

## ROADWAY APPEARANCE

## REVIEW TEAM BACKGROUND ANALYSIS AND SCOPE OF WORK

### REVIEW

#### MISSION STATEMENT

*The mission of the Roadway Appearance Division is to contribute to a safe and visually appealing urban environment through involving and educating individual citizens, groups and businesses and by effectively and efficiently managing and enhancing the City of Winston-Salem's arboricultural assets and right-of-way vegetation.*

#### BENCHMARKING

Benchmarks suggest that the division and programs compare favorably with similar operations in cities with comparable size and demographics.

#### INTERNAL GOAL SETTING

The Roadway Appearance Division has identified the following goals and objectives for the 1998-1999 fiscal year.

##### PROGRAM GOALS: TREE MAINTENANCE

- Maintain an Urban Forest that is both aesthetically pleasing and structurally safe
- Provide safety to motorist and pedestrian through proper visibility at intersections when vegetation trimming is needed
- Minimize hours of after work storm damage call-outs of the tree crew through preventive maintenance tree trimming routes

##### FY 1998-99 OBJECTIVES

- The tree maintenance crews through working established preventive trimming cycles intend to cycle through 90% of all neighborhoods one time during the next year. The crews will perform tree trimming within the city rights-of-way to deal with aesthetic and safety issues.

##### PROGRAM GOALS: LANDSCAPE MAINTENANCE AND CONSTRUCTION

- Install landscape planting projects in an efficient, productive, and professional manner
- Establish a quality control checklist for landscape planting areas that will help ensure consistency in meeting maintenance standards

##### FY 1998-99 OBJECTIVES

- Minimize permanent staff for project installation by utilizing contract laborers efficiently
- Improve methods of pesticide distribution to minimize downtime

##### PROGRAM GOALS: GROUND MAINTENANCE

- Maintain all turf areas in a consistent professional manner and meet established scheduling times

##### FYB 1998-99 OBJECTIVES

- Reduce areas of turf damage within the interstate system through turf renovation and consistent maintenance practices
- Revise our residential mowing plan to include annexed areas

##### PROGRAM GOALS: URBAN FORESTRY

- Successfully plan and carry out Community Roots Day 1999
- Propose amendment to City Code into a format that will more effectively utilize our Urban Forester, and more adequately protect our investment in our forest canopy along the rights-of-way

- Provide quality customer service to citizens who request assistance for tree related issues
- Reduce storm related damage through abatement of hazardous trees
- Fulfill requirements to become a Tree City USA in 1999

FY 1998-99 OBJECTIVES

- Abate 100% of the trees that we determine to be a hazard to the city rights-of-way
- Plant 1,500 new trees within the rights-of-way in 1998-99

PROGRAM GOALS: KEEP WINSTON-SALEM BEAUTIFUL PROGRAM

- Develop a long-term Strategic Plan that will shape the direction for the next five years
- Implement a reliable fund raising event
- Promote organization to develop more name recognition within the citizens of Winston-Salem
- Increase the numbers of volunteers
- Expand involvement within the school system

FY 1998-99 OBJECTIVES

- Increase participation in Adopt-a-Street Program by 50%

PROGRAM GOALS: PROGRAM ADMINISTRATION

- To provide leadership, strategic planning, workplace safety training and coordination of division activities
- Establish work assignments for community service workers and prison crews that are beneficial to our division and the citizens of Winston-Salem. We used these alternative labor sources for 4,800 hours in 96-97 and 6,000 hours in 97-98
- Effectively administer mowing contracts along the city's rights-of-way and other assigned locations
- Institute a mowing plan in 1999 mowing season along the interstates to apply different mowing repetitions to areas based on levels of prominence. This process should allow our crews to affect increased level of appearance for focal zones without additional crew hours

STATEMENT OF CONDITION
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The Roadway Appearance Division exceeds expectations with the resources that they currently possess. Programs of the division include:

- Tree Maintenance
- Grounds Maintenance
- Landscape Maintenance and construction
- Urban forestry
- Keep Winston-Salem beautiful
- Program administration

Management has long and short-term plans for improvement and operations.

## RECOMMENDATIONS

The sources of our ideas included discussions with managers and employees in the division, our observation in the work areas and benchmark studies. We reduced our list to the following based on the following criterion.

*Which are likely to have most impact on quality and efficiency of services?*

### FINDING

Efforts are duplicated across Transportation as well as across City and County divisions.

### RECOMMENDATION

Vigorously explore opportunities for cooperation across city and county departments providing similar services, e.g., traffic maintenance and recreation, use and maintain equipment.

### FINDING: INNOVATION

The Roadway Appearance division is already testing and implementing innovative methods. We recommend these efforts continue. City leaders may be able to reduce barriers to cooperation across City and County divisions.

### RECOMMENDATION

Continue to plan and improve schedules for operations. For example, mowing routes and working with fire departments in the county for fueling and storing mowing equipment overnight.

### FINDING: TECHNOLOGY

Current system is woefully antiquated, ineffective and inefficient. Exploration is underway across City and County. Estimated to cost some \$18 million to upgrade. Change could dramatically improve service quality and increase productivity and efficiency.

### RECOMMENDATION

Replace radio communications across city and county services.

### FINDING

Specialization within this division has reduced efficiency. Better, more frequent skills training and cross training can increase quality and efficiency of service and joy in work for employees.

### RECOMMENDATION

Test whole project scheduling across the divisions of Roadway Appearance, to include cross training and better and more frequent skills training for employees.

### FINDING

Covered space for equipment maintenance will permit people to do work on the equipment during inclement weather, rather than being unoccupied or leaving the work place. Also, localized or centralized storage of equipment, tools, plants, etc will improve efficiency. Investigation of use of quarry space is underway across City and County.

### RECOMMENDATION

Complete the development and move to the quarry space, to include some covered space for equipment maintenance during times of inclement weather.

### FINDING

Antiquated hardware and software hamper effectiveness and efficiency. Investigation is underway across the City but improvements are essential and unavoidable though costly, complex and risky.

### RECOMMENDATION

Improve and network the Information Technology hardware and software.

#### FINDING

Projects are adequately supported for start up, however resources are inadequate for ongoing maintenance and upkeep. Change will improve appearance and reduce long-term costs.

#### RECOMMENDATION

Include in budget a plan to maintain completed projects.

#### FINDING

Opportunities exist for Winston-Salem that can improve quality and efficiency of services as well as community awareness, pride and spirit.

#### RECOMMENDATION

Increase community involvement, perhaps by identifying and prioritizing roadway areas needing improvement, communication to folks in those areas and having an employee work with groups of citizens to improve the areas.

Perform periodic education/communication sessions in elementary and/or high schools to build awareness and support for roadway appearance in the community.

Initiate partnerships with companies in the community and with business organizations and associations for support for Roadway Appearance, especially with the Keep Winton-Salem Beautiful efforts.

#### FINDING

The City faces problems with the employment turnover rate.

#### RECOMMENDATION

Improve recruitment and retention of employees.

City Human Resources is investigating these and other opportunities to improve the skills, abilities and joy in work for the City workforces.

#### FINDING

The Roadway Appearance has more efficiency measures than necessary. These can be confusing and can hamper efforts to create constancy of purpose. Simple and frequent customer satisfaction data gathering, analysis, display and communication will be useful in monitoring and modifying priorities of the division.

#### RECOMMENDATION

Add/improve measures of customer satisfaction to the system of monitoring progress. Reduce the number of other measures to core ones.

#### FINDING

Continue to seek new methods and techniques for achieving core objectives.

#### RECOMMENDATION

Plan ground cover in right-of-ways using products such as red clover. Such products can reduce the need for mowing, provide a pleasant appearance, hide litter, help the honey bee population and perhaps help prevent cars from crossing the median.

Purchase and install a tub grinder for mulch manufacturing. This machine can mix tree limbs, yard waste, wood chips, demolition debris and sludge, resulting in high grade mulch, which can be used by the City or sold to citizens.

PARKING

## REVIEW TEAM BACKGROUND ANALYSIS AND SCOPE OF WORK

### REVIEW

#### MISSION STATEMENT

*The mission of the Parking Program is to provide an ample supply of safe, convenient, clean off-street, and on-street parking spaces, at a competitive price, that meet the needs of the Central Business District and citizens frequenting this area.*

### BENCHMARKING

The task group benchmarked the Winston-Salem Parking program for comparison against High Point, NC; Durham, NC, and Greensboro, SC.

### INTERNAL GOAL SETTING

#### PROGRAM GOALS: OFF STREET PARKING

- Operate a self-supporting program that is competitive and efficient with regard to price cost and service
- Provide security patrols in each of our decks and meet or exceed industry standards with regards to lighting, driveways, circulation and other safety/security items
- Regularly examine the parking needs around each deck to assure spaces for monthly and hourly parking are allocated in a manner that meets the need of the businesses it serves
- Maintain effective communications and working relationships with the downtown community

#### FY 1998-99 OBJECTIVES

- Continue to coach our employees about prompt and courteous customer service
- Provide consultation and technical support to the economic development staff as they work on future plans and projects in the downtown
- Continue to review the parking market, adjust parking rates and adjust the mix of hourly and monthly parkers as necessary
- Finances permitting, prepare specifications and contract for the repainting of the Liberty-Main Parking Deck
- Purchase and install an upgraded access control system for the Triad Park Garage
- Review our current security methods and staffing
- Aggressively monitor the performance of contractors responsible for the cleaning and sweeping of our parking decks
- Seek customer feedback on success of meeting objectives

#### PROGRAM GOALS: ON STREET PARKING

- Increase the availability of on-street parking spaces, in the Central Business District, through regular enforcement of on-street parking regulations
- Assist in the collection of over due parking fines by identifying and wheel locking scofflaw offenders
- Support the residential permit parking program by regular enforcement of the permit regulations
- Identify opportunities and create additional on-street parking spaces, in the Central Business District

#### FY 1998-99 OBJECTIVES

- Replace 3 enforcement vehicles
- In cooperation with the downtown community, look for additional on-street parking opportunities
- Work with the West End Neighborhood to establish a Permit Parking Zone in the areas where commuter parking is a problem; be vigilant to potential problems in other downtown neighborhoods

## RECOMMENDATIONS

### FINDING

Due to the current high debt load (60% of the budget), it would not be advantageous for the City to entertain outsourcing the parking operations. When the debt load lessens in FY2004, it *may* be advisable to revisit this opportunity.

### RECOMMENDATIONS

The City should continue to operate/maintain both on-street and off-street parking operations.

### FINDING

The parking funds generated through parking fees (monthly and transient), meter collection, and fine collections should be used to satisfy operating cost. Any funds remaining should be split equally between the general funds and the enterprise fund.

### RECOMMENDATION

To minimize negative efficiency and effectiveness, additional funding is absolutely necessary. This should help eliminate the practice of deferring badly needed equipment and maintenance for four or five years. The 60% debt again is the primary obstacle here.

### FINDING

Any parking facility having a "waiting list" should increase the monthly rate until the list has been eliminated.

### RECOMMENDATION

The free enterprise system of supply and demand should always dictate the "fees charged" for each facility. A review should be conducted at least semi-annually.

### FINDING

The survey tool sent to user groups indicates a high level of satisfaction on safety and other surveyed questions. Safety and security should never be compromised. The liability hazards and court judgements are far too costly.

### RECOMMENDATION

Safety and security should remain as is.

### FINDING

Again, the debt service load is interfering with the needed replacement for technological equipment. This obstacle must be removed.

### RECOMMENDATION

Technology should be enhanced with outdated/obsolete computer equipment being replaced at the earliest possible date. The technological expenditures should be coordinated for standardization with other departments.

### FINDING

Management should aggressively improve maintenance standards (routine and preventive) and should incorporate those standards in budgets as a budgeted item, perhaps including projected long-term cost if maintenance is deferred.

### RECOMMENDATION

The deferred maintenance approach will be more costly than fixing it *now*. Some decks cannot wait any longer for maintenance.

**FINDING**

Because of the zoning laws and the economic development philosophy, selling the decks would not be in the best interest of the City. The private sector could not manage these facilities any better than the City.

**RECOMMENDATION**

It is not recommended that the City sell any of the parking facilities at this time.

**FINDING**

Staffing levels are appropriate and adequate and account for only 18% of the entire budget for parking.

**RECOMMENDATION**

If anything, at least one more supervisory person should be considered. This would lead to improvements in effectiveness.

## STREETS DIVISION

REVIEW TEAM BACKGROUND ANALYSIS AND SCOPE OF WORK
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## REVIEW

### MISSION STATEMENT

*The Mission of the Streets Division is to maintain the infrastructure of City streets, sidewalks, and drainage systems and to provide emergency services to ensure safe and reliable roadways.*

### BENCHMARKING

Benchmarks suggest that the division and programs compare favorably with similar operations in cities with comparable size and demographics.

### INTERNAL GOAL SETTING

The Street's Maintenance Division has identified the following goals and objectives for the 1998-1999 fiscal year.

#### PROGRAM GOALS: STREET MAINTENANCE

- Maintain 85% of streets at a pavement evaluation of 85 or higher
- Pave all dirt streets as water and sewer lines are installed and when the streets have adequate right-of-way
- Sweep curb and gutter streets six times per year

#### OBJECTIVES

- An appropriation of \$650,000 was provided from 2/3's bond funds for street resurfacing in addition to the \$1.2 million annual appropriation. This will increase the miles of street resurfaced by about 1% of the total number of miles maintained by the City

#### PROGRAM GOALS: STREET CUT REPAIR

- Pave and repair all street cuts efficiently
- Generate sufficient revenues to cover cost of operations

#### FY 1998-99 OBJECTIVES

- To continue the efficient operations of this program and to maintain revenues exceeding expenditures for this program

#### PROGRAM GOALS: SIDEWALK MAINTENANCE

- Provide sidewalk repairs that are competitive and efficient regarding price and costs

#### FY 1998-99 OBJECTIVES

- To provide sidewalk and concrete repairs and replacement

#### PROGRAM GOALS: SPECIAL PROJECTS

- Provide a lower cost alternative to other City operations
- Provide pavement and concrete construction expertise and services to other City operations

#### FY 1998-99 OBJECTIVES

- Continue to provide asphalt and concrete repair expertise and construction to other City departments and operations

#### PROGRAM GOALS: SPECIAL PROJECTS (NC DOT)

- Continue a lower cost alternative to the NC DOT for state highway system improvements

FY 1998-99 OBJECTIVES

- To continue to provide street and highway construction services to the NC DOT
- One or two projects may be scheduled for construction this year

PROGRAM GOALS: PUBLIC WORKS COMMUNICATIONS

- To provide a point contact to the public 24 hours a day, 7 days a week for city services

FY 1998-99 OBJECTIVES

- To look for ways to reduce cost of development revenues to offset costs
- Develop efficiency and effectiveness performance measures

STATEMENT OF CONDITION

Overall, the department is efficiently managed and the work force enjoys its work as well as takes pride in its efforts. The department uses a combination of employee and contract labor to balance its workload. They use benchmarking and have a standardized costing system for management reporting.

The Street Maintenance Subcommittee has met with the management of the Street Department, toured the facilities and reviewed the employee questionnaires. Outlined below are the committee's thoughts and recommendations as a result of these reviews.

RECOMMENDATIONS

FINDINGS

The current system used for contacting their crews in the field is antiquated and unreliable. The ability to contact crews directly at their job site has a direct impact on their productivity. This system needs to be replaced with a modern communications system.

The Streets Maintenance Department currently uses a manual ticket system and could benefit from automation in this area.

RECOMMENDATION

These two findings, work requests and communications, tend to show that the City needs to take a comprehensive look at its information technologies and seems to be behind the times in several areas. Communications purchases should be coordinated with other departments and standardized when possible.

FINDING

The department does not have a set schedule for the replacement of major equipment. The funds available for these types of expenditures come and go in the annual budget.

RECOMMENDATION

It is recommended that a multi-year budget be established for the city where a department would know what funds would be available for several years allowing prioritization of capital budgeting needs.

FINDING

Crack filling is very unpopular with employees as noted on their questionnaires. The work is necessary from a preventative maintenance standpoint, but is dirty, low skill work that the employees despise.

#### RECOMMENDATION

The department has indicated that the work will be contracted out and the review team recommends that they explore outsourcing this work. This would result in cost savings and increased employee morale.

#### FINDING

The department does not feel that it is adequately reimbursed by the state for the work done on state roads within the city limits. The State is considering reclaiming the responsibility of maintenance on these roads.

#### RECOMMENDATION

While this action may save the city money, one downside could be substandard state roads within our city limits. Should the state decide to do so, we must work with our elected officials in Raleigh to ensure that these roads are held to acceptable standards, and we should establish “acceptable thresholds”.

#### FINDING

The employee questionnaires referred to a workweek for Street Maintenance as a ten hour, four-day week. From an employee standpoint, this may be a desirable option since it gives them a three-day weekend; however, the review team is not convinced that this is the best schedule for the City.

#### RECOMMENDATION

An extended workday would have crews working on the roads during rush hours. Also, some crews would need to be on hand on Fridays to handle any emergency situations. The team supports management’s reluctance to move to this schedule and would recommend it only after careful analysis and consideration.

# TRANSPORTATION PLANNING

## REVIEW TEAM BACKGROUND ANALYSIS AND SCOPE OF WORK

### MISSION STATEMENT

*The mission of the Transportation Planning Division is to plan for the safe and efficient movement of people and goods with a multi-modal transportation system which enhances the natural and built environment; provides optimum levels of service, choices and mobility; strengthens economic prosperity, and makes best use of public resources.*

The dictionary defines plan/planning as follows: a formulated and especially detailed method by which a thing is to be done; a design or scheme.

With a clearly defined mission and vision, the Winston-Salem Transportation Planning group is poised to provide our citizens a comprehensive and thorough transportation plan. However, it is extremely important that city leadership and local elected/appointed officials do their part to move the transportation planning process into the new millennium.

The Transportation planning group must be provided with tools and adequate personnel so that it may effectively participate in the process.

Findings based on discussions and observations indicate that the personnel in the planning department are competent, qualified, and dedicated individuals. They display a great deal of pride and professionalism with a strong desire to respond and meet the needs of the community.

### BENCHMARKING

The Transportation Planning Review team used the following resources to compare with Winston-Salem: North Carolina Cities Comparison, and National Comparison.

### BEST PRACTICES

There was limited information available relative to the Transportation Planning function.

### INTERNAL GOAL SETTING

The Transportation Planning Division has identified the following goals and objectives for the 1998-1999 fiscal year.

#### PROGRAM GOALS

- Accomplish the work tasks, products and services as identified in the federally required annual transportation Planning Work Program (PWP)
- Develop and maintain a multi-modal transportation plan for the urbanized area
- Develop and maintain a transportation planning process that is committed to public participation, is proactive and inclusive, and provides ample opportunities for citizens, the business community, public agencies and community groups to be involved

#### FY 1998-99 OBJECTIVES

- Complete an interim update of the countywide Transportation Plan, including a new Thoroughfare Plan map
- Complete a Local Transportation Improvement Program (LTIP) for 1999-2005

- Complete an air quality conformity analysis and finding for the updated Transportation Plan and LTIP
- Complete a Vehicle Occupancy Count (VOC) study
- Complete a 1998 traffic count map for Winston-Salem and Forsyth County

## STATEMENT OF CONDITION

After many hours of meetings, discussions, and presentations with all relative parties, the team concluded that there are no glaring issues that require a major overhaul of the Transportation Planning Department.

Fundamental complexities inherent within the governmental process appear to impact the planning function more than any other transportation area. See Exhibit A outlining committees, groups, and government agencies impacting the planning process.

It appears that the Planning Department spends more time reacting to groups, agencies, and citizens' input/requests than providing a pure planning function. The cliché of “too many cooks in the kitchen” appears to hamper the true planning process.

The ability to obtain state and federal funds is impacted by how politically savvy and aggressive Winston - Salem leaders (Mayor, Alderman, City Manager, and the TAC) are with the Federal and State Department of Transportation. The burden of accomplishing identified goals does not fall solely on WSDOT or Transportation Planning.

In addition, the local NCDOT Board member must assume a strong leadership role in aggressively supporting the recommendations of key City leadership.

Transportation Planning must be responsible not only for the development of information, but must also provide a recommended framework from which key city leadership can work. This information gathering process must be current and ongoing.

With the above said, there appears to be some potential avenues that can be pursued to provide a more efficient and effective department. The Planning Department must assume a proactive role given the complex and sometimes political nature of the planning process.

If Winston-Salem is to maintain its own identity in the future, the city must assume a strong and proactive leadership role in the transportation planning process for the Triad and the state.

## RECOMMENDATIONS

### FINDING

The Transportation Planning Department has a simple and concise Mission Statement, however, there is no clearly identified Vision Statement.

### RECOMMENDATION

The Team recommends the development of a “Vision” for transportation in Winston-Salem. State and federal agencies establish most resources (and, therefore, directions). The Team recommends that the city designate transportation planning resources to develop a vision specific for Winston-Salem and implement strategies to achieve for Winston-Salem residents. This would include the following activities:

- Coordinate planning efforts with the agencies and groups that have major impacts on transportation planning and implementation.
- Develop mechanisms for public education, communication, consensus, understanding, and input regarding community planning options which have major impacts on transportation, including the cluster home concept, planned communities, etc. which offer greater convenience for shopping, reduced trip mileage, and improved sense of community (which is a key element in neighborhood safety concerns).

It is extremely vital that a vision clearly outlines the direction for the future. This vision must be far-reaching and not just centered around traditional thinking.

Special note: A part of the vision could include the possibility of Smith Reynolds Airport becoming the major commuting hub in central North Carolina.

#### FINDING

Federal and state governments fund about 95% of the budget and, as a result, drive current planning. It is desirable for residents of Winston - Salem to have a transportation plan that addresses their specific needs (sidewalks in neighborhoods and at bus stops, bicycle trails, more road repairs, etc.). Winston - Salem does not appropriate funds to address local planning needs.

#### RECOMMENDATION

Designated funds must be appropriated in the city budget to address Winston - Salem residents' transportation concerns that are not priorities for the state and federal governments and for which state and federal funds are not available.

#### FINDING

Land use development plans are undertaken because of utility access/approval. This process forces Transportation Planning to then plan "after the fact".

#### RECOMMENDATION

Develop a utility plan, which is consistent with the transportation, and land use plans. While the city is required to establish transportation and land use plans in order to direct implementation efforts and access state and federal dollars, the "market factors", driven largely by the location of utilities, actually determine the direction of growth and ensuing needs for transportation. The Team recommends that a utility commission plan, which would interface with the planning for land use and transportation, be developed. A coordinating entity appointed by and accountable to city alderman and county commissioner would review the three plans.

It is further recommended that a member of the Utility Commission sit on the Transportation Advisory Committee (TAC).

#### FINDING

Effective planning requires the gathering of information, exploration of alternatives, as well as engaging in discussions with a broad range of groups/leaders. This process must be ongoing in order to ensure that the best plan possible is submitted. Currently, there is not sufficient headcount to allow for this process to be truly effective. From survey information it was noted that existing personnel spend a disproportionate amount of time doing non-planning functions. This takes valuable time from planning and interferes with completion of the mission.

#### RECOMMENDATION

Provide one additional headcount for the planning department. The job description for this new headcount is to be determined by planning department.

#### FINDING

The Transportation Planning Department, as well as other Department of Transportation areas, are behind the technology curve relative to basic everyday office administration software and the capability to electronically communicate with NCDOT/Raleigh and the local Division 9 office. In addition, the GIS System, which is vital to proper planning, needs improvement.

#### RECOMMENDATION

The GIS System, a major tool in transportation planning and in electronic communications with the state and federal officials, is sorely inadequate and needs to be updated, expanded, and enhanced for improved operations. The Team also recommends, as a short-range measure, exploring the possibility of coordinating management information systems and operations with the county, and long-term measure of linkages with the Winston Net Planning in conjunction with Wake Forest University and other business and government organizations operating in the downtown area.

Basic everyday office administration software must be upgraded so that better and more timely flow of information can occur.

#### FINDING

From our meeting with Janet D'Ignazio, NCDOT Chief Planning and Environmental Officer, several key elements identified by NCDOT as necessary to the planning process, have surfaced. In order to obtain a strong platform for funding from the state level, a plan with a regional focus must be developed. In addition, the environmental and air quality standards must be evaluated and met for funding allocation to be considered on a timely basis.

#### RECOMMENDATION

The planning department must broaden its thoughts and develop a regional approach that may position Winston - Salem as a hub, yet incorporates surrounding communities/cities in the planning process.

Planning Department personnel must be knowledgeable about Air Quality laws through ongoing training. Time must be set aside for training personnel to ensure the planning process incorporates and meets environmental and air quality standards. A communication vehicle should also be developed to keep citizens informed and aware of air quality issues and initiatives.

#### FINDING

Through discussions with Rep. Lyons Gray, it was noted that improved communication with local elected officials is crucial in order to solicit needed buy-in, consensus and support that will assist us as we navigate the political process in Raleigh with the NCDOT Secretary and the Governor.

#### RECOMMENDATION

Ensure that all local, elected state officials are exposed to all major planning ideas that require significant and timely state funding. Utilize the new position Karl Knapp holds to make an "impact on Raleigh", as well as include key business leaders in the planning process.

Investigate the opportunity to hire an individual, potentially on a part-time or retainer basis, who can devote his or her time and energies seeking opportunities and funds for needed city/county project plans. This individual should have experience with both the political and planning process.

It is incumbent upon the Planning Department to fully arm all appropriate individuals with the best and most sound presentations possible. The plans must be "marketed."

#### FINDING

All documents provided to the team addressed the traditional modes of transportation and the standard planning that is required for cars-bus/roads, bike, and some rail. Little focus or thinking was devoted to air transportation.

#### RECOMMENDATION

The 2025 Multi - Modal Long-Range Transportation Plan needs to incorporate and better address how Smith Reynolds Airport can be better utilized in the future. The plan does address the road corridors to and

from the airport; however, little forward thinking was shown as to how the airport itself could be utilized to move people safely and efficiently. It is suggested that some in-depth planning discussion take place with the airport authority to potentially develop the theory that air travel becomes more viable as a commuter and/or passenger mode (60 - 200 miles) in the future. The premise would also incorporate that the Smith Reynolds Airport becomes a major commuter air travel hub for central North Carolina.

#### FINDING

The 2025 Multi-Modal long-range Transportation Plan document is an excellent start to plan for the future. The document seems to provide the necessary framework for future planning.

#### RECOMMENDATION

This important document must be updated on a continual basis. This is not a document that can be allowed to sit on the shelf and gather dust. The Transportation Advisory Committee (TAC) must ensure that this is a living document and continue to refer to the document to ensure that the documented plans are being carried out.

*There needs to be some vehicle that will assure an ongoing review of plans with local elected officials, business leaders, and citizens.*

#### EMPLOYEE SURVEY/RECOMMENDATIONS

The focus of the employee survey/recommendations centers around three specific needs (Exhibit B). First, additional personnel are required to handle basic administrative responsibilities and secondly, more staff must be assigned to upgrade computer programs. Both office space and department personnel locations, throughout the current office complex, needs to be examined to better situate groups/areas together that interface on a regular basis. Hopefully, this will be properly addressed when the new building is complete.

A summary of the Transportation Survey summary is included as Exhibit C of the Transportation report.

## EXHIBIT B

### EMPLOYEE SURVEY

#### THE "DUMBEST" THINGS YOUR DEPARTMENT DOES

- Does not hire an additional person to help with phones, clerical, etc.
- Have staff scattered all over the building
- Not enough planning ahead; staff stretched thin; some work is reactive, not proactive
- We have not had consistent help for the secretary and professional staff must fill in on phones
- Again, with an assistant in the front, we could hand off some of the tasks of mailing, copying etc. which we do ourselves
- I think this problem is for all departments, not just ours in particular: Not enough communication exists between all levels and between different departments in the City.
- Not having all the departments together
- Not getting someone trained in a position when they know that the position will become vacant
- For the most part, we are run very well
- Not hire an assistant for the administrative secretary; Asst. Director Civil Engineer helps to answer phone during busy periods
- Outdated (meaning behind other MPO's and NCDOT) in computer software
- GIS system and personnel—the system is taking too long to develop
- Don't let you hire new people
- Christmas decoration installation
- Banner installations
- Unnecessary projects
- Not providing an office assistant for the administrative office secretary to help with phone answering, etc.
- Not having up-to-date computers and programs/software
- Not enough department work space
- I think other departments take advantage of us
- Handle projects that should not be delegated to us
- Giving into citizens requests that go against policies; public does not appreciate how hard we work; all we receive is complaints
- Not replacing the centerline/edgeline paint marking
- Hire more labor grade employees at City Yard due to resent turnover or promotions

#### WHAT IDEAS DO YOU HAVE THAT WOULD IMPROVE OPERATION AND/OR SAVE MONEY IN THE CITY?

- Provide customer service capabilities on the Internet
- Really dedicate an adequate amount of resources to fully develop a state-of-the-art GIS system that everyone can use
- A computer guru who could troubleshoot problems, help set up programs specific to our needs, etc.; some of us have formed networks with other knowledgeable staff, but information services is not where it happens
- I think cross department teams for projects would help create more networks for sharing information, building trust and heading off problems before they happen. The informal friendships I have with other department staff have given me ideas on how I can do things easier and faster
- Early retirement packages
- Discontinue installation of Christmas decorations using City forces
- Full-time positions that come open due to retirement, promotions, etc., fill with part-time/temporary employees/retirees and a salary less than fulltime employees with an average work week of 20-25 hours and no benefits to pay. If you bring in new employees or retirees and pay them the same as a full-time employee you have a morale problem

- Up-to-date computers with up-to-date software/programs, e-mail, etc., all the same city-wide for better communications between departments
- Up-to-date phones with voice mail, personal inside contact numbers, etc., all the same city wide for better communications between departments
- Up-to-date radio communications between city departments, with less noise, improper uses of radios and with less interference
- Look into job positions and titles: “secretary” position is one of the lower paid and we are the support of the department/office; more responsibilities than just being a “secretary” and I am sure that there are others who feel the same
- Building of new city office buildings (if needed more than one building-space large enough for everyone) with parking deck and restaurant that will provide money for the city by offering parking for employees, renting extra parking to public, city-owned restaurant for employees and the public to enjoy. This could be money coming into city funds
- An exercise center for City employees; a location (perhaps at City Yard, an existing unused building or a new building); do[es the City] realize how many employees go to the gym or the Y[MCA] sometime during the day or week and the amount they pay (even with the City discount); this could be City owned and this money [would be coming into] the City funds
- Initiate a permit process--with fees—for locating construction dumpsters on street or right-of-way

MULTI-MODAL

## REVIEW TEAM BACKGROUND ANALYSIS AND SCOPE OF WORK

### REVIEW

The Multi-Modal team reviewed data provided by the City of Winston-Salem and the Winston-Salem Transit Authority (WSTA), interviewed management and employees, reviewed citizen and employee survey data, and observed various operations of the WSTA, particularly the fixed route bus system.

### MISSION STATEMENT

*The mission of Multi-Modal Transportation is “to provide our customers mobility options through a safe, convenient, dependable, and efficient public transportation system.”*

### BENCHMARKING

The task group benchmarked the Winston-Salem Transit Authority for comparison to Greensboro, NC; Charlotte, NC; Raleigh, NC as well as other cities of comparable size and demographics.

### INTERNAL GOAL SETTING

#### PROGRAM GOALS: FIXED ROUTE

- To operate safe, dependable, and efficient fixed route service
- To increase ridership on the fixed route service
- To provide excellent customer service and information

#### FY 1998-99 OBJECTIVES

- Implement and monitor new routes and schedules as determined from the system wide study accomplished in FY 97-98
- Equip fixed route fleet with Automatic Vehicle Locators and Mobile Data Terminals to provide real-time service information (Mobility Manager Project)

#### PROGRAM GOALS: TRANS-AID

- To provide efficient transportation services to the elderly and disabled
- To provide excellent customer service and information
- To integrate with the fixed route system

#### FY 1998-99 OBJECTIVES

- Coordinate Trans-AID trips with fixed route service when feasible
- Develop new eligibility process for certification to use Trans-AID services
- Equip all Trans-AID vehicles with Automatic Vehicle Locators and Mobile Data Terminals to enhance efficiency of services (Mobility Manager Project)

#### PROGRAM GOALS: RIDESHARING SERVICES AND VANPOOLING OF THE PIEDMONT (RSVP)

- To promote job opportunities and mobility options through vanpools
- To maintain a vanpool program that generates sufficient revenues to cover all operating expenses
- To provide excellent customer service

#### FY 1998-99 OBJECTIVES

- Operate RSVP as a fully cost-recovery program
- Coordinate the placement of ridesharing information signs along major roads and highways
- Develop and implement passenger incentives to encourage Piedmont Triad commuters to use the vanpool program

PROGRAM GOALS: MAINTENANCE

- To provide efficient and effective maintenance for all WSTA vehicles
- To provide effective building and ground maintenance for all WSTA facilities
- To ensure the safety of all maintenance employees

FY 1998-99 OBJECTIVES

- Purchase two Trans-AID vehicles for replacement
- Purchase a shop tow truck
- Install an integrated computer system to enhance management of services

PROGRAM GOALS: ADMINISTRATION

- To ensure that the Winston-Salem Transit Authority remains accountable to citizens of Winston-Salem and Forsyth County in the use of public funds
- To meet or exceed all regulatory requirements
- To provide employees with training and resources to meet Winston-Salem Transit Authority goals

FY 1998-99 OBJECTIVES

- Implement electronic grant compliance with the Federal Transit Administration
- Development of a Human Resource plan
- Implement a computer networking system
- Support Piedmont Authority for Regional Transportation and its objectives

STATEMENT OF CONDITION
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LEGAL AUTHORITY AND REQUIREMENTS

WSTA was formed in 1968 by city ordinance authorized by special legislation from the 1967 North Carolina General Assembly. Subsequent to WSTA's establishment, the General Assembly gave state municipalities the power to create transportation authorities. N.C.G.S. § 160A-577. The General Assembly also gave transportation authorities broad power to operate a system and acquire equipment necessary to its operation. N.C.G.S. § 160A-579.

By law, disabled citizens are entitled to the privileges of any public mode of transport to which the general public is invited, subject to certain legal limitations. Both the General Assembly and the courts have read "disabled" broadly so that the degenerative effects of aging may be considered disabilities. See, e.g., Burgess v. Joseph, 39 N.C. App. 481, 250 S.E.2d 687, *rev'd on other grounds*, 298 N.C. 520, 259 S.E.2d 248 (1979).

WSTA's implementation of the Trans-Aid program, designed to provide transportation services to the disabled and elderly, meets the statutory requirements of service access for the disabled. Pursuant to N.C.G.S. § 168A-8, Trans-Aid must also meet five other requirements as compared to public transit for the general population:

1. It must serve a similar geographic area.
2. It must not have higher fares.
3. It must have similar restrictions.
4. It must have a reasonable response time.
5. It must have similar hours of operation.

There do not appear to be any legislative requirements as to whether a transit service must offer equal access to specific areas of the city. The relevant statutes specify individual classes, which must be served, not what areas must be served.

WSTA operates a fixed route system (scheduled buses), the paratransit system (Trans-AID), and the regional ridesharing and vanpooling program.

## SERVICES PROVIDED

### FIXED ROUTE

The fixed route system operates in the City of Winston-Salem. It has 43 peak hour buses that operate on 22 routes, two express routes, and three downtown circulators Monday through Friday. WSTA provides three evening service routes Monday through Friday. Operating hours for daytime service is from 5:30 a.m. to 7:00 p.m. and evening service are from 7:00 p.m. to midnight. WSTA operates 20 buses on Saturday from 6:30 a.m. to 7:30 p.m. No service is provided on Sundays. A system map is attached as Exhibit A.

Base fares are \$1.00 and transfers are free. Passes are sold for weekly and monthly use. Half price fares are available for the elderly and disabled. The active fleet includes 54 wheelchair accessible busses and four trolleys.

### TRANS-AID

Trans-Aid provides paratransit services to the elderly and disabled throughout Forsyth County, Monday through Saturday. No fare is charged to passengers and the majority of passengers are clients of human service agencies. Trans-Aid also acts as the Americans with Disabilities Act (ADA) complimentary paratransit service for WSTA's fixed route service. A computer-aided dispatching and scheduling software system facilitates Trans-AID's trip scheduling, dispatching, and passenger accounting. The active fleet is 20 mini-buses.

### RIDESHARING AND VANPOOLING OF THE PIEDMONT (RSVP)

RSVP covers the twelve-county Piedmont Triad region. This service provides carpool matching and vanpool leasing services for the residents and employers throughout the Triad. Carpool-matching services are provided on the Internet for individuals in need of transportation to work or for people looking for car-poolers to share the ride. The active fleet is 73 vans. Ridership for fiscal year 97/98 was 425,000 with 785,000 revenue miles traveled.

## OVERVIEW

Public transportation in Winston-Salem costs large amounts of public money and moves relatively few people. This fact, in itself, is no reflection on the Winston-Salem Transit Authority (WSTA) or the people who run it. Winston-Salem is no different—and is in some respects better—than comparable public transportation systems in the United States which despite huge subsidies, have been unable to entice drivers out of their cars or operate at a profit. When Winston-Salem residents were polled, nearly two-thirds said there was “nothing” the City could do to encourage them to use the bus system, or use it more often (Exhibit B). Barring radical change, public transit will not soon offer an acceptable alternative to the proximity, flexibility and speed of the automobile.

Within these fundamental limitations, the purpose of public spending in transportation is to efficiently provide the greatest mobility to the greatest number while meeting legislative mandates. As discussed below, there is room for improvement and specific recommendations are made. To its credit, WSTA appears to be aware of many of these issues and is moving in the right directions. Some issues, however, are ultimately those of elected representatives; the point where apparent economic inefficiencies outweigh social and political concerns is ultimately a legislative decision. The Multi-Modal team has tried to point out such issues, but not decide them.

RECOMMENDATIONS
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The recommendations/comments below are divided into two parts. As the draft Legacy plan notes

- WSTA has tried and failed to persuade many “non-captive” commuters to leave their cars in the driveway and board the bus
- What alternatives are available to WSTA? WSTA could continue to alter routes, add stops, adjust timetables and perhaps offer express service along major corridors. This is basically the strategy for increasing ridership, which WSTA has employed in the past without much success. It will likely have only a limited ability to attract new riders in the future.

There is nothing wrong with making the current system as efficient as it can be, and many recommendations simply adjust the existing system. Without radical change, however, it is likely that such adjustment can only slow the decline in ridership and revenue.

**FINDING**

Schedules and routes are not posted at the most convenient or logical sites. Newcomers to WSTA may find it difficult to use public transit system because of the lack of route and schedule advertising around the City.

**RECOMMENDATION**

Consider posting schedules and routes at all or key bus stops to help facilitate ridership.

**FINDING**

Total Ridership is declining in Winston-Salem. The following lists the annual unlinked trips from 1993 to 1998.

1993	3,524,947
1994	3,366,990
1995	3,296,072
1996	2,975,279
1997	2,866,442
1998	2,642,088

These figures are compiled by counting all passengers, including paying passengers, transfer passengers, discounted fares (for the elderly and disabled), and children not required to pay. A passenger who transfers on his way to work is counted as two passengers. In 1998, 992,138 of 2,642,088, or more than one third of total passengers, were transfers. Total trips, from beginning to final destination, were therefore, 1,649,950.

Weekday passengers in 1998, excluding transfers, numbered 1,512,670. Assuming 250 business days in a year, the bus system averaged approximately 6050 passenger trips (excluding transfers) per day. If each passenger took two trips (outbound and inbound), the total average number of persons served on a business day would be approximately 3025.

Ridership of individual routes varies widely. The following is based on 1998 ridership figures:

- Total Ridership (including transfers) of more than 100,000:  
Routes 1, 2, 3, 5, 7, 10A, 10B, 10C, 17, 18, 20, 26, 29
- Total Ridership (including transfers) of between 50,000 and 100,000:  
Routes 4, 12, 13B, 16, 23, and 25
- Total Ridership (including transfers) of less than 50,000:  
Routes 6, 8, 13A, 19X, WET, 50, 51, 52, PSN, PSW, WC

## CERC Committee Sampling Regarding Total Ridership and Routes<sup>1</sup>

CERC interns and subcommittee members sampled 22 bus routes over a 2-week span (EXHIBIT D). The total number of passengers on the 22 routes was 260. The samplers indicated some concern over whether WSTA's total passenger numbers were correct. For example, WSTA's total ridership for Route 21 is listed at 13,072. CERC representatives rode this route several times at different points during the day and at no time were more than seven passengers present. At one point, only three people were aboard the bus during the outbound and inbound routes.

### RECOMENDATION

Revise/Consolidate bus routes; eliminate routes where subsidies are high, such as Route 21; perhaps set a rule of thumb eliminating routes which cross a certain subsidy threshold.

Consider smaller buses for lighter routes.

### FINDING

UNC Charlotte Center for Interdisciplinary Transportation Studies annually reviews 137 of the nation's largest urban transit systems. The study includes how Winston-Salem compares to national transit systems and ranks WSTA based on performance measures.

### RECOMMENDATION

Purchase the UNC Charlotte transportation study each year and formally report the results and rankings to the Board of Alderman.

### FINDING

Observations of WSTA routes found drivers stopping in during the route for personal reasons causing the routes to run late.

### RECOMMENDATIONS

Institute spot checks to keep drivers from breaks in the routes.

### FINDING

The average fare is now calculated at 43 cents. The citizen survey shows that citizens consider the fares fair and only 3% suggested lowering the fares to entice ridership.

### RECOMMENDATION

These results indicate that the market could bear an increase and the City should consider raising fares for transit service.

### FINDING

As traffic congestion increases, RSVP would be able to take advantage of the implementation of High-Occupancy-Vehicle (HOV) lanes, which would likely further boost its already successful operations.

### RECOMMENDATION

Support HOV lanes for highways, which would be utilized by RSVP.

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<sup>1</sup> The Multi-Modal subcommittee makes no suggestion that the sampling was in any way scientific. It did, however, give the subcommittee a sense of the system.

WSTA ridership can be divided into peak/off peak times, leaving many buses running with few passengers.

**RECOMMENDATION**

Consider free service at certain hours or days; perhaps in conjunction with downtown revitalization efforts to entice riders during off-peak times.

Consider reducing off peak service.

**FINDING**

According to the 1997 UNC Charlotte data, fare revenue “per trip” was 53 cents while the cost per passenger for fixed route is approximately \$1.45. No bus routes come close to breaking even, and are all subsidized by Mass Transit Tax Fund, Forsyth County, Federal Transit Administration, NCDOT, grants and other intergovernmental support. Regardless, advocates of public transportation argue the “multiplier effect” of transit investment and that the pure numbers do not take into account the benefits of transit, which may include mobility benefits, efficiency benefits, economic development benefits and economic productivity benefits (Exhibit E).

**RECOMMENDATION**

Undertake a study of the true economic and social benefits of the current transit system in Winston-Salem, including an analysis of if and how subsidies from other sources could be alternatively used.

Consider competitive contracting. Under competitive contracting the same or better service can be purchased from the private sector, with the public agency still deciding where services go, how often they operate, fare structures, service and safety standards. Reports indicate that in the United States competitive contracting saves an average of 30 percent

## CITIZEN AND EMPLOYEE PERCEPTIONS

The multi-modal team reviewed surveys from WSTA employees and also interviewed two bus drivers who requested confidential interviews. It should be noted that WSTA is unionized. The information presented here is primarily anecdotal and it is very difficult for an outsider to see the entire picture and fairly judge these issues. Nevertheless, below is a snapshot of employee concerns.

There appears to be a morale problem at least among a vocal minority of employees. At least some of these problems appear to stem from the previous manager and there appears to be greater trust in Art Barnes, who began in August 1998.

Problems noted in the survey include the following:

- Hiring unqualified people
- No security/use of regular employees as security
- Not standing up for or listening to drivers
- Supervisors lack training
- "Writing up" drivers for stupid or minor reasons

Issues raised in the personal interviews overlap these concerns and raise some new ones:

- Employee input is asked for but not acted on
- Unqualified hires/experience ignored
- High turnover/good people leave
- Art Barnes is better than previous manager but too often sides with staff
- High stress levels/will not protect drivers from unruly passengers/will not back-up drivers
- Buses breaking down is a major issue
- Why 2 buses for Route 21
- Policy that "no accident should happen" and that any accident is driver's fault is not possible and causes great stress. Fear of losing job over unavoidable accident
- Feels like management out to make people quit so they can hire others for lower pay

In response to these concerns the multi-modal committee did raise these issues with management. Management concurred that there is high turnover and, in response to the security issue, discussed at length the proposal to bring the police into the transit center. CERC members also reviewed the Accident Review Committee procedure and various training documents. If these procedures are followed, they will appear to meet at least some of the issues set forth above; employees may request, for example, that an accident be judged "preventable."

## ADMINISTRATION

Art Barnes took the position of general manager in August 1998 and has not had a full opportunity to shape the department. Under his leadership, however, WSTA appears to be confronting many of the issues raised above and trust in him among the workers appear greater than in his predecessor.

Most significantly, WSTA is currently engaged in an analysis of its route configuration with the goal of increasing efficiency by employing a route configuration based on market demand. Data gathering began in June with the goal of new routes in the fall.

The recently formed Trans-Aid Advisory Committee is looking at transfer of passengers to less expensive fixed routes.

The effort to make the Transit Center a community and art center is commendable and could help revitalize downtown if it is properly carried out.

The Winston-Salem Mobility Manger Project completed its first phase in June 1995. It is WSTA's intention in Phase II to provide "real-time" paratransit and fixed route information to customers by interfacing many different components (Interactive Voice Response, Computer Aided Dispatching and Scheduling, Mobile Data Terminals, Automatic Vehicle Location etc.) WSTA will attempt to utilize the hardware components on the vehicles to facilitate paratransit and fixed route services. New service configurations, such as feeder service from paratransit to transit and Flex Routing, will be explored.

All these efforts are commendable and important but have to be implemented in the real world and it is appropriate to mention certain areas which could be improved, and which management is no doubt working on.

The Multi-Modal Team had a very difficult time extracting timely and accurate information from WSTA and has still not received all the information it requested.

Anecdotal evidence described above suggests 1) that passenger counts could be somewhat inflated and 2) that a not insignificant number of passengers may board buses without paying or being counted, in part as a result of driver laxity.

Management needs to make an extra effort to address potential morale problems among some of its employees. There is the perception at least, of partiality and/or lack of interest or concern for employees by management.

# TRAFFIC MANAGEMENT

## REVIEW TEAM BACKGROUND ANALYSIS AND SCOPE OF WORK

### REVIEW

#### MISSION STATEMENT

*The mission of the Traffic Management Division of the Winston-Salem Department of Transportation is to operate and maintain the surface transportation system in accordance with Federal, State and Local laws and regulations so as to move people and goods safely and efficiently throughout Winston-Salem.*

The goal of the Citizens Efficiency Advisory Traffic Management Team, when evaluating the performance of the Traffic Management Program, was to evaluate ways to improve the efficiency component of the above mission statement. To accomplish this, the team looked at ways in which the traffic management program could increase revenues for services provided and reduce the expenditures for providing these services.

To gather data, the team interviewed managers and supervisors in the department, reviewed survey data from employees in the department and observed operations in the department. Based on the gathered data, the team developed a list of projects, processes and organizational structures that should be studied in detail. The team then conducted these more detailed studies and developed recommendations for change.

#### BENCHMARKING

The team also looked at benchmarking comparisons between the City of Winston-Salem Traffic Management Program and programs in other cities of similar size. In the process of gathering this data, we identified several issues and difficulties with comparing cities which perform similar operations in different ways or which perform different operations with different organizational structures. In some cities traffic maintenance activities are combined with street maintenance activities and in other cities traffic maintenance activities are combined with traffic device construction activities. As much as possible, we have attempted to minimize the effects of these differences in information, which were gathered. A comparison of financial data for departments of transportation in Winston-Salem, Greensboro, Fayetteville, and Knoxville, TN is shown in Exhibit A.

#### BEST PRACTICES ANALYSIS

Based upon information provided by the Office of Organizational Effectiveness, as well as by the Department of Transportation staff, the team has identified the San Antonio Real Time Traffic Data Program, the Winston-Salem Traffic Arrows Marking Program, and the Winston-Salem Safety Improvement Program as three programs which have world class performance.

In the San Antonio program the City provides real time traffic accident and traffic congestion reports to citizens and the media over the Internet. The City uses its existing 911 emergency service and custom software to put information on the Internet about accidents in real time. This eliminates the problems with out of date information that plagues most traditional traffic accident reports.

The Winston-Salem Traffic Arrow Markings Program uses the flexibility and low cost of temporary summer employees to attain the benefits of contracted work while retaining in-house control over the quality of the final product. Under this program one permanent and five summer temporary employees remark all the traffic direction arrows on roads in the city. There is a 16 percent cost saving under this program versus the cost if the work was done using permanent employees.

The Winston-Salem Safety Improvement Program was found to be outstanding in that its cost for reducing traffic accidents are so minor as to be easily absorbed within the existing departmental operating budgets. It was also found to be outstanding in its willingness to treat patterns of accidents at all intersections and its lack of fixation upon high accident locations.

## INTERNAL GOAL SETTING

The Traffic Management Program has identified the following goals and objectives for the 1998-1999 fiscal year:

### PROGRAM GOALS: TRAFFIC SAFETY

- Reduce traffic accidents and the associated injuries and property damage that accompanies them
- Maintain an ongoing Safety Improvement Program
- Maintain a library of completed safety studies documenting the effectiveness of selected countermeasures

### FY 1998-99 OBJECTIVES

- Continue to update the database of safety study locations
- Complete a study of the operational concerns with night time flashing signals

### PROGRAM GOALS: STREET LIGHTING

- Design and build street lighting systems that improve public safety
- Operate the City street lighting system under the City policy to meet or exceed City and State standards
- Investigate and repair problems with the street lighting system in a timely manner

### FY 1998-99 OBJECTIVES

- Continue the digitization of the City's street lighting data into the geographical information system
- Complete the installation of all pending decorative street lighting systems in neighborhoods which have agreed to pay for these systems
- Design new street lighting for the Clemmonsville Road extension, the Martin Luther King Jr. Drive extension, the Waughtown Street realignment, and the Liberty Street corridor project
- Upgrade the street lighting on the following streets from mercury vapor units to brighter, more efficient high pressure sodium units:

Shattalon Drive from James Street to Reynolda Road  
Polo Road from Robinhood Road to Cherry Street  
Main Street from Wright Street to the southern city limit  
Konnoak Drive from Main Street to the dead end  
Brewer Road from Peters Creek Parkway to Clemmonsville Road  
Buchanan Street from Brewer Road to Silas Creek Parkway  
Hawthorne Road from Bolton Street to First Street  
Peace Haven Road from Country Club Road to Robinhood Road  
Country Club Road from First Street/Stratford Road to Peace Haven Road  
Carver School Road from Old Walkertown Road to New Walkertown Road  
Old Rural Hall Road from Old Walkertown Road to the city limit  
Motor Road from Old Rural Hall Road to Indiana Avenue  
Sprague Street from Old Lexington Road to Kernersville Road  
Old Lexington Road from Clemmonsville Road to the city limit

### PROGRAM GOALS: TRAFFIC SIGNAL CONSTRUCTION AND MAINTENANCE

- Efficiently install, operate, and maintain all traffic signal devices in accordance with federal, state, and local regulations
- Use and maintain traffic control devices in conjunction with acceptable design practices to ensure safe traffic operations and smooth traffic flow

### FY 1998-99 OBJECTIVES

- Extend the central business district conduit system to the Convention Center and to City Plaza
- Install fiber-optic cable from City Hall to the 5<sup>th</sup> Street Transportation Center, to the Public Safety Center, to the Lawrence Joel Veteran's Memorial Coliseum, to the Winston-Salem Transit Authority Offices on North Trade Street, and to the Information Services Office in the Liberty Center (former Nations Bank Building)
- Install aerial fiber-optics cable from the Transportation Center to outlying major intersections and interconnect with the NCDOT Traffic Surveillance System

- Rewire ten signalized intersections to replace older signal power wiring

**PROGRAM GOALS: TRAFFIC SIGNS MAINTENANCE**

- Install and maintain all traffic signs in accordance with federal, state, and local laws and regulations
- Maintain all traffic signs to ensure they effectively communicate safe usage of the City's roadway network
- Respond to sign damage complaints quickly and efficiently

**FY 1998-99 OBJECTIVES**

- The program will begin adding address block numbers to overhead street markers at signalized intersections
- The program will continue to look for ways to reduce the number of and improve the visibility of its traffic signs

**PROGRAM GOALS: TRAFFIC MARKING MAINTENANCE**

- Install and maintain all traffic markings in accordance with federal, state, and local laws and regulations
- Maintain traffic markings that effectively guide motorists
- Renew traffic markings as their effectiveness diminishes

**FY 1998-99 OBJECTIVES**

- Replace the existing long line markings machine with a unit that is more reliable and which will use lower and more environmentally friendly water based paint
- Reduce the amount of tracking of the roadway markings from vehicle tires

**PROGRAM GOALS: TRAFFIC SIGNAL SYSTEM**

- Operate the traffic control system to minimize traffic delays

**FY 1998-99 OBJECTIVES**

- Complete the upgrade of the closed circuit television traffic surveillance system
- Increase the number of system detectors for traffic surveillance
- Increase the number of intersections which have back-up timing plans

**PROGRAM GOALS: ADMINISTRATIVE AND TRAFFIC ENGINEERING**

- Manage the various programs of the traffic engineering division so as to maintain a productive and safe work environment
- Solicit public input into transportation issues and provide timely information
- Provide professional traffic engineering services and guidance

**FY 1998-99 OBJECTIVES**

- Identify hot-spots for traffic growth and develop traffic management plans for these roadways
- Manage the programs in the Department of Transportation by preparing appropriate budgets and reviewing work performance to ensure efficient and effective expenditure of city funds
- Maintain good communications with the citizens regarding traffic changes expected in city and potential traffic improvement projects

<b>FINDINGS AND RECOMMENDATIONS</b>
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The team studied five specific work procedures and one organizational issue in the Traffic Management Program. The five work procedures were:

- Alternatives for handling decorative street lights
- Traffic control at coliseum events
- Installation of Christmas decorations

- Rental of traffic control devices
- Spending authorization levels

The team also studied the structure of the Traffic Management Program to determine if there were any problems or any inefficiency associated with the management levels in the program.

#### DECORATIVE STREET LIGHTING

##### FINDING

The City charges neighborhoods wanting decorative street lights an annual fee that represents the cost difference between the desired street lighting system and the standard street lighting system. Currently this cost difference calculation does not include the costs to design the systems, or the costs to manage the decorative street light program. Duke Power Company installs and maintains both the standard and the decorative light systems. Duke also requires the City to authorize and pay for these street lighting systems since Duke Power will not contract with homeowners directly.

##### RECOMMENDATION

The team considered two options for the street lighting program: Eliminate the decorative street lighting program; Adjust the calculation of charges to the neighborhoods requesting street lights so as to capture the design and management costs of these lights

There was support for both options for individual team members. However the consensus opinion of the team was to recommend option 2.

#### COLISEUM

##### FINDING

Traffic Management Program staff manages traffic flow to major events at the Lawrence Joel Veteran's Memorial Coliseum. The Department of Transportation spends approximately \$19,500 per year to do this.

##### RECOMMENDATION

After a review of this process the team has concluded that, although this traffic management is a public service, some of the costs for providing it should be paid by the coliseum.

#### CHRISTMAS DECORATIONS AND BANNER INSTALLATION

##### FINDING

The Traffic Management Program installs traffic banners for special events. Most organizations pay for the installation of these banners. If the program does not receive payment, it loses money on each banner it installs.

##### RECOMMENDATION

The team therefore recommends that the program charge for all banners installed. The team also recommends that the Traffic Management Program phase out the installation of banners since this task does not support the program's mission.

##### FINDING

The Traffic Management Program also installs and maintains Christmas decorations in the central business district. The Downtown Winston-Salem Association owns the decorations. In recent years the Traffic Management Program has contracted the installation and removal of the decorations due to increasing wintertime workloads on permanent staff. The annual cost for this is over \$12,000.

##### RECOMMENDATION

The team recommends that the Traffic Management Program move out of the Christmas decoration installation/removal business and that the responsibility be returned to the Downtown Winston-Salem Association.

## TRAFFIC DEVICE RENTAL

### FINDING

The team reviewed the operations of the Traffic Management Unit and its activities performed in installing traffic work zone signs, barricades and cones. As result of this review, the team recommends that the Traffic Management Program rent barricades, cones, drums, etc. to organizations and businesses which need these devices to close traffic lanes or roadways.

### RECOMMENDATION

The team acknowledged the concerns of staff regarding potential perceptions of conflicts of interest and concerns about competing against the private sector. However, the team concluded that these problems could be minimized by effective management of the program and that the benefits to the City and to those organizations requiring traffic control devices make this change worthwhile.

## SPENDING AUTHORIZATION LIMITS

### FINDING

The team reviewed the purchasing procedures that the Traffic Management Program uses to acquire materials. The team also obtained a report on the City's credit card purchasing program and the authorization spending levels for it. In addition, the team acquired data on spending authorization levels in cities such as Greensboro, Durham, Charlotte, and Raleigh.

### RECOMMENDATION

After reviewing all of the above data the team recommended that the spending authorization levels for department heads be extended from the existing \$5,000 per purchase order to \$20,000 per purchase order. The team further noted that since the beginning of its study on this issue, the spending authorization limits under the purchase card program for the Assistant Traffic Maintenance Supervisors had increased from \$1,000 per month to \$5,000 per month, and the program had been extended to the Traffic Maintenance Supervisor. The committee thought that these changes were also necessary and important in improving the efficiency of the program.

### FINDING

Bills were passed this session in the General Assembly authorizing certain cities to use photographic images as prima facie evidence of traffic violations. Winston-Salem is not one of these cities. The City of Winston-Salem's transportation staff members strongly feel that current safety measures by the city, such as larger signal heads and other traffic measures, lead to the same or better safety results than photographic equipment at traffic signals. This practice of mounting remote cameras at signals to take photographs is a new phenomenon in our state. Advocates for red-light cameras cite as advantages driver modification, increased revenues from fines, reduced violations and police officers being able to perform other duties (See Exhibit B).

### RECOMMENDATION

The city transportation staff should monitor and present to appropriate city officials results from other cities, on a six-month by six-month basis, to determine future action. The goals of traffic safety, reducing red-light violations and good traffic flow should be weighed against differentiating owner versus driver and possible loss of privacy. If a future city survey is conducted, a question could be included regarding public sentiment on this issue.

## STRUCTURE OF THE TRAFFIC MANAGEMENT PROGRAM

The team identified this concern from complaints in the employee surveys about over-supervision. After a review of information prepared by the Department of Transportation staff and a review of the tabulated and summarized survey data, the team determined that the employee concern was primarily in programs other than Traffic Management and that the number of management levels is appropriate for the work performed.



