

North Carolina Department of Transportation
Productivity Services Section



Study Report

Division of General Services
DOT Administration

Weigh Stations Needs Analysis

August 1998

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Final Report

WEIGH STATIONS NEEDS ANALYSIS

1998

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I. INTRODUCTION

A. BACKGROUND

In October of 1990 in correspondence between the then Commissioner of Motor Vehicles, William Hyatt, and then Highway Administrator, William Marley, the Commissioner identified shortcomings in DMV Weigh Stations. Of the four projects recommended by Design Services at that time, only one has been completed. The one completed project included replacement of scale instrumentation at Charlotte, Mt. Airy, and Halifax County.

B. STUDY OBJECTIVES

The objectives of this study included:

1. Development of a detailed inventory of existing space needs.
2. Evaluate the conditions of the scale operations.
3. Recommend a long range plan for weigh station replacement, upgrades, and on-going maintenance.

C. APPROACH

The approach used for this project included the following major components:

- a) **Preliminary Review.** Key personnel were interviewed to determine needed scope and to isolate specific problem areas. A plan was then developed to insure most effective and accurate collection of data relating to this project.
- b) **Survey Plan Development.** Based on interviews with key personnel a plan was developed to survey weigh station personnel. The plan included surveys of all 8 weigh permanent stations and two satellite stations with scales, with the cooperation of the Lieutenants assigned at each station. Satellite stations located

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at Wilmington, Salisbury, and Raleigh were not considered since these are all located in DMV administrative buildings with no scales associated with them.

c) **Conduct of Surveys.** Surveys were completed as planned. Data was collected from all 10 stations. Surveys were performed over a period of two weeks.

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II. EXECUTIVE SUMMARY

A. OVERALL

The ages and overall conditions of the weigh stations limit their effectiveness and safety. With the exception of the new Hillsborough station, all other stations are over 20 years old. Two of the stations are 50 years old. None of the older 9 stations were designed to handle the truck traffic present today. Additionally none of the stations were designed to perform the administrative functions and staffing required of the stations today.

B. SUMMARY OF RECOMMENDATIONS

Recommendation 1. That a six year construction/renovation plan be accepted for inclusion in the TIP. The costs projected for this recommendation are almost \$17,000,000. The plan, detailed in Appendix G, features:

- improved safety
- faster truck processing
- replacement of worn out station components
- new and renovated office space to meet administrative needs
- improved customer waiting areas
- compliance with ADA requirements
- facilities for the conduct of motor carrier safety inspections
- less congestion in station truck parking areas

The plan developed was based on priorities of needed improvements. A team gathered to establish those priorities within basic improvement categories. The facility improvements recommended were grouped into three major categories.

Safety Improvements- Acceleration ramp extensions, scale bypass lanes, deceleration ramp extensions, traffic control signals, visual message systems, and WIM (Weigh in Motion) devices.

Scale Replacements- New scale booths, new scale construction, new scale controls, and scale ramp revisions.

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Building/Parking Improvements- Exterior lighting, new buildings or additions, new septic systems, new wells, renovation of existing buildings, construction of safety inspection pits, and increased truck parking. Priorities for these improvements are as follows:

<u>Safety Improvements</u>	<u>Scale Replacement</u>	<u>Building/Parking</u>
Charlotte	Asheville	Asheville
Asheville	Hendersonville	Hendersonville
Hendersonville	Lumberton	Lumberton
Statesville	Statesville	Statesville
Lumberton	Mt. Airy	Mt. Airy
Halifax	Charlotte	Charlotte
Mt. Airy	Halifax	Halifax
Duplin County	Duplin County	Duplin County

Recommendation 2. That a long range study be conducted of the Statewide weigh station system. The study would include the appropriate new locations, consolidations, closings, and further improvements to the existing facilities. There are two factors which drive this recommendation. First, during the next 20 years estimated truck traffic will double. Second, emerging technologies are providing new ways to process truck traffic with less reliance on fixed weigh stations.

Traffic Increases. DOH Traffic Services has estimated that traffic in the vicinity of the weigh stations will go up in the following amounts:

Asheville	85%
Charlotte	71%
Halifax	77%
Hendersonville	70%
Lumberton	78%
Mt Airy	104%
Statesville	104%

Emerging Technologies. Technologies now gaining use across the nation and being developed using currently available automation technologies. Some of these technologies are currently in use in NC.

WIM (Weigh in Motion): Devices used to weigh trucks while they are in motion. These devices can be used in fixed weigh stations to segregate trucks for accurate

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stationary weighing. They can also be installed in traffic lanes to measure general weight compliance of all vehicles. Both types are currently in use in NC.

Pre-Trip Weight: System that allows approved trucking operators to weigh their own vehicles on calibrated scales prior to dispatch. Coupled with other monitoring equipment would exempt these vehicles from going through fixed weigh stations.

Truck Transponders: Equipment that can report electronically location and approved weight of trucks so equipped to any States with transponder processing equipment. Trucks would not be required to go through fixed weigh stations. Equipment also to be used for fuel tax compliance.

Truck Bar Coding: Trucks are equipped with bar codes on the tractor. This bar code can be read by bar code readers sited along highway system. Shippers report truck ID, shipping manifest, and weight to all States along the route of travel. Trucks are not required to go through fixed weigh stations. Equipment also to be used for fuel tax compliance.

C. REVENUE GENERATION

Current data indicates that based on existing staffing and with all scales operational, Enforcement personnel are passing approximately 50% of all truck traffic through the stations. As the result of traffic backups, slow or inoperable scales, and duty officers issuing citations; only about 25% of all trucks are being weighted accurately. Current operations allow, during a typical 24 hour day, the following numbers of trucks to be weighed assuming all scales are in operation.

	<u>Truck Traffic</u>	<u>Trucks Weighed</u>	<u>Percentage</u>
Asheville	6,676	4,222	63.2
Charlotte	23,267	7,380	31.7
Halifax	5,642	5,487	97.2
Hendersonville	10,353	4,668	45.1
Lumberton	7,848	4,020	51.2
Mt. Airy	5,581	4,449	79.7
Statesville	7,072	3,480	49.2
Statewide	66,439	33,706	50.7

If, with the renovations and construction recommended, Enforcement were able to weight 50% more trucks (75% of all truck traffic) revenue derived from overweight citations could be increased.

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During the past year Enforcement issued 10,058 citations worth \$4,380,388. A 50% increase in the number of trucks weighed **could** generate as much as \$2,190,194 in new overweight revenues. This figure is two thirds of the estimated construction/renovation costs. The total pay-back period for this project would be 7.6 years or 1.6 years after completion of the projects recommended. NOTE: The revenues projected are an estimate only.

D. ACCIDENT REDUCTION

Although it would be impossible with available data to predict accident reductions based on safety recommendation upgrades, most Lieutenants based at the stations felt that accident reduction at their stations was their number one concern.

All stations reported that frequently truck traffic backs up into the travel lanes of the interstates. The causes of these backups are short deceleration lanes, high truck traffic, inoperative truck signaling devices, and slow truck processing.

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**III. DETAILED FINDINGS, CONCLUSIONS AND
RECOMMENDATIONS**

A. OVERALL

“Never have so few done so much with so little!” -unknown

All but one station in the State are more than 20 years old. The oldest was built in 1948 and the newest completed in 1996. The order of construction is as follows:

1948	Hertford
1950	Kinston
1970	Asheville
1970	Lumberton
1970	Statesville
1974	Hendersonville
1978	Mt. Airy
1979	Charlotte
1985	Halifax
1996	Hillsborough *

*Hillsborough was constructed as the result of the destruction of the old station during widening of I-85/I-40. Only the newest four stations are equipped with the longer 10x14x45 scales and electronic scale controls. The next older four stations are equipped with 10x10x45 scales with non- electronic scale controls. The oldest two are equipped with a single 10foot scale and non-electronic scale controls. With the exception of the Hillsborough station none of the older stations were constructed to house the administrative functions, motor carrier safety officers, rest area security, and portable scales officers now assigned to each station. They were built for a total of 5 officers or less not the current average of 21.6 per station.

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B. STATION ANALYSIS

B.1. ASHEVILLE

Finding. Constructed in 1975, both eastbound (EB) and westbound (WB) stations are in poor condition. Both sides suffer from deceleration ramps being too short, the electronic buzzers do not operate, electrical service is insufficient, parking areas are too small to perform safety inspections, lighting is inadequate to perform safety inspections, scale pads are too short to measure more than 50% of all trucks, and scale controls have never been replaced. The narrow catwalks on both sides prevent weighing over-sized loads.

These stations are located on a stretch of Interstate 40 that has both long haul through traffic and a large number of local vehicles. This mixture of traffic types increases the dangers involved in the operation of a weigh station. Due to high traffic counts, short deceleration ramps, and small scales both stations must be closed at least 40 times per day to keep trucks from backing into the traffic lanes.

The eastbound side (main office) is too small for the administrative functions of the main office, the scale booth is missing, and the wall between the number 1 and number 2 scales has collapsed. This side does have city water which ensures adequate quality water. The septic system appears to be in good operating order.

The westbound side (off side) scale booth is inoperative due to wood rot and a leaking roof. The size of the station office appears to be adequate for its functions. This station has well water and has not been reported contaminated. The septic system appears to be in good operating order.

Recommendation. It is recommended that the following items be addressed to bring this station up to acceptable standards.

1. EB, construct new offices containing features outlined in overall recommendations.
2. WB, construct small addition to make provision for ADA accessibility and to provide for a driver waiting area.
3. Both sides, extend deceleration ramps, install WIM devices, build new scales, expand parking areas, replace scale booths, improve exterior lighting, and improve highway warning signs.

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Benefits. Major benefits include greater public safety, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.2. CHARLOTTE

Finding. Constructed in 1979, both stations are in fair condition. Both sides suffer from deceleration ramps being too short, have electrical service that is marginal, their truck parking areas are too small to perform safety inspections, and lighting in the parking area may not be enough to perform safety inspections.

The stations are located on a stretch of I-85 that has both long haul through traffic and a large number of local vehicles. This mixture of traffic types increases the dangers involved in the operation of weigh stations. Due to high traffic counts and short deceleration ramps, the stations must be closed at least 20 times per day to keep trucks from backing into the interstate traffic lanes. Both sides are equipped with two 10x14x45 scales with new controls. These scales are capable of weighing most vehicles except those with tandem trailers and those operating "California" type tractors. This type tractor accounts for less and 5% of all vehicles. The distance between the steering axle and rear drive axle exceed the 24 foot maximum on these scales.

The southbound side (SB)(main office) is too small for the administrative functions of the main office. This side uses well water that has chemical contamination. The septic system appears to be in good working order with no problems expressed.

The northbound side (NB) (off side) would appear to be large enough for existing operations. This side uses well water that is contaminated. The septic system appears to be in good working order with no problems expressed.

Recommendation. It is recommended that the following items be addressed to bring these stations up to acceptable standards.

1. SB, construct new offices containing features outlined in overall recommendations.
2. NB, construct small addition to make provision for ADA accessibility and to provide for a driver waiting area.
3. Both sides, extend deceleration ramps, install WIM devices, expand parking areas, replace scale booths, improve exterior lighting, and improve highway warning signs.

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Benefits. Major benefits include greater public safety, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.3. HALIFAX

Finding. Constructed in 1985, both sides are in generally fair condition. Parking areas are too small to perform safety inspections, stations are not equipped with traffic alarms, and lighting may not be enough to perform safety inspections. Existing electrical service on both sides seems to be marginal for the load. Both sides are equipped with two 10x14x45 scales with new controls. These scales are capable of weighing most vehicles except those with tandem trailers and those operating "California" type tractors.

The southbound (SB) (main office) is too small for the administrative functions of the main office. This station uses well water that continues to be tested as contaminated. The septic system is in poor condition and appears to have a cracked tank. The cracked tank allows surface water to fill the tank and contribute to the water contamination.

The northbound (NB) (off side) appears to be large enough for existing operations. The deceleration ramp is too short, its well water is contaminated, and the septic system is in poor condition. The septic tank may be cracked allowing it to fill with ground water and contribute to well water contamination.

Recommendation. It is recommended that the following items be addressed to bring these stations up to acceptable standards.

1. SB, construct new offices containing features outlined in overall recommendations. New offices would include new well and septic system.
2. NB, construct small addition to make provision for ADA accessibility and to provide for a driver waiting area.
3. NB, repair or replace septic system. If that does not correct the contamination problem, drill a new well.
4. NB, extend deceleration ramp.
5. Both sides, install WIM devices, expand parking areas, replace scale booths, improve exterior lighting, and improve highway warning signs.

Benefits. Major benefits include greater public safety, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and make provision for future growth.

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B.5. HERTFORD

Finding. This station constructed in 1948 is the oldest in the State. The entire facility is outdated and does not meet the needs of the State. The deceleration ramp is only 250 feet long (compared to more than 1000 at other locations), there is only one 10 scale, there is no traffic alarm, the parking area is too small to perform safety inspections, there is no outdoor lighting for after dark operation, and is located on one side of the highway only.

Recommendation. It is recommended that the following items be addressed to bring this station up to acceptable standards.

1. Construct new station on both sides of the highway at the existing location or another location along the Elizabeth City bypass. Consider construction of a single station in the median of US 17 instead of two stations.

Benefits. Major benefits include greater public safety, increased weight caught, faster truck processing, improved employee productivity, allow for 100% truck weighing (now approximately .5%), improved station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.4. HENDERSONVILLE

Finding. Constructed in 1974, both eastbound (EB) and westbound (WB) stations are in poor condition. Both sides suffer from deceleration ramps being too short, they have no electronic traffic alarm, electrical service is poor, parking areas are too small to perform safety inspections, scale pads are too short to measure more than 50% of all trucks, and scale controls have never been replaced. Narrow catwalks on both sides prevent weighing over-sized loads. Storage buildings are original and leak. Narrow catwalks on both sides prevent weighing over-sized loads.

Due to high traffic counts, short deceleration ramps, and small scales both stations must be closed at least 60 times per day to keep trucks from backing into interstate traffic lanes.

The WB (main office) is too small for the administrative functions of the main office. The scale booth is missing and well water is poor. The septic systems appears to be OK.

The EB (off side) appears to be large enough for existing operations. The scale booth is rotted and leaks. Its well water is poor and the septic system is OK. The storage building has been crushed on one end.

Recommendation. It is recommended that the following items be addressed to bring this station up to acceptable standards.

1. WB, construct new offices containing features outlined in overall recommendations.
2. EB, construct small addition to make provision for ADA accessibility and to provide for a driver waiting area.
3. Both sides, extend deceleration ramps, install WIM devices, build new scales, expand parking areas, replace scale booths, improve exterior lighting, and improve highway warning signs. Replace storage buildings.

Benefits. Major benefits include greater public safety, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.6. HILLSBOROUGH

Finding. These two stations constructed in 1996 are in outstanding condition. With the exception of problems involved in station construction all components of the station meet current and future needs. The construction issues still remaining include inoperative controls (wiring issue), windows leak during rainstorms, roof leaks, and ground water entering septic system. Design problems include catwalks and buildings too close to scales preventing the weighing of over-sized loads.

Recommendation. Correct construction issues.

Benefits. Will improve station reliability and prevent water damage to buildings.

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B.7. KINSTON

Finding. This station, constructed in 1950 is the second oldest in the State. This station does not meet the needs of the State. The deceleration ramp is only 250 feet (compared to 1000 feet), there is only a single 10 foot scale, there is some outdoor lighting for operations during darkness, there is a limited parking area for safety inspections, and electrical service is inadequate.

Recommendation. It is recommended that the following items be addressed to bring this station up to acceptable standards.

1. Construct a new station at another location. Consider a single station in the center median of US70.

Benefits. Major benefits include greater public safety, increased weight caught, faster truck processing, improved employee productivity, allow for 100% truck weighing compared to current less and .5%, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.8. LUMBERTON

Finding. Constructed in 1970, both northbound (NB) and southbound (SB) stations are in poor condition. Both sides have deceleration ramps that are too short, insufficient electrical service, parking areas that are too small to perform safety inspections, scale pads are too short to measure more than 50% of all trucks, have scale controls that have never been replaced, and scale booths that are rotted. The narrow catwalks on both sides prevent weighing over-sized trucks. The storage buildings on both sides are in poor condition and leak.

These stations are located on a stretch of Interstate 95 that has both long haul through traffic and a large number of local vehicles. This mixture of traffic types increases the dangers involved in the operation of weigh stations. Due to high traffic counts, short deceleration ramps, and small scales; both stations must be closed at least 20 times per day to keep trucks from backing into the traffic lanes.

The NB (main office) station is too small for the administrative functions of the main office. This side uses county water but has a septic system that is in poor condition. The electric service was added to this station (100amp), but it is still in poor condition.

The SB (off side) station size is somewhat too small for existing operations. This side also uses county water and its septic system is reported as fair. Electrical service has not been upgraded and is in fairly good condition.

Recommendation. It is recommended that the following items be addressed to bring this station up to acceptable standards.

1. NB, construct new offices containing features outlined in overall recommendations.
2. SB, construct small addition to make provision for ADA accessibility and to provide for a driver waiting area.
3. Both sides, extend deceleration ramps, install WIM devices, build new scales, expand parking areas, replace scale booths, improve exterior lighting, replace storage buildings, and improve highway warning signs.

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Benefits. Major benefits include greater public safety, increase weight citations, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.9. MT. AIRY

Finding. Constructed in 1978, both southbound (SB) and northbound (NB) stations are in fair condition. Both sides have deceleration ramps that are too short, parking areas are too small to perform safety inspections, lighting is inadequate to perform safety inspections, and scale booths are rotted. The narrow catwalks on both sides prevent weighing over-sized loads. Both sides are equipped with window HVAC systems that are in poor condition.

These stations, located on interstate 77 are subject to high levels of truck traffic. I-77 is a major north-south route for trucks. The hills that surround these stations prevent long sight distances prior to entering the stations. Due to high traffic counts, limited vision, and short deceleration ramps both sides must be closed over 100 times per day to keep trucks from backing into the traffic lanes.

The SB (main office) station is too small for the administrative functions of the main office. It has well water that is OK and a septic system that is in good condition.

The NB (off-side) station size appears to be adequate for current operations. Its well water is OK and a septic system that is in good condition.

Recommendation. It is recommended that the following items be addressed to bring these stations up to acceptable standards.

1. SB, construct new offices containing features outlined in overall recommendations.
2. NB, construct a small addition, to make provision for ADA accessibility and to provide for a driver waiting area.
3. Both sides, extend deceleration ramps, install WIM devices, expand parking areas, replace scale booths, improve exterior lighting, and improve highway warning signs.

Benefits. Major benefits include greater public safety, increased weight citations, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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B.10. STATESVILLE

Finding. Constructed in 1970, both eastbound (EB) and westbound (WB) stations are in poor condition. At both locations electrical service is insufficient, parking areas are too small to perform safety inspections, scales pads are too small to weigh more than 50% of all trucks, scale controls have never been replaced, and scale booths are rotted. The narrow catwalks on both sides prevent weighing over-sized loads.

These stations are located on a stretch of Interstate 40 near the intersection of I-40 and I-77. Both stations experience large combinations of long haul through traffic and local vehicles. This mixture of traffic types increases the dangers involved in the operation of a weigh station. Due to high traffic counts, short deceleration ramps, and small scales; both stations must close at least 50 times a day to keep trucks from backing up into interstate traffic lanes.

The WB (main office) station is too small for the administrative functions of the main office, its deceleration ramp is too short (limited by bridge), it is equipped with an original central HVAC system that is in poor condition, its well is poor but the septic system is in good condition.

The EB (off side) station appears to be of adequate size for current operations. The deceleration ramp is long enough but not adequately marked, its well is in poor condition but the septic system is good.

Recommendation. It is recommended that the following items be addressed to bring this station up to acceptable standards.

1. WB, construct new offices containing features outlined in overall recommendations. Included with new building would be to either connect with municipal water and sewer or construct new. Extend deceleration ramp if feasible. If not, relocate station to old rest area one mile west of current location.
2. EB, construct small addition to make provision for ADA accessibility and to provide for a driver waiting area. Either connect station to municipal water supply or drill new well.
3. Both sides, install WIM devices, build new scales, expand parking areas, replace scale booths, improve exterior lighting, and improve highway warning signs.

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Benefits. Major benefits include greater public safety, increased weight citations, faster truck processing, improved employee productivity, allow for 100% truck weighing, improve station safety, make available an adequate area for Motor Carrier Safety inspections, and to make provision for future growth.

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C. EXISTING/PLANNED PROJECTS

In 1990 based on a memorandum from Commissioner Hyatt (October 31, 1990) to Highway Administrator Marley, actions were begun to make needed repairs and upgrades to DMV's network of weigh stations. In December the Chief Engineer-Preconstruction, Tommy Peacock instructed the Director of Program, Policy & Budget, Larry Goode to include the following projects in the TIP as soon as funds became available and authorized engineering funds.

- 1) Project 1. The replacement of scale instrumentation at Charlotte, Mt. Airy, and Halifax. Funding requested for \$478,500.
- 2) Project 2. The replacement of scales and buildings enlarged at Statesville, Asheville, Hendersonville, and Lumberton. Funding requested for \$2,196,000.
- 3) Project 3. Construction of a new station at Hertford. Funding requested for \$1,565,000.
- 4) Project 4. Construction of (2) new weigh stations at Kinston. Funding requested for \$2,500,000.

In 1992 Tommy Peacock requested changes in the project funding requested in 1990 to include replacement of the station in the WestBound lanes of I-40 at Statesville. He requested funding of \$1,800,000 for replacement of that station and renovations at the EastBound station. Two months later Larry Goode responded to that memo stating that no funding had been placed in the TIP but would be included in their Division needs listing to be discussed by the Board of Transportation prior to publishing the 1993 TIP update.

Since 1992 the only action completed on any of the above requests was that Project 1 was funding and completed in 1996. The funding for Statesville was placed in the TIP for \$1,800,000 with an estimated contract bid date of 2002. No other action has taken place. Please note summary on next page:

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<u>Location</u>	<u>Est. Bid Date</u>	<u>Amount</u>	<u>Project</u>	<u>Status</u>
Asheville	1996	274,500	Scales & Renovation	No Action
Asheville	1996	274,500	Scales & Renovation	No Action
Halifax	1994	95,700	Scale Instrumentation	Complete 1996
Halifax	1994	95,700	Scale Instrumentation	Complete 1996
Hendersonville	1996	274,500	Scales & Renovation	No Action
Hendersonville	1996	274,500	Scales & Renovation	No Action
Statesville	2002	274,500	Scales & Renovation	Not Funded
Statesville	2002	1,525,500	Relocate Station	Not Funded
Kinston	1998	2,500,000	New Station	Not Funded
Charlotte	1994	95,700	Scale Instrumentation	Complete 1996
Charlotte	1994	95,700	Scale Instrumentation	Complete 1996
Hillsborough	1994	1,300,000	New Station	Complete 1996
Hillsborough	1994	1,300,000	New Station	Complete 1996
Burgaw	1992	1,300,000	New Station	Not Funded
Hertford	1995	1,565,000	New Station	Not Funded
Lumberton	1996	274,500	Scales & Renovation	No Action
Lumberton	1996	274,500	Scales & Renovation	No Action
Mt. Airy	1994	47,850	Scale Instrumentation	Complete 1996
Mt. Airy	1994	47,850	Scale Instrumentation	Complete 1996
Mt. Airy (NB)	1994	310,000	1500ft Ramp Extension	Bid 9/15/98
Mt. Airy (SB)	1998	274,500	1200ft Ramp Extension	Bid 9/15/98

In addition to the projects requested in 1990 two projects were placed on the TIP. One has been completed and the other is on hold, not funded. The Hillsborough weigh stations were completed in 1996. The construction of a station at Burgaw on I-40 in Pender County has been placed on hold.

General Services has also received some Capital Improvement funds for renovations. They have funded \$100,000 for electrical renovations and \$84,000 for HVAC renovations. Those projects are under way at this time.

IV. IMPLEMENTATION PLAN

A. GENERAL SERVICES ACTIONS

Facilities Management personnel should be responsible for needed engineering and architectural service required for the various projects. Facilities Management personnel could also be responsible for project management in cooperation with appropriate DOH personnel.

B. ENFORCEMENT ACTIONS

Enforcement management personnel to coordinate with Facilities Management is specific project design and construction. Enforcement management should also be responsible for ensuring that long range planning be done for the future of weigh stations.

C. PRODUCTIVITY SERVICES SUPPORT

Productivity Service's management engineers can provide assistance in the development of specific implementation plans for recommendations accepted by General Services and Enforcement. Management engineers can also take roles as project managers for accepted recommendations. These added support roles can help General Services and Enforcement keep its management resources involved in day-to-day operations and not have to be involved in the new implementation plans.

APPENDIX A
WEIGH STATION OFFICE REQUIREMENTS DATA

APPENDIX A contains tables for each station indicating present office space, proposed space based on current need, and the amounts of space provided at the new Hillsborough station.

WEIGH STATION OFFICE REQUIREMENTS DATA
Asheville

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office		111	150	164
Scales Office	Scale Controls	155	155	617
Storage Area		61	78	78
Mechanical			64	164
Inside Bath		34	64	78
Outside Bath		22	64	82
Clerical/Files		0	110	235
Reports Office		0	144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		21	225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		404	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office		191	155	617
Storage Area		31	39	78
Mechanical			22	164
Inside Bath		22	64	78
Outside Bath		22	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		266	621	2301

WEIGH STATION OFFICE REQUIREMENTS DATA
Charlotte

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office		92	150	164
Scales Office	Scale Controls	290	310	617
Storage Area		40	78	78
Mechanical		22	64	164
Inside Bath		23	64	78
Outside Bath		25	64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		52	256	230
Planned Growth	Estimate of 6%		92	0
Main Office Totals		544	1626	2301
OFF-SIDE				
Lt. Office		92		164
Scales Office		290	310	617
Storage Area		40	39	78
Mechanical		22	22	164
Inside Bath		23	64	78
Outside Bath		25	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		52	129	230
Planned Growth	Estimate of 6%		46	0
Off-Side Totals		544	818	2301

WEIGH STATION OFFICE REQUIREMENTS DATA

Halifax

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office		136	150	164
Scales Office	Scale Controls	340	310	617
Storage Area		50	78	78
Mechanical		19	64	164
Inside Bath		24	64	78
Outside Bath		24	64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		30	256	230
Planned Growth	Estimate of 6%		92	0
Main Office Totals		623	1626	2301
OFF-SIDE				
Lt. Office		136		164
Scales Office		340	310	617
Storage Area		50	39	78
Mechanical		19	22	164
Inside Bath		24	64	78
Outside Bath		24	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		30	129	230
Planned Growth	Estimate of 6%		46	0
Off-Side Totals		623	818	2301

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WEIGH STATION OFFICE REQUIREMENTS DATA
Hendersonville

Function	Special Needs/Comments or Equipment	Present Space	Proposed Space	Hillsborough Comparable
MAIN OFFICE				
Lt. Office		92	150	164
Scales Office	Scale Controls	153	155	617
Storage Area		70	78	78
Mechanical			64	164
Inside Bath		22	64	78
Outside Bath		22	64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		27	225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		386	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office		189	155	617
Storage Area		30	39	78
Mechanical			22	164
Inside Bath		21	64	78
Outside Bath		21	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		261	621	2301

WEIGH STATION OFFICE REQUIREMENTS DATA
Hertford

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office			150	164
Scales Office	Scale Controls		155	617
Storage Area			78	78
Mechanical			64	164
Inside Bath			64	78
Outside Bath			64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		0	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office			155	617
Storage Area			39	78
Mechanical			22	164
Inside Bath			64	78
Outside Bath			64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		0	621	2301

WEIGH STATION OFFICE REQUIREMENTS DATA

Kinston

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office			150	164
Scales Office	Scale Controls		155	617
Storage Area			78	78
Mechanical			64	164
Inside Bath			64	78
Outside Bath			64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		0	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office			155	617
Storage Area			39	78
Mechanical			22	164
Inside Bath			64	78
Outside Bath			64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		0	621	2301

WEIGH STATION OFFICE REQUIREMENTS DATA
Lumberton

Function	Special Needs/Comments or Equipment	Present Space	Proposed Space	Hillsborough Comparable
MAIN OFFICE				
Lt. Office		96	150	164
Scales Office	Scale Controls	148	155	617
Storage Area		64	78	78
Mechanical			64	164
Inside Bath		21	64	78
Outside Bath		21	64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		27	225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		377	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office		192	155	617
Storage Area		31	39	78
Mechanical			22	164
Inside Bath		22	64	78
Outside Bath		21	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		266	621	2301

WEIGH STATION OFFICE REQUIREMENTS DATA

Mt. Airy

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office		81	150	164
Scales Office	Scale Controls	152	155	617
Storage Area		58	78	78
Mechanical			64	164
Inside Bath		25	64	78
Outside Bath		23	64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		17	225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		356	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office		182	155	617
Storage Area		47	39	78
Mechanical			22	164
Inside Bath		22	64	78
Outside Bath		23	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		274	621	2301

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WEIGH STATION OFFICE REQUIREMENTS DATA
Statesville

<i>Function</i>	<i>Special Needs/Comments or Equipment</i>	<i>Present Space</i>	<i>Proposed Space</i>	<i>Hillsborough Comparable</i>
MAIN OFFICE				
Lt. Office		76	150	164
Scales Office	Scale Controls	149	155	617
Storage Area		76	78	78
Mechanical			64	164
Inside Bath		21	64	78
Outside Bath		21	64	82
Clerical/Files			110	235
Reports Office			144	148
Conference	10@15		150	182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation		26	225	230
Planned Growth	Estimate of 6%		81	0
Main Office Totals		369	1428	2301
OFF-SIDE				
Lt. Office				164
Scales Office		186	155	617
Storage Area		31	39	78
Mechanical			22	164
Inside Bath		21	64	78
Outside Bath		21	64	82
Clerical/Files				235
Reports Office				148
Conference				182
Driver Waiting Area			64	228
Janitorial Closet			16	29
Shower	Emergency Use		64	66
Circulation			98	230
Planned Growth	Estimate of 6%		35	0
Off-Side Totals		259	621	2301

APPENDIX B WEIGH STATION DATA SHEETS

APPENDIX B contains data collected on each station. Data collected was based on site visits to each station, interviews with personnel with knowledge of each facility, and historical records. Data that requires definition include:

Queue Storage: The length of space available for trucks to wait to be weighed.

Primary Scales: The length of each of the scales. The first is for the steering axle, the second is for the drive axles, and the third for the trailer.

Traffic Counts: The number of vehicles passing each station in a 24 hour period. Measured on week days.

MCSP Equipped: Is the station equipped to perform motor carrier safety inspections as required by Federal law.

Traffic Queues: The number of trucks that can be accommodated at one time in the waiting line.

Excess Queues: The number of times daily that the station must be closed due to truck traffic backup into travel lanes.

Entrance Ramp Configuration: S indicates scale lane, O indicates oversize/width lane, and B indicates a dedicated bypass lane.

Weigh Station Data Sheets

Station Name : Asheville
Station County : Buncombe
Highway : I-40 (WB)
Mile Marker : 40.5
DMV District : 8
Station Supervisor : 2LT D Rick Brookshire
Station Phone Number : 704-667-2820
Highway Division : 13
Year Constructed: 1975
Square Footage : 266
Officers Assigned : 0
Officers on Shift : 2
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : Well
Water Condition : Fair
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 225amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 600ft
Queue Storage : 550ft
Exit Ramp : 1950ft
Primary Scales : 10x10x45

Primary Scale Controls : Weigh-Tronix WS-310
Secondary Scales : N/A
Secondary Scale Controls : N/A
1996 Traffic Count : 21,200
2020 Estimated Traffic Count : 40,000
Designed Traffic Count : 7,140
Traffic Alarm : Electronic Buzzer
MCSP equipped : No
Current Normal Operating Hours : 0600-0300 M-F
Accident History per 100MVM : 53.89
Fatal Accident History per 100MVM : .77
Traffic Queues : 5
Excess Queues : 40 per day
Comments :
Entrance ramp configuration : S,O
Potential for ramp extension : 700ft, bridge obstacle
Other :
TIP Number :
Cons Ref Number :
Contract Bid Date : 1996
Contract Competition Date :
Engineer's Estimate : 274,500
Project Description : New Scales & Renovation
Field Survey Date : 03/06/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection :

Station Name : Asheville
Station County : Buncombe
Highway : I-40 (EB)
Mile Marker : 40.5
DMV District : 8
Station Supervisor : 2LT D Rick Brookshire
Station Phone Number : 704-667-2820
Highway Division : 13
Year Constructed: 1975
Square Footage : 404
Officers Assigned : 23
Officers on Shift : 4
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : City
Water Condition : Good
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 225amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 500ft
Queue Storage : 550ft
Exit Ramp : 2400ft
Primary Scales : 10x10x45
Primary Scale Controls : Weigh-Tronix WS-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 21,200
2020 Estimated Traffic Count : 40,000
Designed Traffic Count : 7,140
Traffic Alarm : Electronic Buzzer
MCSP equipped : No
Current Normal Operating Hours : 0600-0300 M-F
Accident History per 100MVM : 53.89
Fatal Accident History per 100MVM : .77
Traffic Queues : 5
Excess Queues : 40 per day
Comments :
Entrance ramp configuration : S,O
Potential for ramp extension : 500ft, bridge obstacle
Other : Scales Inoperative
TIP Number :
Cons Ref Number :
Contract Bid Date : 1996
Contract Competition Date :
Engineer's Estimate : 274,500
Project Description : New Scales & Renovation
Field Survey Date : 03/06/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection :

Station Name : Burgaw
Station County : Pender
Highway : I-40 (EB)
Mile Marker : Unknown
DMV District : 2
Station Supervisor : N/A
Station Phone Number : N/A
Highway Division : 3
Year Constructed: 0
Square Footage : 0
Officers Assigned : 0
Officers on Shift : 0
HVAC Type : N/A
HVAC Condition : N/A
Water Supply : N/A
Water Condition : N/A
Sewage System : N/A
Sewage Condition : N/A
Electrical Service : N/A
Electrical Condition : N/A
ADA Compliant : N/A
Entrance Ramp : N/A
Queue Storage : N/A
Exit Ramp : N/A
Primary Scales : N/A
Primary Scale Controls : N/A
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count :
2020 Estimated Traffic Count :
Designed Traffic Count :
Traffic Alarm : N/A
MCSP equipped : No
Current Normal Operating Hours : N/A
Accident History per 100MVM :
Fatal Accident History per 100MVM :
Traffic Queues : N/A
Excess Queues : N/A
Comments : N/A
Entrance ramp configuration : N/A
Potential for ramp extension : N/A
Other : New, Project on hold
TIP Number : X-3D
Cons Ref Number :
Contract Bid Date : On Hold
Contract Competition Date : On Hold
Engineer's Estimate :
Project Description : New Station
Field Survey Date :
Building Additions :
Storage Building :
Latest Safety Inspection :

Station Name : Burgaw
Station County : Pender
Highway : I-40 (WB)
Mile Marker : Unknown
DMV District : 2
Station Supervisor : N/A
Station Phone Number : N/A
Highway Division : 3
Year Constructed: 0
Square Footage : 0
Officers Assigned : 0
Officers on Shift : 0
HVAC Type : N/A
HVAC Condition : N/A
Water Supply : N/A
Water Condition : N/A
Sewage System : N/A
Sewage Condition : N/A
Electrical Service : N/A
Electrical Condition : N/A
ADA Compliant : N/A
Entrance Ramp : N/A
Queue Storage : N/A
Exit Ramp : N/A
Primary Scales : N/A
Primary Scale Controls : N/A
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count :
2020 Estimated Traffic Count :
Designed Traffic Count :
Traffic Alarm : N/A
MCSP equipped : No
Current Normal Operating Hours : N/A
Accident History per 100MVM :
Fatal Accident History per 100MVM :
Traffic Queues : N/A
Excess Queues : N/A
Comments : N/A
Entrance ramp configuration : N/A
Potential for ramp extension : N/A
Other : New, Project on hold
TIP Number : X-3D
Cons Ref Number :
Contract Bid Date : On Hold
Contract Competition Date : On Hold
Engineer's Estimate :
Project Description : New Station
Field Survey Date :
Building Additions :
Storage Building :
Latest Safety Inspection :

Station Name : Charlotte
Station County : Mecklenburg
Highway : I-85 (NB)
Mile Marker : 27
DMV District : 6
Station Supervisor : 2LT David L Austin
Station Phone Number : 704-392-6960
Highway Division : 10
Year Constructed: 1979
Square Footage : 544
Officers Assigned : 0
Officers on Shift : 3
HVAC Type : Gas Pack
HVAC Condition : Good
Water Supply : Well
Water Condition : Chem Contamination
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 225amp + 150 amp
Electrical Condition : Some Power Surges
ADA Compliant : No
Entrance Ramp : 900ft
Queue Storage : 700ft x 2
Exit Ramp : 2000ft plus
Primary Scales : 10x14x45
Primary Scale Controls : Cardinal/Detecto Wyse 60
Secondary Scales : 10x14x45

Secondary Scale Controls : Cardinal/Detecto Wyse 60

1996 Traffic Count : 40,050

2020 Estimated Traffic Count : 70,000

Designed Traffic Count : 18,300

Traffic Alarm : No Alarm

MCSP equipped : No

Current Normal Operating Hours : 24hr M-F

Accident History per 100MVM : 72.54

Fatal Accident History per 100MVM : .62

Traffic Queues : 10

Excess Queues : 20 per day

Comments : Suggest relocation

Entrance ramp configuration : S,S,O

Potential for ramp extension : No, bridge obstacle

Other :

TIP Number :

Cons Ref Number :

Contract Bid Date : 1994

Contract Competition Date :

Engineer's Estimate : 95,700

Project Description : Scale Instrumentation

Field Survey Date : 02/27/1998

Building Additions : None

Storage Building : 12x12

Latest Safety Inspection : 09/08/1997

Station Name : Charlotte
Station County : Mecklenburg
Highway : I-85 (SB)
Mile Marker : 27
DMV District : 6
Station Supervisor : 2LT David L Austin
Station Phone Number : 704-392-6960
Highway Division : 10
Year Constructed: 1979
Square Footage : 544
Officers Assigned : 38
Officers on Shift : 4
HVAC Type : Gas Pack
HVAC Condition : Good
Water Supply : Well
Water Condition : Chem Contamination
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 225amp + 150amp
Electrical Condition : Some Power Surges
ADA Compliant : No
Entrance Ramp : 1300ft
Queue Storage : 700ft x 2
Exit Ramp : 2000ft plus
Primary Scales : 10x14x45
Primary Scale Controls : Cardinal/Detecto Wyse 60
Secondary Scales : 10x14x45

Secondary Scale Controls : Cardinal/Detecto Wyse 60

1996 Traffic Count : 40,050

2020 Estimated Traffic Count : 70,000

Designed Traffic Count : 18,300

Traffic Alarm : No Alarm

MCSP equipped : No

Current Normal Operating Hours : 24hr M-F

Accident History per 100MVM : 72.54

Fatal Accident History per 100MVM : .62

Traffic Queues : 10

Excess Queues : 20 per day

Comments : Suggest relocation

Entrance ramp configuration : S,S,O

Potential for ramp extension : No, bridge obstacle

Other :

TIP Number :

Cons Ref Number :

Contract Bid Date : 1994

Contract Competition Date :

Engineer's Estimate : 95,700

Project Description : Scale Instrumentation

Field Survey Date : 02/27/1998

Building Additions : None

Storage Building : 12x12

Latest Safety Inspection : 09/08/1997

Station Name : Halifax
Station County : Halifax
Highway : I-95 (NB)
Mile Marker : 151
DMV District : 3
Station Supervisor : Sgt. David L Boyce
Station Phone Number : 919-445-2122
Highway Division : 4
Year Constructed: 1985
Square Footage : 623
Officers Assigned : 0
Officers on Shift : 2
HVAC Type : Window Units
HVAC Condition : Good
Water Supply : Well
Water Condition : Contaminated
Sewage System : Septic
Sewage Condition : Poor
Electrical Service : 300amp
Electrical Condition : Fair
ADA Compliant : No
Entrance Ramp : 800ft
Queue Storage : 700ft x 2
Exit Ramp : 1900ft
Primary Scales : 10x14x45
Primary Scale Controls : Cardinal/Detecto Wyse 60
Secondary Scales : 10x14x45

Secondary Scale Controls : Cardinal/Detecto Wyse 60

1996 Traffic Count : 18,000

2020 Estimated Traffic Count : 32,500

Designed Traffic Count : 10,425

Traffic Alarm : No Alarm

MCSP equipped : No

Current Normal Operating Hours : 24hr M-F

Accident History per 100MVM : 82.63

Fatal Accident History per 100MVM : 2.21

Traffic Queues : 10

Excess Queues : 5 per day

Comments :

Entrance ramp configuration : S,S,O

Potential for ramp extension : No, bridge obstacle

Other :

TIP Number :

Cons Ref Number :

Contract Bid Date : 1994

Contract Competition Date :

Engineer's Estimate : 95,700

Project Description : Scale Instrumentation

Field Survey Date : 02/26/1998

Building Additions : None

Storage Building : 12x12

Latest Safety Inspection : 07/31/1997

Station Name : Halifax
Station County : Halifax
Highway : I-95 (SB)
Mile Marker : 151
DMV District : 3
Station Supervisor : Sgt. David L Boyce
Station Phone Number : 919-445-2122
Highway Division : 4
Year Constructed: 1985
Square Footage : 623
Officers Assigned : 21
Officers on Shift : 4
HVAC Type : Window Units
HVAC Condition : Good
Water Supply : Well
Water Condition : New/not connected
Sewage System : Septic
Sewage Condition : Poor
Electrical Service : 300amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 1000ft
Queue Storage : 700ft x 2
Exit Ramp : 2100ft
Primary Scales : 10x14x45
Primary Scale Controls : Cardinal Detecto Wyse 60
Secondary Scales : 10x14x45

Secondary Scale Controls : Cardinal Detector Wyse 60

1996 Traffic Count : 18,000

2020 Estimated Traffic Count : 32,500

Designed Traffic Count : 10,425

Traffic Alarm : No Alarm

MCSP equipped : No

Current Normal Operating Hours : 24hr M-F

Accident History per 100MVM : 82.63

Fatal Accident History per 100MVM : 2.21

Traffic Queues : 10

Excess Queues : 5 per day

Comments :

Entrance ramp configuration : S.S.O

Potential for ramp extension : 1100ft, bridge obstacle

Other :

TIP Number :

Cons Ref Number :

Contract Bid Date : 1994

Contract Competition Date :

Engineer's Estimate : 95,700

Project Description : Scale Instrumentation

Field Survey Date : 02/26/1998

Building Additions : None

Storage Building : 12x12

Latest Safety Inspection : 07/31/1997

Station Name : Hendersonville
Station County : Henderson
Highway : I-26 (EB)
Mile Marker : 15
DMV District : 8
Station Supervisor : 2LT Ronald D Snyder
Station Phone Number : 704-693-9712
Highway Division : 14
Year Constructed: 1974
Square Footage : 261
Officers Assigned : 0
Officers on Shift : 3
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : Well
Water Condition : Poor
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 150amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 700ft
Queue Storage : 750ft
Exit Ramp : 2200ft
Primary Scales : 10x10x45
Primary Scale Controls : Weigh-Tronix WS-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 19,250
2020 Estimated Traffic Count : 33,500
Designed Traffic Count : 9,000
Traffic Alarm : No Alarm
MCSP equipped : No
Current Normal Operating Hours : 0500-0200 M-F
Accident History per 100MVM : 35.26
Fatal Accident History per 100MVM : 0
Traffic Queues : 5
Excess Queues : 60 per day
Comments :
Entrance ramp configuration : S.O
Potential for ramp extension : 1600ft plus
Other :
TIP Number :
Cons Ref Number :
Contract Bid Date : 1996
Contract Competition Date :
Engineer's Estimate : 274,500
Project Description : New Scales & Renovation
Field Survey Date : 03/06/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection :

Station Name : Hendersonville
Station County : Henderson
Highway : I-26 (WB)
Mile Marker : 15
DMV District : 8
Station Supervisor : 2LT Ronald D Snyder
Station Phone Number : 704-693-9712
Highway Division : 14
Year Constructed: 1974
Square Footage : 386
Officers Assigned : 25
Officers on Shift : 3
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : Well
Water Condition : Poor
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 150amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 800ft
Queue Storage : 750ft
Exit Ramp : 1850ft
Primary Scales : 10x10x45
Primary Scale Controls : Weigh-Tronix Ws-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 19,250
2020 Estimated Traffic Count : 33,500
Designed Traffic Count : 9,000
Traffic Alarm : No Alarm
MCSP equipped : No
Current Normal Operating Hours : 0500-0200 M-F
Accident History per 100MVM : 35.26
Fatal Accident History per 100MVM : 0
Traffic Queues : 5
Excess Queues : 60 per day
Comments :
Entrance ramp configuration : S,O
Potential for ramp extension : 1600ft, bridge obstacle
Other :
TIP Number :
Cons Ref Number :
Contract Bid Date : 1996
Contract Competition Date :
Engineer's Estimate : 274,500
Project Description : New Scales & Renovation
Field Survey Date : 03/06/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection :

Station Name : Hertford
Station County : Perquimans
Highway : US-17 (WB)
Mile Marker : US17 & SR1224
DMV District : 1
Station Supervisor : 1SG Michael A Pritchard
Station Phone Number : 919-264-2717
Highway Division : 1
Year Constructed: 1948
Square Footage : 540
Officers Assigned : 11
Officers on Shift : 0
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : County
Water Condition : Good
Sewage System : Septic
Sewage Condition : Poor
Electrical Service : 100amp
Electrical Condition : Fair
ADA Compliant : No
Entrance Ramp : 250ft
Queue Storage : 0
Exit Ramp : 250ft
Primary Scales : 10
Primary Scale Controls : Fairbanks 90-9201
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count :
2020 Estimated Traffic Count :
Designed Traffic Count :
Traffic Alarm : No Alarm
MCSP equipped : No
Current Normal Operating Hours : 0500-2300 M-F
Accident History per 100MVM : 37.58
Fatal Accident History per 100MVM : 0
Traffic Queues : 1
Excess Queues : 0 per day
Comments : Suggest new station
Entrance ramp configuration : S
Potential for ramp extension : No, site too small
Other : Not in regular operation
TIP Number :
Cons Ref Number :
Contract Bid Date : 1995
Contract Competition Date :
Engineer's Estimate : 1,565,000
Project Description : New Station
Field Survey Date : 03/13/1998
Building Additions : None
Storage Building : 6x8
Latest Safety Inspection :

Station Name : Hillsborough
Station County : Orange
Highway : I-85 & I-40 (WB)
Mile Marker : 158
DMV District : 4
Station Supervisor : 2LT Linwood C. Richardson
Station Phone Number : 919-563-6108
Highway Division : 7
Year Constructed: 1996
Square Footage : 2301
Officers Assigned : 0
Officers on Shift : 3
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : City
Water Condition : Good
Sewage System : Septic w/field
Sewage Condition : Problems
Electrical Service : 400amp
Electrical Condition : New
ADA Compliant : Yes
Entrance Ramp : 2700ft
Queue Storage : 900ft x 2
Exit Ramp : 2100ft
Primary Scales : 14x14x45
Primary Scale Controls : International Road Dynamics
Secondary Scales : 14x14x45

Secondary Scale Controls : International Road Dynamic

1996 Traffic Count :

2020 Estimated Traffic Count :

Designed Traffic Count :

Traffic Alarm : WIM

MCSP equipped : Pad Only

Current Normal Operating Hours : 24hr M-F

Accident History per 100MVM : 24.64

Fatal Accident History per 100MVM : 0

Traffic Queues : 18

Excess Queues : 0

Comments : Cadillac Station

Entrance ramp configuration : S,S,O,O,B

Potential for ramp extension : N/A

Other : WIM equipped

TIP Number : I-230

Cons Ref Number : 8.1500312

Contract Bid Date : 08/17/93

Contract Competition Date : 1996

Engineer's Estimate : 1,300,000

Project Description : New Station

Field Survey Date : 03/12/1998

Building Additions : None

Storage Building : 12x12

Latest Safety Inspection :

Station Name : Hillsborough
Station County : Orange
Highway : I-85 & I-40 (EB)
Mile Marker : 158
DMV District : 4
Station Supervisor : 2LT Linwood C Richardson
Station Phone Number : 919-563-6108
Highway Division : 7
Year Constructed: 1996
Square Footage : 2301
Officers Assigned : 19
Officers on Shift : 3
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : City
Water Condition : Good
Sewage System : Septic w/field
Sewage Condition : Problems
Electrical Service : 400amp
Electrical Condition : New
ADA Compliant : Yes
Entrance Ramp : 2700ft
Queue Storage : 900ft x 2
Exit Ramp : 2100ft
Primary Scales : 14x14x45
Primary Scale Controls : International Road Dynamics
Secondary Scales : 14x14x45

Secondary Scale Controls : International Road Dynamic
1996 Traffic Count :
2020 Estimated Traffic Count :
Designed Traffic Count :
Traffic Alarm : WIM
MCSP equipped : Pad Only
Current Normal Operating Hours : 24hr M-F
Accident History per 100MVM : 24.64
Fatal Accident History per 100MVM : 0
Traffic Queues : 18
Excess Queues : 0
Comments : Cadillac Station
Entrance ramp configuration : S,S,O,O,B
Potential for ramp extension : N/A
Other : WIM equipped
TIP Number : I-230
Cons Ref Number : 8.1500312
Contract Bid Date : 08/17/93
Contract Competition Date : 1996
Engineer's Estimate : 1,300,000
Project Description : New Station
Field Survey Date : 03/12/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection :

Station Name : Kinston
Station County : Lenoir
Highway : US-70 (EB)
Mile Marker : US70 & US258 (S)
DMV District : 1
Station Supervisor : 1SG H Doug Smith
Station Phone Number : 919-523-3866
Highway Division : 2
Year Constructed: 1950
Square Footage : 543
Officers Assigned : 13
Officers on Shift : 3
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : City
Water Condition : Good
Sewage System : City
Sewage Condition : Good
Electrical Service : 60amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 300ft
Queue Storage : 0
Exit Ramp : 300ft
Primary Scales : 10
Primary Scale Controls : Fairbanks 90-184-1
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count :
2020 Estimated Traffic Count :
Designed Traffic Count :
Traffic Alarm : No Alarm
MCSP equipped : No
Current Normal Operating Hours : 0600-0300 M-F
Accident History per 100MVM :
Fatal Accident History per 100MVM :
Traffic Queues : 1
Excess Queues : 0 per day
Comments : Suggest new station
Entrance ramp configuration : S
Potential for ramp extension : No, site too small
Other : Not in regular operation
TIP Number :
Cons Ref Number :
Contract Bid Date : 1998
Contract Competition Date :
Engineer's Estimate : 2,500,000
Project Description : New Station
Field Survey Date : 03/12/1998
Building Additions : None
Storage Building : 8x10
Latest Safety Inspection :

Station Name : Lumberton
Station County : Robeson
Highway : I-95 (SB)
Mile Marker : 24
DMV District : 2
Station Supervisor : 2LT George F Inman
Station Phone Number : 910-618-5548
Highway Division : 6
Year Constructed: 1970
Square Footage : 266
Officers Assigned : 0
Officers on Shift : 2
HVAC Type : Electric
HVAC Condition : Fair
Water Supply : Municipal
Water Condition : Good
Sewage System : Septic
Sewage Condition : Fair
Electrical Service : 150amp
Electrical Condition : Good
ADA Compliant : No
Entrance Ramp : 1200ft
Queue Storage : 700ft
Exit Ramp : 1950ft
Primary Scales : 10x10x45
Primary Scale Controls : WeighTronics WS-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 18,700
2020 Estimated Traffic Count : 34,000
Designed Traffic Count : 12,850
Traffic Alarm : Electronic Buzzer
MCSP equipped : No
Current Normal Operating Hours : 0700-2300 M-f
Accident History per 100MVM : 63.3
Fatal Accident History per 100MVM : 1.49
Traffic Queues : 5
Excess Queues : 25 per day
Comments : Suggest relocation
Entrance ramp configuration : S.O
Potential for ramp extension : No, bridge obstacle
Other :
TIP Number :
Cons Ref Number :
Contract Bid Date : 1996
Contract Competition Date :
Engineer's Estimate : 274,500
Project Description : New Scales & Renovation
Field Survey Date : 02/25/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection : 08/21/1997

Station Name : Lumberton
Station County : Robeson
Highway : I-95 (NB)
Mile Marker : 24
DMV District : 2
Station Supervisor : 2LT George F Inman
Station Phone Number : 910-618-5548
Highway Division : 6
Year Constructed: 1970
Square Footage : 377
Officers Assigned : 27
Officers on Shift : 4
HVAC Type : Electric
HVAC Condition : Fair
Water Supply : Municipal
Water Condition : Good
Sewage System : Septic
Sewage Condition : Poor
Electrical Service : 150amp + 100amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 1300ft
Queue Storage : 600ft
Exit Ramp : 2000ft
Primary Scales : 10x10x45
Primary Scale Controls : WeighTronics WS-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 18,700
2020 Estimated Traffic Count : 34,000
Designed Traffic Count : 12,850
Traffic Alarm : Electronic Buzzer
MCSP equipped : No
Current Normal Operating Hours : 0700-2300 M-F
Accident History per 100MVM : 63.3
Fatal Accident History per 100MVM : 1.49
Traffic Queues : 5
Excess Queues : 25 per day
Comments : Suggest relocation
Entrance ramp configuration : S,O
Potential for ramp extension : No, highway entrance ramp
Other :
TIP Number :
Cons Ref Number :
Contract Bid Date : 1996
Contract Competition Date :
Engineer's Estimate : 274,500
Project Description : New Scales & Renovation
Field Survey Date : 02/25/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection : 08/21/1997

Station Name : Mt Airy
Station County : Surry
Highway : I-77 (SB)
Mile Marker : 103
DMV District : 5
Station Supervisor : 2TL R Nyle Mitchell
Station Phone Number : 910-320-2705
Highway Division : 11
Year Constructed: 1978
Square Footage : 356
Officers Assigned : 21
Officers on Shift : 2
HVAC Type : Window Units
HVAC Condition : Poor
Water Supply : Well
Water Condition : Fair
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 225amp
Electrical Condition : Good
ADA Compliant : No
Entrance Ramp : 700ft
Queue Storage : 700ft
Exit Ramp : 2000ft
Primary Scales : 10x14x45
Primary Scale Controls : Cardinal/Detecto Wyse 60
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 12,000
2020 Estimated Traffic Count : 25,000
Designed Traffic Count : 4,600
Traffic Alarm : Electronic Eye
MCSP equipped : No
Current Normal Operating Hours : 24hr M-F
Accident History per 100MVM : 22.64
Fatal Accident History per 100MVM : 1.62
Traffic Queues : 5
Excess Queues : 100 per day
Comments :
Entrance ramp configuration : S,O
Potential for ramp extension : 1300ft, bridge obstacle
Other :
TIP Number : I-2807e
Cons Ref Number :
Contract Bid Date : 9/15/98
Contract Competition Date : 2000
Engineer's Estimate : 247,500
Project Description : 1200ft Ramp Extension
Field Survey Date : 03/05/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection : 09/25/1997

Station Name : Mt Airy
Station County : Surry
Highway : I-77 (NB)
Mile Marker : 103
DMV District : 5
Station Supervisor : 2LT R Nyle Mitchell
Station Phone Number : 910-320-2705
Highway Division : 11
Year Constructed: 1978
Square Footage : 274
Officers Assigned : 0
Officers on Shift : 2
HVAC Type : Window Units
HVAC Condition : Poor
Water Supply : Well
Water Condition : Fair
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 225amp
Electrical Condition : Good
ADA Compliant : No
Entrance Ramp : 700ft
Queue Storage : 700ft
Exit Ramp : 2000ft
Primary Scales : 10x14x45
Primary Scale Controls : Cardinal/Detecto Wyse 60
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 12,000
2020 Estimated Traffic Count : 25,000
Designed Traffic Count : 4,600
Traffic Alarm : Electronic Eye
MCSP equipped : No
Current Normal Operating Hours : 24hr M-F
Accident History per 100MVM : 22.64
Fatal Accident History per 100MVM : 1.62
Traffic Queues : 5
Excess Queues : 120 per day
Comments :
Entrance ramp configuration : S.O
Potential for ramp extension : 1600ft plus
Other :
TIP Number : I-2807e
Cons Ref Number :
Contract Bid Date : 9/15/98
Contract Competition Date : 2000
Engineer's Estimate : 310,000
Project Description : 1500ft Ramp Extension
Field Survey Date : 03/05/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection : 09/25/1997

Station Name : Statesville
Station County : Iredell
Highway : I-40 (WB)
Mile Marker : 142.5
DMV District : 7
Station Supervisor : 2LT W E Thompson
Station Phone Number : 704-878-4249
Highway Division : 12
Year Constructed: 1970
Square Footage : 369
Officers Assigned : 18
Officers on Shift : 3
HVAC Type : Central Electric
HVAC Condition : Poor
Water Supply : Well
Water Condition : Poor
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 150amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 800ft
Queue Storage : 650ft
Exit Ramp : 2000ft
Primary Scales : 10x10x45
Primary Scale Controls : Weigh-Tronix WS-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 16,050
2020 Estimated Traffic Count : 33,500
Designed Traffic Count : 8,300
Traffic Alarm : Electronic
MCSP equipped : No
Current Normal Operating Hours : 0700-2300 M-F
Accident History per 100MVM : 58.56
Fatal Accident History per 100MVM : .43
Traffic Queues : 5
Excess Queues : 50 per day
Comments : To be relocated
Entrance ramp configuration : S.O
Potential for ramp extension : No, bridge obstacle
Other : Scheduled for move 2002
TIP Number : I-290
Cons Ref Number :
Contract Bid Date : 10/15/02
Contract Competition Date : 2005
Engineer's Estimate : 1,525,500
Project Description : Relocation/New Station
Field Survey Date : 03/05/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection : 08/27/1997

Station Name : Statesville
Station County : Iredell
Highway : I-40 (EB)
Mile Marker : 142.4
DMV District : 7
Station Supervisor : 2LT W E Thompson
Station Phone Number : 704-878-4249
Highway Division : 12
Year Constructed: 1970
Square Footage : 259
Officers Assigned : 0
Officers on Shift : 1
HVAC Type : Gas Pack
HVAC Condition : New
Water Supply : Well
Water Condition : Poor
Sewage System : Septic
Sewage Condition : Good
Electrical Service : 150amp
Electrical Condition : Poor
ADA Compliant : No
Entrance Ramp : 2800ft
Queue Storage : 650ft
Exit Ramp : 2650ft
Primary Scales : 10x10x45
Primary Scale Controls : Weigh-Tronix WS-310
Secondary Scales : N/A

Secondary Scale Controls : N/A
1996 Traffic Count : 16,050
2020 Estimated Traffic Count : 33,500
Designed Traffic Count : 8,300
Traffic Alarm : Electronic
MCSP equipped : No
Current Normal Operating Hours : 0700-2300 M-F
Accident History per 100MVM : 58.56
Fatal Accident History per 100MVM : .43
Traffic Queues : 19
Excess Queues : 50 per day
Comments :
Entrance ramp configuration : S,O
Potential for ramp extension : N/A
Other : Scheduled for renovation 2002
TIP Number : I-290
Cons Ref Number :
Contract Bid Date : 10/15/02
Contract Competition Date : 2005
Engineer's Estimate : 274,500
Project Description : Scale Instrumentation
Field Survey Date : 03/05/1998
Building Additions : None
Storage Building : 12x12
Latest Safety Inspection : 08/27/1997

APPENDIX C
ACCIDENT HISTORY 1993-1997

APPENDIX C contains comparative accident history for all stations. Data includes accidents each direction, total accidents within 2 miles (either direction), and total fatal accidents within those same two miles. Data is also supplied on the accident and fatal accident rates per 100 million vehicle miles.

ACCIDENT HISTORY 1993-1997
(Within 2 miles of weigh station)

	Asheville	Charlotte	Halifax	Hertford	Hendersonville	Hillsborough
NorthBound Lanes	n/a	121	41	15	n/a	32
SouthBound Lanes	n/a	113	71	18	n/a	68
EastBound Lanes	94	n/a	n/a	n/a	46	n/a
WestBound Lanes	46	n/a	n/a	n/a	42	n/a
TOTAL ACCIDENTS	140	234	112	33	88	100
FATAL ACCIDENTS	2	2	3	0	0	0
ACCIDENT RATE *	53.89	72.54	82.63	37.58	35.26	24.64
FATAL ACCIDENT RATE *	0.77	0.62	2.21	0	0	0

ACCIDENT HISTORY 1993-1997
 (Within 2 miles of weigh station)

	Kinston	Lumberton	Mt Airy	Statesville
NorthBound Lanes	n/a	76	10	n/a
SouthBound Lanes	n/a	94	18	n/a
EastBound Lanes		n/a	n/a	57
WestBound Lanes		n/a	n/a	78
TOTAL ACCIDENTS		170	28	135
FATAL ACCIDENTS		4	2	1
ACCIDENT RATE *		63.3	22.64	58.56
FATAL ACCIDENT RATE *		1.49	1.62	0.43

APPENDIX D
TRAFFIC HISTORY

APPENDIX D contains comparative traffic history for all stations. Data included is for 24 hour periods passing each station. Data indicates whether count is by estimate, ADT Books or ATR Station. Traffic history for Kinston and Hertford were not readily available since both are off the Interstate system.

TRAFFIC HISTORY
(A closest measurement site to weigh station)

	Asheville		Charlotte		Halifax		Hertford		Hendersonville	
1970	n/a		n/a		n/a		0		n/a	
1971	n/a		n/a		n/a		0		n/a	
1972	n/a		n/a		n/a		0		n/a	
1973	n/a		n/a		n/a		0		n/a	
1974	n/a		n/a		n/a		0		18,000	e
1975	14,280	b	n/a		n/a		0		18,300	e
1976	15,950	b	n/a		n/a		0		18,700	e
1977	17,080	b	n/a		n/a		0		19,100	e
1978	17,820	b	n/a		n/a		0		19,500	e
1979	16,720	b	36,600	e	n/a		0		19,900	e
1980	18,050	b	37,300	e	n/a		0		20,300	e
1981	17,750	b	38,000	e	n/a		0		20,700	e
1982	18,840	b	38,700	e	n/a		0		21,100	e
1983	20,010	b	39,500	e	n/a		0		21,500	e
1984	21,690	s	40,300	b	n/a		0		21,900	b
1985	21,800	s	42,200	b	20,850	s	0		21,900	b
1986	23,410	s	44,000	b	21,900	s	0		22,200	b
1987	24,200	s	44,000	b	23,590	s	0		25,000	b
1988	26,860	s	51,300	b	25,380	s	0		25,000	b
1989	28,290	s	53,100	b	28,280	s	0		28,500	b
1990	31,870	s	55,400	b	29,910	s	0		32,500	b
1991	31,920	s	52,500	b	29,880	s	0		28,900	b
1992	33,900	s	60,600	b	29,780	s	0		34,000	b
1993	34,200	b	56,500	b	29,430	s	0		28,900	b
1994	35,000	b	63,000	b	31,480	s	0		30,600	b
1995	35,500	b	74,900	b	33,410	s	0		34,100	b
1996	42,400	b	80,100	b	36,000	e	0		38,500	b
1997	43,200	e	81,600	e	36,700	e	0		39,200	e
2020	80,000	e	140,000	e	65,000	e	0		67,000	e

Notes-

e= estimated traffic count
b= ADT Books
s= ATR Station

TRAFFIC HISTORY
(A closest measurement site to weigh station)

	<i>Hillsborough</i>	<i>Kinston</i>	<i>Lumberton</i>		<i>Mt. Airy</i>		<i>Statesville</i>	
1970	n/a	0	19,400	e	n/a		12,300	e
1971	n/a	0	19,800	e	n/a		12,600	e
1972	n/a	0	20,200	e	n/a		12,900	e
1973	n/a	0	20,600	e	n/a		13,200	e
1974	n/a	0	21,000	e	n/a		13,500	e
1975	n/a	0	21,400	e	n/a		13,800	e
1976	n/a	0	21,800	e	n/a		14,100	e
1977	n/a	0	22,200	e	n/a		14,400	e
1978	n/a	0	22,700	e	9,200	e	14,700	e
1979	n/a	0	23,200	e	9,400	e	15,000	e
1980	n/a	0	23,700	e	9,600	e	15,400	e
1981	n/a	0	24,200	e	9,800	e	15,700	e
1982	n/a	0	24,700	e	10,000	e	16,000	e
1983	n/a	0	25,200	e	10,200	e	16,300	e
1984	n/a	0	25,700	b	10,400	e	16,600	b
1985	n/a	0	26,500	b	10,600	e	17,400	b
1986	n/a	0	26,500	b	10,800	b	19,000	e
1987	n/a	0	26,700	b	11,000	b	20,600	b
1988	n/a	0	28,300	b	13,500	b	22,900	e
1989	n/a	0	35,000	b	22,100	b	25,200	b
1990	n/a	0	27,300	b	21,300	b	27,500	b
1991	n/a	0	35,000	b	22,100	b	26,000	b
1992	n/a	0	33,400	b	22,100	b	29,300	b
1993	n/a	0	35,300	b	18,600	b	27,800	b
1994	n/a	0	37,700	b	20,000	b	31,000	b
1995	n/a	0	36,700	b	18,900	b	31,500	b
1996	0	0	37,400	b	24,000	b	32,100	b
1997	0	0	38,100	e	24,500	e	32,700	e
2020	0	0	68,000	e	50,000	e	67,000	e

Notes-

e= estimated traffic count
b= ADT Books
s= ATR Station

APPENDIX E CONSTRUCTION/RENOVATION MATRIX

APPENDIX E supplies data on recommended renovations and construction for each weigh station. Data includes unit costs, and recommended quantities for each component. Construction/renovation components are sorted by identified priorities. First priority includes safety related items, Second priority includes scale replacement items, and Third priority includes facility issues. Note: All three priorities include safety related issues. Priorities One and Two also include features that increase truck processing speed in addition to safety issues.

Construction/Renovation Matrix

	Unit	Units	Asheville EB	Asheville WB	Charlotte NB	Charlotte SB	
	Cost						
1	Acceleration Ramp Extension	lf	-	-	-	-	-
1	Bypass Lane	lf	-	-	-	-	-
1	Deceleration Ramp Extension	lf	700	245,000	500	175,000	-
1	Traffic Control Signals	ea	1	34,500	1	34,500	1
1	Visual Message System	ea	1	56,000	1	56,000	1
1	WIM Device	ea	1	127,500	1	127,500	1
2	New Scale Booth	ea	1	9,000	1	9,000	1
2	New Scale Construction	ea	1	160,000	1	160,000	-
2	New Scale Controls	ea	1	47,800	1	47,800	-
2	Scale Ramp	lf	600	115,200	600	115,200	-
3	Exterior Lighting	sf	10,000	10,000	10,000	10,000	-
3	New Building or Addition	sf	1,428	161,364	355	40,115	274
3	New Septic System	ea	1	6,000	-	-	1,626
3	New Well	ea	-	-	-	-	1
3	Renovate Existing Building	sf	-	-	1	4,500	1
3	Safety Inspection Pit	ea	1	10,000	266	18,088	544
3	Truck Parking Increase	sf	10,000	155,000	10,000	155,000	-
	Total Per Station/Side			1,137,364	962,703	299,454	421,238

Construction/Renovation Matrix

	Halifax		Halifax		Hendersonville		Hendersonville	
	NB	SB	EB	WB				
Acceleration Ramp Extension	-	-	-	-	-	-	-	-
Bypass Lane	-	-	-	-	-	-	-	-
Deceleration Ramp Extension	1,600	560,000	1,100	385,000	1,600	560,000	400	140,000
Traffic Control Signals	1	34,500	1	34,500	1	34,500	1	34,500
Visual Message System	1	56,000	1	56,000	1	56,000	1	56,000
WIM Device	1	127,500	1	127,500	1	127,500	1	127,500
New Scale Booth	1	9,000	1	9,000	1	9,000	1	9,000
New Scale Construction	-	-	-	-	1	160,000	1	160,000
New Scale Controls	-	-	-	-	1	47,800	1	47,800
Scale Ramp	-	-	-	-	900	172,800	800	153,600
Exterior Lighting	20,000	20,000	20,000	20,000	-	-	-	-
New Building or Addition	195	22,035	1,626	183,738	360	40,680	1,428	161,364
New Septic System	1	6,000	1	6,000	-	-	1	6,000
New Well	1	4,500	1	4,500	1	4,500	1	4,500
Renovate Existing Building	623	42,364	-	-	261	17,748	-	-
Safety Inspection Pit	1	10,000	1	10,000	-	-	-	-
Truck Parking Increase	20,000	310,000	20,000	310,000	-	-	-	-
Total Per Station/Side		1,201,899		1,146,238		1,230,528		900,264

Construction/Renovation Matrix

	Lumberton		Lumberton		Mt. Airy		Mt. Airy	
	NB	SB	NB	SB	NB	SB	NB	SB
Acceleration Ramp Extension	1,000	350,000	100	35,000	-	-	-	-
Bypass Lane	-	-	-	-	-	-	-	-
Deceleration Ramp Extension	1,600	560,000	1,600	560,000	-	-	-	-
Traffic Control Signals	1	34,500	1	34,500	1	34,500	1	34,500
Visual Message System	1	56,000	1	56,000	1	56,000	1	56,000
WIM Device	1	127,500	1	127,500	1	127,500	1	127,500
New Scale Booth	1	9,000	1	9,000	1	9,000	1	9,000
New Scale Construction	1	160,000	1	160,000	-	-	-	-
New Scale Controls	1	47,800	1	47,800	-	-	-	-
Scale Ramp	700	134,400	800	153,600	800	153,600	800	153,600
Exterior Lighting	10,000	10,000	10,000	10,000	-	-	10,000	10,000
New Building or Addition	1,428	161,364	355	40,115	347	39,211	1,428	161,364
New Septic System	1	6,000	-	-	-	-	1	6,000
New Well	-	-	-	-	-	-	1	4,500
Renovate Existing Building	-	-	266	18,088	274	18,632	-	-
Safety Inspection Pit	1	10,000	1	10,000	-	-	1	10,000
Truck Parking Increase	10,000	155,000	10,000	155,000	-	-	10,000	155,000
Total Per Station/Side		1,821,564		1,381,603		438,443		727,464

Construction/Renovation Matrix

	Statesville EB	Statesville WB	Total Units	Total Cost
Acceleration Ramp Extension	-	-	1,100	385,000
Bypass Lane	-	-	-	-
Deceleration Ramp Extension	-	-	9,100	3,185,000
Traffic Control Signals	1	34,500	14	483,000
Visual Message System	1	56,000	14	784,000
WIM Device	1	127,500	14	1,785,000
New Scale Booth	1	9,000	14	126,000
New Scale Construction	1	160,000	8	1,280,000
New Scale Controls	1	47,800	8	382,400
Scale Ramp	700	134,400	7,400	1,420,800
Exterior Lighting	6,000	6,000	101,000	101,000
New Building or Addition	362	40,906	12,640	1,428,320
New Septic System	-	-	8	48,000
New Well	1	4,500	10	45,000
Renovate Existing Building	259	17,612	2,493	169,524
Safety Inspection Pit	1	10,000	9	90,000
Truck Parking Increase	6,000	93,000	101,000	1,565,500
Total Per Station/Side		741,218		13,278,544

APPENDIX F WEIGH STATION ACTIVITY

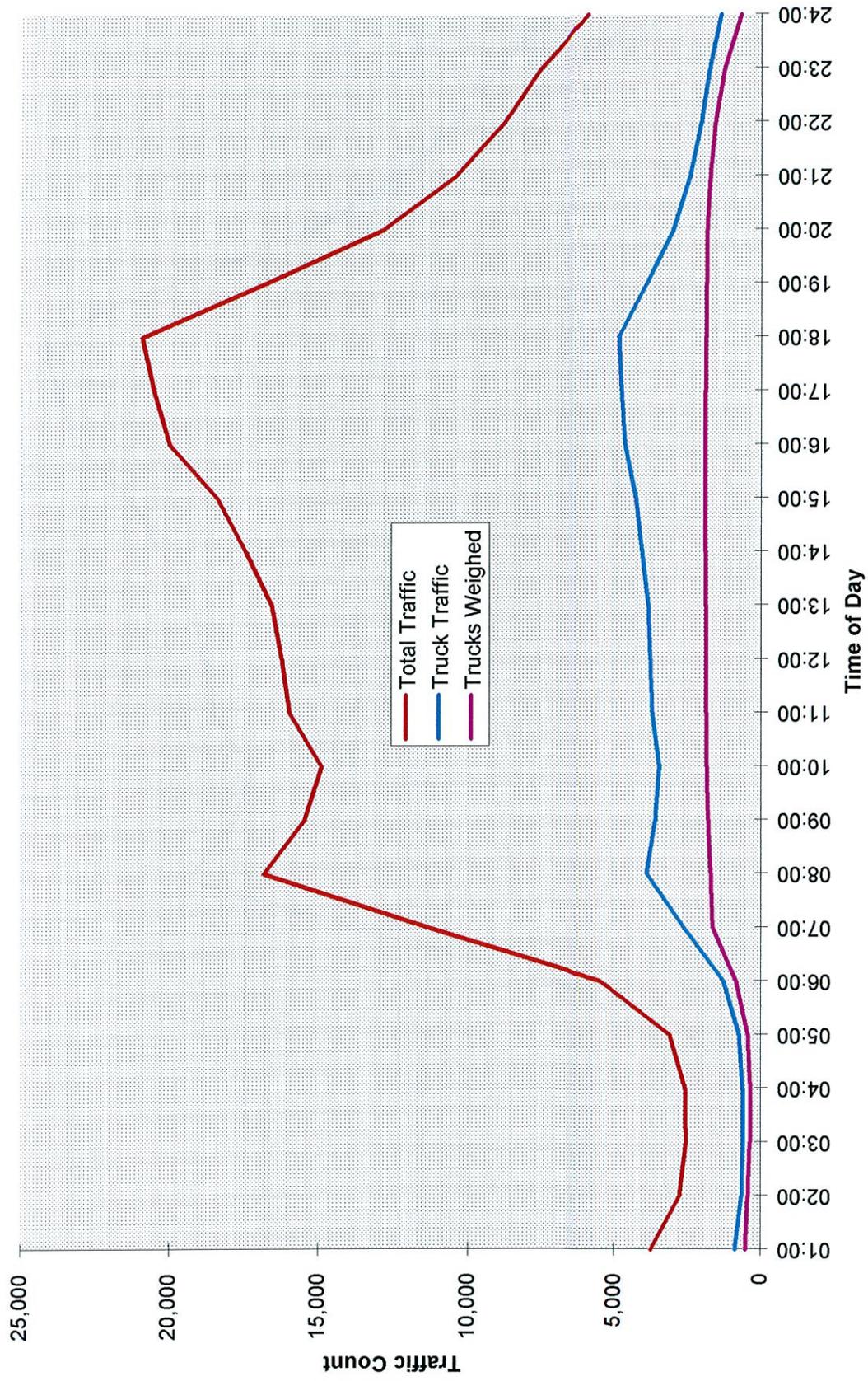
APPENDIX E provides charts that depict traffic activity at each station, the amounts of truck activity, and the numbers of trucks that pass through the station. The first two pages are a summary of all stations. Following pages one and two are the individual stations.

Total Traffic: The total traffic count passing each station during a 24 hour period.

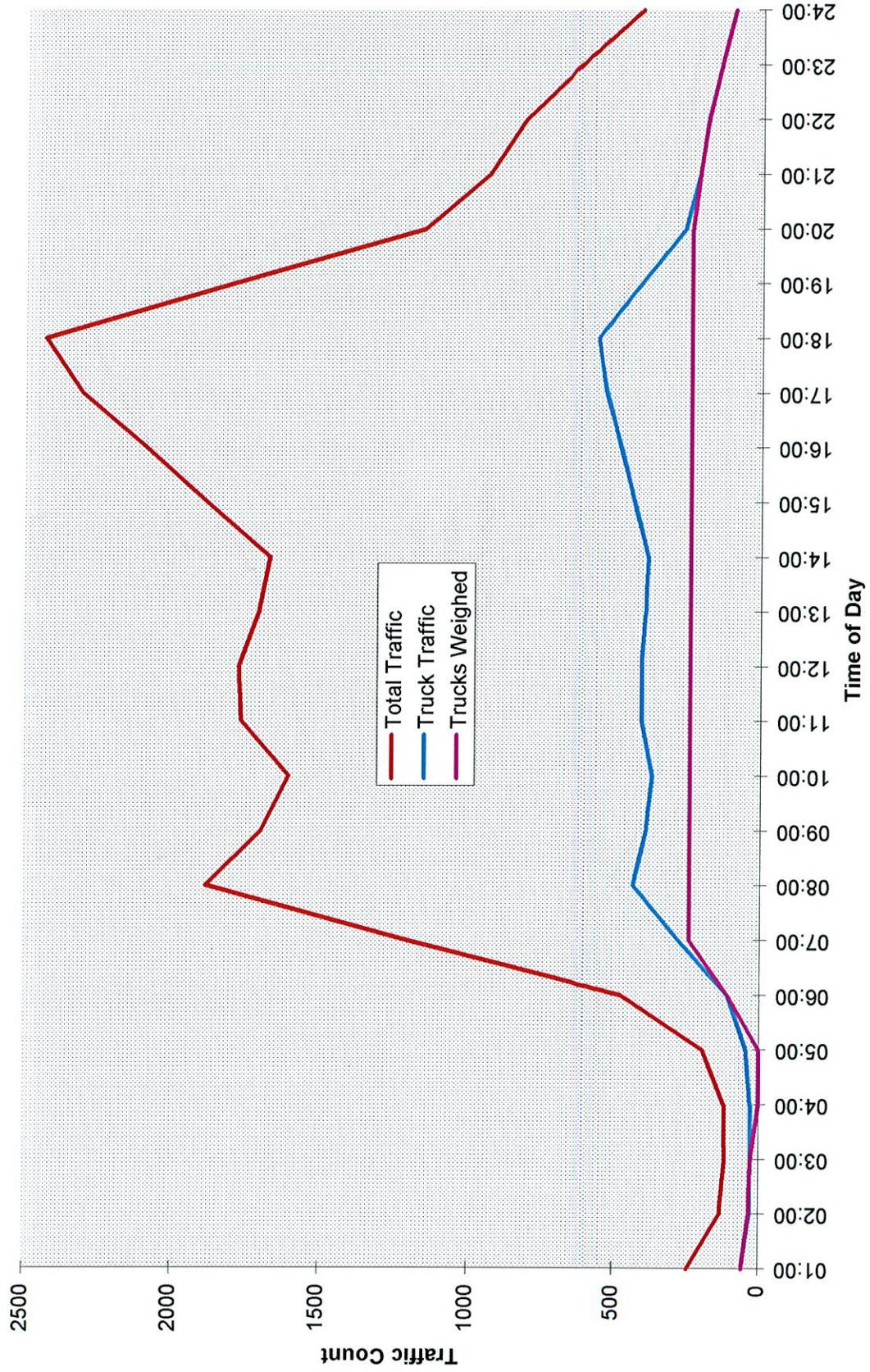
Truck Traffic: The number of trucks passing each station during a 24 hour period.

Trucks Weighed: The number of trucks entering the station. The actual numbers weighed are less when the station is busy and trucks are either rolled across the scales without stopping or are directed into the overheight/overwidth lanes to eliminate trucks backed up into traffic lanes. That number is also reduced when the station must be closed due to a lack of personnel to man the station or scale equipment is out of order.

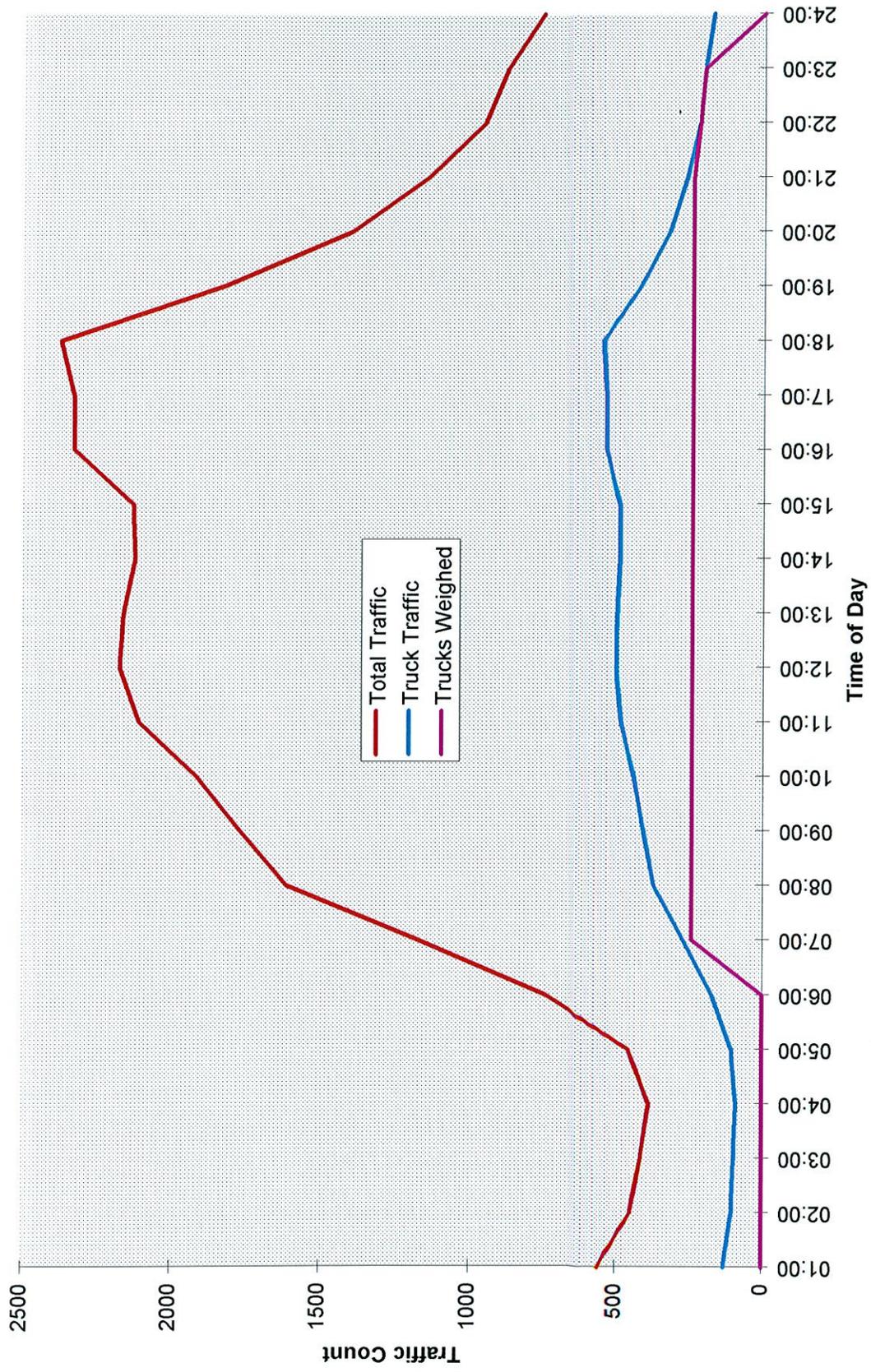
Summary of Weigh Station Activity All Traffic



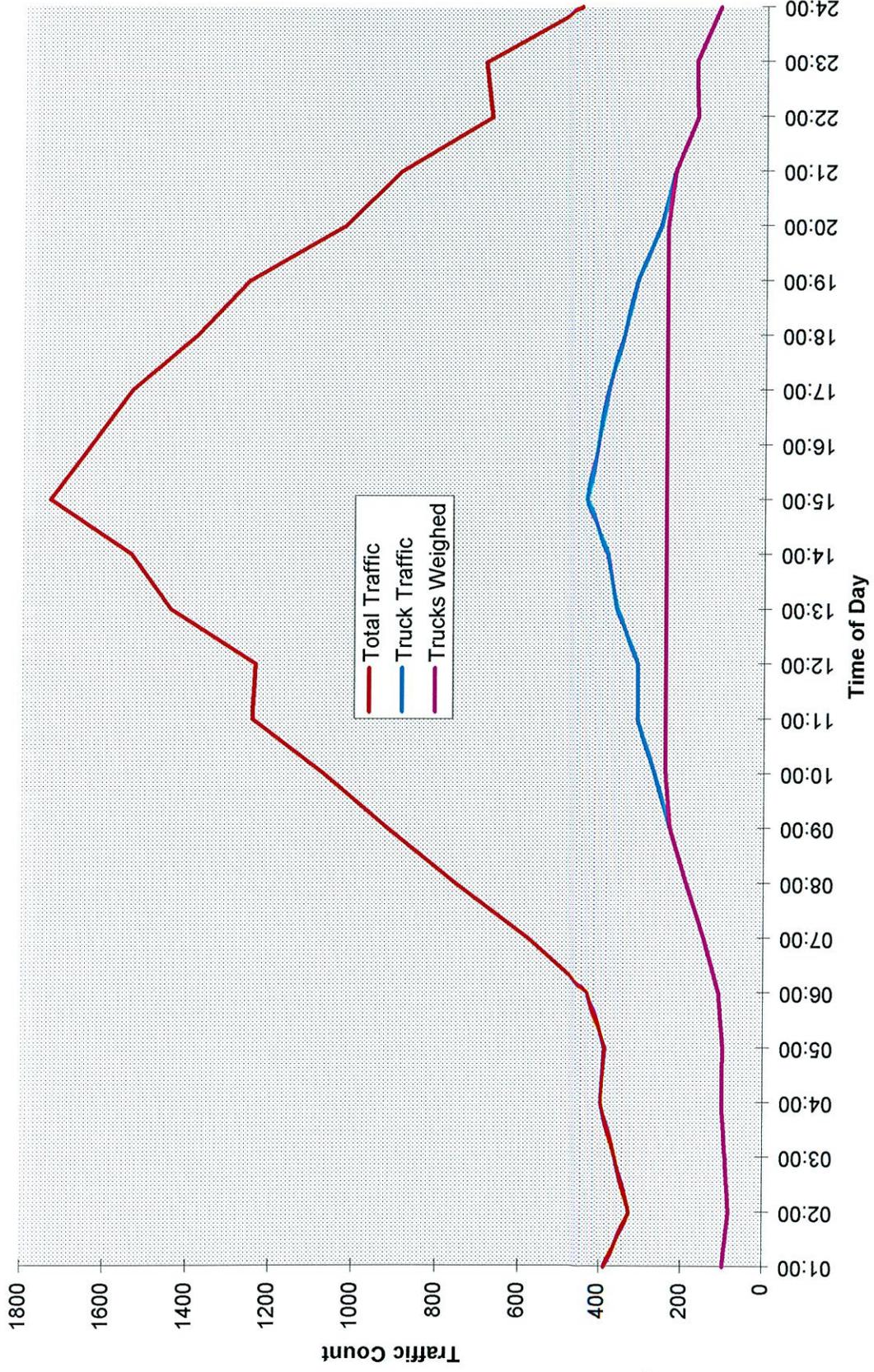
Asheville Weigh Station



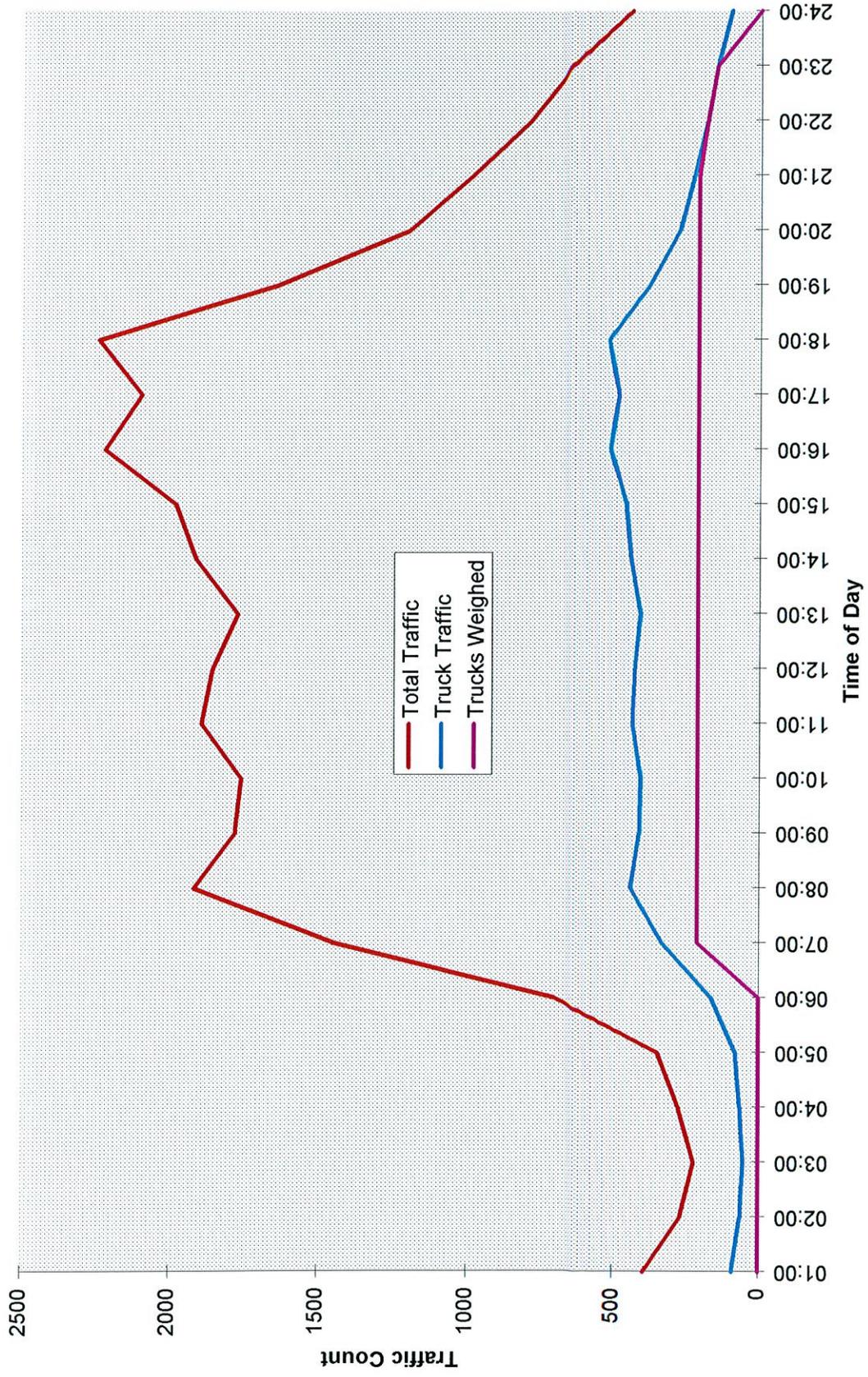
Lumberton Weigh Station



Mt. Airy Weigh Station



Statesville Weigh Station



APPENDIX G
RECOMMENDED TIP CONSTRUCTION PLAN

APPENDIX G provides a recommended six year plan to make needed construction and renovation changes to the weigh station. Plan provides for completion of all First priority safety issues during the first three years with the Second and Third priority work being completed during the third through fifth years. In year six a new station is recommended for Duplin County on I-40 to provide a facility to weigh trucks at the point of entry in Wilmington.

TIP Construction Plan

Station	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	Summary
Charlotte	1 436,000			2/3 284,692			720,692
Asheville	1 856,000		2/3 1,244,067				2,100,067
Hendersonville	1 1,136,000		2/3 994,792				2,130,792
Statesville	1 436,000			2/3 1,277,967			1,713,967
Lumberton		1 1,941,000		2/3 1,157,982			3,098,982
Halifax		1 1,381,000			2/3 967,137		2,348,137
Mt Airy			1/2 761,200		3 404,707		1,165,907
Duplin County (New)					500,000	3,000,000	3,500,000
Total	2,864,000	3,322,000	3,000,059	2,720,641	1,871,844	3,000,000	16,778,544

Scope
1. Safety
Acceleration Ramp Extension
Bypass Lane
Deceleration Ramp Extension
Traffic Control Signals
Visual Message System
2. Scale Replacement
New Scale Booth
New Scale Construction
New Scale Controls
New Scale Ramp
3. Facility Components
Exterior Lighting
New Building or Addition
New Septic System
New Well
Renovate Existing Building
Safety Inspection Pit
Truck Parking Increase

* Data does not include provisions for engineering, contingencies, and inflation.

Productivity Services Section

Core Services

Space Study/Layout Analysis
Cost/Benefit Analysis
Process Analysis
Project Management
Work Distribution Analysis
Staffing Analysis
Organization Structure Analysis
Team Facilitation
General Problem/Opportunity Analysis
Process Management and Improvement Systems
Job Analysis
Strategic Planning
Inventory Management
Microcomputer Application Development
Americans With Disabilities Act (ADA)
Workshop Facilitation
Continuous Process Improvement (CPI) Program
Research and Analysis