	
3	Oakdale Rd (Rocked Section)	Ariel Ln	Libra Ln	475	16	845		0.09	17	1	6													
5	Forest Lake Rd	South Shore Dr	Eden Rd	581	18	1,162	0.11		10	4	40	2	7	1		N	N	N	L	A	L	87.33	B	
5	Graham Cir	Palmer Dr	Cul-de-sac	370	18	739	0.07		5	4	80	2	7	1		N	N	N	L	A	L	87.33	B	
5	Lisa Rd	South Shore Dr	Alton Lennon Rd	528	18	1,056	0.1		4	1	25	2	7	1		N	N	N	L	A	L	87.33	B	
5	Nicklaus Rd	S. Shore Dr	Palmer Dr	3,115	18	6,230	0.59		45	4	9	2	7	1		N	N	N	L	A	L	87.33	B	
5	Palmer Dr (repaved 2005)	S. Shore Dr	Trevino Rd	3,379	18	6,758	0.64		36	20	56	2	7	1		N	N	N	L	A	L	87.33	B	

PAVED ROADWAYS												Alligator Cracking (1,2,3..... 10)				Transverse Cracking	Rutting	Raveling	Edges	Ride Quality	Patching		
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Average Pvmt Width	Square Yards	Road Surface		No. of Lots	No. of Homes	% Built Out	N	L	M	S	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(A,S,R)	(N,L,M,S)	PCI	Grade
5	Summit Rd	Twin Lakes Dr	Twin Lakes Dr	528	16	939	0.1		6	5	83	2	7	1		N	N	N	L	A	L	87.33	B
3	Greensboro Rd (North) (paved 2005)	E. BS Rd	Concord Rd	1,109	16	1,971	0.21		37	18	49	3	6	1		N	N	N	L	A	L	88.00	B
4	North Hills Dr	Pine Rd	Sweetbrier Rd	1,742	16	3,098	0.33		36	14	39	1	5	4		N	N	N	N	A	L	88.00	B
4	North Hills Dr (Rocked Section)	Sweetbrier Rd	Glen Oak Dr	950	16	1,690		0.18	12	3	25												B
5	Littler Ct	Palmer Dr	Cul-de-sac	370	18	739	0.07		4	4	100	3	6	1		N	N	N	L	A	L	88.00	B
5	Sanders Rd	Palmer Dr	Casper Rd	950	18	1,901	0.18		14	11	79	3	6	1		N	N	N	L	A	L	88.00	B
5	Tate Lake Dr (Circular Rd)	S. Shore Dr	S. Shore Dr	1,795	18	3,590	0.34		39	20	51	3	6	1		N	N	N	L	A	L	88.00	B
5	Trevino Rd	Eden Rd	Dead End	1,637	18	3,274	0.31		40	17	43	1	5	4		N	N	N	N	A	L	88.00	B
6	Eastwood Rd	Woodcrest Rd	Fifty Lakes Dr	370	16	657	0.07		4	2	50	1	6	3		N	N	N	N	A	L	88.67	B
6	Lumbee Rd	Tuscarora Dr	Dartmouth Rd	2,693	16	4,787	0.51		24	14	58	1	6	3		N	N	N	N	A	L	88.67	B
7	Grant Cir	Morehead Rd	Buchanan Rd	2,218	16	3,942	0.42		23	10	43	1	6	3		N	N	N	L	A	N	88.67	B
7	Polk Rd	Grant Circle	Filmore Rd	370	16	657	0.07		30	1	3	1	6	3		N	N	N	L	A	N	88.67	B
7	Springdale Rd (Paved to House 1151)	Fifty Lakes Dr	Charlestown Rd	2,006	16	3,567	0.38		28	10	36	1	6	3		N	N	N	L	A	N	88.67	B
7	Springdale Rd (Rocked Section)	Fifty Lakes Dr	Charlestown Rd	634	16	1,126		0.12	6	2	33												
9	Buckbee Rd	South Shore Dr	Cul-de-sac	158	18	317	0.03		5	4	80	1	6	3		N	N	N	N	A	L	88.67	B
9	Toney Dr (Cul-de-sac off S.Shore Dr)	S. Shore Dr	Cul-de-sac	2,112	18	4,224	0.4		5	4	80	1	6	3		N	N	N	N	A	L	88.67	B
11	Miller Rd	Hwy 87	Pine Lake Rd	1,003	18	2,006	0.19		4	4	100	1	6	3		N	N	N	N	A	L	88.67	B
17	Barclay Rd	W. BS Rd	Hawthorne Rd	1,795	16	3,191	0.34		37	8	22	1	6	3		N	N	N	L	A	N	88.67	B
5	Alton Lennon Dr (repaved 2005) - North	E. BS Rd	Sanford Dam	860	20	1,911	0.16		7	2	29	1	7	2		N	N	N	N	A	L	89.33	B
5	Barber Rd	Off Nicklaus Rd	E & W Cul-de-sacs	2,059	18	4,118	0.39		25	13	52	1	7	2		N	N	N	N	A	L	89.33	B
5	Boros Rd (East)	Barber Rd	Palmer Dr	845	18	1,690	0.16		16	8	50	1	7	2		N	N	N	N	A	L	89.33	B
3	Pinehurst Rd	Chapel Hill Rd	Dead End (wetland)	1,848	16	3,285	0.35		39	14	36		10	0		N	N	N	N	A	L	90.00	A
3	Polaris Dr (partially paved EBSR to Oakdale)	E. BS Rd	Vesta Ln	1,584	16	2,816	0.3		3	3	100		10			N	N	N	N	A	L	90.00	A
3	Polaris Dr (Rocked Section)	Oakdale Rd	Vesta Ln	528	16	939		0.1	8	3	38												
3	W. Lake Keziah Dr	N. Lake Keziah Dr	N. High Point Rd	1,373	16	2,441	0.26		18	8	44		10			N	N	N	N	A	L	90.00	A
4	Colonial Rd (paved 2005)	Crystal Rd	Dead End	792	16	1,408	0.15		11	3	27		10			N	N	N	N	A	L	90.00	A
5	Boros Rd (West)	Palmer Dr	Cul-de-sac	686	18	1,373	0.13		18	9	50	1	8	1		N	N	N	N	A	L	90.00	A
1	Crabapple Rd (repaved 2005)	Redwood Dr	Juniper Rd	2,323	16	4,130	0.44		55	20	36	2	7	1		N	N	N	N	A	L	90.67	A
4	Baymeade Rd (partially paved 2005)	N. Hills Dr	Dead End	1,267	16	2,253	0.24		12	4	33	2	7	1		N	N	N	N	A	L	90.67	A
6	Greenview Dr	RR	Pinecrest Rd	422	18	845	0.08		12	5	42	1	6	3		N	N	N	N	A	N	92.00	A
6	Mohawk Rd	Navaho Rd	Lumbee Rd	1,426	16	2,534	0.27		28	11	39	1	6	3		N	N	N	N	A	N	92.00	A
6	Navajo Rd	Cherokee Dr	Lumbee Rd	1,162	16	2,065	0.22		25	10	40	1	6	3		N	N	N	N	A	N	92.00	A
6	Sioux Rd	Navaho Rd	Lumbee Rd	634	16	1,126	0.12		6	2	33	1	6	3		N	N	N	N	A	N	92.00	A
6	Tuscarora Dr	RR	Lumbee Rd	950	16	1,690	0.18		33	4	12	1	6	3		N	N	N	N	A	N	92.00	A
6	Warmouth	Pinecrest Rd	Mirror Lake Dr	528	16	939	0.1		7	4	57	1	6	3		N	N	N	N	A	N	92.00	A
7	Cardinal Rd	Springdale Rd	Fifty Lakes Dr	1,426	18	2,851	0.27		23	8	35	1	6	3		N	N	N	N	A	N	92.00	A
7	Heron Rd	Springdale Rd	RR	422	16	751	0.08		9	3	33	1	6	3		N	N	N	N	A	N	92.00	A
10	Windover Dr (repaved 2005)	E. BS Rd	N. Shore Dr	1,267	16	2,253	0.24		24	11	46	1	6	3		N	N	N	N	A	N	92.00	A
11	Edgewood Rd (paved 2005)	Nassau Rd	East Place	3,115	18	6,230	0.59		71	22	31	1	6	3		N	N	N	N	A	N	92.00	A
11	Floral Ln (paved 2005)	Pine Lake Rd	Dead End	264	16	469	0.05		7	4	57	1	6	3		N	N	N	N	A	N	92.00	A
12	Frink Lake Dr	E. BS Rd	E. BS Rd	1,795	16	3,191	0.34		46	21	46	1	6	3		N	N	N	N	A	N	92.00	A
12	Lumberton Rd	E. BS Rd	South Shelby Rd	2,270	18	4,541	0.43		54	20	37	1	6	3		N	N	N	N	A	N	92.00	A
12	Raeform Rd (partially paved)	Chapel Hill Rd	Laurinburg Rd	1,478	18	2,957	0.28		36	18	50	1	6	3		N	N	N	N	A	N	92.00	A
12	Reidsville Rd	RR	Laurinburg Rd	3,010	18	6,019	0.57		39	21	54	1	6	3		N	N	N	N	A	N	92.00	A
12	Salisbury Rd (paved)	Greenville Rd	Laurinburg Rd	800	18	1,600	0.14		20	11	55	1	6	3		N	N	N	N	A	N	92.00	A
12	Salisbury Rd (Rocked Section)	Tarheel Rd	Greenville Rd	1,531	18	3,062		0.29	35	12	34												
12	Wilmington Rd (paved)	S. High Point Rd	South Shelby Rd	825	18	1,650	0.16		11	6	55	1	6	3		N	N	N	N	A	N	92.00	A
12	Wilmington Rd (Rocked Section)	S. High Point Rd	S. Greensboro Rd	350	18	700		0.07	3	1	33												
13	Catawba Rd (paved 2005)	Dix Ln	Lexington Rd	528	18	1,056	0.1		55	2	4	1	6	3		N	N	N	N	A	N	92.00	A

PAVED ROADWAYS												Alligator Cracking (1,2,3..... 10)				Transverse Cracking	Rutting	Raveling	Edges	Ride Quality	Patching		
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Average Pvmt Width	Square Yards	Road Surface		No. of Lots	No. of Homes	% Built Out	N	L	M	S	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(A,S,R)	(N,L,M,S)	PCI	Grade
13	Catawba Rd (Rocked Section)	Goldsboro Rd	Lexington Rd	1,954	18	3,907			5	0	0												
13	Duke Rd (paved 2005)	Lexington Rd	Beaufort Rd	317	16	563	0.06		3	2	67	1	6	3		N	N	N	N	A	N	92.00	A
13	Greenwood (paved 2005)	Winston Salem Rd	Charlestown Rd	581	18	1,162	0.11		14	6	43	1	6	3		N	N	N	N	A	N	92.00	A
13	Lexington Rd (partially repaved 2005)	Fifty Lakes Dr	Dead End - Duke Rd	3,221	18	6,442	0.61		65	10	15	1	6	3		N	N	N	N	A	N	92.00	A
13	Liberty Rd (partially paved 2005)	Winston Salem Rd	Lexington Rd	1,478	18	2,957	0.28		29	6	21	1	6	3		N	N	N	N	A	N	92.00	A
13	Winston-Salem Rd	Fifty Lakes Dr	Charlestown Rd	1,584	16	2,816	0.3		27	11	41	1	6	3		N	N	N	N	A	N	92.00	A
14	W. South Shore Dr (Paved to 390 W.S.S. Rd)	Hwy 87	Paved to 390 W. SS	2,693	18	5,386	0.51		47	16	34	1	6	3		N	N	N	N	A	N	92.00	A
14	W. South Shore Dr (Rocked Section)	390 W. S. Shore	Dead End	581	18	1,162		0.11	17	1	6												
16	Hunters Rd (paved to Black Hawk -2005)	Barclay Rd	Bluebird Rd	528	16	939	0.1		5	2	40	1	6	3		N	N	N	N	A	N	92.00	A
6	Wimberley Rd (partially paved 2005)	Greenview Rd	Dartmouth Rd	2,323	18	4,646	0.44		45	33	73	1	7	2		N	N	N	N	A	N	92.67	A
10	Holly Point Rd	N. Shore Dr	Dead End	634	16	1,126	0.12		11	5	45	1	7	2		N	N	N	N	A	N	92.67	A
10	Huntley Rd	Sigman Rd	N. Shore Dr	581	16	1,033	0.11		14	5	36	1	7	2		N	N	N	N	A	N	92.67	A
10	North Shore Dr 1 (West loop)	Hwy 87	E. BS Rd	2,640	16	4,693	0.5		26	20	77	1	7	2		N	N	N	N	A	N	92.67	A
10	Sigman Rd (paved 2005)	N. Shore Dr	N. Shore Dr	1,214	16	2,159	0.23		18	11	61	1	7	2		N	N	N	N	A	N	92.67	A
11	Pepper Hill Rd (paved 2005)	Nassau Rd	Crystal Rd	2,904	18	5,808	0.55		82	14	17	1	7	2		N	N	N	N	A	N	92.67	A
11	Prospect Rd	Nassau Rd	Crystal Rd	2,270	18	4,541	0.43		17	11	65	1	7	2		N	N	N	N	A	N	92.67	A
11	Westwood Rd (paved 2005)	Nassau Rd	Crystal Rd	2,165	18	4,330	0.41		58	18	31	1	7	2		N	N	N	N	A	N	92.67	A
12	Argonne Rd (repaved 2005)	S. High Point	Fieldcrest Rd (N)	1,382	21	3,225	0.27		18	10	56	1	7	2		N	N	N	N	A	N	92.67	A
12	Chapel Hill Rd (paved 2005)	Pinehurst Rd	Reidsville Rd	1,426	18	2,851	0.27		17	7	41	1	7	2		N	N	N	N	A	N	92.67	A
12	Durham Rd (paved 2005)	E. BS Rd	Salisbury Rd	317	18	634	0.06		4	2	50	1	7	2		N	N	N	N	A	N	92.67	A
7	Dix Ln (repaved 2005)	Cougar Rd	Catawba Rd	422	18	845	0.08		5	2	40	1	8	1		N	N	N	N	A	N	93.33	A
14	Leeds Rd (paved 2004)	W. South Shore Dr	Community Ctr	211	16	375	0.04		1	1	100	1	8	1		N	N	N	N	A	N	93.33	A
4	Revere Rd (Colonial to Merrimac)	Colonial Rd	Merrimac Rd	792	16	1,408	0.15		14	8	57	6	4			N	N	N	N	A	L	94.00	A
4	East Pl (paved 2005)	Edgewood Rd	Cul-de-sac	370	16	657	0.07		6	4	67	7	3			N	N	N	N	A	L	94.67	A
4	North Lake Dr	E. BS Rd	Pine Rd	1,478	16	2,628	0.28		13	4	31	7	3			N	N	N	N	A	L	94.67	A
4	Sweetbrier Rd (paved 2005)	N. Hills Dr	Baymeade Rd	686	16	1,220	0.13		9	6	67	8	2			N	N	N	N	A	L	95.33	A
5	Eden Rd (Reclamation Paved 2016)	Lisa at Alton Lennon	Fifty Lakes Dr	4,805	19	10,143	0.91		50	24	48	8	2			N	N	N	N	A	N	98.67	A
4	Blueberry Rd (Paved 2020)	N. Hills Dr	Baymeade Rd	792	16	1,408	0.15		14	5	36											100.00	A
4	Crystal Rd (Repaved 2020)	E. BS Rd	Greenmoss Rd	1,954	18	3,907	0.37		48	22	46											100.00	A
4	Crystal Rd (Rocked Section)	Greenmoss Rd	Pheasant Rd	5,966	18	11,933		1.13	44	0	0												
11	Nassau Rd (Repaved 2020)	E. BS Rd	Queens Rd	3,010	18	6,019	0.57		42	20	48											100.00	A
11	Pine Lake Rd (Repaved EBSR to Queens 2020)	E. BS Rd	Drayton Rd	4,330	18	8,659	0.82		76	42	55											100.00	A
11	Queens Rd (Paved Pine Lake to Nassau - 2020)	Pine Lake Rd	Nassau	528	18	1,056	0.1		46	2	4											100.00	A
11	Queens Rd (Rocked Section)	Pine Lake Rd	Crystal Rd	1,690	18	3,379		0.32	9	2	22												
13	Beaufort Rd (Paved 2020)	Fifty Lakes Dr	Duke Rd	2,957	18	5,914	0.56		75	20	27											100.00	A
13	Liberty Rd (Rocked Section)	Goldsboro Rd	Winston Salem	1,426	18	2,851		0.27	16	0	0												
13	Liberty Rd (Rocked Section)	Lexington Rd	President Rd	739	18	1,478		0.14	16	0	0												
14	W. North Shore Dr	Hwy 87	Sunset Rd	106	18	211	0.02		2	2	100	1	6	3		N	N	N	N	A	N	92.00	A
14	W. North Shore Dr (Rocked Section)	Hwy 87	Sunset Rd	1,795	18	3,590		0.34	25	5	20												
15	Dove Rd (Platted Only)	Crystal Rd	Dead end	0		0			8	0	0												
17	Downing Rd (Sanco Homes)	Firty Lakes Dr	Fox Squirrel Rd	1,637		0	0.31		24	0	0												
17	Druid Rd (Platted Only)	W. BS Rd	Unnamed Rd	0		0			17	0	0												
17	Fox Squirrel Dr (Sanco Homes)	Golfview Rd	Morningside Rd	2,851		0	0.54		55	2	4												
17	Golf View Dr (Sanco Homes)	Fifty Lakes Dr	Fox Squirrel Rd	1,531		0	0.29		26	0	0												
17	Miller Rd Ext (Platted Only)	Pine Lake Rd	Dead End	0		0			0	0	0												
17	Monterey Rd - Platted only - Off W. Ranch	W. Ranch Rd	Dead End	0		0			17	0	0												
17	Morningside Dr (Sanco Homes)	Fifty Lakes Dr	Fox Squirrel Rd	1,742		0	0.33		25	1	4												
17	Pine Needles Rd (Sanco Homes)	Fifty Lakes Dr	Fox Squirrel Rd	1,690		0	0.32		22	0	0												
17	Quail Rd (Platted Only)	Crystal Rd	Dead End	0		0			0	0	0												

PAVED ROADWAYS												Alligator Cracking (1,2,3..... 10)				Transverse Cracking	Rutting	Raveling	Edges	Ride Quality	Patching	PCI	Grade
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Average Pvmt Width	Square Yards	Road Surface		No. of Lots	No. of Homes	% Built Out	N	L	M	S	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(N,L,M,S)	(A,S,R)	(N,L,M,S)		
17	Shady Brook Dr (Platted only)	W. BS Rd	Dead End	0		0			22	0	0												
17	Siesta Rd (Platted Only)	W. Ranch Rd	Dead End	0		0			0	0	0												
17	Trent Rd (Platted Only)	W. BS Rd	Dead End	0		0			0	0	0												
17	W. Boiling Spring Rd	Hwy 87	Antenna Farm Rd	15,259	18	30,518	0.68	2.21	150	4	3												
TOTAL PAVED MILES		53.58																					
ROCKED (other portion is paved)		9.22																					

	ROCKED ROADS		** LIST BASED ON HIGHEST DENSITY OF "BUILT OUT"									
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Estimated Width	Estimated Square Yards	Rock	Dirt	No. of Lots	No. of Homes	% Built Out	Grade
3	Alcor Lane	Orion Rd	Dead End	475	18	950	0.09		1	1	100	D
6	Myrtle Ln (20' ROW?)	Fifty Lakes Dr	Dead End	739	18	1478	0.14		5	5	100	D
7	Jack Rd (Cul-de-sac)	Filmore Rd	Dead End	317	18	634	0.06		2	2	100	D
12	Dogwood Dr (Cul-de-sac)	Fieldcrest Rd	Cul-de-sac	158	18	317	0.03		1	1	100	D
12	Skyward Cir	Argonne Rd	Cul-de-sac	158	18	317	0.03		2	2	100	D
7	Bream Rd	Charlestown Rd	Dead End	158	18	317	0.03		3	2	67	D
3	Laurinburg Rd (South)	Salisbury Rd	Reidsville Rd	686	18	1373	0.13		8	5	63	D
3	Shelby Rd (North)	E. BS Rd	E. Lake Keziah Dr	581	18	1162	0.11		11	6	55	D
3	Greensboro Rd (South)	E. BS Rd	Wilmington Rd	1,901	18	3802	0.36		19	10	53	D
3	Shelby Rd (South)	E. BS Rd	Wilmington Rd	792	18	1584	0.15		14	7	50	D
7	Greendale Rd	Palmetto Rd - Cardinal	Cul-de-sac	792	18	1584	0.15		8	4	50	D
12	Hamlet Rd	Raeform Rd	Reidsville Rd	370	18	739	0.07		2	1	50	D
12	Tarheel Rd	Salisbury Rd	Reidsville Rd	686	18	1373	0.13		4	2	50	D
17	Corral Dr	E. BS Rd	Dead End	1,426	18	2851	0.27		6	3	50	D
12	Fieldcrest Rd	Argonne Rd	Argonne Rd	2,112	18	4224	0.4		30	13	43	D
17	E. Ranch Rd	E. BS Rd	Dead End	1,003	18	2006	0.19		5	2	40	D
16	Hunters Rd	W. Ridge Rd	Barclay Rd	2,851	18	5702	0.54		5	2	40	D
15	Redwood Dr (Robin to End of Road)	Robin Rd	Dead End	4,277	18	8554	0.81		33	13	39	D
17	Normandy Rd	W. Ridge Rd	Bermuda Rd	2,323	18	4646	0.44		13	5	38	D
7	Washington Rd	Charlestown Rd	Dead End	898	18	1795	0.17		16	6	38	D
12	Argonne RD (rock)	S. High Point	Fieldcrest Rd (S)	2,112	18	4224	0.4		17	6	35	D
3	Dorado Ln	Polaris Rd	Dead End	581	18	1162	0.11		6	2	33	D
3	New Bern Rd	W. Lake Keziah Dr	Charlotte Rd	422	18	845	0.08		6	2	33	D
4	Westview Pt (Cul-de-sac off N. Hills)	N. Hills Dr	Cul-de-sac	211	18	422	0.04		3	1	33	D
12	Salisbury Rd (rock)	Tarheel Rd	Greenville Rd	1,531	18	3062	0.29		37	12	32	D
3	Fayetteville Rd (South)	E. BS Rd	Wilmington Rd	845	18	1690	0.16		19	6	32	D
10	Russell Rd	E. BS Rd	N. Shore Dr	1,214	18	2429	0.23		21	6	29	D
13	Asheville Ln	Charlestown Rd	Dead End	264	18	528	0.05		4	1	25	D
4	Glen Oak Dr	North Hills Dr	Baymeade Rd	1,109	18	2218	0.21		21	5	24	D
11	Greenmoss Rd	Nassau Rd	Crystal Rd	2,006	18	4013	0.38		53	12	23	D
12	Meadowood Rd	Argonne Rd	Argonne Rd	1,214	18	2429	0.23		13	3	23	D
7	Buchanan Rd	Charlestown Rd	Grant Circle	634	18	1267	0.12		14	3	21	D
12	Foxcroft Rd	Argonne Rd	Meadowood Rd	950	18	1901	0.18		10	2	20	D
14	Lake Mount Rd	W. North Shore Dr	Lake View Dr W.	370	18	739	0.07		5	1	20	D
11	Mission Rd	Nassau Rd	Crystal Rd	2,218	18	4435	0.42		58	11	19	D
17	New Hanover St	Craven St	Bladen St	3,274	18	6547	0.62		10	2	20	D
10	Dixon Rd	E. BS Rd	N. Shore Dr	1,214	18	2429	0.23		21	4	19	D
13	Burlington Rd	Fifty Lakes Dr	Cul-de-sac	1,003	18	2006	0.19		21	4	19	D
7	Jefferson Rd	Charlestown Rd	Dead End	422	18	845	0.08		6	1	17	D
7	Madison Rd	Charlestown Rd	Dead End	422	18	845	0.08		12	2	17	D
10	Bridges Rd	E. BS Rd	North Shore Dr	1,214	18	2429	0.23		19	3	16	D
	W. Ranch Rd (Rocked only to Apache)	E. BS Rd	Apache Rd	7,234	18	14467	0.56	0.81	26	4	15	D
15	Robin Rd	Pine Rd	Redwood Dr	6,178	18	12355	1.17		54	8	15	D
12	Raeform Rd (unpaved) - Chapel Hill to Hamlet	Chapel Hill Rd	Hamlet Rd	1,214	18	2429	0.23		28	4	14	D
14	Virginia Rd	Sunset Rd	Dead End	2,746	18	5491	0.52		52	7	13	D
3	Sanford Rd	Charlotte Rd	W. Lake Keziah Dr	686	18	1373	0.13		15	2	13	D
2	Maple Rd	Pine Rd	Grace Rd	2,112	18	4224	0.4		48	6	13	D
7	Tyler Rd	Charlestown Rd	Dead End	370	18	739	0.07		8	1	13	D
14	Lake View Dr W.	W. North Shore Dr	Lake Mount Rd	739	18	1478	0.14		8	1	13	D
13	Statesville Rd	Fifty Lakes Dr	Charlestown Rd	1,584	18	3168	0.3		34	4	12	D
10	Darnell Rd	E. BS Rd	N. Shore Dr	1,373	18	2746	0.26		28	3	11	D
3	Charlotte Rd	N. Greensboro Rd	Orion Rd	3,010	18	6019	0.57		10	1	10	D

	ROCKED ROADS	** LIST BASED ON HIGHEST DENSITY OF "BUILT OUT"										
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Estimated Width	Estimated Square Yards	Rock	Dirt	No. of Lots	No. of Homes	% Built Out	Grade
16	Black Hawk Rd	Hunters Rd	Greenlawn Rd	1,742	18	3485	0.33		40	4	10	D
10	Shands Rd	E. BS Rd	N. Shore Dr	1,214	18	2429	0.23		22	2	9	D
16	Sparrow Rd	Greenlawn	Black Hawk	1,373	18	2746	0.1	0.16	22	2	9	D
17	Apache Rd	W. Ranch Rd	Dead End	1,637	18	3274	0.31		11	1	9	D
15	Mallard Rd	Crystal Rd	Pine Rd	2,851	18	5702	0.54		23	2	9	D
11	Woodhaven Rd	Nassau Rd	Crystal Rd	1,848	18	3696	0.35		47	4	9	D
7	Monroe Rd	Charlestown Rd	Cowrie Dr	634	18	1267	0.12		12	1	8	D
10	Knox Rd	E. BS Rd	N. Shore Dr	1,214	18	2429	0.23		26	2	8	D
17	Cactus Rd	W. Ranch Rd	Dead End	1,637	18	3274	0.31		13	1	8	D
10	Reeves Rd	E. BS Rd	N. Shore Dr	1,320	18	2640	0.25		28	2	7	D
13	Carolina Rd	Goldsboro Rd	Lexington Rd	2,482	18	4963	0.47		66	4	6	D
15	Beech Rd	Pine Rd	Redwood Rd	5,861	18	11722	1.11		80	4	5	D
16	Bluebird Rd	Hunters Rd	Greenlawn Rd	1,742	18	3485	0.33		42	2	5	D
15	Drake Rd	Crystal Rd	Pine Rd	2,851	18	5702	0.54		26	1	4	D
13	Kannapolis Rd	Fifty Lakes Dr	Charlestown Rd	1,584	18	3168	0.3		34	1	3	D
11	Bordeaux Ln	Pine Lake Rd	Dead End	2,482	18	4963	0.47		48	1	2	D
13	Pee Dee Rd	Goldsboro Rd	Lexington Rd	2,429	18	4858	0.46		60	1	2	D
4	Drayton Rd	Crystal Rd	Pine Rd	5,544	18	11088	1.05		66	1	2	D
14	Sunset Dr	Hwy 87	W. Ridge Rd	5,491	18	10982	1.04		95	1	1	D
2	Perch Rd	Grace Rd	Dead End	317	18	634	0.06		2	0	0	D
3	Castor Ln	Orion Rd	Dead End	528	18	1056	0.1		0	0	0	D
3	Concord Rd (connector road only)	N. Greensboro Rd	N. High Point Rd	317	18	634	0.06		0	0	0	D
3	Jamesville Lane (Off N. Greensboro to RR)	N. Greensboro	RR	422	18	845	0.08		7	0	0	D
3	Laurinburg Rd (North)	Albemarle Rd	Pinehurst Rd	317	18	634	0.06		4	0	0	D
3	Libra Ln	Oakdale Drive	Cul-de-sac	370	18	739	0.07		9	0	0	D
3	Orion Rd	Polaris Dr	Charlotte Rd	1,742	18	3485	0.33		0	0	0	D
3	Raleigh Rd	N. Lake Keziah Dr	Charlotte Rd	422	18	845	0.08		9	0	0	D
3	Southport Lane	RR	N. Greensboro Rd	581	18	1162	0.11		17	0	0	D
3	Taurus Lane	Orion Rd	Dead End	1,162	18	2323	0.22		0	0	0	D
3	Vesta Ln (Off Polaris)	Polaris Dr	Cul-de-sac	264	18	528	0.05		2	0	0	D
4	Lakeview Dr E. (City N. Lake Park)	E. BS Rd	Dead End	528	18	1056	0.1		6	Park	0	D
4	Merrimac Dr	Crystal Rd	Revere Rd	422	18	845	0.08		1	0	0	D
4	Revere Rd (Merrimac to Drayton)	Merrimac Rd	Drayton Rd	686	18	1373	0.13		17	0	0	D
5	Seminole Ln (City Park)	Fifty Lakes Dr	Dead End	634	18	1267	0.12		1	0	0	D
7	Cowrie Dr	Monroe Rd	E & W Cul-de-sacs	1,742	18	3485	0.33		9	0	0	D
7	Jackson Rd	Charlestown Rd	Dead End	528	18	1056	0.1		12	0	0	D
7	Van Buren Rd	Charlestown Rd	Dead End	422	18	845	0.08		10	0	0	D
7	Whelk Dr	Cowrie Dr	Sand Dollar Dr	2,006	18	4013	0.38		17	0	0	D
9	Par Dr (across Golf course)	Windemere Dr	Fox Squirrel Rd	264	18	528	0.05		0	0	0	D
13	Hartsville Rd	Fifty Lakes Dr	Liberty Rd	581	18	1162	0.11		6	0	0	D
13	Rockingham Rd	Fifty Lakes Dr	Charlestown Rd	1,584	18	3168	0.3		36	0	0	D
14	Dam Rd	Virginia Rd	W. South Shore Dr	1,267	18	2534	0.24		0	0	0	D
14	Overlook Cir	Virginia Rd	Cul-de-sac	264	18	528	0.05		1	0	0	D
14	Sand Hill Rd (Cul-de-sac off Virginia)	Virginia Rd	Cul-de-sac	264	18	528	0.05		1	0	0	D
14	Stag Rd (W.BSR to Sunset)	W. BS Rd	Sunset Rd	317	18	634	0.06		2	0	0	D
14	West Dam Rd (Virginia and W. South Shore)	Virginia Rd	W. South Shore Dr	1,214	18	2429	0.23		0	0	0	D
15	Audubon Rd	Pine Rd	Cherry Rd	3,221	18	6442	0.61		25	0	0	D
15	Bluejay Rd	Pine Rd	Cherry Rd	3,221	18	6442	0.61		22	0	0	D
15	Bobolink Rd	Pine Rd	Cherry Rd	3,221	18	6442	0.61		22	0	0	D
15	Pine Lake Rd (Drayton to Camelia)	Drayton Rd	Camelia Rd	2,112	18	4224	0.4		23	0	0	D
15	Sea Gull Rd	Crystal Rd	Pine Rd	2,851	18	5702	0.54		21	0	0	D
16	Bermuda Rd	Barclay Rd	Dead End	2,957	18	5914	0.56		36	0	0	D
16	Brittany Rd	W. Ridge Rd	Bermuda Rd	2,376	18	4752	0.45		38	0	0	D

ROCKED ROADS		** LIST BASED ON HIGHEST DENSITY OF "BUILT OUT"										
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)	Estimated Width	Estimated Square Yards			No. of Lots	No. of Homes	% Built Out	Grade
16	Deeprun Rd	W. BS Rd	Dead End	317	18	634	0.06		5	0	0	D
16	West Haven Rd (Off W. Ridge Rd)	W. Ridge Rd	Bermuda Rd	2,323	18	4646	0.44		17	0	0	D
17	Bavarian Dr	W. BS Rd	Dead End	1,584	18	3168	0.3		38	0	0	D
17	Bladen St	Midwood St	New Hanover St	1,373	18	2746	0.26		16	0	0	D
17	Elkhon Rd	W. BS Rd	Jasmine Dr	317	18	634	0.06		0	0	0	D
17	Gibraltar Rd	W. Ridge Rd	Bermuda Rd	2,376	18	4752	0.45		26	0	0	D
17	Green Lawn Rd	W. Ridge Rd	Bluebird Rd	3,590	18	7181	0.68		0	0	0	D
17	Hawthorne Rd	W. Ridge Rd	Barclay Rd	2,059	18	4118	0.39		0	0	0	D
17	Holiday Rd (Platted Only)	W. Ridge Rd	Bermuda Rd	2,376	18	4752	0.45		40	0	0	D
17	Jasmine Dr (Platted Only)	Deep Run Rd	Barclay Rd	3,907	18	7814	0.74		70	0	0	D
17	Oakley Rd	W. BS Rd	Ridgewood Rd	422	18	845	0.08		0	0	0	D
17	Parkway Dr (Sanco Homes)	Fifty Lakes Dr	Fox Squirrel Rd	1,637	18	3274	0.31		23	0	0	D
17	Plymouth Rd (Sanco Homes)	Fifty Lakes Dr	Fox Squirrel Rd	1,637	18	3274	0.31		24	0	0	D
17	Westway Rd	Fifty Lakes Dr	Fox Squirrel Rd	1,690	18	3379	0.32		24	0	0	D
17	W. 1 st Ave	W. Ridge Road	Dead End	528	18	1056	0.1		15	0	0	D
17	W. 2nd Ave	W. Ridge Road	Dead End	528	18	1056	0.1		18	0	0	D
17	W. 3rd Ave	W. Ridge Road	Dead End	528	18	1056	0.1		16	0	0	D
17	W. 4th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		14	0	0	D
17	W. 5th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		10	0	0	D
17	W. 6th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		16	0	0	D
17	W. 7th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		16	0	0	D
17	W. 8th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		12	0	0	D
17	W. 9th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		15	0	0	D
17	W. 10th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		11	0	0	D
17	W. 11th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		11	0	0	D
17	W. 12th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		10	0	0	D
17	W. 13th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		13	0	0	D
17	W. 14th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		12	0	0	D
17	W. 15th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		17	0	0	D
17	W. 16th Ave	W. Ridge Road	Dead End	528	18	1056	0.1		17	0	0	D
7	Carp Rd	Kennedy Circle	Dead End	264	18	528	0.05			0		D
TOTAL ROCKED MILES							35.5					

DIRT ROADS (No improvements)									
Phase	Roadway Name	Begin Description	End Description	Section Length (ft.)		No. of Lots	No. of Homes	% Built Out	Grade
					Dirt				
3	Merok Ln	Orion Rd	Cul-de-sac	475	0.09	1	0	0	D
4	Perryclear Pt. (Cul-de-sac off N. Hills)	N. Hills Dr	Dead End	211	0.04	4	0	0	D
7	Jacksonville Rd	Cowrie Dr	Sand Dollar Dr	2,006	0.38	8	0	0	D
7	Sand Dollar Dr	Cowrie Dr	Whelk Dr	1,742	0.33	8	1	13	D
10	Watts Rd (Grass)	Turner Rd	Bridges Rd	422	0.08	4	0	0	D
11	Crescent Rd	Pine Lake Rd	Crystal Rd	2,218	0.42	64	0	0	D
12	Argonne Rd (dirt)	Fieldcrest Rd	E. BS Rd	2,112	0.4	17	1	6	D
12	Firebird Circle	Argonne Rd	Cul-de-sac	1,056	0.2	1	1	100	D
12	Lilliput Valley Lane - Laurinburg and Reidsville	Laurinburg/Reidsville	Dead End	211	0.04	2	1	50	D
15	Azalea Rd	Pine Lake Rd	Crystal Rd	2,218	0.42	26	0	0	D
15	Camelia Rd	Pine Lake Rd	Crystal Rd	2,270	0.43	21	0	0	D
15	Honeysuckle Rd	Pine Lake Rd	Crystal Rd	2,218	0.42	29	0	0	D
15	Magnolia Rd	Pine Lake Rd	Crystal Rd	2,218	0.42	39	0	0	D
15	Marigold Rd (listed as Grape Rd in GIS)	Pine Lake Rd	Crystal Rd	2,218	0.42	24	0	0	D
15	Partridge Rd	Crystal Rd	Pine Rd	2,851	0.54	37	0	0	D
15	Persimmon Rd	Pine Lake Rd	Crystal Rd	2,218	0.42	34	1	3	D
15	Pheasant Rd (Uncut)	Crystal Rd	Dead End	1,003	0.19	4	0	0	D
16	Bohemia Rd	W. BS Rd	Dead End	1,531	0.29	38	0	0	D
16	W. Branch Dr (Platted - Formerly Orton)	W. BS Rd	Dead End	2,112	0.4	20	0	0	D
16	W. Ridge Rd	Oakcrest Rd	W. 17th Ave	9,082	1.72	61	0	0	D
17	Adams Rd (Platted Only due to wetlands)	Charlestown Rd	Dead End	158	0.03	0	0	0	D
17	Brunswick St	Craven St	Bladen St	3,907	0.74	36	0	0	D
17	Columbus St	Craven St	Bladen St	3,432	0.65	32	0	0	D
17	Craven St	Onslow St	New Hanover St	3,802	0.72	40	0	0	D
17	Cumberland St	Craven St	Lenoir St	898	0.17	9	0	0	D
17	Duplin St	Craven St	Lenoir St	1,056	0.2	11	0	0	D
17	Laurel St	Briarwood St	Bladen St	2,165	0.41	9	0	0	D
17	Lenoir St	Onslow St	Columbus St	2,376	0.45	0	0	0	D
17	Lilac - Off Brunswick and Bladen	Briarwood St	Bladen St	2,165	0.41	18	0	0	D
17	Manchester St - Off Brunswick and Bladen	Briarwood St	Bladen St	2,165	0.41	0	0	0	D
17	Midwood St	Briarwood St	Bladen St	2,165	0.41	10	0	0	D
17	Oakcrest Rd	W. Ridge Rd	Dead End	898	0.17	0	0	0	D
17	Onslow St	Craven St	Lenoir St	1,109	0.21	7	0	0	D
17	Pender St	Craven St	Bladen St	3,326	0.63	27	0	0	D
17	Ridgewood Rd	W. Ridge Rd	Oakley Rd	1,162	0.22	21	0	0	D
17	Robeson St	Craven St	Lenoir St	845	0.16	14	0	0	D
17	Sampson St	Craven St	Lenoir St	1,003	0.19	10	0	0	D
17	Waccamaw Rd (W.BSR - Off Trent)	Trent Rd	Dead End	6,970	1.32	54	0	0	D
TOTAL DIRT (UNIMPROVED) ROADS					15.15				



25 - YEAR ROADWAY IMPROVEMENTS - PROBABLE COSTS

Grade	PAVED ROADWAY NAME	Section	PCI	Total Existing Pavement Area (SY)	Estimated Asphalt Repair Area prior to Repaving (SY)	Estimated Repair Cost (\$/SY)	Total Estimated Repair Cost (\$)	Estimated Repaving Cost (\$/SY)	Total Estimated Repaving Cost (\$)	Total Cost including Repairs & Repaving (\$)
B	Pine Shore Dr	8	80.67	939	939	\$7	\$6,571	\$40	\$37,547	\$44,117
B	Fifty Lakes Dr - (repaved 2005)		81.33	9,129	9,129	\$7	\$63,902	\$40	\$365,156	\$429,058
B	Long Leaf Rd	2	81.33	5,632	5,632	\$7	\$39,424	\$40	\$225,280	\$264,704
B	Ash Rd	1	81.33	5,350	5,350	\$7	\$37,453	\$40	\$214,016	\$251,469
B	Pinedale Rd (Woodcrest and 50 Lakes)	6	81.33	657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Woodcrest Rd	6	81.33	4,312	4,312	\$7	\$30,184	\$40	\$172,480	\$202,664
B	Palmetto Rd	7	81.33	1,596	1,596	\$7	\$11,170	\$40	\$63,829	\$74,999
B	Turner Rd	10	81.33	1,596	1,596	\$7	\$11,170	\$40	\$63,829	\$74,999
B	Goldsboro Rd	13	81.33	6,653	6,653	\$7	\$46,570	\$40	\$266,112	\$312,682
B	Cedar Rd	6	82.00	5,538	5,538	\$7	\$38,767	\$40	\$221,525	\$260,292
B	Acacia Rd	6	82.00	939	939	\$7	\$6,571	\$40	\$37,547	\$44,117
B	Cambridge Rd (Needs Patch-Paved 840-827)	6	82.00	3,004	3,004	\$7	\$21,026	\$40	\$120,149	\$141,175
B	Bayside Ln	6	82.00	1,033	1,033	\$7	\$7,228	\$40	\$41,301	\$48,529
B	Dartmouth Rd	7	82.00	657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Fillmore Rd (Fifty Lakes Dr to Polk Rd)	7		2,910	2,910	\$7	\$20,369	\$40	\$116,395	\$136,764
B	Fillmore Rd (Rocked Section)	8	82.00	1,232	1,232	\$7	\$8,624	\$40	\$49,280	\$57,904
B	Canal Rd	10	82.00	1,783	1,783	\$7	\$12,484	\$40	\$71,339	\$83,823
B	Burton Rd	10	82.00	2,441	2,441	\$7	\$17,084	\$40	\$97,621	\$114,705
B	Willets Dr	1	84.67	2,347	2,347	\$7	\$16,427	\$40	\$93,867	\$110,293
B	Fayetteville Rd (North)	1	84.67	939	939	\$7	\$6,571	\$40	\$37,547	\$44,117
B	Holly Dr	2	84.67	3,285	3,285	\$7	\$22,997	\$40	\$131,413	\$154,411
B	Sycamore Rd	3	84.67	5,350	5,350	\$7	\$37,453	\$40	\$214,016	\$251,469
B	Spruce Rd	3		1,783	1,783	\$7	\$12,484	\$40	\$71,339	\$83,823
B	Albemarle Rd	3	84.67	657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Albemarle Rd	5	84.67	1,877	1,877	\$7	\$13,141	\$40	\$75,093	\$88,235
B	Dunn Rd	5	84.67	657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Batton Rd	6	84.67	1,596	1,596	\$7	\$11,170	\$40	\$63,829	\$74,999
B	Souchak Rd	7	84.67	1,056	1,056	\$7	\$7,392	\$40	\$42,240	\$49,632
B	Berryhill Rd (Needs Patch-Paved 1047-1052)	7		1,408	1,408	\$7	\$9,856	\$40	\$56,320	\$66,176
B	Pierce Rd	13	84.67	1,877	1,877	\$7	\$13,141	\$40	\$75,093	\$88,235
B	Pierce Rd (Rocked Section)	13		657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Charlestown Rd	1	85.33	2,722	2,722	\$7	\$19,055	\$40	\$108,885	\$127,940
B	Charlestown Rd (Rocked Section)	1		8,448	8,448	\$7	\$59,136	\$40	\$337,920	\$397,056
B	Juniper Rd (repaved 2005)	2	85.33	5,632	5,632	\$7	\$39,424	\$40	\$225,280	\$264,704
B	Juniper Rd (Rocked Section)	2		5,069	5,069	\$7	\$35,482	\$40	\$202,752	\$238,234
B	Hickory Rd	5	85.33	469	469	\$7	\$3,285	\$40	\$18,773	\$22,059
B	Hickory Rd (Rocked Section)	5	85.33	657	657	\$7	\$4,599	\$40	\$26,283	\$30,882

Grade	PAVED ROADWAY NAME	Section	PCI	Total Existing Pavement Area (\$Y)	Estimated Asphalt Repair Area prior to Repaving (\$Y)	Estimated Repair Cost (\$/SY)	Total Estimated Repair Cost (\$)	Estimated Repaving Cost (\$/SY)	Total Estimated Repaving Cost (\$)	Total Cost including Repairs & Repaving (\$)
B	Casper Rd	6	85.33	2,323	2,323	\$7	\$16,262	\$40	\$92,928	\$109,190
B	Twin Lakes Dr (Circular Rd)	6	85.33	5,069	5,069	\$7	\$35,482	\$40	\$202,752	\$238,234
B	Cherokee Dr	6	85.33	4,224	4,224	\$7	\$29,568	\$40	\$168,960	\$198,528
B	Greenbay Rd	6	85.33	1,033	1,033	\$7	\$7,228	\$40	\$41,301	\$48,529
B	Oakhurst Rd	6	85.33	845	845	\$7	\$5,914	\$40	\$33,792	\$39,706
B	Pinecrest Rd	6	85.33	2,957	2,957	\$7	\$20,698	\$40	\$118,272	\$138,970
B	Poplar Rd (N)	7	85.33	711	711	\$7	\$4,978	\$40	\$28,444	\$33,422
B	Poplar Rd (S)	7	85.33	603	603	\$7	\$4,219	\$40	\$24,107	\$28,325
B	Kennedy Cir	7	85.33	2,159	2,159	\$7	\$15,113	\$40	\$86,357	\$101,470
B	Morehead Rd	8	85.33	3,755	3,755	\$7	\$26,283	\$40	\$150,187	\$176,469
B	President Rd	8	85.33	2,816	2,816	\$7	\$19,712	\$40	\$112,640	\$132,352
B	Cottage Lane	8	85.33	1,408	1,408	\$7	\$9,856	\$40	\$56,320	\$66,176
B	Forest Ln	8	85.33	1,033	1,033	\$7	\$7,228	\$40	\$41,301	\$48,529
B	Glenwood Dr	9	85.33	1,971	1,971	\$7	\$13,798	\$40	\$78,848	\$92,646
B	Lakewood Rd	9	85.33	1,783	1,783	\$7	\$12,484	\$40	\$71,339	\$83,823
B	Birdie Ln	9	85.33	845	845	\$7	\$5,914	\$40	\$33,792	\$39,706
B	Eagle Ln	9	85.33	1,056	1,056	\$7	\$7,392	\$40	\$42,240	\$49,632
B	Fairway Dr	9	85.33	7,392	7,392	\$7	\$51,744	\$40	\$295,680	\$347,424
B	Longwood Rd - Between S. Shore and Fairway	9	85.33	1,584	1,584	\$7	\$11,088	\$40	\$63,360	\$74,448
B	Masters Dr	14	85.33	4,435	4,435	\$7	\$31,046	\$40	\$177,408	\$208,454
B	Windemere Dr	1	86.00	6,864	6,864	\$7	\$48,048	\$40	\$274,560	\$322,608
B	Garage Rd (repaved 2004)	1		1,596	1,596	\$7	\$11,170	\$40	\$63,829	\$74,999
B	Cherry Rd (paved 2005) - ESR to Juniper	2	86.00	5,538	5,538	\$7	\$38,767	\$40	\$221,525	\$260,292
B	Cherry Rd (Rocked Section)	2	86.00	6,101	6,101	\$7	\$42,709	\$40	\$244,053	\$286,763
B	Grace Rd	2	86.00	6,383	6,383	\$7	\$44,681	\$40	\$255,317	\$299,998
B	Gum Rd	2	86.00	1,314	1,314	\$7	\$9,199	\$40	\$52,565	\$61,764
B	Oak Rd	2	86.00	1,877	1,877	\$7	\$13,141	\$40	\$75,093	\$88,235
B	Pike Rd (Cul-de-sac off Spring Lake Dr)	2		845	845	\$7	\$5,914	\$40	\$33,792	\$39,706
B	Pine Rd (Paved from EBSR to Juniper)	2	86.00	6,019	6,019	\$7	\$42,134	\$40	\$240,768	\$282,902
B	Pine Rd (Rocked Section)	3	86.00	7,814	7,814	\$7	\$54,701	\$40	\$312,576	\$367,277
B	Spring Lake Dr	3	86.00	4,130	4,130	\$7	\$28,911	\$40	\$165,205	\$194,116
B	Ariel Ln	5	86.00	845	845	\$7	\$5,914	\$40	\$33,792	\$39,706
B	Burgaw Rd	1	87.33	469	469	\$7	\$3,285	\$40	\$18,773	\$22,059
B	Crestview Dr	1	87.33	2,006	2,006	\$7	\$14,045	\$40	\$80,256	\$94,301
B	Redwood Dr (EBSR to Robin)	3	87.33	9,504	9,504	\$7	\$66,528	\$40	\$380,160	\$446,688
B	Walnut Rd	3	87.33	2,159	2,159	\$7	\$15,113	\$40	\$86,357	\$101,470
B	Clinton Rd	3	87.33	1,220	1,220	\$7	\$8,542	\$40	\$48,811	\$57,353
B	Gastonia Rd (paved 2004)	3	87.33	2,347	2,347	\$7	\$16,427	\$40	\$93,867	\$110,293
B	Greenville Rd (North and South)	3	87.33	3,849	3,849	\$7	\$26,940	\$40	\$153,941	\$180,881
B	Harper Lake Dr (Circular Road)	3		5,820	5,820	\$7	\$40,738	\$40	\$232,789	\$273,527
B	High Point Rd (North) - Paved to W. Lake Keziah	3	87.33	2,347	2,347	\$7	\$16,427	\$40	\$93,867	\$110,293
B	High Point Rd (North) - Rocked Section	3	87.33	1,502	1,502	\$7	\$10,513	\$40	\$60,075	\$70,588

Grade	PAVED ROADWAY NAME	Section	PCI	Total Existing Pavement Area (SY)	Estimated Asphalt Repair Area prior to Repaving (SY)	Estimated Repair Cost (\$/SY)	Total Estimated Repair Cost (\$)	Estimated Repaving Cost (\$/SY)	Total Estimated Repaving Cost (\$)	Total Cost including Repairs & Repaving (\$)
B	High Point Rd (South)	3	87.33	2,347	2,347	\$7	\$16,427	\$40	\$93,867	\$110,293
B	Lake Keziah Dr (W.N.E)(Circular Rd)	3	87.33	6,383	6,383	\$7	\$44,681	\$40	\$255,317	\$299,998
B	Mt Airy Rd	3		751	751	\$7	\$5,257	\$40	\$30,037	\$35,294
B	Oakdale Rd (Paved to Ariel Ln)	5	87.33	2,253	2,253	\$7	\$15,770	\$40	\$90,112	\$105,882
B	Oakdale Rd (Rocked Section)	5	87.33	845	845	\$7	\$5,914	\$40	\$33,792	\$39,706
B	Forest Lake Rd	5	87.33	1,162	1,162	\$7	\$8,131	\$40	\$46,464	\$54,595
B	Graham Cir	5	87.33	739	739	\$7	\$5,174	\$40	\$29,568	\$34,742
B	Lisa Rd	5	87.33	1,056	1,056	\$7	\$7,392	\$40	\$42,240	\$49,632
B	Nicklaus Rd	5	87.33	6,230	6,230	\$7	\$43,613	\$40	\$249,216	\$292,829
B	Palmer Dr (repaved 2005)	3	88.00	6,758	6,758	\$7	\$47,309	\$40	\$270,336	\$317,645
B	Summit Rd	4	88.00	939	939	\$7	\$6,571	\$40	\$37,547	\$44,117
B	Greensboro Rd (North) (paved 2005)	4		1,971	1,971	\$7	\$13,798	\$40	\$78,848	\$92,646
B	North Hills Dr	5	88.00	3,098	3,098	\$7	\$21,683	\$40	\$123,904	\$145,587
B	North Hills Dr (Rocked Section)	5	88.00	1,690	1,690	\$7	\$11,827	\$40	\$67,584	\$79,411
B	Littler Ct	5	88.00	739	739	\$7	\$5,174	\$40	\$29,568	\$34,742
B	Sanders Rd	5	88.00	1,901	1,901	\$7	\$13,306	\$40	\$76,032	\$89,338
B	Tate Lake Dr (Circular Rd)	6	88.67	3,590	3,590	\$7	\$25,133	\$40	\$143,616	\$168,749
B	Trevino Rd	6	88.67	3,274	3,274	\$7	\$22,915	\$40	\$130,944	\$153,859
B	Eastwood Rd	7	88.67	657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Lumbree Rd	7	88.67	4,787	4,787	\$7	\$33,510	\$40	\$191,488	\$224,998
B	Grant Cir	7	88.67	3,942	3,942	\$7	\$27,597	\$40	\$157,696	\$185,293
B	Polk Rd	7		657	657	\$7	\$4,599	\$40	\$26,283	\$30,882
B	Springdale Rd (Paved to House 1151)	9	88.67	3,567	3,567	\$7	\$24,969	\$40	\$142,677	\$167,646
B	Springdale Rd (Rocked Section)	9	88.67	1,126	1,126	\$7	\$7,885	\$40	\$45,056	\$52,941
B	Buckbee Rd	11	88.67	317	317	\$7	\$2,218	\$40	\$12,672	\$14,890
B	Toney Dr (Cul-de-sac off S.Shore Dr)	17	88.67	4,224	4,224	\$7	\$29,568	\$40	\$168,960	\$198,528
B	Miller Rd	5	89.33	2,006	2,006	\$7	\$14,045	\$40	\$80,256	\$94,301
B	Barclay Rd	5	89.33	3,191	3,191	\$7	\$22,340	\$40	\$127,659	\$149,999
B	Alton Lennon Dr (repaved 2005) - North	5	89.33	1,911	1,911	\$7	\$13,378	\$40	\$76,444	\$89,822
B	Barber Rd	5	89.33	4,118	4,118	\$7	\$28,829	\$41	\$168,854	\$197,683
B	Boros Rd (East)	5	89.33	1,690	1,690	\$7	\$11,827	\$42	\$70,963	\$82,790
					MAINTENANCE/REPAIR		\$2,158,495			
					OVERLAY				\$12,341,755	
					TOTAL					\$14,500,250

Density %	ROCKED ROADWAY NAME	Section	Square Yards	Estimated Paving Cost (\$/SY)	Estimated Total Paving Cost (\$)
100	Alcor Lane	3	950	\$42	\$ 39,916.80
100	Myrtle Ln (20' ROW?)	6	1478	\$42	\$ 62,092.80
100	Jack Rd (Cul-de-sac)	7	634	\$42	\$ 26,611.20
100	Dogwood Dr (Cul-de-sac)	12	317	\$42	\$ 13,305.60
100	Skyward Cir	12	317	\$42	\$ 13,305.60
67	Bream Rd	7	317	\$42	\$ 13,305.60
63	Laurinburg Rd (South)	3	1373	\$42	\$ 57,657.60
55	Shelby Rd (North)	3	1162	\$42	\$ 48,787.20
53	Greensboro Rd (South)	3	3802	\$42	\$ 159,667.20
50	Shelby Rd (South)	3	1584	\$42	\$ 66,528.00
50	Greendale Rd	7	1584	\$42	\$ 66,528.00
50	Hamlet Rd	12	739	\$42	\$ 31,046.40
50	Tarheel Rd	12	1373	\$42	\$ 57,657.60
50	Corral Dr	17	2851	\$42	\$ 119,750.40
43	Fieldcrest Rd	12	4224	\$42	\$ 177,408.00
40	E. Ranch Rd	17	2006	\$42	\$ 84,268.80
40	Hunters Rd	16	5702	\$42	\$ 239,500.80
39	Redwood Dr (Robin to End of Road)	15	8554	\$42	\$ 359,251.20
38	Normandy Rd	17	4646	\$42	\$ 195,148.80
38	Washington Rd	7	1795	\$42	\$ 75,398.40
35	Argonne RD (rock)	12	4224	\$42	\$ 177,408.00
33	Dorado Ln	3	1162	\$42	\$ 48,787.20
33	New Bern Rd	3	845	\$42	\$ 35,481.60
33	Westview Pt (Cul-de-sac off N. Hills)	4	422	\$42	\$ 17,740.80
32	Salisbury Rd (rock)	12	3062	\$42	\$ 128,620.80
32	Fayetteville Rd (South)	3	1690	\$42	\$ 70,963.20
29	Russell Rd	10	2429	\$42	\$ 102,009.60
25	Asheville Ln	13	528	\$42	\$ 22,176.00
				TOTAL	\$ 2,510,323