



Advancing the World's Best Little Town

Town of Bedford Comprehensive Plan

Adopted June 13, 2017

TOWN COUNCIL

Robert T. Wandrei, Mayor
Timothy W. Black, Vice Mayor
Stacey L. Hailey
Bruce M. Johannessen
Steve C. Rush
F. Bryan Schley
James A. Vest

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Steve C. Rush, Town Council Representative

TOWN STAFF AND OFFICIALS

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Sonia M. Jammes, Finance Director
John B. Wagner, Electric Director
D.W. Lawhorne, Jr., Director of Public Works
F. Todd Foreman, Chief of Police
Brad Creasy, Fire Chief
William W. Berry, IV, Town Attorney

I. INTRODUCTION AND HISTORICAL SUMMARY

A. PURPOSE OF COMPREHENSIVE PLAN

The Comprehensive Plan is a means for local government officials and citizens to express their goals for the future of their community. The Virginia General Assembly requires that local governments adopt a comprehensive plan and review it every 5 years in order to best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants.

The Comprehensive Plan examines past trends and existing conditions in order to gain insight into future trends. Citizens, through the Planning Commission and Town Council, set goals, objectives and policies to guide governmental decisions and overall development. The comprehensive plan is general in nature, but does establish implementation strategies that can acutely affect the character of the community. The comprehensive plan guides the establishment and construction of public areas or structures or other facilities as carried out by the planning commission.

The Comprehensive Plan is divided into three sections: Inventory and Analysis; Goals and Objectives; and Implementation Strategies. The Inventory and Analysis section provides a detailed analysis of data that describes the Town of Bedford. This analysis provides the factual basis for establishing the Goals and Objectives for the Town's future. The Implementation Strategies section spells out methods for carrying out the stated goals and objectives. This last section can influence changes made to land use regulations, subdivision ordinances, capital improvement plans and other codes and ordinances.

B. LOCAL SETTING

The Town of Bedford is governed by a seven member Town council, with the mayor selected from among the council. The Town council is advised on present and future land use and development by a seven-member planning commission. Since 1920 Bedford has operated under the Council-Manager form of government.

Situated in rolling countryside, farm and pasture land, the Town of Bedford is within the foothills of the Blue Ridge Mountains. More specifically, the Town lies approximately fifteen miles south of the definitive Peaks of Otter (the vista of which is represented within the official Town seal). In addition to its location

adjacent to US Highway 460, Bedford is proximal to several major highways such as US Highway 29 and Interstate 81. It is strategically located between Lynchburg and Roanoke. In broader terms, the community is located approximately 200 miles from the metropolitan areas of Washington, DC to the north and Charlotte, NC to the south. This unique geographic placement has historically allowed Bedford to preserve its small town character while still enabling access to the amenities of larger markets.

C. BRIEF HISTORY OF BEDFORD

In 1782 the area of Bedford County was partitioned to create Campbell County. As a direct result, the village of Liberty was founded in that year for the purpose of relocating the then-existing Bedford county seat from New London to a more central position. Liberty was incorporated as a Town in 1839, whereupon it functioned primarily as an agrarian-based, service-oriented community. Rail service was completed through Bedford County in 1852, which encouraged the development of industrial activity within the Town. A devastating fire in the late 1880's resulted in a large, citizen-driven revitalization effort. The town was renamed "Bedford City" in 1890. Economic prosperity accompanied the name change in the form of improved rail service, increased manufacturing activity, and electrification of the City. Numerous new buildings and subdivisions were constructed and the Town created its own electric utility.

Bedford City continued to gain prestige as the agricultural, commercial, industrial and administrative center for the area, and it attracted several college preparatory schools during the late 1890's and early 1900's (including Belmont Seminary, Jeter Institute, Randolph Macon Academy, and Virginia Business College). Although the expansion was short-lived, Bedford City continued to be an agricultural and manufacturing center for many years to come, and evolved into a typical American small town.

A defining moment in the community's history occurred during World War II. Bedford City was home to some of the brave soldiers that fought in the first wave of the D-Day Invasion. Known as the "Bedford Boys," these men served with Company A, 116th Infantry. The community lost the most soldiers of any town per capita during the invasion. Their sacrifice is immortalized in the National D-Day Memorial as well as the 2008 film "The Town They Left Behind."

With the adoption of the 1960 municipal code, the municipality became known simply as the Town of Bedford. During the remainder of the twentieth century, the

community expanded its industrial base (with several major manufacturers of the time still active and currently based within the community).

In 1968 Bedford became an Independent City of the Second Class. Although it was a separate and distinct political entity from Bedford County, it continued to function as the county seat. Furthermore, many of the ministerial actions typically performed by an Independent City in Virginia (such as the administration of schools, courts, and social services, for example) were administered by Bedford County under contractual arrangements and the constitutional office of Sheriff served both the City and the County concurrently.

Activity within the City of Bedford continued somewhat apace for the remainder of the 20th century. However, significant legislative action at the state level and economic realities in the beginning of the 21st century ultimately contributed to a change in constitutional status for the municipality. In 1987, the Virginia General Assembly enacted a moratorium on annexation for independent cities. A citizen-driven effort to merge the City and County failed in 1994. The City of Bedford and Bedford County entered into a revenue sharing agreement in 1995. Under the terms of that agreement, the County contributed one half of tax revenues received from certain areas contiguous to the City limits in exchange for extension of City-operated water, sewer, and electric services.

The Great Recession of 2007-2008 and its subsequent impact upon revenues nationwide led the City Council and Bedford County Board of Supervisors to enter into formal discussions about the possibility of the City reverting to Town status. In September 2011, both jurisdictions approved a Voluntary Settlement of Transition to Town Status and Other Related Issues between the City of Bedford and the County of Bedford. Highlights of the Voluntary Settlement Agreement include the following outcomes:

- Immediate incorporation of certain areas adjacent to the previous City limits into the boundary of the Town of Bedford (referred to as Phase I);
- Merger of the water and sewer systems of the City of Bedford with the Bedford County Public Service Authority to create Bedford Regional Water Authority;
- Discontinuance of services and functions previously overseen by the City or jointly administered that are offered and/or overseen by Bedford County (constitutional offices and recreation, for example);
- Future incorporation of areas adjacent to Town corporate limits within

- ten years (referred to as Phase II); and
- Provisions for the future incorporation of further areas into the Town corporate limits based on certain criteria.

The reversion petition was ultimately approved by a specially appointed three judge panel in December 2012.

Effective July 1, 2013, Bedford became the third Independent City (after South Boston and Clifton Forge) to officially revert to Town status. The Town continues to serve as the county seat of Bedford and currently covers 8.75 square miles with a population of approximately 6,500 persons.

II. 2023 VISION STATEMENT

A. PHASE II BOUNDARY ADJUSTMENT

On July 1, 2023 the boundaries of the Town of Bedford will expand by approximately four square miles per the provisions of the Voluntary Settlement Agreement (a copy of the map outlining the Boundary Adjustment Areas is attached as Appendix 1). The addition of the Phase II area will generate more overall revenue for the Town.¹ The population of the Town will grow by approximately 1,400 people as a result of the inclusion of the Phase II Boundary Adjustment Area.² They will be joining existing residents as well as those within currently approved residential projects such as Harmony and Oakwood Villas. Depending upon the progress of those projects, as well as continued infill activity (such as the Bedford Lofts project), the Town of Bedford could have an overall population of approximately 8,500 as of this date.³

Based on the Town's current operational model, these new citizens will gain access to services that they did not receive when they were exclusively Bedford County residents. The following list of the Town's municipal departments includes examples of the enhanced level of service that new citizens may expect:

1. Community Development
 - a. Civil Code Enforcement (including administration of the Property Maintenance Code) geared toward protection of property values and the promotion of public health, safety, and welfare.
 - b. Economic Development focused on creation of opportunities for citizens and customers of the Town. This is supplemented by the activity of agencies such as the Town Economic Development Authority.
 - c. Information Technology. In addition to providing support for Town operations, this division also functions as the communications branch of Town government.
 - d. Planning and zoning operations that are administered in an inclusive and customer-friendly manner.

1 Based on 2013 estimates, the inclusion of Phase II will bring an additional \$10,415 per one cent of the real estate tax rate.

2 Estimates based on analysis of United States Census block data for the area in question.

3 The plan approved for Oakwood Villas includes up to 204 housing units. Harmony includes 93 single family housing units. Most recent Census data indicated an average household size of approximately two persons.

- e. Redevelopment and Housing Authority. This is a resource to abate problems related to code enforcement, blight, or development issues.
- 2. Electric Utility
 - a. One of the primary benefits of the municipal electric utility relates to reliability of service. Power outages are rare, but when they do occur restoration is more prompt than customers may reasonably expect if they were served by a large investor owned utility.
 - b. Another benefit of municipal administration is direct access to Town Council who are responsive to concerns about rates and operational issues.
 - c. This department also maintains street lights which may be installed on public streets at the discretion of the Town Manager.
- 3. Finance Department
 - a. This department provides support to ensure the Town's financial ability to provide services in a customer-friendly manner.
- 4. Police
 - a. Given the scale of the community and the operation, Town Police personnel are able to respond to calls in a perceptibly quicker time than the Bedford County Sheriff's Office.
 - b. Town Police also respond directly to concerns related to the behavior of animals. Animal Control is not a service provided by the County.
- 5. Public Works
 - a. Street and sidewalk maintenance including snow removal, paving, and repairs (such as potholes and normal "wear and tear").
 - b. Curbside solid waste collection including weekly garbage pickup, periodic Town-wide cleanup events, weekly special collections, and seasonal leaf collection.
 - c. Maintenance of all Town-owned facilities.⁴ This includes structures such as the Municipal Building, the Monroe Street Operations Center, and the Public Works complex on Orange Street. This department also maintains all municipal parks (Edmund Street Park⁵, Greenwood Park, Liberty Lake Park, Orange Street ball field, Poplar Park, Reynolds Memorial Park, and the Town Lake). In addition, the department maintains the Town's four active cemeteries (Fairmont, Greenwood, Longwood, and Oakwood) and four that are inactive (Ansbaugh, Fuqua, Mountain, and Otey).

4 Although Bedford Middle School is owned by the Town, current regular maintenance is provided by Bedford County Public Schools and significant improvements to facilities there are jointly funded by the Town and the School Board according to the terms of the lease agreement between the two entities.

5 Edmund Street Park is operated by the Town under a lease agreement with Bedford County.

6. Advocacy

- a. One of the roles of Town Council is to represent and promote the interests of its citizens (particularly to address perceived inequities).

For purposes of organization, the above discussion of the relative benefits of Town services is intended to demonstrate their value to the new citizens who will be joining the Town. Greater depth of information about each service is contained within Article III of this Comprehensive Plan.

B. COMMUNITY DEVELOPMENT

This area of focus corresponds to connotations of community identity, values, sense of place, and quality of life.

One of the Town's primary strengths is its desirability as a residential community. Given the community's tangible need for residential growth (discussed in Article III) all favorable data supporting Bedford as a community of first choice for new residents needs to be compiled and reported in easily understood and accessible terms. Misinformation and negative perceptions need to be addressed directly.⁶ Furthermore, although the nature of the Town does make it attractive for certain niche populations (such as retirees and commuters), the data does not support singular labels such as "retirement community." In fact, the current population dynamic of the Town is equally balanced between four roughly defined age groups: school aged children, young adults (18-40), middle aged adults (40-65), and retirees/the elderly.⁷ The inclusion of the Phase II Boundary Adjustment area does not appear to impact the percentages of any particular group in a significant way.

Given its desirability as a residential community it is likely that the number of people who live in Bedford but work elsewhere will continue to grow. However, that percentage of the population should be monitored and documented.⁸

All of the public schools serving Town students are fully accredited as of the publication of this Comprehensive Plan. The impressive performance of the Bedford County Public School system (BCPS) should serve as an attractive inducement for prospective residents and businesses, and specific references to this level of accomplishment should be included in all marketing efforts related to the Town and County. To further maximize the benefits of this association, the Town should explore specific ways in which it can support BCPS and enhance the educational experience of its residents.

Bedford County assumed responsibility for recreational programming from the Town as part of the reversion process. However, the Town could continue to

⁶ An example of misinformation is use of the phrase "double taxed" to refer to properties located in Town without fully explaining the difference between Town and County service structures.

⁷ Source: United States Census data

⁸ This information could be referenced as a performance metric related to the goal of marketing the Town as a destination in which to both live and work.

provide an enhanced level of service to its citizens by expanding offerings such as its current coverage of the cost of swimming lessons.

In addition to its unique character – often categorized as “small town” – Bedford is geographically located close enough to several larger markets (including major regional and metropolitan centers) to facilitate easy access within a reasonable amount of travel. Roanoke and Lynchburg can be reached by automobile within approximately thirty minutes. Beyond those areas, major markets such as Charlotte, the Tidewater area, and Washington, DC are within a four-hour drive. Proximity to expanded air and rail travel options make Bedford readily accessible to large parts of the outside world – and in many instances on a “day trip” basis.

It is expected that Bedford’s unique geographic setting will continue to attract visitors. The ability for individuals to hike to the top of a mountain with breathtaking views (at the Peaks of Otter) and to have a beach experience at Smith Mountain Lake within the same day suggests that this area may be uniquely positioned to target a new type of tourist – one who is seeking a diversity of experience beyond traditional sight-seeing expeditions. The nature and expectations of tourists should be captured and analyzed as data. The trend of tourists who visit but ultimately stay as residents is expected to continue and data should also be collected to identify their place of origin. This could be fruitful for realtors in their efforts to market available properties.

There is a thriving arts and cultural community at a scale that is somewhat unusual for a Town of Bedford’s size⁹. While this activity is recognized as contributing significantly to perceptions of Bedford as a vibrant community in its own right, opportunities for further interaction and direct relationships between the creative class and other economic contributors (such as engineering and architectural services) should be examined.

RECOMMENDED ACTIONS:

6-CD-1: Create a form or system to track and report data related to the number of individuals who live in Town and work here, who live in Town but work elsewhere, and who live elsewhere but work in Town. (July 1, 2018)

⁹ Reference to the activities of the Artisan Trail and the concentration of artists within the Town limits. The ongoing presence of the Bedford Community Orchestra, Bower Center, and Little Town Players is also significant.

6-CD-2: Create a fund to pay the registration fees for Town students who sit for the National Merit Scholarship qualifying exam. (July 1, 2019)

6-CD-3: Create a form or system to collect data from employers regarding their workforce training and/or staffing needs. (July 1, 2019)

6-CD-4: Create a fund to pay at least a portion of the registration fees for citizens who participate in programs administered by the Bedford County Recreation Department. (July 1, 2019)

6-CD-5: Create a form or system to track and report the place of origin for tourists and other visitors to Town. (July 1, 2018)

6-CD-6: Facilitate discussions between participants in the Artisan Trail, institutions of higher learning dedicated to art and design, and representatives from the development community in order to identify possible areas for collaboration and synergy. (Ongoing task)

C. COMMUNITY FACILITIES

This area of focus corresponds directly to physical assets and services that are maintained by the Town or which may otherwise be viewed as public goods.

1. BEDFORD MIDDLE SCHOOL

The redevelopment of the former Bedford Middle School site should be underway in a very substantial sense by July 1, 2023. The site can be repurposed as a multifunction “Community Enterprise Center” which houses a broad range of tenants. Notable occupants of the facility could include institutions of higher learning (offering programs which are possible for students to complete in their entirety onsite). A significant portion of the space could also be occupied by non-profit organizations that pay rent for their offices and incubator space for startup businesses that meet the Town’s ongoing incentive criteria. The auditorium space should be preserved and renovated to function as a performance center for a broad range of musical, dramatic, and rhetorical programs. The athletic field bordering Westview Avenue can also be preserved and incorporated as a public park.

2. LIBERTY LAKE PARK

The community’s network of parks facilities shall be well kept and maintained within the reasonable means of the Town. Liberty Lake Park has enormous potential beyond its present level of usage. The facility could serve as home field for all middle school baseball teams within Bedford Count. However its size and scale also require massive investment of funds and labor.

3. OVERALL ISSUES RELATED TO PARKS

Greater utilization of all active park facilities should also be pursued. The proposed community park adjacent to Westview Avenue would be ideal for youth soccer and football events. The location and layout of the recreation fields on Bedford Avenue also appear to be well suited for events such as festivals and concerts. The Town should give serious consideration to the feasibility of obtaining the recreational facilities located on Bedford Avenue which are currently owned by the Bedford County School Board. The scale and location of that operation would appear to be in line with the Town’s operational abilities.

RECOMMENDED ACTIONS:

6-CF-1: Preserve the Bedford Middle School auditorium for use as a potential performance center. (Ongoing task)

6-CF-2: Preserve the Bedford Middle School athletic field and incorporate it into the Town's system of public parks. (Ongoing task)

6-CF-3: Initiate discussion with Bedford County Public Schools about long term use of baseball facilities at Liberty Lake Park by middle school teams. (Ongoing task)

6-CF-4: Initiate discussion with Bedford County Public Schools about the possibility of acquiring the recreational facilities located on Bedford Avenue and/or incorporating them into the Town's system of public parks. (Ongoing task)

D. CONSERVATION

In its deliberations, the Planning Commission identified conservation matters as being primarily related to preserving what is already perceived as good and functional within the community. While regulatory matters related to environmental protection still merit discussion and diligence, in most cases their regulations is practiced most effectively by agencies at the County, State, and Federal levels.

1. HISTORIC BUILDING PRESERVATION

Concerns about the appearance and maintenance of older buildings (particularly those of historic significance) can best be addressed by keeping them occupied with active uses that generate revenue for their support. There is a significant concentration of such buildings in the Centertown area, and the utilization or reactivation of the upper stories of those buildings would be a major boost to the vitality of the central business district as well as perceptions of the Town overall. The County assumed responsibility for administration of all building code activities within the Town as part of reversion. Problems associated with that relationship have recently emerged which need to be resolved. In particular, owners of older buildings are facing practical difficulties in obtaining approval at the County level for renovations that are perceptibly desirable and that have been approved previously by building officials from both the City and the County. Absent any other alternatives (which would likely be political in nature), it is recommended that the Town reassert its right to administer uniform building codes and employ its own Building Official.

2. TOWN ZONING REGULATIONS

The nature in which retail goods and services are purchased has changed. In response the Town needs to revisit the regulations that apply to commercial activity, and this has particular impact upon buildings in the Centertown area. The current zoning for this area is structured to support retail activity at the expense of most other potential uses, and at a scale that is unrealistic within the parameters of the new economy. A consistent planning theme for the Town in the near term is the need for greater residential population to attract investment and activity, and an infusion of more residents in the Centertown area would provide an immediate positive impact upon existing businesses.

3. CORRIDOR IMPROVEMENTS

The natural beauty of the area and the numerous picturesque views of features such as the Peaks of Otter, local streams, and woodlands are recognized as being intrinsic to the character of the Town. The appearance of the community at both its points of entry and throughout its high traffic corridors has been identified as a specific area of concern by the Planning Commission.

RECOMMENDED ACTIONS:

6-C-1: Explore opportunities for improvements to the Highway 460 corridor in a manner similar to the work along the Lynchburg Expressway. Document and publish findings. (July 1, 2018)

6-C-2: Develop an improvement project for the area of Longwood Avenue between its intersection with Oak Street and Oakwood Street that would replace the existing wide asphalt area with a landscaped median. Document and publish findings. (July 1, 2019)

E. ECONOMY

This area of focus relates to the Town's general interest in being a well-rounded, vital, and robust community which provides a wide range of commercial opportunities for its residents, customers, and visitors.

1. COMMERCIAL DEVELOPMENT

Commercial development is expected to accompany the increase in residential population. It is anticipated that vacancy rates Town-wide will be relatively low. In the Centertown area specifically, it is hoped that the figure will be below 5% (including upper stories of buildings) due to the mix of locally owned and operated restaurants, residences, and professional offices. An expansion of hours and services for all businesses is expected to accompany the increase in occupancy. The Highway 460 corridor should also continue to grow with development geared toward motorist convenience (such as restaurants – particularly those with drive-through services) as well as other businesses that benefit from direct access to the four lane highway.

2. EMPLOYMENT BASED DEVELOPMENT

The vacancy rate in the industrial center of Town could also be at or near zero, through a combination of new business investment and demolition of buildings whose marketability is severely compromised. This can also be accomplished by repurposing existing areas (such as Westgate Shopping Center) for future expansion as a center for employment-based uses. Anecdotal evidence suggests that approximately 1,000 jobs were associated with Rubatex in that company's heyday. To address the impact of that company closure and replace those positions, the Town would be best served by adopting a strategy of attracting 50 new businesses of 20 employees each. It is anticipated that the Town's Enterprise Zone designation will have expired because Bedford will no longer meet the criteria for distressed communities. However, the Town should consider the continued application of targeted incentives. Also, the targeted recruitment of allied businesses and suppliers of existing industries should be formalized in an effort to generate continued growth.

3. BROADBAND INTERNET ACCESS

The realities of the 21st century economy appear to place great importance on a community's access to internet service with the fastest possible speeds and capacity. As a result, this particular level of service is the primary focus

of the Town's 2017 franchise renewal discussion with Shentel Communications.

4. REGIONAL PARTNERSHIPS

In addition to formal participation in groups such as Region 2000 and the Lynchburg Regional Business Alliance, the Town should seek to define its relationship to major regional employers and institutions. This may identify other opportunities for growth and investment within Bedford.

5. INCENTIVES

The Town has recently made a serious commitment to fund and promote incentives (examples include the expansion of Enterprise Zone #12, increased funding for tax abatement and downtown redevelopment programs, and the reorganization of the Town's Economic Development Authority). Some of these actions contain a "sunset" clause. Consideration should be given to extend that period to July 1, 2023 based on the notion that the time between now and then is specifically targeted for growth of the community. In addition to benefiting all Town citizens, this can be a particular selling point to those who reside within the area of the Phase II Boundary Adjustment – they are joining a community that is robust and committed to further growth which could also reduce the impact of the additional level of taxes that they will pay.

RECOMMENDED ACTIONS:

6-E-1: Conduct assessment of the condition of all currently vacant buildings to identify potential code issues and need for abatement. (Ongoing task)

6-E-2: Reassess zoning for Westgate Shopping Center to support possible identification as an employment center. (July 1, 2020)

6-E-3: Establish goal of attracting 50 new businesses of 20 employees each and begin to track and report progress toward reaching it. (Ongoing task)

6-E-4: Identify period up until July 1, 2023 as a targeted growth phase for the community and extend sunset clauses related to incentives to that date.

6-E-5: Collect data from existing large employers related to their suppliers and allied businesses to develop a list of targets for economic development. (Ongoing task)

F. LAND USE

The Town has significant ability to affect the way that all real property is used within the community through zoning. Given that power, the Planning Commission wishes to be certain that regulations are applied in a manner that relates specifically to goals outlined within this Comprehensive Plan. Prior examples of the Town's attention to this area of focus include the adoption and implementation of the Traditional Neighborhood Overlay (TNO), Central Neighborhood Workplace (CNW), and Healthcare Establishment (HE) zoning classifications.¹⁰

1. ZONING ORDINANCE

The formal identity of the town's zoning regulations is "Land Development Regulations." While instructive in terms of actual function, this label is somewhat confusing. As a practical matter that document should be formally recognized and labeled as the "Zoning Ordinance."

2. EMPLOYMENT CENTER USE

In the near term, it would be beneficial for the Town to create and implement an "Employment Center" use category that would be included a use by right in all non-residential zoning classifications. Such a definition would be subject to appropriate conditions (such as environmental compliance and workforce safety), but this would remove regulatory obstacles to development that is actually desirable for the community.

3. SINGLE FAMILY RESIDENTIAL NEIGHBORHOODS

The character of the single family neighborhoods throughout Town is identified as an attractive asset. The provisions of the R-1 zoning district provisions should be assessed to determine their appropriateness in protecting and preserving that character – particularly within the framework of the uses which are permitted by right or through the conditional use process. Overall, zoning should direct and align more intense residential development (both in terms of design and density) toward areas of non-

¹⁰ The TNO district was developed in conjunction with the Burks Hill Master Plan to provide greater flexibility for consideration of mixed use development. Implementation of the CNW district removed zoning obstacles to redevelopment of historically single-use industrial properties, which contributed to the Bedford Lofts and Beale's Brewery projects. Implementation of the HE district eliminated tensions between Bedford Memorial Hospital and adjacent residential development while maintain the hospital's ability to expand its operations within the Town.

residential development (which would benefit from such an alignment in terms of customer and employment base).

RECOMMENDED ACTIONS:

6-LU-1: Formally change the name of the Land Development Regulations to “Zoning Ordinance.” (July 1, 2018)

6-LU-2: Establish and implement “Employment Center” as a use permitted by right in all non-residential zoning classifications. The definition of this use should make specific reference to safety and environmental compliance (such as activities regulated by the Occupational Safety and Health Administration and the Environmental Protection Agency, for example) as well as requirements for wage levels (such as providing a minimum number of jobs at 175% of the established federal minimum wage). (July 1, 2019)

6-LU-3: Evaluate R-1 district provisions to assess their ability to protect and preserve the character of single family residential development. Compile and publish results. (July 1, 2019)

6-LU-4: Undertake development of a small area plan focusing on the South Bridge Street corridor from the intersection with Main Street southward to the Bedford Science and Technology Center. (July 1, 2018)

G. TRANSPORTATION

1. PASSENGER RAIL

Direct access to Amtrak passenger rail service could be available in the Centertown area by the time of the Phase II Boundary Adjustment. In preparation, the Town needs to adopt a plan to fund and construct the facilities and infrastructure that will be necessary to support a point of access for passengers to rail service.

Just as current data is generally supportive of a decision to locate such service in Bedford, it is hoped that subsequent data will show that the expansion into Bedford will increase levels of ridership overall. It is estimated that some of the passengers who previously accessed the service in both Roanoke and Lynchburg may now catch the train in Bedford. This is due to the relative convenience, safety, and desirability of the station location which is adjacent to the developing “Jackson/Grove/Depot crescent” (a supplemental expansion of the historic Centertown business district whose beginning can be traced to the Bedford Lofts and Beale’s Brewery projects).

2. SIDEWALKS

Pedestrian and bicycle facilities have been identified as intrinsic elements of the Town’s transportation network. In response, the Town should examine its ability to install sidewalks on every public street.

RECOMMENDED ACTIONS:

6-T-1: Formally adopt a plan to provide access to passenger rail transportation as an appendix to this Comprehensive Plan. The plan developed by the Bedford/Franklin Regional Rail Initiative is recommended as a baseline document for this task. (Ongoing task)

6-T-2: Initiate discussions with the Virginia Department of Rail and Public Transportation to develop a plan and program for a passenger rail stop that could serve as an alternate to the current model for operation of passenger rail stations as well as a potential pilot project. (Ongoing task)

6-T-3: Assess Town's ability to allocate resources on an annual basis to develop a fund for construction and maintenance of sidewalks on every public street.¹¹ Compile and publish results. (July 1, 2018)

¹¹ For purposes of discussion, the current cost of construction of a 4 foot wide sidewalk is \$50 per linear foot. On an annual basis, this means that 1,000 linear feet could be added to the Town's existing network at a cost of \$50,000.

III. INVENTORY AND ANALYSIS

A. EFFECTS OF REVERSION TO TOWN STATUS

As mentioned previously, Bedford completed a change in constitutional status from an Independent City to a Town effective July 1, 2013. This was actually the second effort by the City and County to undertake a partial governmental consolidation.

In 1995 the City and County entered into a merger agreement that called for a consolidated city containing a “Shire of Bedford,” whose initial boundaries would have been the same as the then-existing boundaries of the City. The Shire would have operated like a Virginia town and would have been granted the power to annex territory by using a simplified ordinance process. Although that consolidation proposal was endorsed by the Commission on Local Government, it was defeated in a special referendum election held in the City and the County.

Approximately 16 years later, after prolonged negotiations the City Council and the Bedford County Board of Supervisors adopted resolutions on September 14, 2011 giving initial approval to the Voluntary Settlement Agreement what would eventually result in the transition of the City to Town status within the County. The stated objectives of the transition process were to ensure that the new Town would have adequate revenues in future years by shifting responsibility for State-mandated services to the County and by gaining the right to expand its boundaries in a non-adversarial fashion. On the County side, the Voluntary Settlement Agreement provided for an orderly transition based on conditions that the two parties themselves had agreed upon and it enabled the County to benefit from substantial financial incentives offered by the General Assembly for a partial government consolidation. The transition also resulted in many changes to the operational model of the Town organization as compared to the prior constitutional status. This document represents the first all-inclusive Comprehensive Plan document for the Town since completion of the transition process.

1. Boundary Adjustments

a. PHASE I

The Phase I Boundary Adjustment Area was comprised of properties that were adjacent to then-existing City boundaries and satisfied one or more of the following criteria:

- they were included in and governed by the Revenue Sharing Agreement;
- City water and/or sewer service infrastructure were directly accessible (or funds had been encumbered by the City to construct such services in an accessible manner);
- they were individual tax parcels that were split by the then-existing City/County boundary;
- they were properties outside then-existing City limits that were otherwise inaccessible by automobile travel without egress through the City; or
- formal proposals had been submitted to City staff for their development in a manner that led to a request for the extension of City services.

From an operational standpoint, the City already made many of its municipal services available to this area (including response by the City Police Department to calls at the request of the Bedford County Sheriff's Department).

b. PHASE II

The Phase II Boundary Adjustment Area is comprised of properties that are already developed in an urban fashion and additional areas that are likely to do so by July 1, 2023. Many of the factors related to inclusion in Phase I were applicable to properties within the Phase II area as well.

In general terms, the boundaries of this area are defined physically by public roads, a visible overhead electric transmission line, and the Little Otter River.

In the case of three specific geographic areas within Phase II (an industrial property owned by Bison Printing, the North Hills residential subdivision, and the Town & County residential

subdivision), both jurisdictions negotiated a formal ten year transition period for boundary adjustment in recognition of the increased property tax burden that would be borne by owners of this property as a result of the boundary adjustment. They are all inaccessible by automobile travel without egress through the City, but have been given special consideration due to the impact of increased real estate taxes.

c. PHASE III

The Phase III Boundary Adjustment Area is comprised of six locations which may be incorporated into the Town limits only if and when land development of an urban or suburban type takes place. The individual properties within these areas generally meet the criteria for inclusion in Phase I, except that City staff was aware of no particular plans for their development in any manner by July 1, 2023.

The individual areas are comprised of individual tax parcels that are adjacent to then-existing City limits or one of the other proposed Boundary Adjustment Areas. The boundary of Subsection A within this Boundary Adjustment Area is defined physically as the area bordered by a visible overhead electric transmission line, Route 43, and Fancy Farm Road. The boundary of Subsection B is defined physically as the area adjacent to the existing City limits and two portions of the Phase I Boundary Adjustment area and further bordered by the Norfolk-Southern Railroad, Little Otter River, and Shiloh Church Road.

The Town may incorporate any portions of the Phase III area that are contiguous to the Town boundaries with a width of at least 500 feet at the existing boundary line if the portion meets any of the following three standards:

- i. The area has parcels of land that have an average size of three acres or less;
- ii. The area has a density of at least two or more dwellings per acre; or
- iii. The area includes parcels used wholly or in part for commercial or industrial activities.

In addition, the Town may be able to bring in the remaining portion of the Phase III area if a substantial majority (60%) of the remaining parcels has been developed. A parcel shall be deemed to be “developed” based on the same three standards listed above.

The intent of this Boundary Adjustment Area, and its inclusion in the Voluntary Settlement Agreement, was to provide the Town with an area for reasonable long-term expansion in a way that will provide a reasonable level of municipal services for residents of the area.

2. County Payments to Town

As a result of additional State funding received by the County for educational purposes and in consideration of the transfer of City-owned facilities to the County, the two parties agreed that the County shall pay the Town an annual sum of no less than \$500,000 for 15 years beginning July 1, 2013. However, in any year in which the incentive payment from the State is \$4,000,000 or greater, the County shall pay the Town an additional sum of \$250,000. If the payment from the State is less than \$4,000,000, the County shall reduce that supplemental payment by a proportional amount.

3. Transfer of Properties from City to County

- a. Bedford Elementary School – Located at 806 Tiger Trail, this property includes a 28.32 tract and had an assessed value of \$6,865,400 in 2011.
- b. Bedford Central Library – This property consists of the building and a 2.449 acre tract located at 321 North Bridge Street. The 2011 assessed value was \$4,297,500.
- c. Bedford Welcome Center¹ – In addition to the building, this property located at 816 Burks Hill Road includes a 3.4022 acre parcel. It had an assessed value of \$2,427,900 in 2011.

¹ There is a performance clause within the Voluntary Settlement Agreement related to the Welcome Center which would allow the Town to reclaim ownership of the facility if the Country Board of Supervisors declined to appropriate funds for relevant payments to the Town in any given year.

4. Former City Services Assumed by County

- a. Tourism – The County assumed sole responsibility for operation of the tourism program that had been a joint operation of the City and the County. However, the Town continued to provide funding for the program through June 30, 2015.
- b. Dispatching Services – The County assumed sole responsibility for dispatching services serving law enforcement, fire, and rescue personnel for both the County and the Town. The Town pays for costs directly attributable to calls for service in connection with the operations of the Town Electric Department.
- c. Building Code Enforcement – Within Town boundaries the County enforces all State-mandated building codes as well as the County's erosion and sediment control regulations.
- d. Economic Development – The County agreed to apply its best efforts to market the central area of the County (inclusive of the Town) for economic development.
- e. Joint Economic Development Authority – After its existing debt was fully retired, the Bedford Joint Economic Development Authority (BJEDA) was dissolved and all of its assets and liabilities were transferred to the Bedford County Economic Development Authority.²
- f. Recreation – The County acknowledged its responsibility for provision of recreational services (including, but not limited to, youth sports) to all citizens of the County and integrated the Town and its citizens into its system for providing such.
- g. Library – The County assumed sole responsibility for operation of the Bedford Central Library.
- h. Regional Jail – As separate local government jurisdictions, the City and the County were individual members of the Blue Ridge Regional Jail Authority. Effective July 1, 2013 the County assumed all liabilities of the City related to the Jail Authority and all then-existing inmates originating from the City were deemed to be inmates of the County.
- i. Regional Juvenile Detention Home – As separate local government jurisdictions, the City and County were parties to a Juvenile Detention Home Agreement. Effective July 1, 2013 the County assumed all liabilities of the City related to the Juvenile Detention Home Agreement and all juveniles who were then the responsibility of the

² Most of the assets and liabilities of BJEDA were directly associated with the Bedford Center for Business, the ownership of which was also transferred to the Bedford County Economic Development Authority effective with the dissolution of BJEDA.

City were then deemed to be the responsibility of the County.

- j. Constitutional Officers – Effective July 1, 2013 the responsibility of the City’s constitutional officers (the Electoral Board, Commissioner of the Revenue, Sheriff, Treasurer, and Voter Registrar) were assumed by the County’s constitutional officers.
- k. Animal Shelter – Effective July 1, 2013 the Animal Shelter Agreement between the City and County was terminated. Since that time the Town has had the right to deliver to the County’s current (or any future) animal shelter all stray animals picked up by Town animal control personnel without payment of any associated charge or fee.
- l. Education – Effective July 1, 2013 the City of Bedford School Board was dissolved and the Agreement for Public Schools and Educational Programs between the City and County was terminated. Since that time the County School Board has performed all duties imposed upon them by general law and the State Board of Education in the expanded area of the County (inclusive of the former City) and has been entitled to receive all state and federal educational aid attributable to schoolchildren within the Town.
- m. Courts – Effective July 1, 2013 the responsibility for all operations related to court activity and administration was assumed by County personnel.
- n. Commonwealth Attorney – Effective July 1, 2013 the responsibility for all operations related to the Commonwealth Attorney’s office was assumed by County personnel.
- o. Probation Office – Effective July 1, 2013 the responsibility for all operations related to the Probation Office was assumed by County personnel.
- p. Maintenance of County Administrative Buildings – Prior to reversion the City shared costs for maintaining the County Courthouse and certain administrative offices (such as those used by the Department of Social Services). Effective July 1, 2013 the County assumed sole responsibility for this activity.
- q. Health Department – Effective July 1, 2013 the responsibility for all operations related to the Health Department was assumed by County personnel.
- r. Community Services Board – As separate local government jurisdictions, the City and County were members of the Central Virginia Community Services Board. Effective July 1, 2013 the County assumed all liabilities of the City related to the Community Services Board.

- s. Social Services – Effective July 1, 2013 the responsibility for all operations related to the provision of Social Services was assumed by County personnel.
- t. Comprehensive Services Act – Effective July 1, 2013 the responsibility for all operations related to the Community Services Act was assumed by County personnel.
- u. Maintenance of Bedford Elementary School – Ownership and responsibility for this facility were transferred to the Bedford County School Board effective July 1, 2013.
- v. Maintenance of Bedford Middle School – Effective July 1, 2013 a lease agreement was executed between the Town and the Bedford County School Board allowing the use of Bedford Middle School (including certain maintenance requirements on the part of both parties) for a period of 6 years. The intent of the lease was to provide continued operation of the school until such time that a new middle school is constructed and operating within the Liberty High School attendance zone.
- w. Cooperative Extension Service – Effective July 1, 2013 the responsibility for all operations related to the Cooperative Extension Service was assumed by County personnel.
- x. Geographic Information System – Effective July 1, 2013 the responsibility for maintaining all records and information associated with the operation of a county-wide Geographic Information System (inclusive of the territory of the former City) was assumed by County personnel.

5. Former City Services Passed on to Town

- a. Zoning – The Town continues to exercise zoning authority within its boundaries as authorized by the Code of Virginia and collects permit fees associated with that activity.
- b. Electric Utility – The Town continues to provide electric utility services to customers that were previously served by the City and in the same manner as they were previously provided.
- c. Street and Sidewalk Maintenance – The Town continues to construct and maintain infrastructure in all public rights-of-way within Town limits including those within the Virginia Department of Transportation (VDOT) system as were previously provided by the City.
- d. Maintenance of Town-owned Facilities – The Town continues to provide maintenance for all buildings and properties owned by the Town.³
- e. Police – The Town continues to provide the same level of service as that which was previously provided by the City Police Department.
- f. Town Economic Development Authority – The Town continues to provide the same level of service as that which was previously provided by the City Industrial Development Authority.
- g. Redevelopment and Housing Authority – The Town continues to provide the same level of service as that which was previously provided by the City Redevelopment and Housing Authority.
- h. Information Technology – Information Technology services are provided by the Town in the same manner that they were previously provided by the City.⁴
- i. Fire Department – The Town Fire Department provides the same level of service as that which was previously provided by the City Fire Department.
- j. Animal Control – The Town continues to provide the same level of service for animal control as that which was previously provided by the City.
- k. Civil Code Enforcement – The Town continues to provide the same level of enforcement for civil codes (in areas such as minimum housing and property maintenance) as that which was previously

³ The “exceptions” to this policy are the Bedford Elementary School, the Bedford Central Library, and the City’s interest in the Bedford Welcome Center which were all transferred to the County.

⁴ A notable exception to this policy is the assumption of responsibility for operation of the Geographic Information System by the County.

provided by the City.

- l. Solid Waste and Refuse Disposal – The Town provides a similar level of service for curbside collection of solid waste and refuse disposal services as that which was previously provided by the City.⁵
- m. Cemeteries – The Town continues to operate its public cemetery facilities in the same manner as they were operated previously by the City.

⁵ Notable exceptions to this policy subsequent to reversion include the Town's termination of its participation in the Regional 2000 Solid Waste Authority and its discontinuance of curbside recycling collection.

B. CURRENT DEMOGRAPHICS

1. Past and Present Population

Upon its incorporation in 1839, the village of Bedford had a population of 350 persons, but by 1880 had grown to a population of almost 2,000. In 1910 the population reached 2,508 and increased steadily to 6,011 in 1970. The decade from 1950 to 1960 showed the greatest rate of growth, with Bedford's population increasing from 4,061 to 5,921. In January of 1960, Bedford grew by 1,273 persons due to annexation. Even without this annexation, Bedford grew by a healthy 14.5% during this post-war decade.

Beginning in 1970, the population of the community stabilized at a rate of growth that has remained fairly constant until the present time. Population estimates between the 1970 and 1980 Census predicted that Bedford's population would reach 6,500, but the official tally from the 1980 Census put Bedford's population at 5,991. The 20 year growth rate in the time period between 1980 and 2000 was approximately 5.1%. Within that time span, the 10 year growth rate between 1990 and 2000 was only 3.7%.

The 2010 Census reported an actual decrease in the community's population, although the boundary adjustment associated with reversion to Town status brought in population sufficient enough to counteract that trend.

Table I provides an historical review of Bedford's population by providing slightly more than a century's worth of data for comparison.

TABLE I
POPULATION (1910 through 2013)

<u>1910</u>	<u>1920</u>	<u>1930</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2013</u>
2,508	3,243	3,713	3,973	4,061	5,921	6,011	5,991	6,073	6,299	6,222	6,540

Sources: U.S. Census and Virginia Commission on Local Government

From a regional perspective, increasing development began to take place in the 1970's in Roanoke and Lynchburg and both cities have emerged as hubs of separate metropolitan areas. Unincorporated areas of Bedford County adjacent to these cities saw increases in population as they became identified and marketed as bedroom communities. Overall since 1970, the population of Bedford County has

nearly tripled. The most significant measurable growth has occurred in the eastern portion of the county centered upon the Forest community. The Smith Mountain Lake area has also experienced significant growth as a residential community.

For the most part, however, the City did not participate in the population dynamic that began in 1970. This may be due in some part to its physical distance from Roanoke and Lynchburg. However, the fact that the Center Magisterial District of Bedford County (which surrounded the then independent City) experienced a population increase of 27% within the median years of this period somewhat discounts this explanation.

Beginning in 1987, the City of Bedford found itself essentially landlocked by virtue of the moratorium on annexation for independent cities which was enacted by the General Assembly in that year. Furthermore, there were some unique developments within the City's residential market as well. Several housing facilities for low and moderate income persons were constructed within the City limits during this time frame. The completion of the Joseph's Dream project in the southwestern quadrant of the City brought the number of low income housing units to 424 (or approximately 14% of the total housing stock) as of 2009. Beginning in the early 20th century, the Benevolent and Protective Order of Elks operated a retirement home for the benefit of its then all-male membership located on the former site of the historic Hotel Bedford. In 2005, the Order changed its bylaws to allow the admission of women. The resultant demand by Bedford citizens to make use of the services of the Elks Home generated something of a glut in the single family housing market supply. Economic factors such as the closure of what was historically the community's largest employer (Rubatex) in 2004 and the national downturn of 2007-2008 also impacted residential development activity.

Ultimately, within the span of the community's final fifteen years as an independent city (from 1998 through 2013), a single subdivision containing 13 units was approved and constructed. Throughout most of this period the City administered zoning regulations that were based primarily on reduced density and a strict segregation of land uses in terms of guiding principles. As a result of the recommendations of the previous Comprehensive Plan, some amendments to the Land Development Regulations were made to allow greater flexibility in terms of use and design. However, these efforts had little impact in the face of the aforementioned local market factors and the general state of the national economy.

2. Future Population Considerations

The Town of Bedford is expected to experience significant population growth within the next ten years as a result of the imminent Phase II boundary adjustment associated with reversion as well as a projected increase in development activity.

As part of the Voluntary Settlement Agreement, the Town will be allowed to adopt an ordinance adding an area of approximately 4.05 square miles to its current corporate limits effective July 1, 2023. This area includes two subdivisions (North Hills and Town and Country) which are already substantially occupied as well as several hundred acres of heretofore undeveloped land. As part of the reversion filing, the population of the Phase II area was estimated at 996 persons in 2010.

Prior to reversion to Town status, zoning approval was given to a patio home development identified as Oakwood Villas. The project is located in the northern area of the current Town limits adjacent to Bedford Memorial Hospital. The project plan calls for a variety of duplex and quadriplex single family patio homes, ultimately yielding a total of 204 units.

Harmony is a mixed-use development that was approved by Bedford County prior to reversion, and which was taken into the corporate limits of the Town by virtue of its location within the Phase I boundary adjustment area. The development plan for this project includes 93 single family housing units.

Bedford Lofts is an infill redevelopment project involving the adaptive reuse of an historic former industrial building near Centertown Bedford. A building that once housed a furniture manufacturing facility has been renovated and is being marketed for residential use as 32 individual apartments as of the adoption of this plan.

The aggregate of these projects that are currently in the development and/or marketing phase indicates an addition of 227 housing units to the community. If an average of two persons per unit ultimately occupy these units, it is reasonable to project an increase in population of 454.

Based on this number combined with the boundary adjustment activity that is scheduled to take place as part of the Voluntary Settlement Agreement, the population of the Town will be approximately 8,000 as of July 1, 2023.

Beyond this date an additional area of expansion was included in the Voluntary Settlement Agreement as Phase III. Although the Town retains the right to

incorporate any portion of this area if certain performance standards are met (as described elsewhere in Section III.A.1.c), there is no “automatic” mechanism or timeline for such activity.

3. Components of the Population

Since 1968, when the Town of Bedford became an independent city, the amount of detailed data collected and reported has increased considerably. The availability of this data assists in providing a more specific examination of Bedford’s population. This information, largely socio-economic in nature, helps predict the degree to which the community will require specific community services and support.

a. Age

The 2010 Census reported that the City of Bedford was remarkably well balanced in terms of age distribution. Persons aged 65 years and over comprised 20.9% of the population, while persons under the age of 18 years constitute approximately 20.1%. The median age was 42.9 (which represents a slight increase from 2000 of 40.9). The school-aged population within the community increased 15% within the previous decade (from 1,149 in 2000 to 1,325 in 2010), while the elderly population actually decreased slightly (from 1,422 to 1,377).

The concentration of very young and very old residents has significant implications for service delivery, since both populations are significantly dependent and in need of community resources. Transportation is an important issue for both groups, since they are largely comprised of individuals who may be ineligible and/or unable to drive. The significant percentage of elderly residents also implies a need for continued focus on alternative housing and health care needs of this particular demographic.

The workforce population of Bedford remains static. Since the workforce population is comprised of individuals who are least likely to require public support and also the most likely to add tax revenue, the community’s ability to grow economically is significantly hampered. For the foreseeable future, this means that businesses looking to locate and/or expand within Town will likely have to bring employees with them or be prepared to recruit them from other localities.

Historical data regarding the breakdown of the community's population by age is displayed below in Table II.

<p style="text-align: center;"><i>TABLE II</i> POPULATION BY AGE: 1970-2010</p>					
<u>Age Group</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>
Pre-School (0-4)	430	352	371	354	399
School Age:					
5-9	487	352	375	408	348
10-14	562	323	313	378	332
15-19	486	459	344	363	388
Work Force	3,042	3,094	3,162	3,374	3,418
Elderly (65+)	<u>1,004</u>	<u>1,411</u>	<u>1,508</u>	<u>1,422</u>	<u>1,337</u>
TOTAL	6,011	5,991	6,073	6,299	6,222

Source: United States Census Bureau

b. Race

The level of personal diversity within the community remains somewhat stable. During the period from 1940 to 1970, the percentage of Bedford's non-white population declined somewhat (from 23 percent to 17 percent within this timeframe). That trend has been reversed somewhat, with the white population of Bedford declining slightly. The majority of Bedford's minority population continues to be reported as black, but the percentage of the overall population identified as "other" continues to grow.

Historical data regarding the breakdown of the community's population by race is included below in Table III.

<p style="text-align: center;"><i>TABLE III</i> POPULATION BY RACE: 1970-2010</p>										
	<u>1970</u>	<u>% of</u> <u>Total</u>	<u>1980</u>	<u>% of</u> <u>Total</u>	<u>1990</u>	<u>% of</u> <u>Total</u>	<u>2000</u>	<u>% of</u> <u>Total</u>	<u>2010</u>	<u>% of</u> <u>Total</u>
White	4,959	82.5%	4,825	80.5%	4,691	77.2%	4,745	75.3%	4,755	76.4%
Black	1,048	17.4%	1,159	19.4%	1,328	21.8%	1,410	22.4%	1,256	20.2%
Other	<u>4</u>	<u>0.1%</u>	<u>7</u>	<u>0.1%</u>	<u>54</u>	<u>1.0%</u>	<u>144</u>	<u>2.3%</u>	<u>211</u>	<u>3.4%</u>
TOTAL	6,011		5,991		6,073		6,299		6,222	

Source: United States Census

Persons identified as "white alone" comprised 91.3% of the population of Bedford County in 2010.

4. Income

In 2012, the median household income in Bedford was \$36,316. This compares to a Bedford County figure of \$56,906, and a statewide median income of \$63,636. The fact that the community's median family income is comparatively low can be attributed in large measure to the high percentage of elderly residents and the concentration of low income housing within the Town.

17.8% of City residents were below the federal poverty line in the reporting period from 2007 through 2011. This is well above the national average of 10.7% and significantly above the average for Bedford County (8.9%).

Of those living in poverty within the City in 2010, 85.8% are identified as minorities in terms of race.

5. Housing

According to the 2010 Census, there were 2,920 total housing units located within the City of Bedford. 2,627 were occupied (with an owner occupancy rate of 55.6%). The local vacancy rate was approximately 10%. Of the 293 vacant properties in the community, one-third was identified as "for rent" or "for sale."

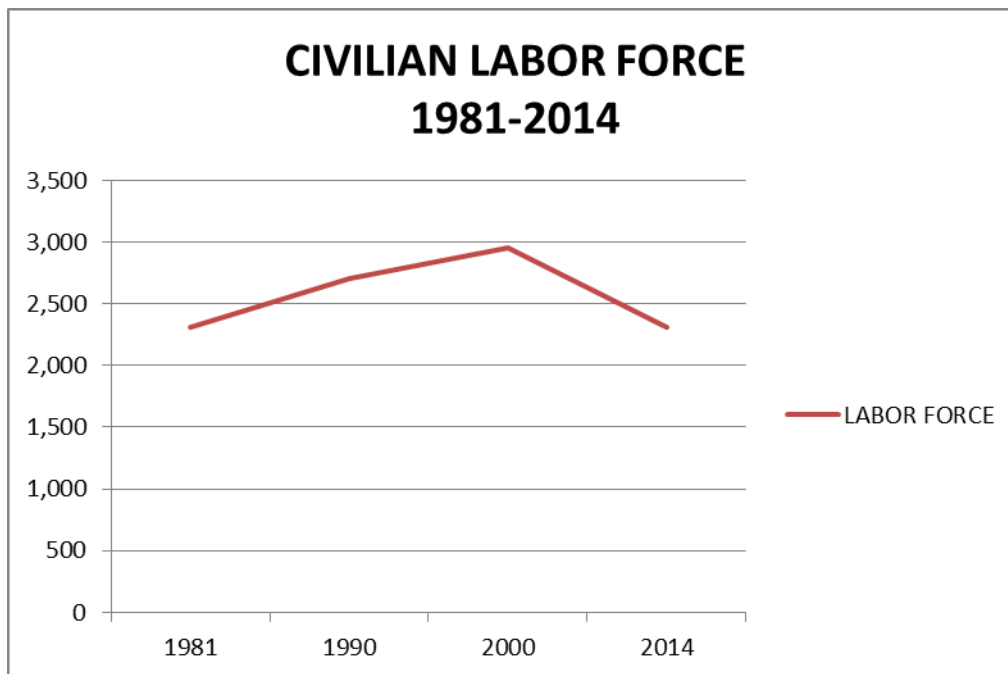
By comparison, the statewide rate for owner occupation was 67.2%. The vacancy rate for Virginia was 9.1% (with 41.2% of vacant properties being listed as "for rent" or "for sale").

The median value of owner-occupied housing units within the City was \$148,000 (the national average was \$254,600).

C. CURRENT ECONOMIC INDICATORS

1. Employment Trends and History

The civilian labor force within the community stood at 2,307 as of September 2014, according to the Virginia Employment Commission. This represents a decrease of 648 persons since 2000, and the historical trend since 1981 is demonstrated by the following graph:



The unemployment rate in September 2014 was reported as 6.6%, which was slightly higher than that of the state and national averages (5.3% and 5.8%, respectively).

a. Employment by Industry Sector

Although the percentage of persons employed in manufacturing within the community decreased somewhat from 43.6% of total employment in 1995, the Town of Bedford continues to be significantly dependent upon its manufacturing base. According to Virginia Employment Commission figures, this sector has consistently represented 33% of the community's total employment base since 2001. Bedford's relatively high percentage of manufacturing employees mirrors that of the Region 2000 planning district area, which exceeds the state and national averages.

After manufacturing, health care (22%) and retail trade (15%) represent the most significant employment sectors within the community as defined by industry.

b. Principal Employers

Within the previous 15 years, there has been major turnover in the local labor market with regard to the firms which are identified as “major employers.”

Table IV demonstrates the status of the ten companies as identified in 2001 and their status as of June 30, 2013.

<p style="text-align: center;"><i>TABLE IV</i> PRINCIPAL EMPLOYERS OF 2001</p>			
<u>Employer</u>	<u>Product or Service</u>	2001 Estimated <u>Employment</u>	2013 Estimated <u>Employment</u>
1. Sam Moore Furniture	Furniture manufacturer	386	230
2. Bedford Memorial Hospital	Health services	330	352
3. Rubatex/Bondtex/Waltex ⁶	Rubber manufacturer	300	0
4. Golden West Foods, Inc. ⁷	Frozen foods	185	64
5. Frank Chervan ⁸	Furniture frame manufacturer	180	0
6. Smyth Company	Label manufacturer	148	106
7. Bedford Weaving	Textile manufacturer	130	109
8. Longwood Industries	Textile manufacturer	130	82
9. RUS of Bedford ⁹	Uniforms	110	130
10. Elks National Home	Retirement home	<u>80</u>	<u>52</u>
GROUP TOTALS		1, 799	1,125
Source: City/Town of Bedford Comprehensive Annual Financial Reports			

⁶ Company no longer active within community.

⁷ Ownership changed between 2001 and 2013. As of adoption of this Plan, company no longer active within community.

⁸ Company no longer active within community

⁹ Now operating as Cintas

Table V demonstrates the status of the ten companies which were identified as principal employers as of June 30, 2013.

TABLE V
PRINCIPAL EMPLOYERS OF 2013

<u>Employer</u>	<u>Product or Service</u>	<u>Estimated Employment</u>
1. Bedford Memorial Hospital	Health services	352
2. Bedford Public Schools	Public education	319
3. Sam Moore Furniture	Furniture manufacturer	230
4. Cintas	Uniforms	130
5. Bedford Weaving Mills	Textile manufacturer	109
6. Smyth Company	Label manufacturer	106
7. Longwood Industries	Textile manufacturer	82
8. Trident Seafood, Inc.	Frozen foods	64
9. Elks National Home	Retirement home	52
10. Winoa (Wheelabrator)	Abrasives manufacturer	41
GROUP TOTALS		1,485

Source: Town of Bedford Comprehensive Annual Financial Report, Year Ended June 30, 2013

Employment numbers within the group identified as “major employers” have dropped overall. However, the percentage of total community employment represented by the group has also decreased – from 42.33% in 2004 to 21.55% in 2013.

Two major employers from 2001, Rubatex and Frank Chervan, have discontinued their operations within the community. The former Frank Chervan facility on Jackson Street has subsequently been redeveloped for residential usage. The Rubatex complex, which included Bondtex and Waltex as subsidiary operations, is currently occupied by three active successors – two (Valley Manufacturing and Fostek) are involved in rubber manufacturing while the other produces surgical tools.

Another major employer from 2001, Golden West Foods, ceased operations in 2012. The company’s property on Orange Street was acquired on a temporary basis by Trident Seafood that year, but the company relocated its operations to another state in early 2015.

c. Manufacturing

In addition to the redevelopment of the former Rubatex complex, several new manufacturers have begun operations within the community within the past fifteen years – many in existing structures that have been repurposed.

The Bedford Center for Business is an industrial park created as a joint venture of the City and Bedford County under the provisions of the former Revenue Sharing Agreement. East Coast Fabricators, a sheet metal fabrication and powder coating operation, is operating as a tenant of the shell building (which is now administered by the Bedford County Economic Development Authority). The Matrixx Group, a plastics manufacturer servicing the automotive industry, is the owner of another site within the park. Approximately 20 acres of land remains available for development within the Center.

Blue Ridge Optics is a designer, manufacturer, and supplier of precision thin film coatings and advanced optics for laser applications. The company started in a former service station building in Centertown Bedford and has expanded operations into another facility on Grove Street.

Central Virginia Manufacturing is a metal fabrication and cabinet manufacturing firm that is operating in the Westgate Shopping Center within space that had been vacant since the closing of its previous tenant (Winn Dixie supermarket).

After many years of service to the community, Coffey and Saunders hardware store discontinued its operations on Macon Street in 2010. The property was acquired by Protech Fabrications in 2012, which is currently active in rubber production at the site.

2. Retail and General Commercial Activity

a. Centertown

In 1985 the City of Bedford became one of the first Main Street cities in Virginia. Infrastructure improvements at that time contributed to the attractiveness of the Centertown area and its economic well-being is tied to subsequent private investment. The area is included in a Virginia Enterprise Zone which was designated in 2004. The major employers within the Centertown area are public entities (such as Bedford County and the Town) and professionals.

There has been significant turnover in terms of occupancy in this area, particularly with regard to retail businesses. A regionally headquartered supermarket (Vista Foods) continues to operate as a tenant of Bedford County on property located on Washington Street.

There has been significant restaurant activity within Centertown and its periphery within the past fifteen years. Two restaurants – Clam Digger’s Seafood and the Bedford Social Club – are currently active in the 100 block of South Bridge Street, and a national pizza chain (Domino’s) operates a full-service facility in the corresponding block of North Bridge. Olde Liberty Station’s continuous existence was interrupted by a devastating fire in September 2009. However, the restaurant reopened approximately five months later and has experienced brisk activity since that time. Fisher’s on Fourth Street is located within the site of a previously successful restaurant. Town Kitchen and Provisions began serving patrons in the former Wharton House on North Bridge Street in 2013, and a former automobile station across the street has been redeveloped and now hosts Azul – a restaurant featuring freshly prepared Mexican cuisine.

b. Highway 460 Corridors

Development along Highway 460 within Town limits has expanded significantly and additional growth is forecast on both the eastern and western portions of the highway within the Town limits.

On the western end of Town, there has been some development and turnover of properties. Highlights of development include the expansion of the Bedford Area Family YMCA, continuous operation of Super 8 hotel, redevelopment of the former Golden Corral restaurant building into a retail antique business, and construction of additional commercial facilities along

Ole Turnpike Road. A significant mixed-use development known as Harmony has been approved for the property along the southern boundary of the highway in this area. It includes several potential commercial sites as well as 93 single family residential lots. The first occupant of the development is a United States Army Reserve training facility which began operations in February 2015. It is expected to attract approximately 120 reservists to the community on a weekend basis, with greater utilization during summer months.

VDOT recently completed a construction project between Blue Ridge Avenue and Baldwin Street which included lowering the physical grade of the westbound lanes Highway 460 as well as realigning Ole Turnpike Road to create a true four-way intersection with the entrance to the Harmony Development. Current discussions are underway for construction of a traffic light at this recently created intersection.

The eastern portion of the Highway 460 corridor has seen significant development within the past fifteen years. The construction and opening of two “big box” retail establishments in particular (Wal-Mart Super Center and Lowe’s home improvement center) have significantly impacted the immediate area and the community in general. The former Wal-Mart shopping center has been redeveloped with Tractor Supply serving as an anchor tenant. The traffic generated by these uses has spawned development in adjacent areas of the corridor as well as residual development along Independence Boulevard. Along the south side of this part of the corridor, two restaurants (Little Caesar’s and Applebee’s) have joined AutoZone.

Once vacant land in the vicinity of Boxwood Terrace is now occupied by several commercial establishments, including an automotive dealership, Wendy’s, Ruby Tuesday, and the American Way commercial center which includes a bank and an emergency medical facility. The intersection of Independence Boulevard and Freedom Lane has seen significant activity (reuse of the former Taylor Brothers business by Virginia Furniture Market, as well as construction and operation of Taco Bell/Long John Silver’s and Sonic fast food restaurants) and development in this area is currently expanding northward along Lowry Street as well.

Some of the current occupants of this part of the corridor are commercial establishments which relocated from other locations within Town limits (including Original Italian Pizza, Little Caesar's, and the Virginia ABC store).

c. Specific Retail Uses

The Westgate Shopping Center along Blue Ridge Avenue is undergoing a transitional phase brought about by the closure of its former anchor tenant (Winn-Dixie supermarket). Given the projected success of Central Virginia Manufacturing in this facility, it seems likely that this area may be repurposed to serve as an employment center in the near future. This could impact existing retail businesses (Peebles department store and Schewels Furniture) either positively – in the form of bringing potential new customers to their sites on a regular basis – or negatively in that the expansion of the cabinet making facility could drive these businesses to seek alternate locations. A small area plan focused on this development and the adjacent 6 C's Plaza should strongly be considered as a priority in terms of projects.

When polled, a movie theater and/or a bowling alley are cited by several residents as the type of commercial establishments that would be desirable within Town. The current obstacles to such uses are largely demographic – specifically the comparatively low personal income levels of Town citizens as well as the current population of the community. Prior research by staff indicates that operators of multi-screen movie theaters in particular seek a minimum threshold population of 10,000 before giving consideration to specific markets. Provision of these types of commercial establishments under current market demands suggests that they would be marginally successful at a reduced scale.

3. Commuting Patterns

Historically, many of the employees working in Bedford have not resided in Town, but have commuted to Bedford for employment. For example, of the approximately 4,636 persons employed in Bedford in 1995, approximately 3,000 were recruited from outside Bedford. Commuting data reported by the Census Bureau began to capture data in 2002 for three particular groups of employees: workers who are employed in Town but live outside Town limits; workers who live in Town but who are employed outside of Town limits; and workers who both live and work within Town limits. The data for certain years is presented below in Table VI.

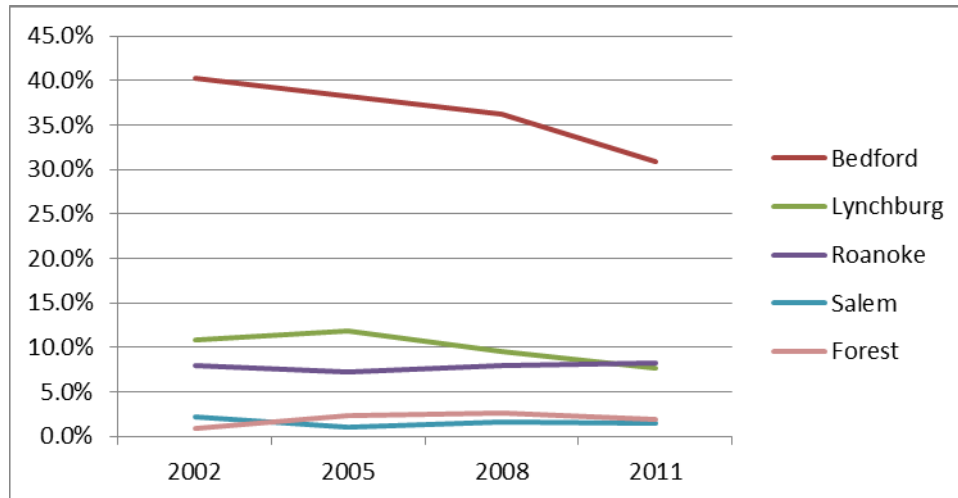
TABLE VI
COMMUTING PATTERNS

	<u>2002</u>	<u>2005</u>	<u>2008</u>	<u>2011</u>
Employed in Town but live outside	5,590 (75%)	6,120 (75%)	6,226 (72%)	6,153 (69%)
Live in Town but work outside	1,160 (15%)	1,261 (15%)	1,578 (18%)	1,929 (22%)
Live and work within Town	779 (10%)	781 (10%)	896 (10%)	862 (9%)

Source: United States Census Bureau

The data indicate an emerging change in terms of commuting patterns. The percentage of workers who commute into Town from elsewhere to work remains high and the number of individuals following this pattern has remained fairly constant within the reporting period. However, there is a significant increase – both in numbers and percentage – in the instance of Town residents commuting elsewhere to work. This data bears further monitoring as it relates to the Town’s view of itself. The data suggests that Bedford is, in fact, becoming more of a “bedroom community.”

The following graph identifies trends related to where Bedford citizens work according to the indicated commuting patterns. Within the reporting period, the number of Bedford citizens who work within Bedford dropped from 40.2% to 30.9%. Lynchburg and Roanoke, along with their nearby census designated places of Forest and Salem respectively, are the most common destination for commuters heading out of town for work. The data seem to be demonstrating a slight trend in which the Roanoke area is emerging as a destination of choice over Lynchburg.



Because of the number of in-commuters remains statistically significant, the Town of Bedford is considered a regional employment center for the area serviced by the Region 2000 Local Government Council.

4. Prior Planning Efforts

In 1996 the Bedford community completed “Bedford Visioning”, a strategic plan for the future. The following is the community mission statement: “To formulate a broad-based community plan of action through a shared vision. These efforts will help make Bedford a prosperous, world class community that preserves our heritage, builds upon our assets, and promotes and enhances educational, technological, cultural and economic opportunities for all citizens.” The Strategic Plan identified five initiatives:

1. Promote industrial development by developing an Industrial Park in order to attract new industry and retain existing industry while maintaining Bedford’s small town character;
2. Promote retail development by making Centertown a preferred choice for working, playing and living;

3. Increase tourism by developing and executing programs that make Bedford a tourist destination;
4. Expand educational opportunities for all citizens with a special emphasis on advanced technology; and
5. Focus on recreational opportunities for all ages.

The first goal was substantially accomplished. As part of the former Joint Revenue Sharing Agreement, the City of Bedford and Bedford County began construction of the Bedford Center for Business in 1998. The park was administered by the Bedford Joint Economic Development Authority (BJEDA) until the City's reversion to Town status. In 1999 the County constructed a shell building within the park which temporarily housed the courts and social services operations while the County's facilities in Centertown were being renovated. The building is currently occupied by two industrial tenants and a regional branch campus of Central Virginia Community College (CVCC). In 2007 the Matrixx Group, a plastics manufacturer, purchased approximately 20 acres from BJEDA. As part of the Voluntary Settlement Agreement, BJEDA was dissolved effective July 1, 2013 and ownership of the park was assigned to the Bedford County Economic Development Authority.

Activities related to the accomplishment of the second goal are still ongoing. The vacancy rate for buildings in the Centertown area is a significant cause of concern which is exacerbated by global trends in the retail sales market. The future economic success of this area will likely be dependent upon a shift in use from typical retail merchandise sales to provision of professional services and consumables. Aside from niche retailers, the provision of goods at the point of sale during business hours will likely be directly related to the needs of service employees who are present in the area.

The National D-Day Memorial was officially dedicated on June 6, 2001 – an event which was attended by President George W. Bush and which received favorable media coverage on a nationwide basis. A joint tourism program was developed and implemented by the City and County in the same year. As a result of reversion, the program was fully absorbed by Bedford County in 2013. While the D-Day Memorial continues to attract several visitors to Bedford, there is little data which suggests that Bedford has advanced its identity as a destination for tourists beyond the Roanoke and Lynchburg areas.

The fourth goal has been substantially addressed by the opening of the Bedford Center of CVCC in January 2005. Course offerings have expanded on a regular

basis and the Bedford Center has proven to be the most successful satellite affiliate of CVCC from a standpoint of financial performance.

The status of the fifth goal is difficult to assess. This is due in part to the outcomes of the reversion process, wherein the Town no longer operates an active recreation department or program. The Town continues to maintain its park facilities, but otherwise to the extent that recreational programming opportunities are offered in conjunction with local government activities, they will be provided by Bedford County.

D. CURRENT OPERATIONS AND LEVEL OF SERVICE

1. Town Organizational Structure

In order to execute the duties and provide services, specific responsibility for certain tasks is assigned to individual Departments under the general supervision of Town Administration as follows:

- Community Development
- Electric
- Finance
- Police
- Public Works

The Administration division consists of the Town Manager and the support staff related to that position (which currently includes an Administrative Assistant III and the Assistant Town Manager). The offices of the Administration division are located within the Municipal Building at 215 East Main Street.

The Assistant Town Manager position is one of dual responsibility. The occupant serves concurrently as head of one of the administrative Departments. And while the Assistant Town Manager exercises responsibility for the activities of all Departments, the primary function of this position is to serve as the Town's Human Resources Administrator and to enforce the Town's Personnel Policy within this role.

The complete Organizational Chart for the Town is included as Appendix III.

2. Community Development Department

The Community Development Department is responsible for providing services related to Code Enforcement, Information Technology, Planning and Zoning, and Project Management as well as contributing to Economic Development efforts. The Department's administrative office is located within the Municipal Building at 215 East Main Street.

a. Code Enforcement

Activities specifically related to this activity include inspection and enforcement of all civil (and specifically non-criminal) Town codes such as zoning, property maintenance, and sign regulations.

b. Information Technology

This service area includes the maintenance and upkeep of all electronic operating systems of the Town (including computers, software, phone systems, and electronic locking mechanisms).

c. Planning and Zoning

This division is responsible for the oversight, review, and maintenance of all Town policies and regulations related to land use and development (including the Comprehensive Plan and the Zoning Ordinance). Employees within the division serve as primary staff to the following appointed boards and commissions:

- i. Planning Commission – This 7 member body serves as an advisory board to Town Council and offers formal recommendations pertaining to matters of planning and zoning policy. It is comprised of citizens appointed by the Town Council
- ii. Board of Zoning Appeals – This 5 member Board is appointed by the local circuit court and meets on an as needed basis to consider requests for zoning variances, certain special use permits, and to hear appeals or requests for interpretations of formal decisions made by the Zoning Administrator.
- iii. Town Economic Development Authority – This 7 member group is appointed by Town Council and serves to identify and promote opportunities for economic development focused within the Town. The Authority also administers grant and incentive programs as directed by the Town Council.
- iv. Redevelopment and Housing Authority – This 7 member group

is appointed by Town Council to recommend strategies for abating conditions of disrepair, blight, and potential safety concerns related to structures. This Authority also administers grant and incentive programs as directed by the Town Council.

d. Project Management/Engineering

The Project Administrator is the individual who is assigned responsibility for this task area, and the position is funded primarily by the revenues received from the Virginia Department of Transportation (VDOT) on an annual basis.

This division's responsibilities include designing, implementing, and inspecting public infrastructure such as roads, storm drainage systems, and sidewalks. This division also surveys public project sites and prepares easements for projects. In addition, the Project Administrator reviews site plans, assists with planning, economic development, zoning administration, and code compliance issues.

3. Electric Department

The Electric Department, headquartered at 877 Monroe Street, is responsible for all activities related to the maintenance and operation of the Town's electric utility service. The current divisions of this Department are centered on the following activities: Meter Reading, Right-of-Way Maintenance, and Transmission and Distribution.

The Town's Electric utility was established in 1899 to provide electric service to residents, businesses, and industries within the defined service area that includes the Town and the northern part of Bedford County (including the community of Big Island). Presently the utility services 5,609 residential and 883 commercial and industrial customers and maintains approximately 700 miles of distribution and transmission lines.

The Electric Department operates and maintains 11 substations and a hydroelectric generation plant. To promote reliability of services, the utility has two interconnection points with American Electric Power (AEP) identified as the Mosely substation and the Centerville substation. Bedford currently purchases wholesale power from American Municipal Power (AMP) to meet the system peak usage demand of 53 megawatts. The Town generates a portion of its electrical needs with its 5 megawatt hydroelectric facility located at Snowden on the James River. In addition, the Town is leasing a portion of its former landfill facility to a private company (O2 emc) for the purpose of operating a 3 megawatt solar power generating facility.

In conjunction with the electric service system, the Town provides street lighting to various parts of the community. Current policy is to provide lights on every other utility pole and to provide new lights as requested. Decorative lighting has been installed in the Centertown area as part of ongoing downtown revitalization efforts. Location (and potential relocation) of utility lines underground is also supported as part of community-wide revitalization.

4. Finance Department

The Finance Department office is located within the Municipal Building at 215 East Main Street. The Department's mission is to provide fiduciary responsibility to the citizens and taxpayers of the Town of Bedford and to ensure that financial resources are collected, safeguarded, maximized, and dispersed in a fiscally judicious manner. Financial services are provided to a wide range of constituents in a transparent and professional way geared toward meeting the expectations of customers while adhering to all current accounting and management standards.

Services provided by the Finance Department include the following:

a. Budget Management

The primary responsibility associated with this function is the development and management of the Town Budget, Capital Improvement Program, and the Five Year Plan (a copy of the Town's current Five Year Improvement Plan is attached as Appendix IV). This division works with all other Town Department's financial management personnel to produce the annual fiscal year budget and all other required federal and state budgetary reports.

b. Financial Accounting

Within this operation the Department exercises its responsibility for all accounts payable and accounts receivable process for all Town Departments and enterprise funds as well as the maintenance of all official financial records of the Town. The Department is responsible for compiling and filing all official reports pertaining to the requirements of Generally Accepted Accounting Principles (GAAP), the Government Accounting Standards Board (GASB), the Financial Accounting Standards Board (FASB), and all additional state and federal reporting requirements. This division also oversees financial interactions involving Town Departments and enterprise funds including issuance of general obligation debt, agency contributions, and grant assistance.

c. Treasury/Collections

The Treasurer's office is responsible for managing and directing the billing and collection of all real estate taxes, personal property taxes, motor vehicle excise taxes, solid waste charges, utility charges, and the issuance of municipal lien certificates. The Treasurer also manages any property which is in tax title or foreclosure status. Delinquent property is turned over to the Treasurer on an annual basis for abatement of nonpaid taxes, and Town personnel also facilitate public auction or disposition of foreclosed properties.

- d. Payroll Administration
This operation involves the recording, processing, payment, and administration of employee compensation for all Town Departments. All disbursements related to federal, state, retirement, and miscellaneous deductions and contributions for all staff are administered by staff in this division, as well as compliance with Internal Revenue Service (IRS) reporting requirements and deadlines.
- e. Revenue Management
This area of responsibility relates to establishment of revenue performance standards, tracking and reporting revenue, analyzing actual versus expected performance, and initiating corrective action related to underperformance.
- f. Utility Service Administration
This division is responsible for billing, processing, collection, service enrollment, disconnection, data management, and customer service troubleshooting related to all customer utility accounts.
- g. Debt Management
This division exercises oversight for policy and practice related to debt issuance processes, debt payment oversight, management of the Town's overall debt portfolio, and adherence to debt issuance laws, restrictions, and regulations.
- h. Risk Management
The purpose of this function is to transfer the Town's risk and liability through the acquisition of insurance (directly and indirectly via the requirement of contract providers) related to worker safety, auto liability, property, general liability, compliance, and regulatory liability.
- i. Procurement and Purchasing
Through this function the Department exercises responsibility for purchasing all supplies, equipment, and services needed by all Town Departments, enterprise funds, and associated agencies. As required by Town Code, all purchases in excess of \$5,000 are governed by the established Town Purchasing Policy.
- j. Financial Reporting
The Department presents financial statements that adhere to Generally Accepted Accounting Principles (GAAP) and maintains continuity of information related to operating performance and financial position pertaining to all local government and enterprise funds.

5. Police Department

The Police Department, headquartered in the basement level of the Municipal Building at 215 East Main Street, coordinates public safety in the Town of Bedford. Through investigations, patrols, and community partnerships, police personnel work to deter and prevent crime. The Department currently consists of 24 sworn police officers, two full-time civilian support staff and one part-time support employee.

The department's motto is, "We choose character over compromise," and the mission statement is as follows:

"The Town of Bedford Police Department is dedicated to improving the quality of life by creating a safe environment in partnership with the diverse community we serve. We act with integrity to reduce fear and crime while treating all with respect, compassion, and fairness to build trust."

Services provided by the Police Department include the following:

- a. COP Camp
This is a one week camp for students aged 9 to 14. The camp provides a week of student/officer interaction with emphasis on gang resistance and drug resistance as well as information pertaining to how officers do their jobs.
- b. Teen Police Academy
This is a one week camp for high school students aged 14 to 18. The camp provides a week of student/officer interaction with emphasis on careers in law enforcement.
- c. Drug/Narcotic Crimes Investigation
The Department enforces codes and ordinances related to the abuse, possession, and sales of illegal drugs and narcotics.
- d. Parking Enforcement
In order to assist with the safe and orderly flow of traffic, Department personnel minimize abuse of parking privileges to help ensure adequate parking for downtown merchants and shoppers.
- e. Animal Control
The Town of Bedford provides a full range of services related to control and regulation of both domesticated and non-domesticated animals. Department personnel also manage the deer population within Town limits to improve highway safety and reduce property damage.

- f. Special Events
The Police Department sponsors and participates in numerous events including bike rodeos, the Special Olympics Torch Run, Child Safety Seat Checks, and National Night Out. Department personnel also provide security for events such as Centerfest, foot races on public streets, and any event involving temporary closure of public right-of-way.
- g. Traffic/DUI Enforcement
The Department conducts enhanced patrol and traffic checks to reduce traffic crashes caused by speed and/or intoxicated drivers. This service also includes occupant protection activities.
- h. Directed Patrols and Investigations
The Patrol Division of the Department conducts continuous patrol of the entire area of Town and conducts initial investigations of all calls for police service.
- i. Citizen Services
The Department assists citizens with several issues (including providing access to locked vehicles and houses, funeral escorts, and child safety seat checks – to cite a few examples).
- j. Assistance to Other Agencies
The Department cooperates fully in law enforcement activities with personnel from the Bedford County Sheriff's Office, the Virginia State Police, as well as federal personnel as needed. In addition, the Department provides assistance to Fire and other Emergency Service providers.
- k. Crime Prevention
The Department conducts residential and business community security surveys, community meetings, and sponsors a Crime Prevention Coalition in its effort to prevent and deter criminal activity within the Town.

6. Public Works Department

The Public Works Department is headquartered at 702 Orange Street and is responsible for the maintenance, upkeep, and/or operation of all physical property owned by the Town. The operations of this Department include Automotive Maintenance, Grounds Maintenance, the Recycling Center, Refuse Collection, and Street Maintenance.

a. Automotive Maintenance

Town staff within this division performs routine maintenance, inspections, and repairs to all Town owned vehicles and equipment (ranging from police cars, bulldozers, and trash trucks to lawnmowers and weed eaters).

b. Grounds Maintenance

This operation is responsible for cutting grass and any landscaping for all Town owned buildings and schools, cemeteries, parks, and various public right-of-ways within the Town. The division also sets up seasonal decorations downtown and on other Town owned property.

This division maintains the following park facilities:

- i. Liberty Lake Park The largest of the Town's recreational facilities, this 60-acre park located on Burks Hill Road functions on a regional scale. It includes 3 developed playgrounds, a 2.5 acre lake, fishing docks, 3 athletic fields, 3 lighted tennis courts, a skateboard pod, fenced basketball courts, 6 picnic shelters, 2 concession stands, a racquetball court, public restroom facilities, large open play areas, and a nature trail.
- ii. Greenwood Park This 3-acre park features picnic tables, a basketball court, playground equipment, and large open play areas. It is located at the corner of Greenwood and Quarles streets.
- iii. Edmund Street Park This 1.5-acre park located at 600 Edmund Street is owned by Bedford County, but it is leased and operated by the Town. It features playground equipment, picnic tables, a tennis court, basketball courts, and a soccer field that is also used as a large open play area.
- iv. Orange Street This site features a 2-acre softball field. It is located at the corner of Orange Street and Gold Road.

- v. Poplar Park This 1.5-acre park located on Grand Arbre Drive once hosted the largest Yellow Poplar in the United States and the largest tree within the Commonwealth of Virginia. It features picnic tables and benches.
- vi. Town Lake Town Lake is located on Lake Drive. The 4-acre park features a small lake for fishing and quiet woods.
- vii. Reynolds Park Opened in November 1997, this park is located at 1132 East Main Street. It is comprised of passive recreational facilities including walking trails, picnic areas, flower gardens, and statuary.

The Grounds Maintenance Division also currently maintains four active cemeteries,

- viii. Oakwood Cemetery
- ix. Longwood Cemetery
- x. Greenwood Cemetery
- xi. Fairmont Cemetery

and four inactive ones:

- xii. Jackson Street Cemetery
- xiii. Otey Cemetery
- xiv. Fuqua Cemetery
- xv. Mountain Cemetery

c. Recycling Center

The Town operates a residential recycling drop off center at 856 Orange Street. This allows Town residents to deposit a wide range of recyclable materials including paper, plastics, glass, and cardboard. The recyclables are then hauled to a facility where they are processed.

d. Refuse Collection

The Town supplies refuse collection service to customers including residents, most businesses and a few Bedford County residents in the immediate area. Curbside refuse collection service is provided once a week by means of a wheeled disposal cart system owned and provided by the Town. A drop-off-recycling center is also provided. The recycling program includes glass, newspaper, plastic, cardboard, mixed paper, aluminum and steel cans. Old tires, metals and appliances are also diverted from the landfill and recycled. The Town also collects leaves in the fall and brush on a monthly basis. In addition the Town picks up bulk items such as old appliances and currently sponsors a Town-wide clean up week, subject to annual budget and appropriation, on a biannual basis during which residents may place bulk items at the curb for pick up and disposal.

The Town uses the Bedford County Landfill for the disposal of its refuse under the terms of the Voluntary Settlement Agreement.

The Town is responsible for the ongoing oversight and maintenance of a landfill facility located at the terminus of Orange Street (near its intersection with McGhee Street). This facility was closed in the 1980's under the appropriate guidelines of that time. Since the facility closure an issue related to groundwater contamination was detected and the Town has been actively involved in efforts to abate that situation for approximately the past ten years. In November 2016 the Town entered into a lease agreement with a private enterprise to construct and operate a solar power generating facility on the site of the Orange Street landfill with the expectation that the facility would be fully operational by the summer of 2017.

The Town also operates an active landfill facility on property located at 856 Orange Street. Preliminary studies and activity are underway to consider the possibility of closing the active landfill as of the adoption of this Comprehensive Plan.

e. Street Maintenance

The street maintenance division repairs pavement failures such as cracks and potholes, constructs and repairs stormwater detention facilities, and removes ice and snow from roadways during winter storms.

7. Water and Sewer Service

Formerly a division of the Town's Public Works Department, provision of water and sewer utility service is now the responsibility of the Bedford Regional Water Authority (which was created as a result of the Voluntary Settlement Agreement).

The Voluntary Settlement Agreement included principles for the creation of a new regional utility authority which would result from a physical and legal merger of two existing utility systems. For many years the City of Bedford and the Bedford County Public Service Authority (PSA) operated physically separate water and sewer utilities. The most proximal physical point between the two systems was along the U.S. Highway 460 corridor east of the City. The PSA operated a water line in the New London area whose terminus was approximately 8 miles from the eastern terminus of the City's existing water system. Another potential for interconnection existed along the Highway 122 corridor south of the City limits. As a result of the Voluntary Settlement Agreement the City and County agreed to physically connect the two systems.

The PSA operated utility systems in several distinct and separate areas of the County. It had withdrawal rights to raw water from Smith Mountain Lake which it used to serve customers within the southern portion of Bedford County and along the Highway 122 corridor. The PSA purchased water at a wholesale rate from the City of Lynchburg which it used to serve customers in the eastern portion of the County (primarily in the Forest area). The PSA also purchased water from the Western Virginia Water Authority which it used to serve customers in the western portion of the County (such as the Stewartsville and Goodview areas).

The PSA operated a wastewater treatment facility in the southern portion of Bedford County near Moneta and several smaller package facilities in a decentralized manner throughout the County. Otherwise, there was no centralized system for provision of sewer services within the County except for those areas that were previously served by the City of Bedford.

The decentralized nature of the provision of these services was a challenge for long-term planning and economic development. Bedford County has long been well positioned geographically to serve as an interconnection between larger regional water utilities in Roanoke and Lynchburg.

However, the PSA lacked the infrastructure and the capital resources necessary to execute plans on this scale in an economical manner.

The City provided these services to nearly all properties within its corporate limits as well as certain highway corridors outside the City with very limited resources. Raw water was obtained from three sources: Stoney Creek Reservoir, an intake at the headwaters of Big Otter River, and five deep wells located adjacent to Route 43 north of the former City limits. The Big Otter River intake and the five deep wells were only used when the reservoir level dropped below the spillway. At the time of reversion, the reservoir had a safe yield of 1.85 million gallons per day (mgd); the Big Otter River intake yielded up to 1.0 mgd, and the five deep wells were able to produce 0.2 mgd. Thus, the City had a calculated water source capacity of 3.05 mgd. The water treatment plant went into operation in 1972 and had a design treatment capacity of 3.0 mgd. The water storage capacity included a 1-million-gallon steel tank and two concrete reservoirs with a capacity of 1-million gallons and 1.5 million gallons. As of 2003, the average daily finished water production was 1.13 mgd serving 3,181 residential, commercial and industrial customers. That level of service demand remained fairly constant from that point until 2013.

The City's April 2000 Water and Sewer Master Plan indicated sufficient water supply, treatment and distribution capacity for a 20-year planning period and included recommended improvements that were begun at the time the plan was adopted. The master plan accounted for the projected demand from residential, commercial and industrial uses within the City limits as well the projected demand from the revenue sharing zones adjacent to the City in Bedford County. Public water service was extended within the first two priority revenue sharing zones (460 East and 460 West) subsequent to the adoption of the plan.

Although the City appeared to have sufficient water capacity for 15 years for its then-current service areas (and the accompanying service levels), there were still areas of the City with no public water service and the system was highly susceptible to the effects of drought. Furthermore, the capacity of the system as of 2013 had practical ramifications for economic development, as some prospective businesses had been discouraged from occupying otherwise appropriate sites within the City due to their projected impact upon overall water usage.

With regard to sewer service, the City of Bedford completed an upgrade to its wastewater treatment plant in 1999. Improvements focused on a redesign of the process, including headworks, nutrient removal, a sludge digestion process, new laboratory and upgrade of many other outdated systems. The purpose of this upgrade was to enhance wastewater treatment and plant performance. In addition, the capacity of the plant was increased from 1.5 mgd to 2.0 mgd. As of 2003, the plant treated 0.98 mgd. Because of these improvements, the wastewater plant operated efficiently and the effluent discharge continuously tested well below the VPDES permit limits.

The City's sanitary sewer collection system was also upgraded by replacing pumps to increase capacity and eliminate sewer overflows during heavy storms. Approximately 45,000 feet of sewer line and associated manholes were rehabilitated or replaced within a ten year period. This reduced the amount of inflow (stormwater) and infiltration (groundwater) from leaking into the collection system and also increased the capacity of the sewer collection system. The City's wastewater treatment plant and collection system served 2,575 customers as of 2013.

The April 2000 Water and Sewer Master Plan indicated that the improved sanitary sewer collection system and wastewater treatment plant would have sufficient capacity to serve the City of Bedford and the revenue sharing zones adjacent to the City for 20 years. However, as of 2013 there were still areas within the City limits that were not served by the City's sewer system.

As part of the 1995 Revenue Sharing Agreement between the City and the County, the City agreed to provide gravity sanitary sewer service as well as public water within all identified revenue sharing zones to industrial and commercial customers. The 460 East and 460 West corridor extensions, which were identified as the first and second priorities respectively, were completed prior to July 1, 2013.

The merger of the two systems was proposed to address several significant issues. A physical interconnection of the two systems was intended to abate the City's sensitivity to drought conditions and allow for greater freedom and flexibility in recruiting business, industry, and residential development to the center core of the County. It was also intended for the proposed new utility authority to have the ability to direct its resources and infrastructure toward areas of development in a more concerted and efficient manner than the PSA and the City utility were capable of doing independently. The new

authority was also intended to have the ability to utilize current staff and resources more efficiently and it was also contemplated that combined treatment capacities could be utilized in a more efficient manner to reduce or delay the need for building new facilities.

8. Fire and Rescue Services

Fire protection for the Town of Bedford is provided by the Bedford Volunteer Fire Department (which also serves surrounding communities in Bedford County). The Bedford Department cooperates with the Bedford County Department of Fire and Rescue, and is recognized as Company 1 within that organizational structure. In 2015 the Bedford Volunteer Fire Department responded to 1,041 incidents. Average response time to incidents within Town limits was 4 minutes; average response time to incidents located beyond the Town's corporate limits was 7 minutes. 103 incidents included the need for fire suppression activity, and 263 involved medical treatment.

The Bedford Volunteer Fire Department operates from one station located at 315 Bedford Avenue. Officers are elected annually by the membership (including the Fire Chief, Deputy Chief, Assistant Chief, and Captain). Although the Fire Chief is elected by the volunteer membership, he or she serves at the pleasure of Town Council and answers directly to the Town Manager per Town Code.

All firefighters are required to obtain at least Firefighter I certification through the Virginia Department of Fire Programs (DFP) within eighteen months of joining the company. The department has also developed a first responder program to provide opportunities for company members to be certified Emergency Management Technicians in an attempt to provide fast patient contact and care in life-threatening situations.

The Bedford Area Fire Training Facility, located at 1050 Orange Street, was constructed in 2009 and consists of a two-story Class A Burn Building, Urban Search and Rescue (USAR) collapse site, confined space simulator, and Mayday Firefighter Down simulator. This state of the art facility provides training opportunities for to the Bedford Volunteer Fire Department as well as the other departments located within Bedford County.

9. Hospital

Bedford Memorial Hospital is a 50-bed hospital located within Town limits at 1613 Oakwood Street that is part of the Centra Health network. The facility also has 110 long-term care and skilled beds in its adjacent Oakwood Health and Rehabilitation Center. The facility offers a full range of services including 24 hour emergency care and surgery (on both an in- and outpatient basis).

10. Bedford Middle School Property

The Bedford Middle School campus, located at 503 Longwood Avenue, is owned by the Town but currently maintained by Bedford County Public Schools under a lease arrangement governed by the Voluntary Settlement Agreement. A new middle school is being constructed adjacent to Liberty High School with a projected opening date of August 2018. Consequently, the current campus will be vacated by the public school system at that time and a long term-development and usage plan for the property needs to be developed. As of the adoption of this Comprehensive Plan, the Town is soliciting proposals for that purpose.

11. Low- to Moderate Income Housing

There is a significant concentration of Section 8 housing within Town limits. Currently there are seven different housing projects containing 424 individual housing units, and these are architecturally distinct in relation to their adjacent neighborhoods. The economic impact of this concentration is reflected quantitatively by several measures, including the prior disparity between the City and County's Composite Index of Local Ability to pay for government services as well as the fact that over 62% of children served by Bedford Elementary and Primary schools are eligible for free and reduced lunch.

12. Small Area Plans

Since the last major revision of the Town's Comprehensive Plan, notable efforts at small area planning have produced documents that have influenced existing Town regulations and provided guidance for development of long-term goals. Two prominent examples are as follows:

a. Burks Hill Neighborhood Master Plan (2003)

The Burks Hill Neighborhood Master Plan (attached as Appendix V) served to identify a manner by which residential and non-residential development could co-exist within what is still largely a transitional

area of development. It served as the primary basis for development and adoption of both the Traditional Neighborhood Overlay (TNO) and Central Neighborhood Workplace (CNW) zoning district provisions.

b. Eastside Master Plan (2005)

The Eastside Master Plan (attached as Appendix VI) focused primarily on the character of commercial development along Independence Boulevard. The findings of this plan informed adoption of Townwide regulations requiring interconnection between lots along high traffic corridors as well as addressing extension of infrastructure (such as curbs, gutters, and sidewalks) in a logical and progressive manner.

13. Transportation

a. Roadways

Route 460 is the principal east-west highway serving Bedford. It originates in Norfolk and terminates in St. Louis. This highway connects Bedford with Roanoke and Interstate 81 (the main north-south highway that passes through the Shenandoah Valley) to the west and ultimately to the Hampton Roads area to the east.

Several other primary highways also serve the Town of Bedford. Route 221 begins in Lynchburg and passes through the Town as it moves traffic southward into North Carolina. Route 43 extends from Altavista to the southeast through Bedford and ultimately intersects Route 220 near Eagle Rock. Route 43 is a primary connector between the Town and the Blue Ridge Parkway/Peaks of Otter recreational area. Route 122, which also passes through Town, begins at Big Island in the northeast section of Bedford County and terminates at Route 40 in Franklin County near Rocky Mount. Route 122 is a heavily used connector between the Town and Smith Mountain Lake.

East Main Street, Blue Ridge Avenue, and West Main Street (460 Business) are principal highways into the Town from Route 460 at the southeast and southwest ends of the Town. Other major roadways within Town are Peaks and South Street (which are designated segments of Route 43), Longwood Avenue (Routes 221 and 122), Orange Street (Route 718), Burks Hill Road (Route 122), and Independence Boulevard (Route 122). The Town maintains these and

all other public streets with funding assistance provided by the Virginia Department of Transportation (VDOT).

The Town has implemented an aggressive asphalt overlay program that includes substantial preparation work to repair major defects before re-surfacing existing streets. These improvements are made possible by funding on an annual basis.

b. Railways

Freight service is available in Town from Norfolk Southern Railroad. The Norfolk Southern line, which crosses through the center of Bedford, connects with most major rail routes throughout the United States. The eastern terminus of the Norfolk Southern line connects with a large deep water port at Norfolk. Rail sidings are currently in use by industries within Town with capacity remaining for future service.

Currently there is no direct access to passenger rail service in Town. However Amtrak service is available in Lynchburg and it will be extended (through Bedford) to Roanoke beginning sometime in 2017. Efforts are underway to attract direct access to passenger rail service in some form. The success of that work will be dependent upon ridership data related to the Roanoke extension that will be collected and analyzed by the Virginia Department of Rail and Public Transportation (DRPT).

In anticipation of direct access to passenger rail service, the previous Comprehensive Plan identified the general area near the intersection of Plunkett and Court streets as the most desirable location for a station or point of access. This should be revisited in conjunction with DRPT and the recommendations of the Bedford/Franklin Regional Rail Initiative.

c. Airports

There are two general utility airports (New London and Smith Mountain) within Bedford County designed to serve regional businesses and the general citizenry. These are attended during daylight hours and have runway markers and lights for nighttime flying. Commercial passenger service is readily accessible from Bedford at both the Lynchburg and Roanoke regional airports, which

provide several direct flights as well as connections to major carrier hubs.

d. Trucking

Bedford is served by several interstate and intrastate motor freight companies which provide extensive coverage throughout the United States, North America, and northern South America. In addition to motor freight, service from major carriers such as United Parcel Service and Federal Express is available within Town limits.

e. Other Transportation Services

A pilot program has been in place for many years providing intercity bus service connecting Virginia Tech, Roanoke, and Bedford to the Amtrak station in Lynchburg. It is expected that this will be discontinued locally upon the commencement of passenger rail access in Roanoke.

Other specialized means of transportation include services to the elderly and handicapped. The Central Virginia Alliance for Community Living serves the area of the Region 2000 regional planning district with passenger vans. Bedford Ride (a non-profit, public/private effort operating with volunteer drivers) provides non-emergency medical transportation for elderly, handicapped, disabled, and/or low-income citizens.

Private taxi service is available in Town, subject to the granting of appropriate license and franchise by Town Council.

f. Pedestrian Facilities

The Town maintains an extensive network of sidewalks throughout its corporate limits, although there are several public streets that do not currently include this infrastructure and there is no plan in place for further extension.

The Region 2000 planning district commission adopted a regional greenways and blueways plan in 2003. However, to date the Town has not undertaken an effort to participate directly in its implementation.

E. ANALYSIS

1. Community Demographics and Identity

The term “small town” is used frequently in conversations related to the Town of Bedford – and acknowledgement is given to the phrase “World’s Best Little Town” by the very title of this Comprehensive Plan. Although the physical size and population of the Town are smaller in quantifiable terms relative to Roanoke and Lynchburg, Bedford is approaching the cusp of population levels that are generally seen as desirable for developers of non-residential projects.¹⁰ Generally, it seems likely that the term “small town” is more normative and used to describe a perception held by many regarding the quality of life within the Town.

- a. Strengths
 - i. Desirability as a residential community
 - ii. Existing presence of niche populations (such as retirees and commuters)
 - iii. Very well balanced population in terms of age
- b. Weaknesses
 - i. Per capita income levels in general
 - ii. Concentration of low income population and housing
 - iii. Low population growth rate
- c. Opportunities
 - i. Ability to market quality of life to potential residents in larger markets
 - ii. Certainty of population increase that will occur with incorporation of Phase II area
 - iii. Possibility of increasing the number of persons who both live and work within Town limits
- d. Threats
 - i. Misunderstanding (or misinformation) concerning effect of Town policies compared to other localities
 - ii. Negative perceptions of the community that are not addressed and/or unresolved
 - iii. Negative macroeconomic changes that affect personal mobility and housing choices

¹⁰ Prior discussions with operators of retail establishments (such as movie theaters) indicated a preference to locate businesses in communities with a minimum population of 10,000.

One of the Town's primary strengths is its desirability as a residential community. Given the community's tangible need for market rate residential growth, all data promoting Bedford as a community of first choice for new residents needs to be compiled and reported in easily accessible terms. Misinformation and negative perceptions need to be addressed directly.¹¹ Furthermore, although the nature of the Town does make it attractive for certain niche populations (such as retirees and commuters), the data does not support singular labels such as "retirement community." In fact, the current population dynamic of the Town is equally balanced between four roughly defined age groups: school aged children, young adults (18-40), middle aged adults (40-65), and retirees/the elderly.¹² The inclusion of the Phase II Boundary Adjustment area does not appear to impact the percentages of any particular group in a significant way.

Given its desirability as a residential community it is likely that the number of people who live in Bedford but work elsewhere will continue to grow. However, that percentage of the population should be monitored and documented.¹³

2. Land Use

a. Use-Based Zoning

While some progress has been made to develop regulations that address concerns related to the design and form of development, current zoning regulations are still overwhelmingly geared toward a rigid delineation (and in most cases, separation) of specific uses of property. Such a regime is becoming more difficult to enforce given the rapid pace of changes in the way that the economy works. The Town's creative efforts to address evolving practices and technologies within its existing zoning structure are well documented. However, problems still remain to be resolved.

The desire for more employment opportunities within any given community is nearly universal. However, the practice of zoning as it is currently applied actually creates obstacles to that effort. Some of the sites targeted by developers for uses that would otherwise employ several people in Bedford are not readily accessible because they are zoned for

¹¹ An example of misinformation is the concept of "double taxation" of properties within Town limits without fully explaining the difference between Town and County revenue and service structures.

¹² Source: United States Census data

¹³ It could be referenced as a performance metric related to the goal of marketing the Town as a destination in which to both live and work.

commercial purposes. Yet proposals to rezone properties for manufacturing use (the existing category that is most typically aligned uses that have connotations of being large employment centers) involve a political process that often inflames public opinion.

The restrictive (and often prohibitive) nature of zoning works well for addressing concerns related to neighborhoods and residential development in general. However, it is not conducive to promoting non-residential development, because it requires a community to enumerate a list of all possible potential uses and to regulate them accordingly. The fact that most of the workforce of the future will likely be employed in jobs that do not yet exist (or have yet to be comprehended, in many cases) demonstrates the very limited utility of this approach.

b. Landscaping Regulations

The Town's current landscaping requirements need to be revisited. Although they were intended to enhance the built environment of the community, the realities of utility locations and the need for public facilities such as streets and sidewalks has compromised their practicality. An effort should be made to identify appropriate species of planting related to the presence of both underground and overhead utility infrastructure, and these findings should be incorporated into the Town's Zoning Ordinance.

c. Focused Planning Initiatives

Data related to the development and drafting of this Comprehensive Plan indicated a need for the development of plans for two specific areas:

i. West Main Street/Blue Ridge This plan would focus on the area of Centertown roughly bordered by the railroad, Fourth Street, and Business 460. The most prominent architectural features currently include the Westgate and 6 C's shopping centers, both of which are in a process of transition with regard to land use. The working assumption related to this plan is that the area may be functional as an employment center in addition to serving as a hub for retail activity.

ii. South Bridge Street Corridor This plan would focus on South Bridge Street from its intersection with Main Street southward to the Bedford Science and Technology Center. The corridor features several public properties currently owned and operated by Bedford

County and Bedford County Public Schools. The primary issue driving the need for this plan is a long-term vision for the use or redevelopment of the County-owned properties as well as the need to improve the physical appearance of the street (which serves as a connector between Centertown and a densely populated residential neighborhood). The *Bedford Connections* plan completed by Aaron Bond and Zach Klaas in 2014 (attached as Appendix VIII) is a useful source of data to initiate the process, which will also be conducted in cooperation with Bedford County personnel.

3. Tourism

It is expected that Bedford's unique geographic setting will continue to attract visitors. The nature and expectations of tourists should be captured and analyzed as data. The ability for individuals to hike to the top of a mountain with breathtaking views (at the Peaks of Otter) and to have a beach experience at Smith Mountain Lake within the same day suggests that this area may be uniquely positioned to target as new type of tourist – one who is seeking a diversity of experience beyond traditional sight-seeing expeditions. The trend of tourists who visit but ultimately stay as residents is expected to continue, and data should also be collected to identify any potential findings regarding their place of origin. This could be fruitful for realtors in particular in their efforts to market available properties.

4. Electric Utility Operations

a. Capital Planning

As the Electric Fund appears to be on course to meet financial goals related to long-term sustainability, the Town should develop firm plans to maintain, repair, and replace electric utility infrastructure with a particular emphasis placed on facilities that are at least 25 years old.

b. Philosophy of Service

For many years, the electric utility operation has been viewed as a “cash cow” that transfers revenue to the General Fund in order to deflate levels of assessment for other sources such as taxes. This led to concerns that the transfer was being accomplished at the expense of funding for ongoing maintenance and repair. The Town commissioned Dr. Thomas C. Tuttle and Mr. John M. Kelley to conduct a performance analysis of the operation, and these gentlemen published their findings (which are attached as Appendix VII) in January 2015.

The Town recently revised its electric fee structure in order to recapture some of its fixed costs related to providing service. In doing so, Town Council was apparently able to successfully communicate the direct relationship between customer fees and activities such as capital improvements. Based on that experience, Town customers and leadership would be well served to keep in mind the concept that, “You get what you pay for, and you have to pay for what you get.”

5. Fiscal Performance

The Town is taking a proactive approach to ensuring the security and soundness of its business operations. The growth trend in the Town’s level of unrestricted net assets is expected to continue,¹⁴ and it is expected that the Town will also continue to meet the financial targets recommended by its auditors on an ongoing basis. Two of three Town financial funds (General and Electric) are on course to be fully functional and self-sufficient. Many of the challenges faced by the Solid Waste fund can be abated by the introduction of new customers into the system concurrent with the boundary adjustment. In addition, revenue-producing ventures should be active on former landfill facilities that offset the Town’s overall costs of maintenance and monitoring.¹⁵

6. Maintenance of Park Facilities

Additional staffing within the Public Works Department was included in the adopted Fiscal Year 2017-2018 Budget, which was intended as a step toward addressing the maintenance needs of the Town’s park facilities.

7. Police Community Outreach

In addition to current efforts (such as movie nights, 3 on 3 basketball tournaments, and “Shop with a cop”), the Police Department intends to increase its community outreach efforts by reactivating its “Lunch Buddy” program, implementing a Police Activity League (geared toward recreational programs that promote community interaction), and promoting more opportunities for contacts with citizens outside of crime prevention or enforcement activity.

14 As of July 1, 2013 the Town’s unrestricted net assets equaled \$2,573,798. That figure was \$3,643,324 as of March 31, 2016.

15 Reference is to the Town’s proposal to grant a franchise for operation of a solar power facility on its former landfill property.

IV. LONG RANGE (15 YEAR) PLAN

A. COMMUNITY DEVELOPMENT

As mentioned previously in Article II, this area of focus corresponds to connotations of community identity, values, sense of place, and quality of life.

Population is a key indicator of community performance and Bedford's desirability as a place of residence is a strength that should be acknowledged and maximized to the greatest possible extent. Population is also one of the most relevant factors in terms of attracting non-residential development (following the maxim that "developers follow rooftops"). In conversations with certain retailers, Town staff discovered that the business models for many are based on a minimum population of 10,000 persons. Until Bedford comes closer to this number, it is unrealistic to assume that the community will attract much more beyond its current level of retail commercial development. An increase in population is also essential to overcome the impact of stagnant growth patterns which began to emerge in 1980.

Bedford is currently the 19th most populous town in Virginia (out of 191 total). The Phase II Boundary Adjustment will likely place Bedford very close to (or within) the top ten and a population of 10,000 would secure that status. Beyond this projected growth the question exists as to how large Bedford should ultimately become. Discussions related to the reversion negotiations contemplated 15,000 as a maximum population for the Town including the territory identified as the Phase III Boundary Adjustment area. For purposes of this document it is expected that the Town of Bedford will reach a population of 10,000 within fifteen years, but growth to 15,000 within that time period is unlikely under current conditions of economy and geography.

The Town also needs growth in terms of its operational model. As described in Article III, the costs of operating the electric utility are borne directly by the customer base. It is certainly preferable for any impacts of increasing costs to be shared among a growing customer base as opposed to having those costs borne by existing customers in the form of higher bills. The other alternative seems to be greater control by the Town over its ability to generate the electricity that it needs, but this also comes at a cost of capital investment.

There appears to be a general perception that people live in Bedford as a matter of choice – people want to be here. The nature of that perception should be explored through the acquisition of data to either support or refute it. If that perception is

incorrect to any extent – and there are people who do not have real choice in terms of their place of residence – then the reasons behind this phenomenon need to be examined and some consensus needs to be developed as to what that means for the community. With regard to residents who are relatively disadvantaged, the risk of investing in focused benefits for that group means that individuals may choose to move elsewhere once they acquire the means to do so. That is a risk that the Town should take, because any association with the ideal of opportunity is still valuable in a tangible sense for the community.

By virtue of its unique architectural identity and physical scale, Bedford is developing some cachet as a desirable community in which to live within both the Roanoke and Lynchburg markets. It is reasonable to consider that Bedford may be viewed in much the same manner as other communities within larger metropolitan areas – such as Buckhead (Atlanta), Dilworth (Charlotte), and Georgetown (Washington, DC).

The slogan “World’s Best Little Town” has been widely used in conjunction with the community (including a reference within the title of this Comprehensive Plan). Beyond its normative and subjective value, there are likely objective facts that could be researched and developed to support it as a viable claim. Aaron Bond and Zach Klaas conducted some groundbreaking work in this regard with their 2014 project entitled *Bedford Connections* (attached as Appendix VIII). Although many of the specific elements of their project recommendation were not realized, their approach is instructive in creating ways to realize and implement the potential that exists within the community.

1. HISTORIC DISTRICT

Given the large number of historic structures within Town, there is a recognized National Register Historic District within Bedford. This is essentially an honorary designation noting that qualifying structures meet certain criteria established by the National Trust for Historic Preservation. On a voluntary basis property owners within the National Register District can apply for certain financial benefits, but they would also be subject to compliance with very specific requirements associated with those benefits. Some municipalities have also adopted and implemented Local Historic Districts within their boundaries. These typically involve specific regulation of all properties involved and include standards related to appearance, materials, and other aesthetic matters which are governed by an Architectural Review Board. Where the National Register District implies no additional level of regulation for property owners beyond what they would agree to on a

voluntary basis in order to receive benefits, a Local Historic District would apply to all involved properties as a level of zoning regulation.

On several occasions the question has been raised about the intent of the Town of Bedford to adopt and enact a Local Historic District. As a matter of policy, the Town hereby notes that it currently has no intention to do so.

2. YOUTH INVOLVEMENT AND ENGAGEMENT

Within the community there is frequently much discussion about the need to provide opportunities for young people within Town. Unfortunately, that input is generally offered by individuals who are outside of the 18 and under demographic group and at meetings that generally do not include young people themselves. When specifically invited to participate in visioning sessions, youth representatives have demonstrated the ability to provide valuable insight and guidance to community initiatives (such as development of the conceptual plan for Liberty Middle School). Absent such direct invitation, young people are currently creating their own institutions (such as Boys With a Dream and GENTS – Gentlemen Empowered Now Taking a Stand) in an organic manner that provide them with a sense of empowerment to serve and impact the community.

3. REDEVELOPMENT ACTIVITY

Much of the available housing stock within Town limits is comparatively old. However, there appears to be a market for historic properties that could be promoted aggressively. In addition, there are many houses interspersed throughout Town that could be purchased and renovated at a cost that is comparatively much lower than the assessed value of the finished product. Some redevelopment of this type has already taken place in areas such as Bedford Avenue as well as Grove and North streets. The number and the nature of issues related to enforcement of the Property Maintenance Code could provide guidance in developing metrics related to this activity.

4. HEALTH CARE

The Town is fortunate to have a facility the caliber of Bedford Memorial Hospital located within its boundaries. The ability of the hospital to expand its offerings and services is beneficial to the community, both from a consumer and economic development standpoint. The Town hereby formally recognizes that as a matter of policy.

RECOMMENDED ACTIONS:

15-CD-7: Create database designed to capture information about why people live in Bedford (with a beginning focus on the origins of newcomers and the reasons why natives stay). (Ongoing)

15-CD-8: Initiate development of a data system (such as a computer application) that will evolve into an informational system that is readily accessible, valuable, and constantly active.

15-CD-9: Increase formal efforts by the Town to communicate with citizens and customers (such as regularly scheduled press releases).

15-CD-10: Assess expectations of citizens related to future development in terms of quantity and quality with an eye toward what is “right” for Bedford.

15-CD-11: Create and institutionalize formal roles for youth to serve within the Town’s organizational structure (including appointed boards like the Planning Commission). (July 1, 2020)

B. COMMUNITY FACILITIES

As part of its long-range planning the process, the Town identifies several projects within its 5 Year Capital Improvement Program that is published as part of the annual budget. Following are some suggestions for guidance in developing future prospects.

1. PUBLIC TRANSPORTATION

Although the Town's ability to participate directly in large-scale public transportation efforts such as passenger rail is currently limited, opportunities to supplement or provide direct access to this kind of service should be explored. In conjunction with this, transportation alternatives to the private automobile should be identified and reported.

2. MULTI-USE PARKING FACILITY

Parking in the Centertown area is a concern from a standpoint of availability, location, and clear identification of available areas and spaces. The Town should look at maximizing the use of surface parking areas that it currently owns. One such location that bears closer scrutiny is the existing lot on Market Square.

3. PARKS

Given the size and scale of the park properties owned by the Town, serious consideration needs to be given to the manner in which they are maintained.

There also needs to be discussion about the function, purpose, and identity of each park facility operated by the Town.

RECOMMENDED ACTIONS:

15-CF-5: Construct a multi-modal passenger transportation center (presumably in conjunction with formal passenger rail presence within Town).

15-CF-6: Construct a three story parking deck on the Town-owned property at Market Square. This structure should be designed to include an exterior building façade that matches current Centertown architecture, an open top (creating a fourth level of parking), and a physical connection to provide joint access to the upper floors of the buildings on adjacent lots.

C. CONSERVATION

As a matter of policy, opportunities to increase landscaping and “soft” features throughout Town should be pursued. To initiate that process, Bedford should find a way to contribute and participate in the 2003 Region 2000 Greenways and Blueways Plan.¹

RECOMMENDED ACTIONS:

15-C-5: Develop and implement a plan for a greenway along Little Otter River connecting Highway 43 and Route 122. This would serve a practical purpose as a bicycle and pedestrian connection between these two thoroughfares as well as providing a passive recreational facility in the northern portion of Town.

¹ The plan can be viewed online at <http://www.co.bedford.va.us/Res/Planning/Transportation/greenways/main.pdf>

D. ECONOMY

It is anticipated that in general terms the local and global economy will continue to evolve further beyond manufacturing and services. Current employment growth (and the greatest potential for the future) appears to be related to data, information, and systems. Many jobs currently employing large numbers of persons did not exist fifteen years ago. It seems likely that this trend will continue.

Although large employers will always be welcome in Town, Bedford appears to be a particularly nurturing place for development and expansion of small businesses. The focus of the Town's strategy should be to enhance that environment in an effort to diversify the employment base and reduce dependence upon any particular business or process.

The number of residents who both live and work within Town is recognized as a metric of the community's desirability. Data should be obtained in an effort to understand why professionals and managers employed within the Town live elsewhere and see if there are ways that Town policy impacts those decisions (either positively or negatively).

Centertown is an iconic representation of Bedford in terms of its scale and architecture. However there are systemic challenges to its continued practical function as a retail and service center. The programmatic mission of the Bedford Main Street program appears to be well suited to address the community's challenges in Centertown and that organization effectively serves as the Town's economic development agency focusing on this area.

1. ECONOMIC DEVELOPMENT

Due to the accomplishments of its resident industries, the Town has historically been recognized as a center of expertise within specific fields of manufacturing (such as closed cell rubber, furniture, graphic design, and innovations in textiles). There is also a tradition of synergy between businesses – with examples dating back as far as 1940 when Sam Moore and Frank Chervan co-located new operations in Town within close proximity to

one another based on their prior relationship in another state. The community's best opportunities for expansion of the economy may very well exist in identifying and pursuing these kinds of relationships. As data provide more insight into the nature of existing employers and their relationships to other businesses, the Town could make use of this information to attract greater economic investment in a strategic manner.

2. WORKFORCE ISSUES

Discussions about the need for jobs in the community should occur within the context of the skillsets and relative salary values involved. The extent to which the Town wants to attract and maintain relatively low skill jobs is important because this also implies lower wages and relatively less private wealth. For example, process-related manufacturing may correlate to a need for a large number of employees. However the skill level of the tasks associated with the positions may be low which could correspond to comparatively lower wages and/or job security. On the other hand, the existing pool of labor within the community may be shallow with regard to positions requiring enhanced education, skills, and/or specialization. Yet a company's ability to recruit candidates from outside the area will be affected by perceptions of the community's quality of life (which can include many subjective factors such as housing, schools, and recreational facilities – to name but a few).

The Town should maintain open lines of communication with its major employers regarding their current and projected staffing needs. The Town should be willing to assist directly in filling position needs. As of the adoption of this document, a major employer is seeking to employ a chemist. This is a highly specialized skillset and generally speaking it is hard to find qualified employees with the appropriate background and training within any geographic setting. However, a partnership could be developed between the Town and the company to fund the education necessary to a local resident who would be willing to acquire the necessary skills and ultimately execute the needed duties.

3. QUALITY OF LIFE

The Town should identify and report metrics such as personal income and private wealth as measures of the community's quality of life. The goal should be to promote increases using 2010 data as a benchmark. Data related to the quality of public schools, cultural opportunities, and recreation should also be identified, collected, and reported.

4. EDUCATION

The Town should be directly involved in promoting lifelong learning and access to education for its citizens of all ages. This includes support and involvement in existing efforts undertaken by the Bedford County Public School system as well as providing direct access to higher education opportunities.

5. COUNTY INVESTMENT

Bedford County serves as a major anchor tenant for the Centertown area. The presence of many offices and points of service operated by the County contributes significantly to the vitality of downtown by generating a significant level of pedestrian traffic and presence. The maintenance and potential expansion of that activity is acknowledged as a formal policy objective of the Town.

6. REGIONALISM

The Town needs to participate in regional efforts to attract large employers, as this will benefit the community by providing new residents and customers. The Town also needs to be aware of its proximity to significant employers on a regional basis (such as Areva, Carilion, and Liberty University) and develop relationships with them in an effort to attract investment in Bedford. The Town should also explore opportunities to “buy in” to regional initiatives such as the Western Virginia Regional Industrial Facility.²

RECOMMENDED ACTIONS:

15-E-6: As a continuation of Objective 6-E-5, maintain and market data from existing large employers related to their suppliers and allied businesses (which would serve as a formal list of targets for economic development). (Ongoing)

15-E-7: Endow a scholarship fund to provide educational opportunities for individuals specifically designed to meet the needs of major employers.

15-E-8: Conduct survey of workforce within Town to determine preferences which drive decisions over whether or not they live in Town. Report results. (Ongoing)

² Information about this particular initiative can be viewed online at <http://www.roanokecountyva.gov/ArchiveCenter/ViewFile/Item/1760>

E. LAND USE

The Town should continue to address the effect of its zoning policies in a locally sensitive and appropriate manner. Certain areas of Town need to be repurposed. The viability of Westgate Shopping Center seems to be best served by its expansion as an employment center rather than a retail hub. The area between Westgate and Fourth Street could then emerge as a retail and service center that would be ancillary to increased employment activity. There are also several structures adjacent to the railroad track that need to be addressed – and the best course of action for some may actually be demolition. Those lots could then be surface treated to provide parking for adjacent activity until such time as there is a demand for further development upon them.

The town should also continue to address and/or eliminate anachronistic standards that appear to serve no public interest. One example appears to be off street parking standards. The private development market appears to do an effective job of policing itself, while the Town can contribute to the issue by identifying and creating more opportunities within rights-of-way and other public property. Based on these factors, it is hereby suggested that the zoning regulations related to off-street parking be changed to one space per 500 square feet for non-residential development and two spaces per unit for residential uses.

1. SCALE OF DEVELOPMENT

“Small town” is a term frequently used to describe the character of Bedford. However, that seems to be more normative in nature than quantitative. A focus on pedestrian oriented design may be instructive and useful in developing standards for development that preserve connotations of character – both present and long-term.

2. ALIGNMENT OF LAND USE AND PLANNING

Existing single family neighborhoods should be preserved and expanded within the notion of transect planning.³ The transect concept describes ecosystems and the transition from one ecosystem to another. When applied to human settlements, it provides a graduated system of development ranging from urban centers to undeveloped and vacant open space. Within this framework, nodes of non-residential development should be identified and appropriate physical connections should be preserved and promoted as needed. Furthermore, dependence on zoning by use needs to be minimized given the change in the retail economy and the challenges associated with

³ Further information about the transect concept can be found online at <http://transect.org/>

enumerating uses. Reasonable standards also need to be developed for re-use of existing and former retail space at a scale that makes sense.

If the ability to walk to work (or shops) has value or merit, that needs to be identified and regulations should be developed and applied accordingly.

3. EMERGENCE AND DEVELOPMENT OF RESIDENTIAL MARKET

Bedford is emerging as an attractive “bedroom community” of choice for individuals employed in Roanoke and Lynchburg. However, the marketability of that identity is limited by the size of those two markets and the relative distance to them (and it can be further impacted by issues such as fuel prices). The greatest sense of attraction associated with Bedford appears to be its built environment, human scale, sense of history, and unique opportunities for social interaction and development of relationships. “Bedroom community” is a connotation of value that can fit within Bedford’s sense of place without forming a singular basis for the community’s identity.

4. FUTURE LAND USE PLAN

The official Town Zoning Map (as maintained within the Department of Community Development and presented on the Bedford County Geographic Information System) serves as the official Future Land Use Plan for the Town.

RECOMMENDED ACTIONS:

15-LU-4: Expand design guidelines contained in Traditional Neighborhood Overlay (TNO) district provisions for greater applicability throughout Town.

15-LU-5: Revise Zoning Ordinance to reflect greater emphasis on design and form and move away from reliance on use definitions.

15-LU-6: Develop and maintain database of factual information related to the reasons people choose to live in Bedford. Compile and publish results. (Ongoing)

F. TRANSPORTATION

Generally speaking, there is a connotation of safety associated with streets in Bedford. This can be attributed to the relatively low speed of vehicular traffic within town and the presence of visible and well-defined pedestrian facilities such as sidewalks. The scale of most existing streets also lends itself to consideration of them as valuable public space in and of themselves. The frequent number of requests for street closures to accommodate special events is a metric that seems to support this claim. Some events – most notably Centerfest – are essentially institutionalized at this point.

1. PEDESTRIAN ACCESS AND TRANSIT

The Town of Bedford has good pedestrian facilities, but it would be good if the networks were expanded and there were more interconnection between them all. The use of buffers should be employed between pedestrians and automobile facilities (such as streets and parking lots) to promote connotations of safety and aesthetics. These buffers could include elements such as on-street parking, grass strips, fences, short walls, and/or street trees and other landscaping elements. The physical delineation of crosswalks by use of different textures or markings would also promote pedestrian safety.

2. STREET DESIGN

Streets should be safe and economical for motorists and non-motorists alike, and be designed to reduce conflict between different types of users.

Sidewalks should generally be wider to accommodate safe passage, comply with the Americans with Disabilities Act, and promote complementary uses of public space (such as seating and tables within commercial areas).

Retrofitting of North Bridge Street between Main Street and the railroad could serve as a pilot project for this kind of design philosophy. If current on-street parking were eliminated, sidewalks in this area could be expanded to allow for safer passage of pedestrians as well as potential use of public space for outdoor seating. (And the relative loss of parking spaces in this corridor could be effectively abated by implementing Objective 15-CF-2).

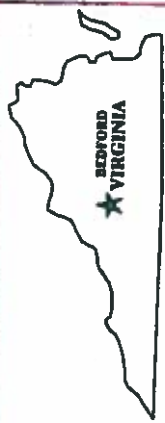
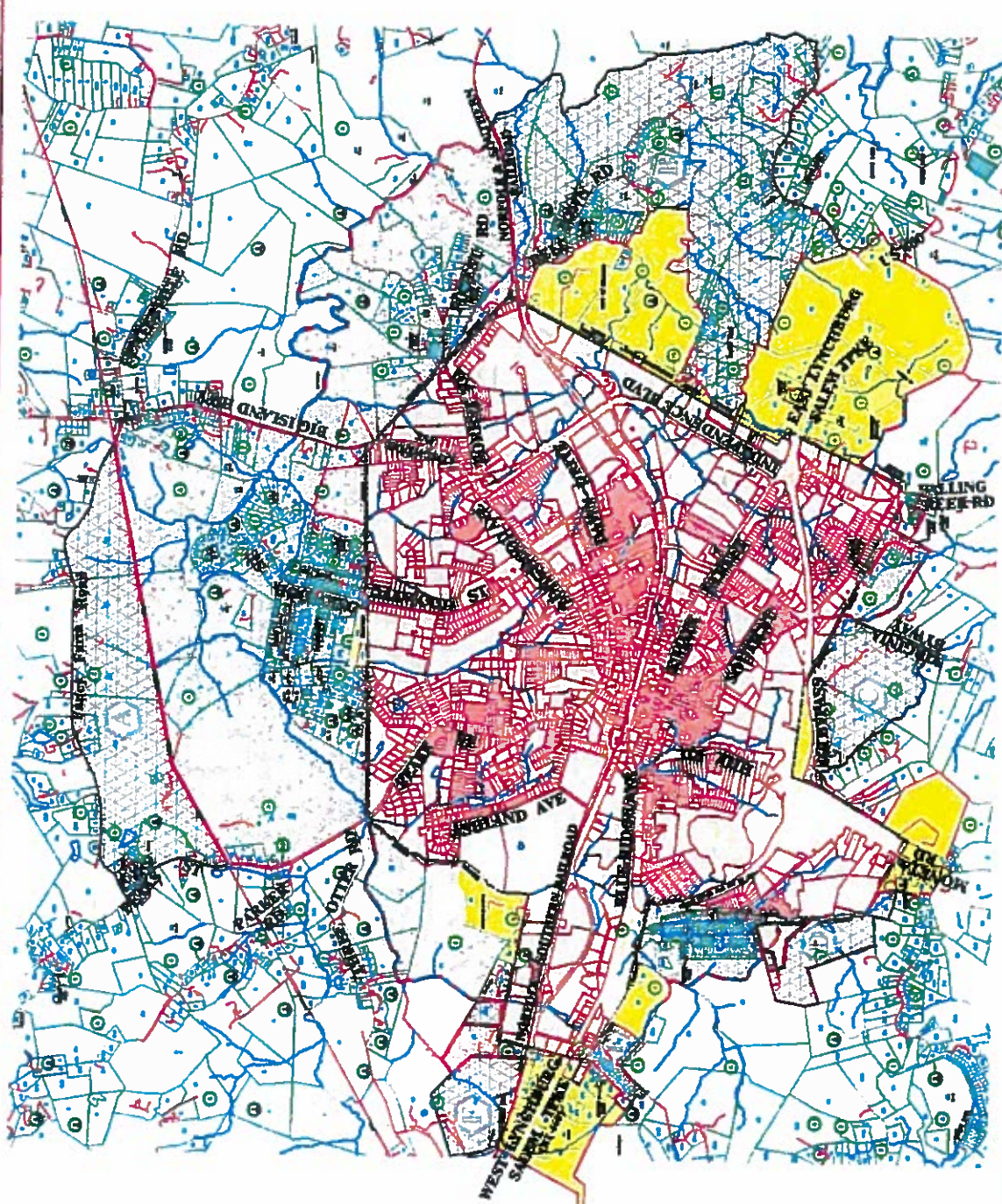
RECOMMENDED ACTIONS:

15-T-4: Develop Pedestrian Transportation Plan to identify existing and potential infrastructure (such as sidewalks, greenways, and multimodal pathways).

15-T-5: Develop and implement redesign of North Bridge Street between Main Street and the railroad.

15-T-6: Following up on the recommendations of Objective 6-T-3, the Town should pursue a long-term mission of installing and maintaining sidewalks on at least one side of every public right-of-way. (Ongoing)

APPENDIX I
Map of Boundary Adjustments Related to Reversion



★ BEDFORD
★ VIRGINIA

N



SCALE 1" = 1500'

EXISTING CITY/COUNTY BOUNDARY LINE
171,111,120 sq. ft. (3.92 sq. miles)

PHASE I
171,111,120 sq. ft. (3.92 sq. miles)

PHASE II
171,111,120 sq. ft. (3.92 sq. miles)

PHASE III
171,111,120 sq. ft. (3.92 sq. miles)

171,111,120 sq. ft. (3.92 sq. miles)



CITY OF BEDFORD	
ENGINEERING DEPARTMENT	
MAP SHOWING PHASE II	
NEW CITY BOUNDARY ADJUSTMENTS	
DATE: 1/1/00	BY: [Signature]
APPROVED: [Signature]	DATE: 1/1/00
SCALE: 1" = 1500'	DATE: 1/1/00
171,111,120 sq. ft. (3.92 sq. miles)	171,111,120 sq. ft. (3.92 sq. miles)

APPENDIX II
Post Reversion Comparison of City and Town Responsibilities

POST REVERSION COMPARISON OF CITY AND TOWN RESPONSIBILITIES

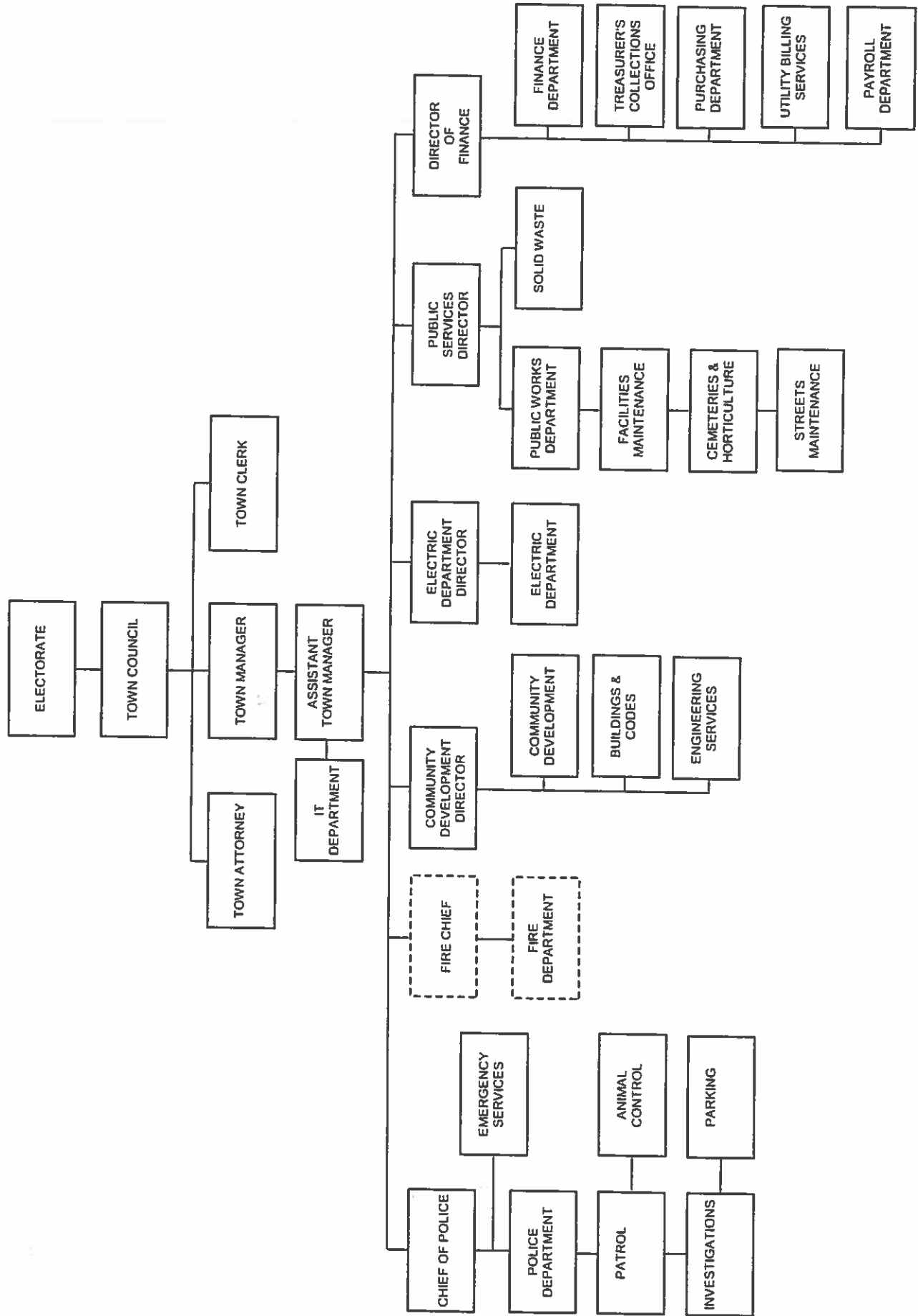
CITY OF BEDFORD (1968-2013)	TOWN OF BEDFORD (2013-)
Animal Control	Animal Control
Animal Shelter*	Bedford Middle School
Bedford Elementary School	Cemeteries
Bedford Middle School	Civil Code Enforcement
Building Code Enforcement	Economic Development Authority
Cemeteries	Electric Utility
Civil Code Enforcement	Information Technology
Commissioner of the Revenue	Planning and Zoning
Commonwealth Attorney*	Police
Community Services Board	Redevelopment and Housing Authority
Cooperative Extension Service*	Solid Waste (Landfill and Refuse Collection)
Courts*	Streets and Sidewalks Maintenance
Dispatch/911*	
Economic Development Authority	
Education*	
Electoral Board	
Electric Utility	
Geographic Information System (GIS)	
Health Department*	
Information Technology	
Joint Economic Development Authority*	
Library	
Maintenance of County Building*	
Planning and Zoning	
Police	
Recreation	
Redevelopment and Housing Authority	
Regional Jail*	
Regional Juvenile Detention Home*	
Sewer Utility	
Sheriff*	
Social Services*	
Solid Waste (Landfill and Refuse Collection)	
Streets and Sidewalks Maintenance	
Tourism*	
Treasurer	
Voter Registrar	
Water Utility	

GENERAL FUND: \$17.5 million
 REAL ESTATE TAX: \$.86 per \$100

GENERAL FUND: \$9 million
 REAL ESTATE TAX: \$.32 per \$100

APPENDIX III
Town Organizational Chart

TOWN OF BEDFORD ORGANIZATIONAL CHART



APPENDIX IV
Current Five Year Capital Improvement Plan

CIP – GENERAL FUND

DEPARTMENT	LOCATION	PROJECT/TITLE	REQUEST FY 2017	REQUEST FY 2018	REQUEST FY 2019	REQUEST FY 2020	REQUEST FY 2021	TOTAL COST
INFORMATION TECHNOLOGY	City Wide	Terminal Server Replacement	12,000					12,000
	Administration Building	PUBS Service Replacement	12,000					12,000
	City Wide	Firewall/Web Management	10,000					10,000
	Administration Building	New Switch	7,000					7,000
	City Wide	Phone System		1,000	5,000	7,000		13,000
	Administration Building	Police Mobile Data Terminal	11,700					11,700
	City Wide	Server Schedule		27,000	48,000	32,000	30,000	137,000
TOTAL INFORMATION TECHNOLOGY								
POLICE DEPARTMENT	Police Department	Police Vehicles	52,700	28,000	53,000	39,000	30,000	202,700
	TOTAL POLICE DEPARTMENT		72,000	72,000	72,000	36,000	72,000	324,000
FIRE DEPARTMENT	Fire Station	Generator	52,000					52,000
	Fire Station	Apparatus Bay Floor Resurfacing		22,000				22,000
	Fire Station	Vehicle Replacement	57,000					57,000
	TOTAL FIRE DEPARTMENT		109,000	22,000	0	0	0	131,000
PUBLIC WORKS	Highways, Streets & Bridges	Pickup Truck with Plow			40,000			40,000
	Highways, Streets & Bridges	Skid Steer Loader		60,000				60,000
	VA Dept of Transportation	Dump Truck with salt spreader		150,000				150,000
	VA Dept of Transportation	Vac-Con Truck	275,000					275,000
	Automotive Shop	Automotive Scan Tool	6,500					6,500
	Public Works Shop	Leaf Machine with Collection Box	55,000					55,000
	TOTAL PUBLIC WORKS		336,500	210,000	40,000	0	0	586,500
GENERAL PROPERTIES	Townwide	Playground Equipment	45,000					45,000
	Townwide	Pickup Truck with Plow		18,000	40,000			40,000
	Townwide	Zero Turn Mower		18,000				18,000
TOTAL GENERAL PROPERTIES			45,000	18,000	40,000	0	0	103,000
ECONOMIC DEVELOPMENT	Townwide	Economic Development Fund	100,000					100,000
	TOTAL ECONOMIC DEVELOPMENT		100,000					100,000
TOTAL GENERAL FUND REQUESTED CAPITAL IMPROVEMENT BUDGET			715,200	350,000	205,000	75,000	102,000	1,447,200

CIP – SOLID WASTE

DEPARTMENT	LOCATION	PROJECT TITLE	REQUEST FY 2017	REQUEST FY 2018	REQUEST FY 2019	REQUEST FY 2020	REQUEST FY 2021	TOTAL COST
SOLID WASTE	Public Works	Trash Carts	60,000					60,000
	Landfill	Trash Truck		240,000				240,000
	Landfill	Backhoe	100,000					100,000
	Landfill	Trailer for Hauling Trash		80,000	80,000			160,000
	Landfill	Roll Off Dumpster Truck		240,000				240,000
	Refuse Disposal	Pickup Truck with Snow Plow			40,000			40,000
	TOTAL LANDFILL		160,000	560,000	120,000			840,000
	TOTAL SOLID WASTE FUND REQUESTED CAPITAL IMPROVEMENT BUDGET		160,000	560,000	120,000			840,000

CIP – ELECTRIC FUND

DEPARTMENT	LOCATION	PROJECT TITLE	REQUEST FY 2017	REQUEST FY 2018	REQUEST FY 2019	REQUEST FY 2020	REQUEST FY 2021	TOTAL COST
ELECTRIC	Transmission/Distribution	Replace "Dog House" Transformer & Concentric Cables	100,000					100,000
	Transmission/Distribution	Transmission/WINDA Circuit Upgrade	200,000					200,000
	Transmission/Distribution	Centerville to Bedford Weaving	350,000					350,000
	Transmission/Distribution	Centerville Phase 3 - Peaks Road to Fancy Farm		350,000				350,000
	Transmission/Distribution	Parkway Improvements			80,000			80,000
	Transmission/Distribution	US 460 West Improvements				210,000		210,000
	System Wide	AMR Commercial Meters	70,000					70,000
	Frank Chervan Substation	Retirement		125,000				125,000
	Electric Department	Replace Bucket Truck	150,000					150,000
	Electric Department	Transmission /Distribution Crew Truck Replacement	40,000					40,000
	Electric Department	Operations Center HVAC Replacement					50,000	50,000
	Centerville	Wood Structure at Centerville Substation	100,000					100,000
	TOTAL ELECTRIC		1,010,000	475,000	80,000	210,000	50,000	1,825,000
SNOWDEN HYDRO PLANT	Snowden Hydro Plant	Replace Canal Head Gates Actuators, Seals, & Backup Service	60,000					60,000
	Snowden Hydro Plant	Improve/Replace Shop Service Panel & Lighting	25,000					25,000
	Snowden Hydro Plant	Replace/Upgrade Turbine Control System	50,000					50,000
	Snowden Hydro Plant	U-4 Heat Exchanger & Water Cooling System	15,000					15,000
	Snowden Hydro Plant	Trash Rake Upgrade		1,169,825				1,169,825
	Snowden Hydro Plant	Plant Roadside Water Leakage		2,420				2,420
	Snowden Hydro Plant	Roof Access Crant		4,500				4,500
	Snowden Hydro Plant	Turbine Tail Gate Hoist		10,650				10,650
	Snowden Hydro Plant	Roof Leak Issue		10,600				10,600
	Snowden Hydro Plant	Wicket Gate Spherical Seal		10,400				10,400
	Snowden Hydro Plant	Trash Rack Dump Hopper		100,000				100,000
	Snowden Hydro Plant	U-5 Turbine Overhaul			750,000			750,000
	Snowden Hydro Plant	U-5 Servo Rebuild			12,650			12,650
	Snowden Hydro Plant	Turbine Tail Gate Pump			12,650			12,650
	Snowden Hydro Plant	Gen Cooling			9,680			9,680
	Snowden Hydro Plant	Intake and Draft Tube Drain System			6,850			6,850
	Snowden Hydro Plant	U-5 Speed Increaser Overhaul			174,445			174,445
	TOTAL SNOWDEN HYDRO PLANT		150,000	1,308,395	966,275	0	0	2,424,670
	TOTAL ELECTRIC DEPARTMENT		1,160,000	1,783,395	1,046,275	210,000	50,000	4,249,670

APPENDIX V
Burks Hill Neighborhood Master Plan (2005)



Burks Hill Neighborhood Master Plan

Adopted by City Council
October 14, 2003

Table of Contents

TABLE OF CONTENTS	2
INTRODUCTION.....	3
CITY VISION	4
EXISTING CONDITIONS	6
EXISTING SITE PHOTOGRAPHS	6
<i>Overlord Drive.....</i>	<i>6</i>
<i>Reservoir Road Area.....</i>	<i>7</i>
<i>King Street</i>	<i>8</i>
<i>Creek.....</i>	<i>9</i>
<i>Walking Path.....</i>	<i>10</i>
<i>West Main Street.....</i>	<i>10</i>
EXISTING SITE PLAN	11
EXISTING SITE PLAN WITH TOPOGRAPHY	12
PROPOSED SITE PLAN.....	13
460/BURKS HILL ROAD INTERCHANGE.....	14
DETAILED PLAN VIEW	14
TRADITIONAL DOWNTOWN AREA	15
DETAILED PLAN VIEW	15
EXTENDING TRADITIONAL DOWNTOWN STREETS.....	16
ZONING DIAGRAMS.....	17
STREET PROFILE	18
CONCEPT FOR A CANAL/GREENWAY NEAR CRENSHAW AND KING STREETS	19
NEIGHBORHOOD VILLAGE ZONE	20
DETAILED PLAN VIEW	20
STREET ELEVATIONS	21

Introduction

The master planning of the Burks Hill Neighborhood is one of many tasks that the city of Bedford is undertaking as part of its comprehensive plan. This community-intensive, planning process is an effort to put shape and form to a vision that will be the urban legacy left for generations.

This area that is being referred to as Burks Hill Neighborhood is really the intersection of three planning districts without much identity. It serves more as a poorly functioning transportation corridor than as a place, attempting to connect the Planned Residential Development (PRD), the General Business District (B-2), and the Planned Memorial Park District (PMPD).

This is a preliminary master plan for the neighborhood. The urban design creates a series of streets and public spaces that not only foster economic development, but also provide new linkages between the D-Day Memorial and the City.

City Vision

Reprinted from:

City of Bedford: Comprehensive Plan. January 2002.

A community-based strategic planning process was begun in the mid-1990s and aptly named "Bedford Visioning." From it emerged a shared vision of Bedford as "a prosperous, world class community that preserves our heritage, builds upon our assets, and promotes and enhances educational, technological, cultural and economic opportunities for all citizens."

The vision for Bedford is one of a city that will be vibrant and alive with opportunity ensuring a sound, stable economy. Excellent employment opportunities will keep young people in the area. Downtown will have a colorful, festive atmosphere with a variety of restaurants, retail stores and entertainment opportunities. Centertown will brim with refurbished buildings, and all storefronts will be filled.

The City will be a leader in telecommunications with appropriate infrastructure to enable businesses and residents to capitalize on telecommunications opportunities and access the Internet. Bedford will continue to maintain its own World Wide Web Page linked to a wide variety of economic development, tourism, and other service related information. Because of its location midway between Roanoke and Lynchburg, Bedford will serve as a focal site for regional development and host for various educational and economic development activities that neither metropolitan area provides on its own.

A world class education system for youth and adults will be recognized as one of the best in the state. The middle school will provide a center for advanced technology and extended learning. Vocational and high-tech training will be available to support local industry needs and equip Bedford's young people to obtain well-paying jobs. High quality day care before and after school will be available as well as enrichment and Head Start programs for children.

A multi-purpose community center will offer activities for a wide variety of ages and interests, and a Youth Activity Center will provide planned, supervised programs specifically for youth.

Improved accessibility, including a new downtown bridge, stacked parking and public transportation, will help residents and visitors enjoy shops and facilities in the City.

Important community assets will be protected and marketed. The area's spectacular mountain vistas will be preserved as a principle of future development.

The National D-Day Memorial and Educational Center will be completed, and other historic sites will be undergoing extensive restoration. Effective tourism marketing and promotion programs will continue to attract thousands of visitors to the area resulting in significant increases in tourism related revenues.

Local government officials in the region will continue to work cooperatively on shared economic development goals and will be supported in their efforts by the private sector and area residents.

In order to realize this future, the Visioning Plan identified five areas for strategic initiatives:

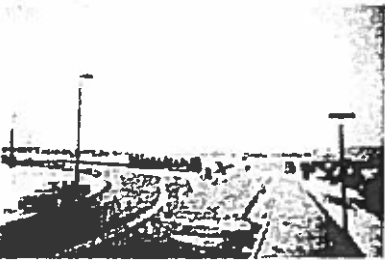
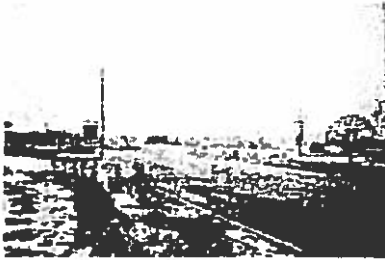
- Promote industrial development by developing an industrial park in order to attract new industry and retain existing industry while maintaining Bedford's small town character;
- Promote retail development by making Centertown a preferred choice for working, playing and living;
- Increase tourism by developing and executing programs that make Bedford a tourist destination;
- Expand educational opportunities for all citizens with a special emphasis on advanced technology;
- Focus on recreational opportunities for all ages.

Existing Conditions

Existing Site Photographs

Overlord Drive

These images show the existing drive and entrance to the D-Day Memorial from Burks Hill Road.

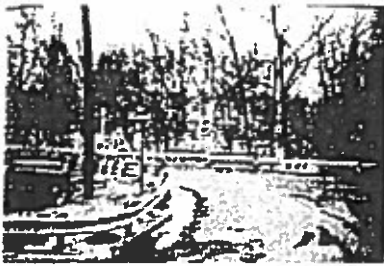


Reserview Road Area

The Reserview Road area is a residential area isolated from much of the Burks Hill Road Area by topography.



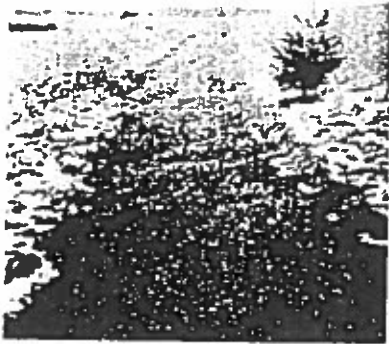
King Street



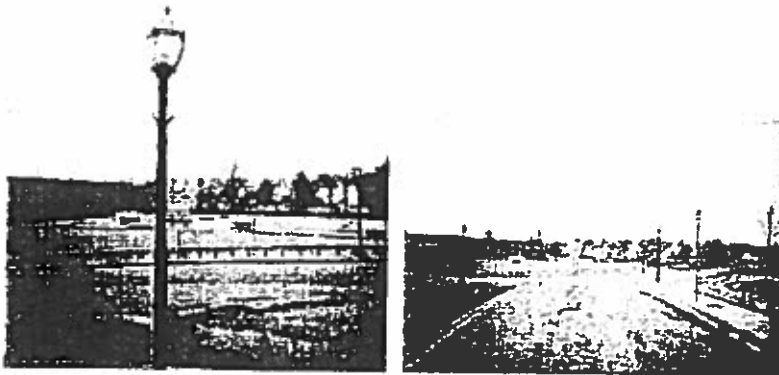
Creek



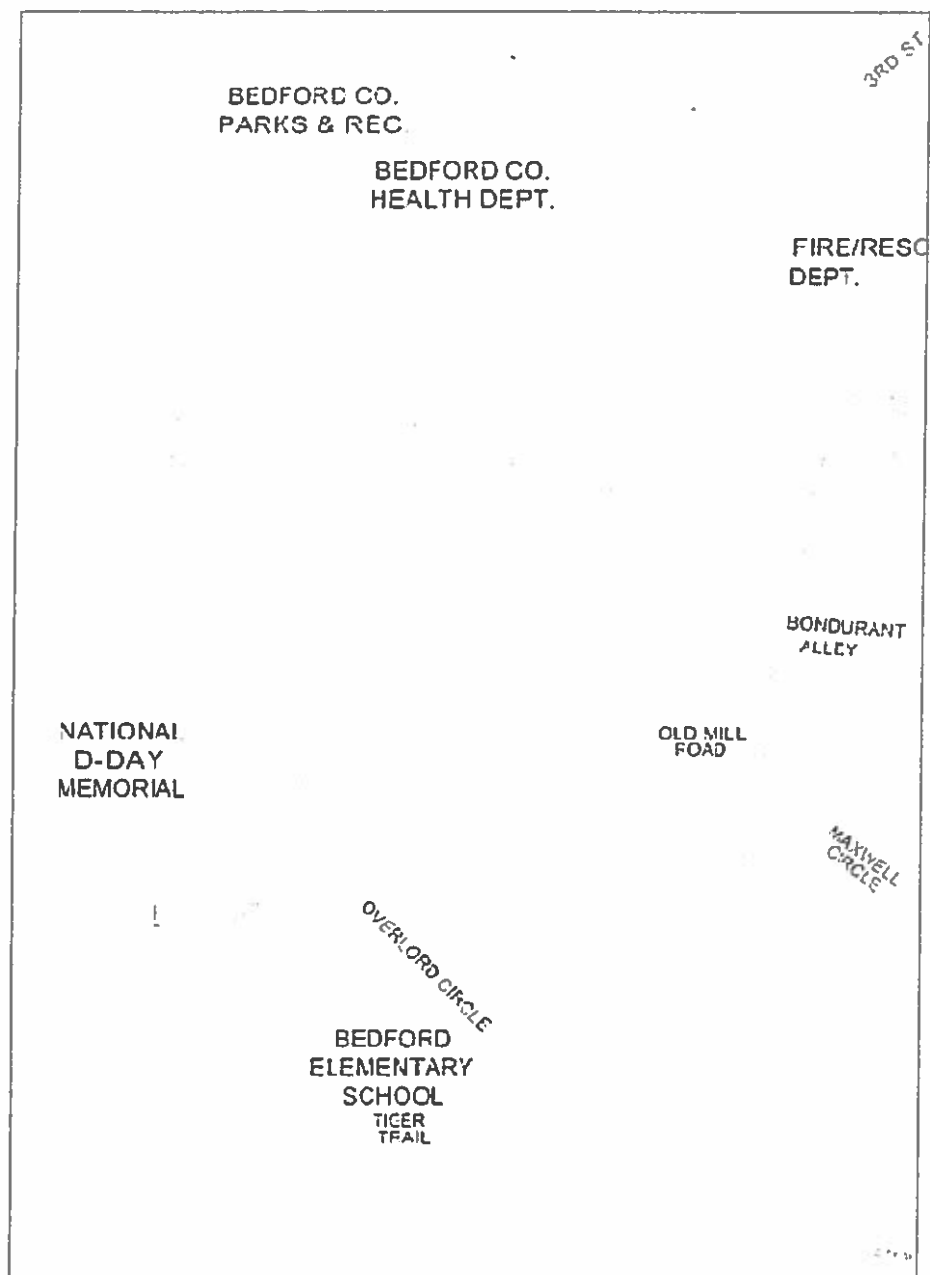
Walking Path



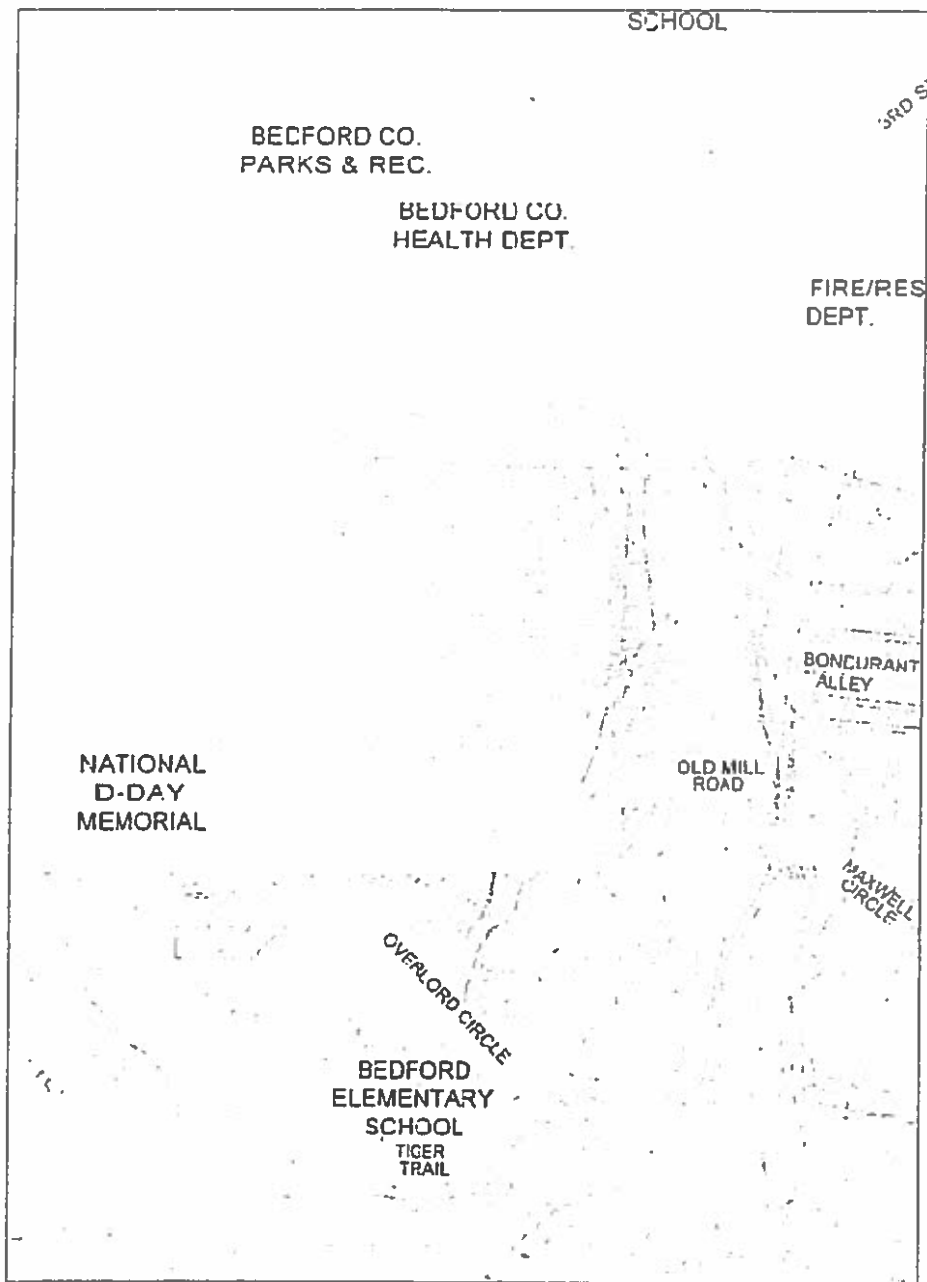
West Main Street



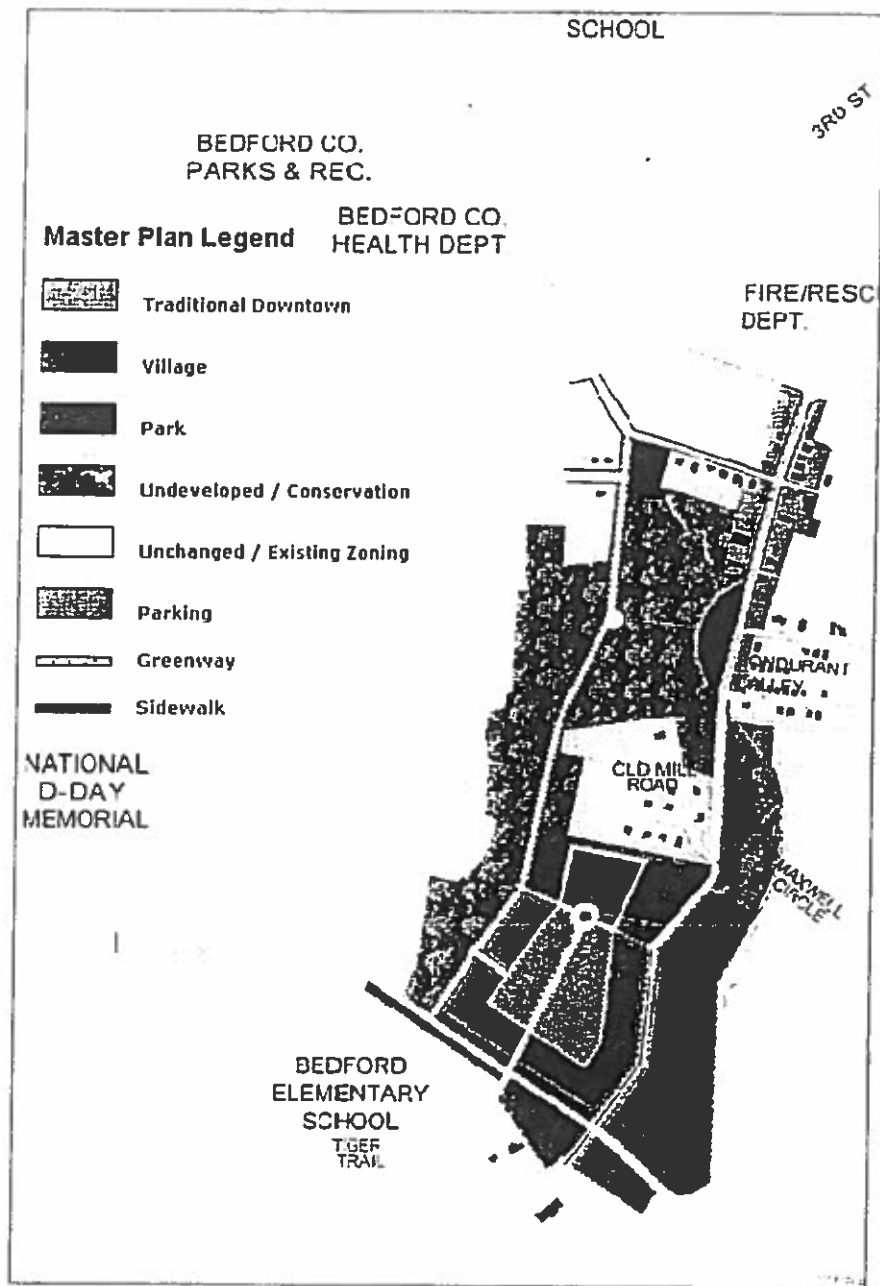
Existing Site Plan



Existing Site Plan with Topography



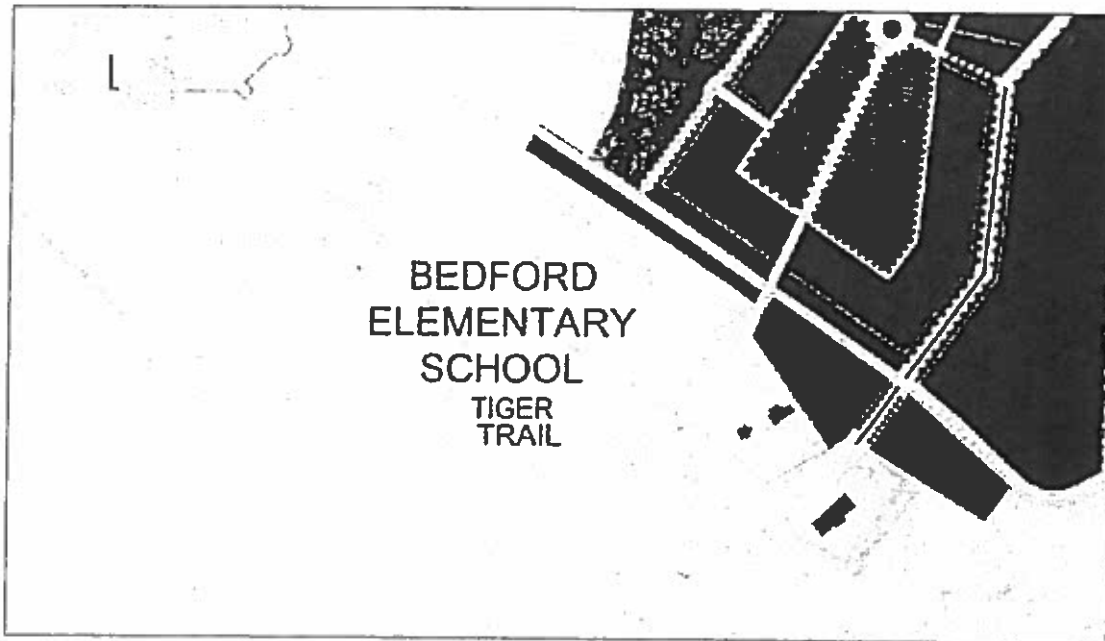
Proposed Site Plan



460/Burks Hill Road Interchange

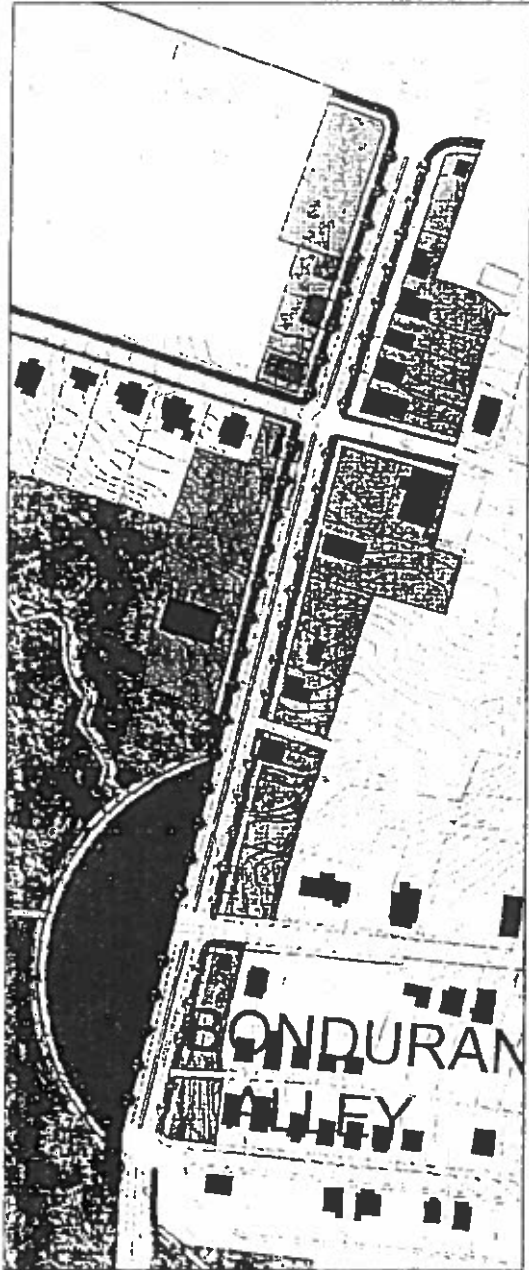
Detailed Plan View

- ▣ Expansion of Burks Hill Road to four lanes with a divided landscaped median at the top and bottom of the hill
- ▣ Limited access onto Burks Hill Road
- ▣ Relocation of Overlord Drive
- ▣ Extension of Tiger Trail
- ▣ New road parallel to Burks Hill Road



Traditional Downtown Area

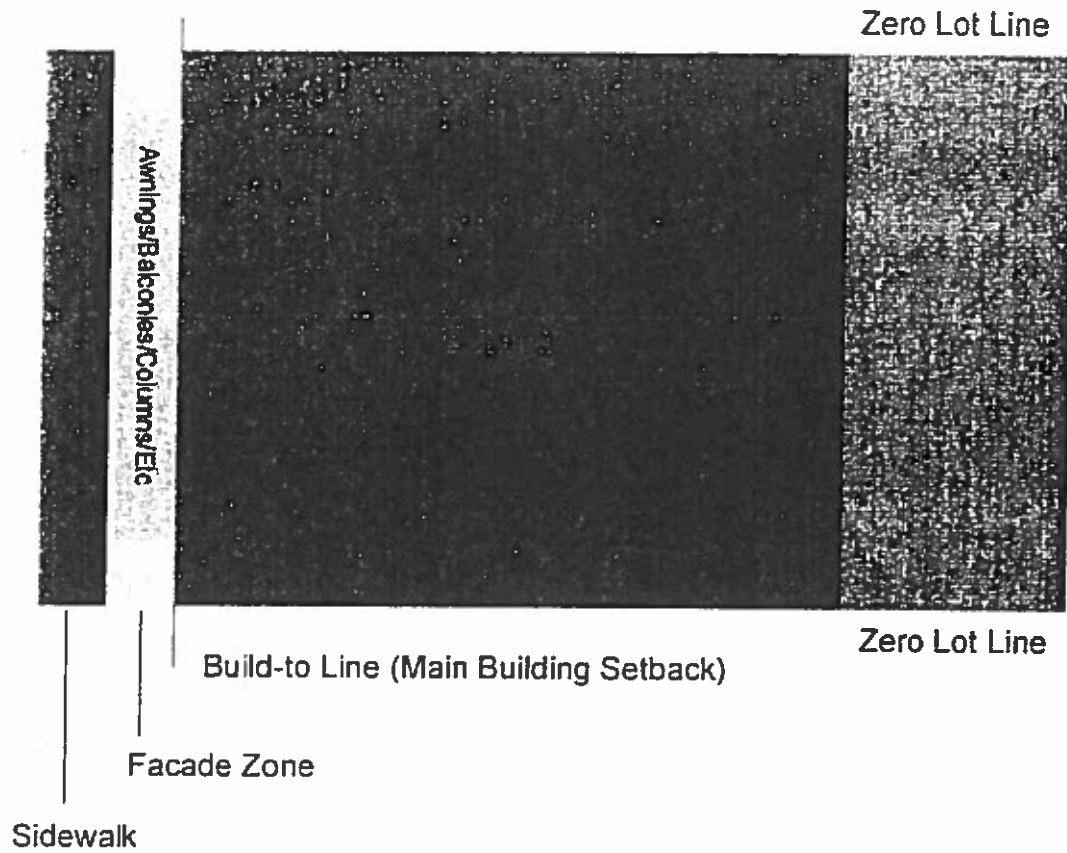
Detailed Plan View



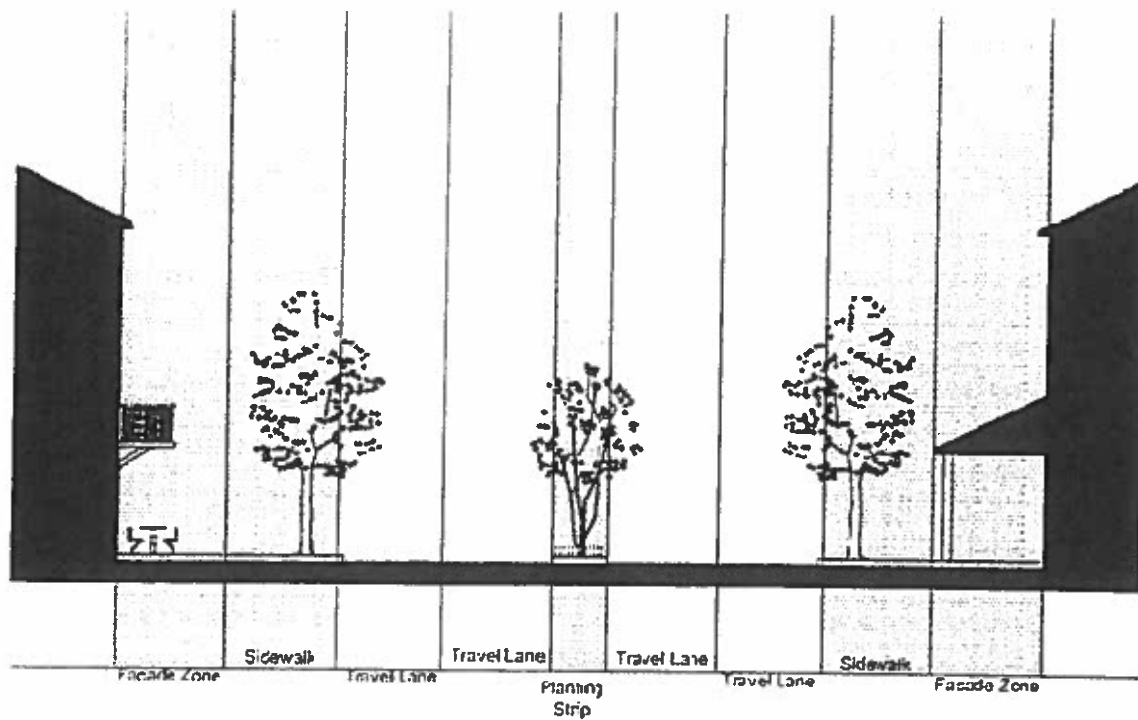
Extending Traditional Downtown Streets



Zoning Diagrams



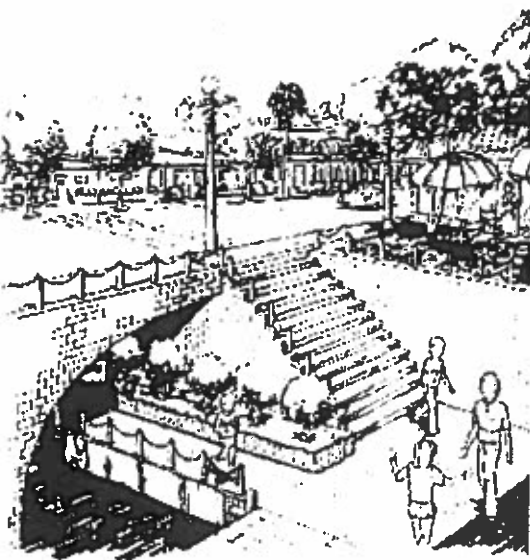
Street Profile



Concept for a Canal/Greenway near Crenshaw and King Streets

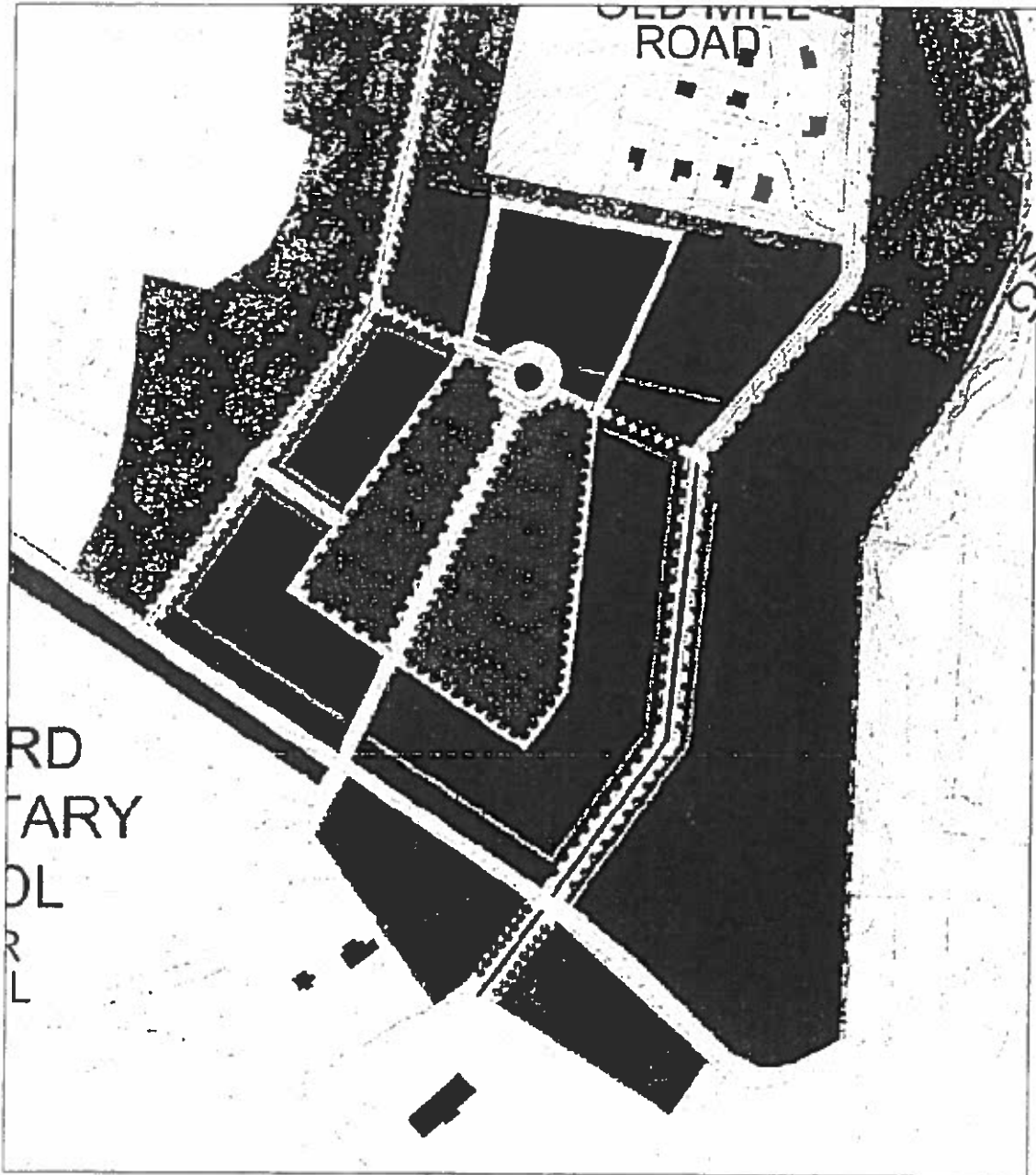
Reprinted from: John Lyle's book, *Design for Human Ecosystems*

The image demonstrates the concept of celebrating both the existing watershed and the pedestrian experiences.



Neighborhood Village Zone

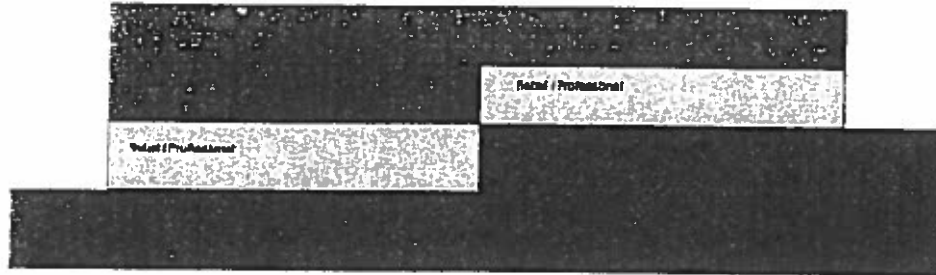
Detailed Plan View



Street Elevations



Street Sections



APPENDIX VI
Eastside Master Plan (2005)



Bedford Eastside Master Plan

**Presented and Developed By
Gregory M. Kelley
Architecture and Urban Design Associates**

**Adopted by City Council
July 12, 2005**



Bedford Eastside Master Plan

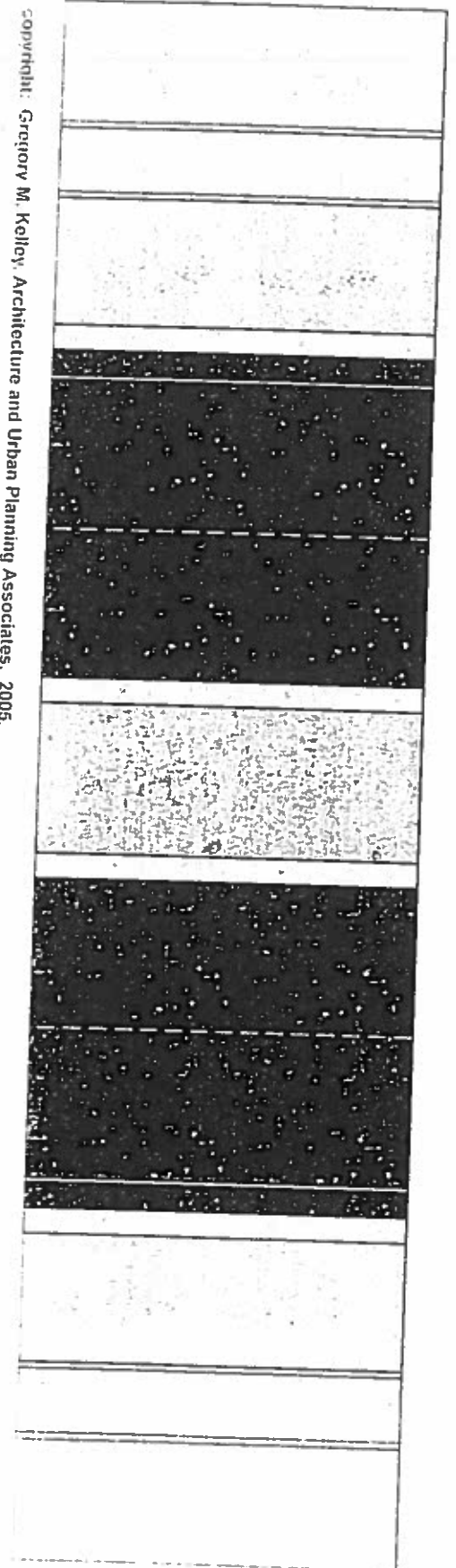
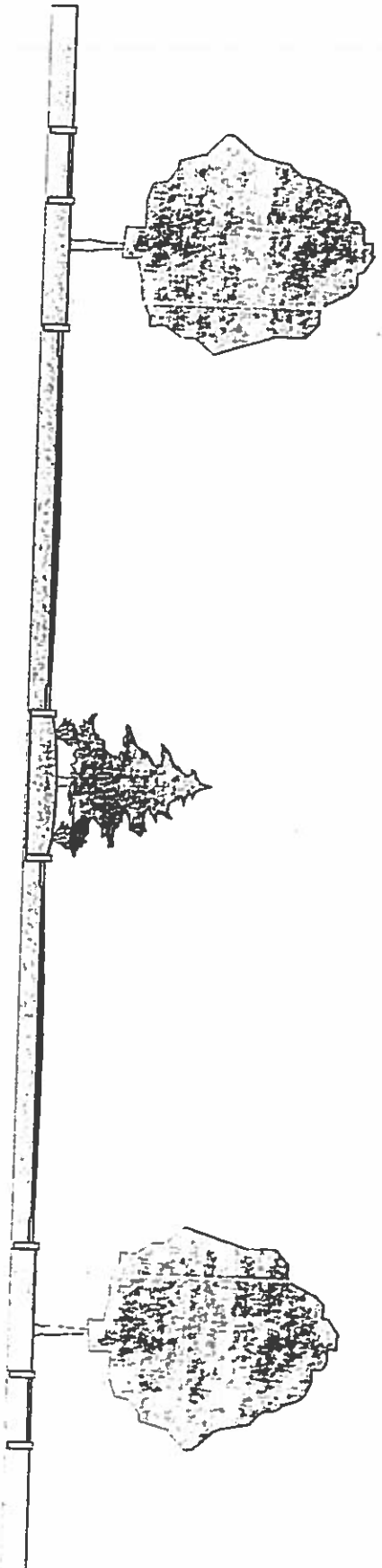
Planning Assumptions

1. There is a present market-driven demand for commercial development along Independence Boulevard.
2. The current level of service for traffic flow on Independence Boulevard (i.e. its functionality as a bypass connector between 460 and 221) must be preserved to the greatest possible extent.
3. A large 48 acre property near the intersection of Orange and Independence will likely be developed as a mixed use project in the future.
4. Development along the Independence corridor will directly impact Centertown both positively and negatively.
5. Two traffic lights will be installed along Independence; one at its intersection with Freedom Lane and one at Orange Street.
6. Lowry Street will be used as a primary access road for future development (both residential and non-residential).
7. Freedom Lane will be extended across Lowry Street into the Wal-Mart shopping center in Bedford County.

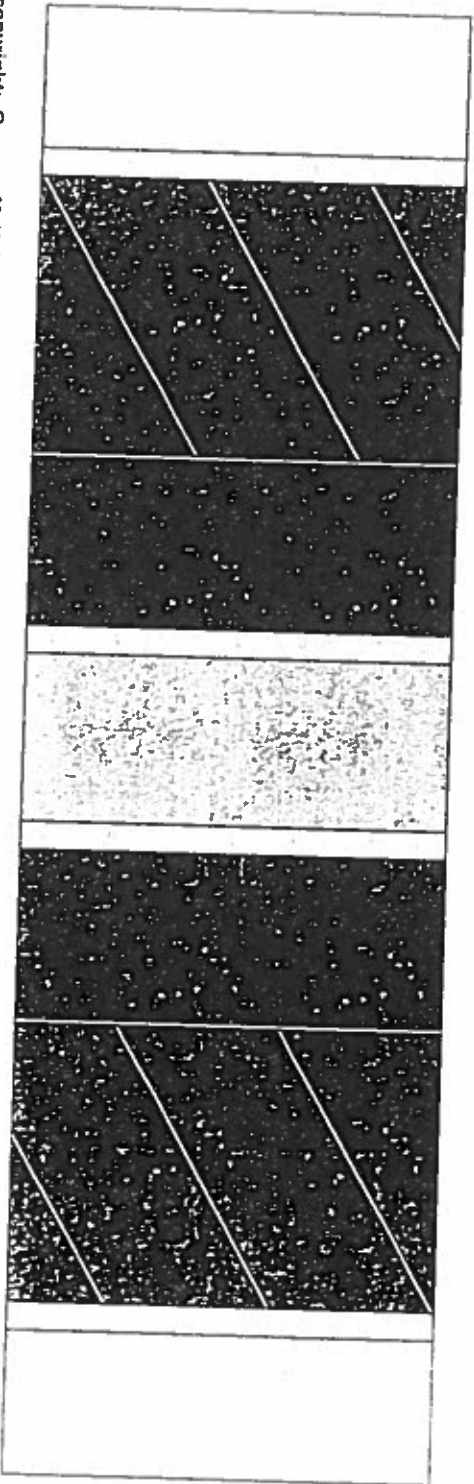
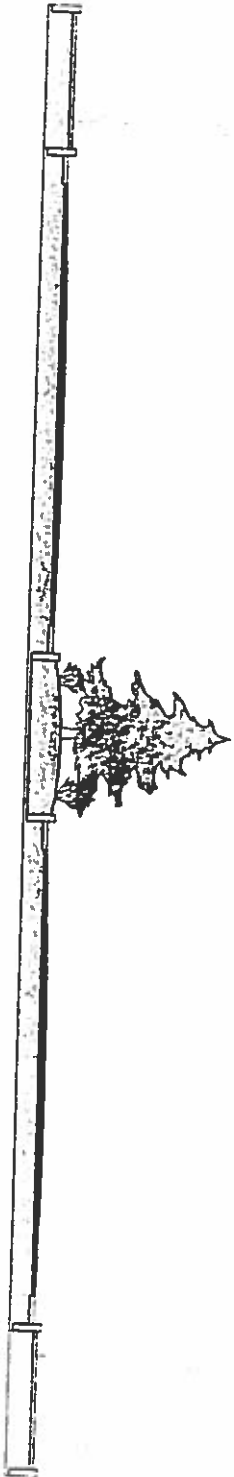
Recommendations

1. Development of an interconnected road network must take place in conjunction with future development of the Independence Boulevard corridor.
2. Regulations should be drafted and applied which specifically prohibit private entrances on Independence Boulevard and require connectivity between individual properties.
3. Lowry Street should be improved and developed to serve as the principal access for development along the east side of the Independence Boulevard corridor. This should be done at the expense of developers and/or adjacent property owners.
4. The land along Lowry Street presently zoned M-1 should be rezoned to allow for commercial use. B-2 would be the most appropriate existing category for this area.
5. The property occupied by Southern States and adjacent to the R-3 district should be rezoned to B-2.
6. The existing M-1 district provisions should be amended to include design requirements for all uses at a minimum.
7. Overlay regulations for the Independence Boulevard need to be drafted and applied. Such regulations should be similar to the Traditional Neighborhood Overlay district requirements, but allow mixed use development by right (as opposed to the conditional use process currently espoused by TNO).

Proposed Street Profile Independence Blvd Bedford, VA



Proposed Street Profile Lowery Street Bedford, VA



copyright: Gregory M. Kelley, Architecture and Urban Planning Associates. 2005.

APPENDIX VII
Electric System Performance Assessment (2015)

BEDFORD VIRGINIA ELECTRIC DISTRIBUTION SYSTEM: Performance Assessment Final Report

Assessment Conducted by

Thomas C. Tuttle, Ph.D.
President
Tuttle Group International
Annapolis, Maryland

John M. Kelly
President
John M Kelly Associates
Bethesda, Maryland

January 9, 2015

Contents	
CHAPTER 1 - INTRODUCTION	4
CHAPTER 2 PERFORMANCE BENCHMARKING RESULTS	7
CHAPTER 3 INTERVIEW RESULTS	29
Town Council Interview Results	29
Department Head Interview Results	30
Staff Interview Results	31
Electric Department Climate Rating Results	32
Figure 3-1 Electric Department Climate Ratings –Items 1-5	32
Figure 3-2 Electric Department Climate Ratings –Items 6-9	33
Table 3-1 Analysis of Climate Ratings By Work Location – Field Vs. Office	34
CHAPTER 4 JOB ANALYSIS RESULTS	36
Figure 4-1 Job Analysis Rating Scales	36
Utilization Index	36
Figure 4-2 Individual Job Analysis Report Format	38
Figure 4-3 Plot of Utilization Index for Each Electric Department Staff Member	38
Figure 4-4 Average Utilization Index for Crews	39
Chapter 5 Recommendations From Staff	40
Staff Group 1 Recommendations	40
Table 5-1 Summary of Recommendations – Staff Group 1	41
Staff Group 2 Recommendations	44
Table 5-2 Summary of Recommendations – Staff Group 2	44
CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS	46
OUR CONCLUSIONS FROM THE DATA	46
OUR RECOMMENDATIONS	49
1. Conduct a National Search to Hire a General Manager for the Electric Department	49
2. Take Corrective Action to Reduce Energy Losses Which Are Costing the Utility Approximately \$140,000 for each 1% of Energy Loss	50
3. Enable The Town Council To Fulfill The Dual Role of Council Member and Board of Directors for the Electric Department	51

4. Develop And Implement a 3-5 Year Strategic Plan for the Electric Department And Utilize the Plan As The Basis For Developing and Justifying The Capital and Operations Budgets.....	52
5. Conduct A Human Capital Requirements Analysis to Determine Needed Skill Requirements for the Electric Department.....	52
6. Implement A Performance Management System To Improve Staff Utilization and Performance Accountability	53
7. Provide the Necessary Resources To Shift the Electric System Maintenance Approach From a Corrective Maintenance Focus to a Preventive and Predictive Maintenance Focus.....	53
APPENDICES	Error! Bookmark not defined.
APPENDIX A – DATA TABLE FOR BENCHMARK PARTNER ELECTRIC SYSTEMS	Error! Bookmark not defined.
APPENDIX B – ELECTRIC DEPARTMENT EMPLOYEE INTERVIEW FORM	Error! Bookmark not defined.
APPENDIX C – REVISED TASK LISTS FOR ELECTRIC DEPARTMENT POSITIONS	Error! Bookmark not defined.
APPENDIX D– STRUCTURED GROUP DISCUSSION PROCESS TO DEVELOP STAFF RECOMMENDATIONS	Error! Bookmark not defined.

CHAPTER 1 - INTRODUCTION

The Town of Bedford's Electric Department has provided electric service to the community since 1899. The Director of the Electric Service recently retired. This transition in management provides the Town Manager with an opportunity to review the Electric Department, to assess what they do well and identify opportunities for improvement. In addition, prior to hiring a new Director, there is an opportunity to review the organizational structure of the Electric Department in order to determine if there are opportunities to improve service to citizens and reduce costs through reorganization.

Tuttle Group International was chosen to perform the assessment mentioned above. The process of the assessment involved interviews with the 15 members of the Department, selected City Department Heads, field observations, surveys of the staff, and gathering comparative performance data, often called "performance benchmarking", from a sample of four comparably sized public power systems. The assessment was conducted over the period from mid-October through mid-December.

The perspective taken in the assessment was not to develop recommendations regarding how to fix a broken system but rather to develop recommendations regarding how to make a system that has been performing well in the eyes of its customers a better system.

Evidence that we used to determine that we were not dealing with a "broken system" is based on our interviews with members of the Town Council and the Town Manager. They stated that customers were basically satisfied with the performance of the utility, that the utility was making significant financial transfers to the Town general fund, there was relatively little staff turnover, and other Department Heads basically confirmed these perceptions.

As a result of this point of view, the consultants recommended that the approach would be to conduct the assessment through engagement of the members of the Electric Department in the process. Our experience with similar performance reviews has convinced us that if the results of the analysis are not accepted by those whose performance is being assessed it will create resistance and is unlikely to lead to the types of creative organizational innovation that will assure continuous improvement. However, if the assessment is conducted through the engagement of those whose performance will be assessed the chances of acceptance of the results are significantly increased. In addition, such a process can increase the extent to which members of the Department better understand and align themselves with the objectives of City Government and the current and future needs of citizens. Therefore, we chose to conduct the assessment with members of the Department rather than have the assessment be done to the

department. Comments we received from the staff and Town Management indicated that we were successful in this approach.

Does the fact that we engaged the employees in the process mean that we looked at the Department through “rose-colored” glasses or that we did not address issues that needed to be addressed? On the contrary, we believe that we engaged the people who understand the Department the best and who have the greatest stake in its future success. What we attempted to do was to gather information regarding the objective performance of the Department from internal and external sources as well as perceptions of the Department from members of the Department and others in the Town. We then summarized and presented this data to members of the Department as if we were holding a mirror in front of them and we asked them to make recommendations regarding what changes were needed to better position the utility to serve the citizens of Bedford for the future. As consultants we present the recommendations of the “internal experts” – the Electric Department staff and to that we add the perspective and recommendations of the “external consultants”.

This report is organized into 6 chapters. Chapter 2 presents the results of our benchmarking analysis of Bedford in relation to four other municipal electric systems in Virginia that are similar to Bedford in terms of number of customers. We make comparisons of the systems in terms of their organizational profile and service territory as well as a number of quantitative performance indicators. Chapter three reports on the results of interviews with members of the Town Council, with selected Bedford Department Heads who interact with the Electric Department and with Electric Department Staff. Chapter 4 presents the results of job analyses of the positions in the electric department. In our interviews with staff we compare the “official” job description with the tasks each individual reports they actually perform and developed revised job descriptions for each position. We also calculated a utilization index for each position based on the staff ratings of time spent on tasks as well as task difficulty. Chapter 5 presents the recommendations for needed improvements in the electric department suggested by staff. In Chapter 6 we present the consultant conclusions and our recommendations.

Based on the 9 person days spend by the consultants in Bedford as well as the interactions we had with local citizens and Town employees we have come to understand why citizens of Bedford consider it to be a very special place. We received total support from the Town Manager, Assistant Town Manager, Finance Manager and the staff of the Electric Department. The Police Department was extremely supportive as we often arrived at their door before the Town Office Building was open. Several people deserve special thanks. These include Sonia Jammes, Susan Roberts, A.J. Fairchild, Bart Warner, Debbie Patterson, and Debra Anderson. These individuals received the bulk of our requests for assistance and they responded

professionally, courteously, completely and in a timely manner even though we were adding additional workloads to a "full plate." Support from the Town for our efforts could not have been better. As a result, any deficiency in our performance rests with the consultants not the Town of Bedford employees.

We have become an extension of your Chamber of Commerce. We also strongly believe that your Electric Department is a major contributor to what makes the Town of Bedford special. We believe that our recommendations and those of the staff will, if acted upon appropriately, make a significant contribution to making the "World's Best Little Town" even more desirable as a place to live and work.

CHAPTER 2 PERFORMANCE BENCHMARKING RESULTS

This chapter assesses the operating and financial performance of Bedford's Electric Department.¹ It does so by primarily relying on information collected in a survey of similarly sized municipally owned and operated electric utilities in the Commonwealth of Virginia. Five systems, including Bedford, participated in the survey. The focus of the analysis is on electric distribution service because this is the main responsibility of Bedford's Electric Department as well as the other utilities surveyed. Nearly all of the utilities' power supplies are purchased rather than self-generated.

The survey information indicates that the operating and financial performance of Bedford's electric distribution system compares favorably to other systems. Moreover, the data suggest that the electric department may require additional, or a reallocation of existing, resources to maintain or improve the quality of service, increase efficiency, and/or reduce costs. Reducing energy losses and tracking reliability are prime areas where these benefits may be accrued.

The analysis and conclusions presented here are based on information collected from the survey as well as information from publicly available sources, and from information collected in interviews with department employees about their electric system.

The Interpretation of these survey results and the subsequent conclusions will be discussed more fully in the final section of this chapter. The following section describes aspects of the work environment, or setting, in which Bedford's electric system employees perform their day-to-day work compared to those of other systems. They are considered "givens": work that

¹ This analysis should not be confused with the more general question of the economic value to the local community of owning and operating its own electric utility. The latter would involve an analysis of the direct and indirect, as well as the immediate and future, costs and benefits to the community.

employees essentially have little or no control over. They include, for example, the square miles of service territory, miles of line, and number of customers.

After the work environment is reviewed, the following section presents operating and financial comparisons of performance. They are presented as ratios, such as customers per employee and retail customers per line employee.

Throughout the chapter, bar charts highlight the major environmental conditions and performance indicators. In each figure the values for the comparison measures are ranked from low (one) to high (five). Only Bedford is identified by name. Consequently, the numbers on the horizontal axes represent the rank order of a utility for a *particular* indicator rather than for a specific utility throughout. For example, a utility that is identified as "One" (the lowest value) for a particular indicator may be identified as "Four" (second highest) for another indicator. This is done to protect the confidentiality of the other systems.

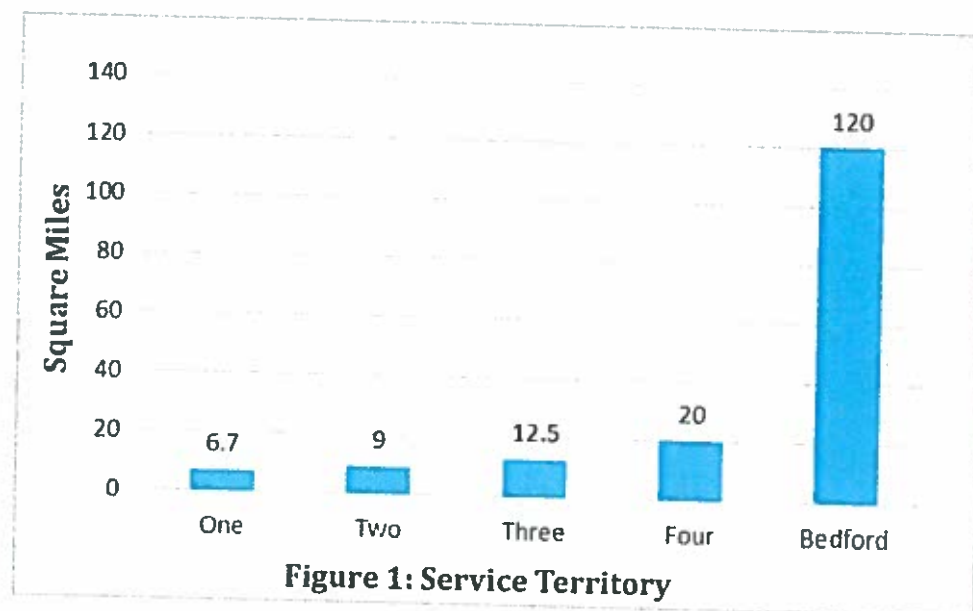
The table *Survey Results of Selected Virginia Municipally Owned and Operated Electric Utilities, 2013*) in the Appendix # provides a complete list of the data in the bar charts along with related information. All data are for the year 2013.

Finally, it is important to note that the individual comparison measures cannot be interpreted by themselves. That is, they cannot be used to draw immediate conclusions. Though the comparisons are referred to as "performance indicators" throughout this chapter, this is meant in a broad sense. The comparisons are quantitative values that when taken together "indicate" the operating and financial effectiveness of the electric system. The measures have to be interpreted together with other relevant measures to be analyzed accurately. When interpreted in combination they provide a practical and useful way to identify areas for further investigation. As such, they are the beginning of an evaluation, not the end.

A. Customers, Sales, Service Territory and Facilities

The surveyed utilities served a similar number of customers, but were somewhat more diverse in the amounts of kilowatt-hours sold. They had between 5,100 and 7,300 retail customers with Bedford falling in the middle at 6,500 customers. (Most numbers in this text have been rounded. See Appendix # for more precise numbers). Total sales to customers ranged from 99 gigawatt hours (GWh) to 259 GWh with Bedford having the second most at 220 GWh.

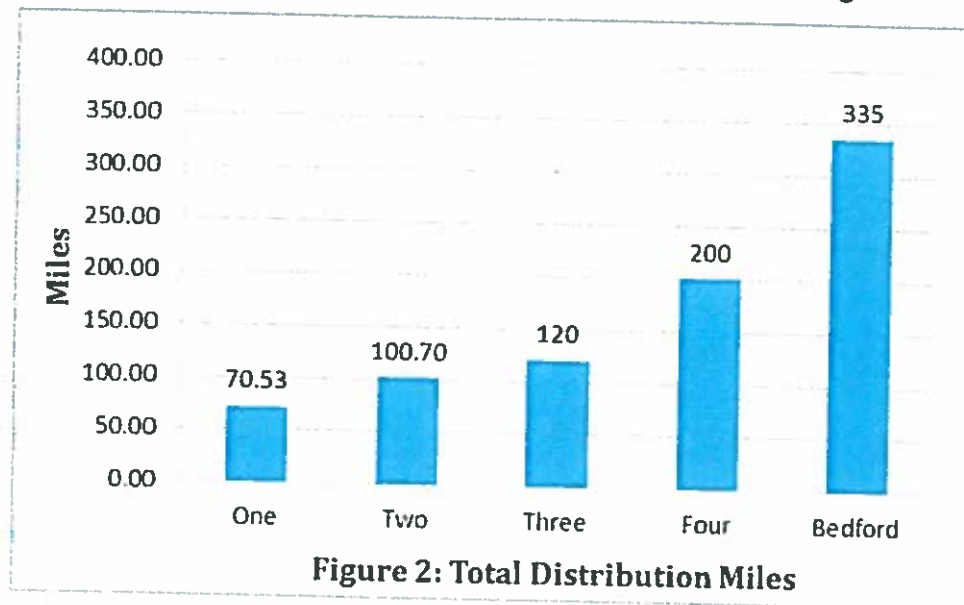
Service Territory: The most prominent and relevant difference between Bedford's system and those of other cities and towns is the number of square miles of service territory. Bedford's had 120 square miles while all the other systems served at most 20 square miles, which is one-sixth of Bedford's service territory.



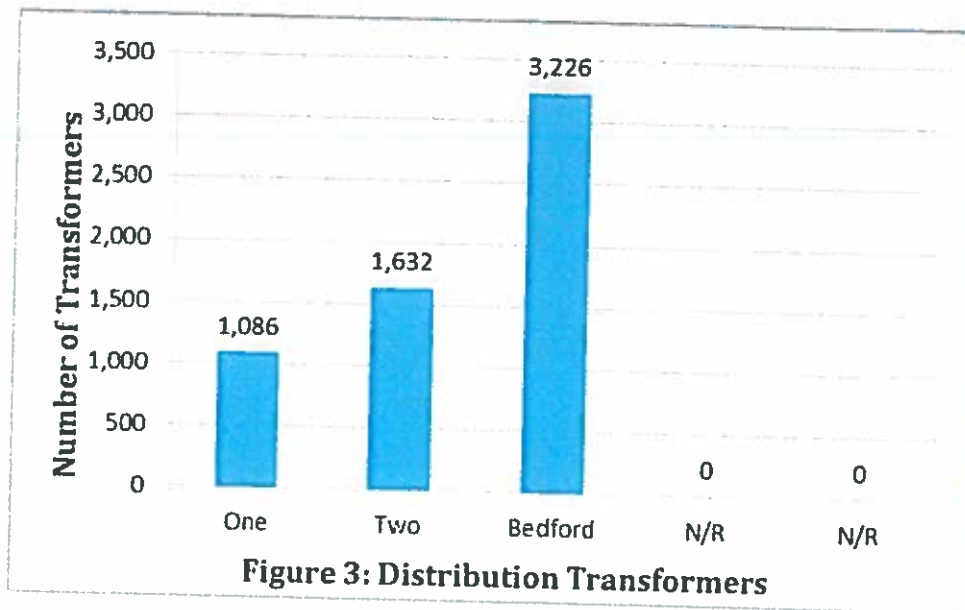
Total Distribution Miles: Distribution miles consist of overhead (pole) miles and underground miles. The number of miles is typically related to the square miles of service territory as well as the number of customers. As would be expected, Bedford's system maintains significantly more distribution miles than the four other comparable systems. It was responsible for 335 miles -- almost 70 percent more than the next highest utility which had 200 miles. The other three utilities had 71, 101, and 120 miles. Bedford also had the most overhead miles to

maintain at 272 miles. The next highest system had 170 miles while the other three had 28, 80 and 110 miles.

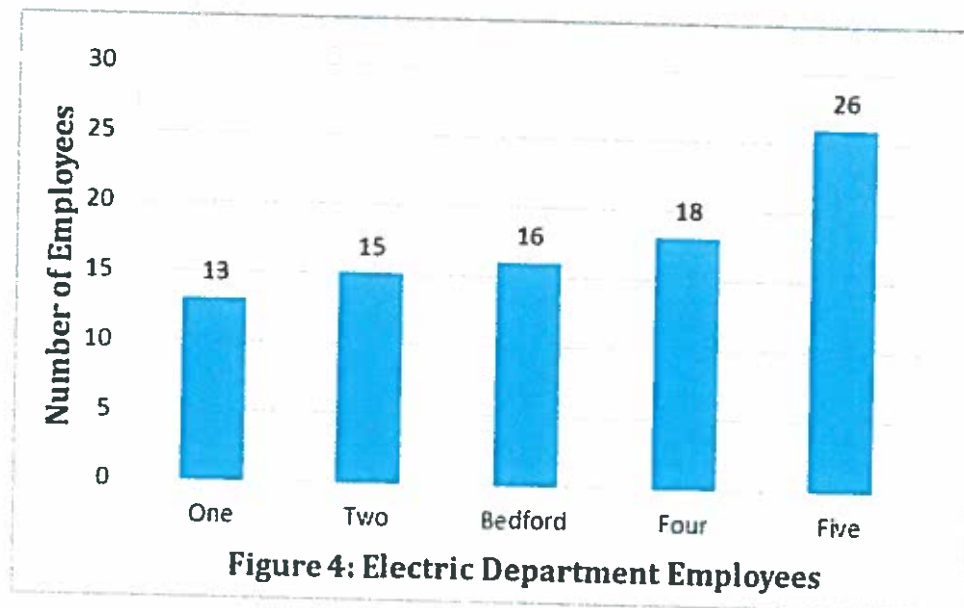
In addition to distribution lines, Bedford's system had 29 miles of transmission lines. Only one other system had transmission lines at all: 16 miles. It is worth noting that one of the other utilities had only 28 miles of lower voltage distribution lines. The presence of significant transmission lines and structures is significant in assessing operating and financial performance between the systems. The skills and equipment necessary to work on high voltage (69 kilovolt and above) power lines are different than those for lower voltage distribution lines.



Distribution Transformers: More distribution miles require more distribution transformers, and this fact is reflected in the survey responses. Although only three utilities provided data on the number of transformers, Bedford had almost twice as many as the next highest system, 3,226 versus 1,632.



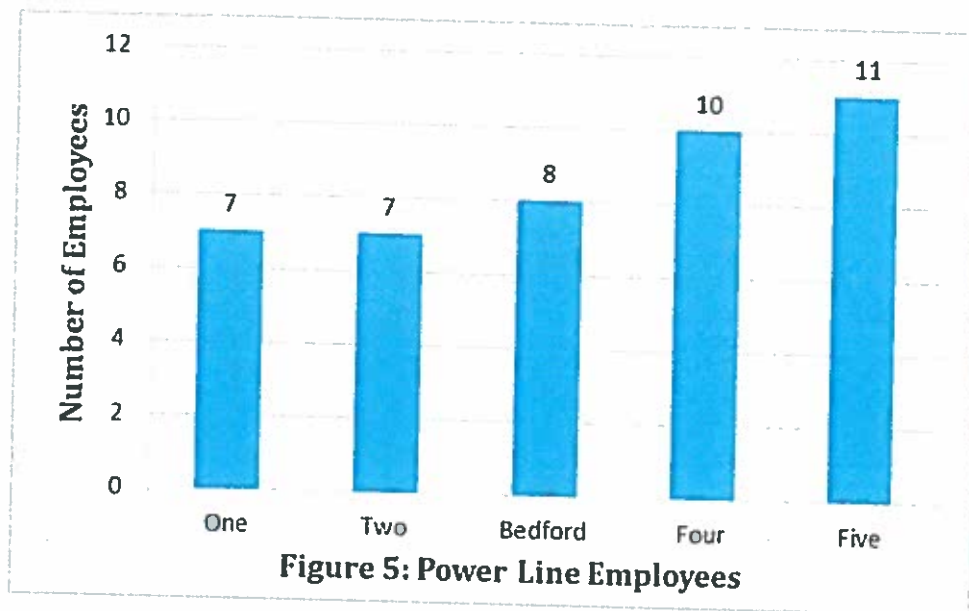
Electric Department Employees: Despite having significantly more facilities to maintain over a much larger geographic area, the total number Electric Department employees at Bedford, 16, was about average compared to the other systems. Two systems reported fewer employees, 13 and 15, and two reported more, 18 and 26.



The system with 13 employees contracted out its right-of-way work. If this work were not contracted out, it would have required at least two additional employees. If the employees

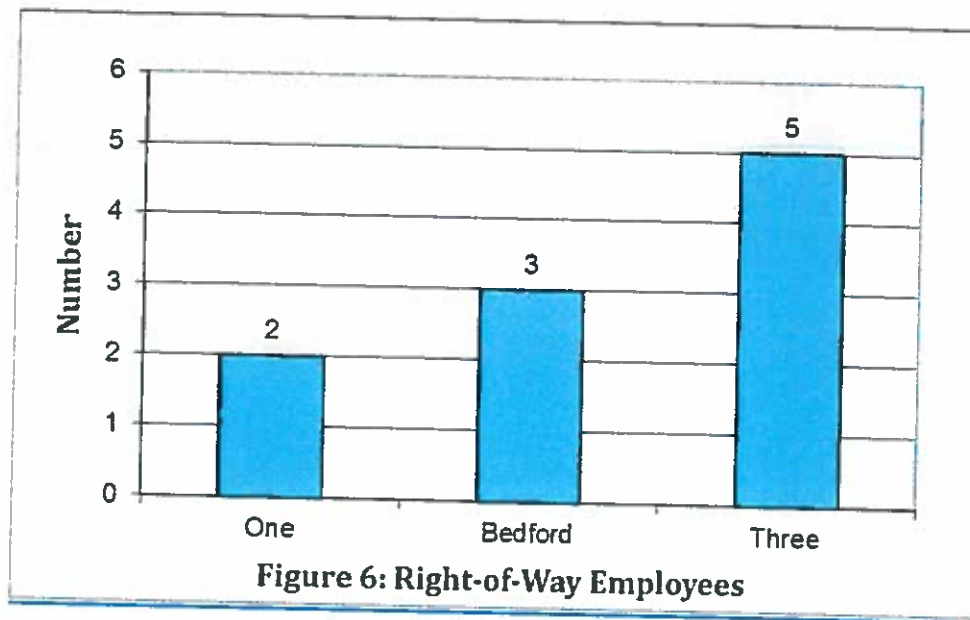
were part-time, then it would have required one full-time equivalent employee. The other two systems reported 18 and 26 employees each.

The number of power line employees at Bedford, in both supervisory and non-supervisory roles, compares favorably with other systems, especially in light of the relative size of its services territory and miles of distribution lines. Bedford had eight such employees, while two systems had seven each and the two other systems reported twelve and thirteen.

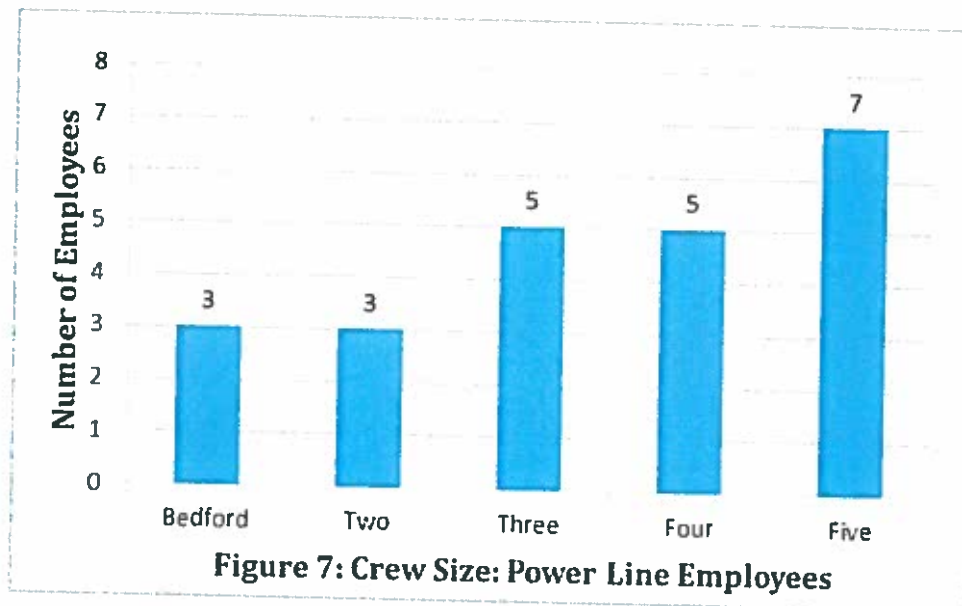


Only three systems provided information on the number of right-of-way employees, who are responsible for maintaining the paths for power distribution lines. The work largely involves trimming trees and related tasks to prevent obstructions and damage to power lines so service reliability is maintained and unnecessary energy losses are prevented.

Bedford had three such employees while the other two systems reported two and five. As mentioned previously, one system reported that it used contract employees to perform its right-of-way work.



Crew Size: Power line crews at Bedford had three persons. One other system reported a crew size of 3, two systems reported a crew size of 5, and one system reported 7 employees.



B. Performance Indicators

1. Operating Indicators:

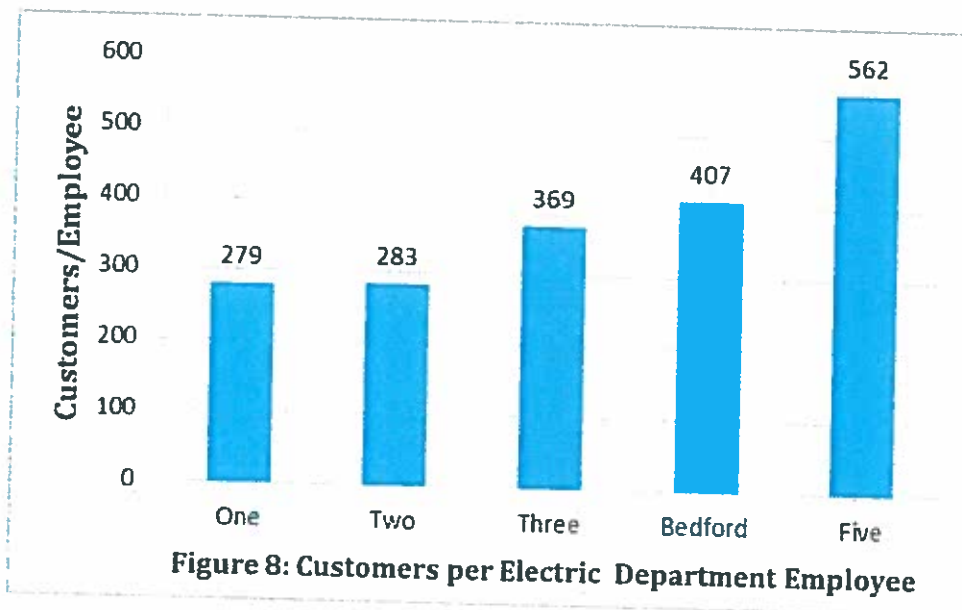
The operating measures focus on physical inputs and outputs which are expressed as ratios, for example, customers per employee. The chief input used here is the number of employees. The

outputs include items such as the number of customers served, miles of distribution lines, and transformers maintained.

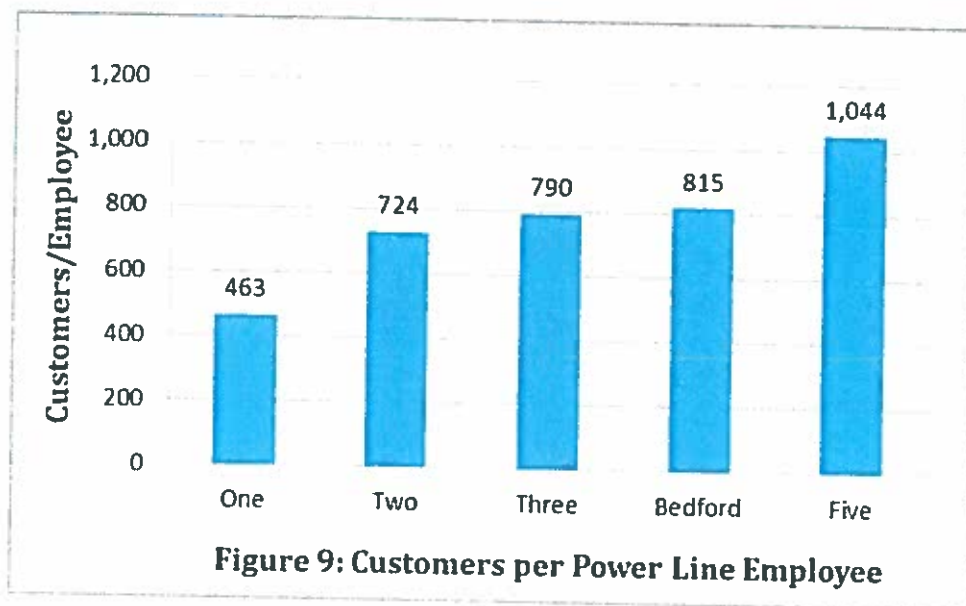
These are “proxy” inputs and outputs, however. Employees serve as a proxy for all inputs. A more precise set of inputs would include the amounts and types of equipment and materials as well as other resources used to provide electric service.

A more precise set of physical outputs would include, but is not limited to the number of: installations and repairs of power lines, transformers, poles and street lights; customer connections and disconnections; responses to outages; and other tasks. While some utilities systematically collect and analyze such detailed information, it is not typically done in a general survey like this. Instead, information on proxy measures like the ones in this report are used. It should be noted that time constraints limited the amount of detailed information that could be collected for this survey and report.

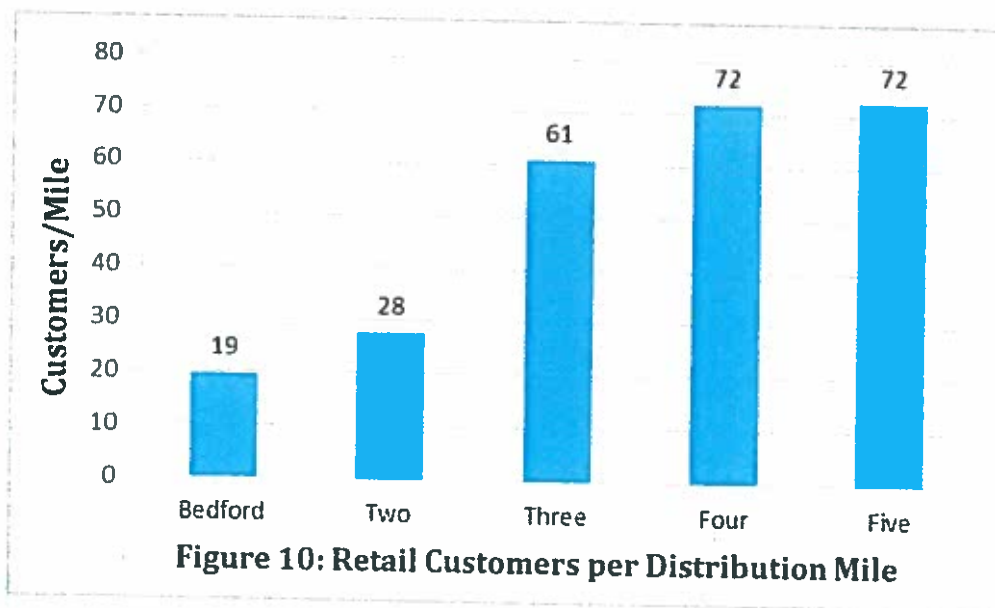
Retail Customers per Electric Department Employee: The number of customers per employee ranged from 283 to 562 with Bedford having the second highest with 407 customers per employee.



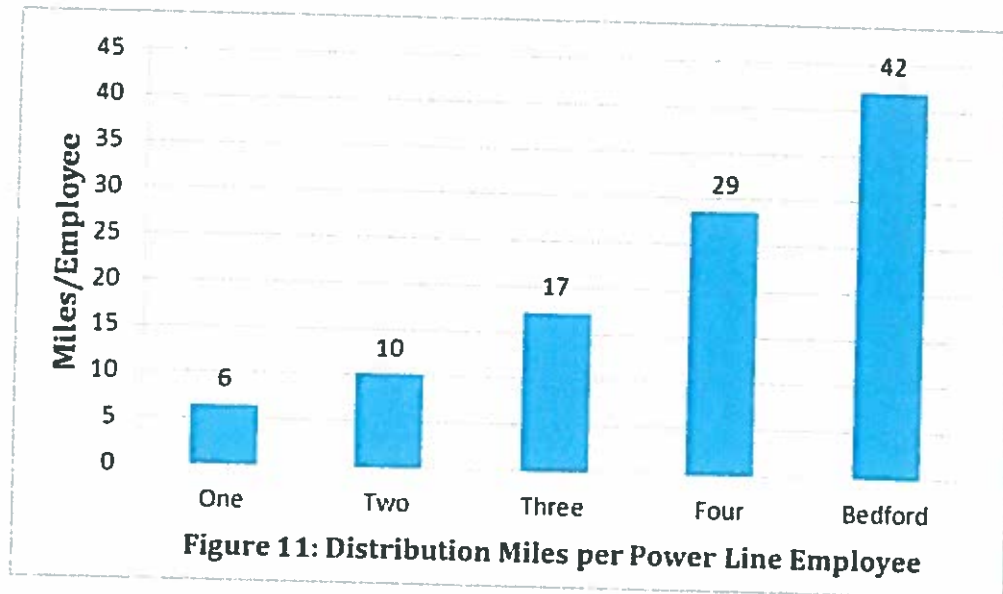
Retail Customers per Power Line Employee: Customers per line employee ranged from 463 to 1044 with Bedford having the second highest at 815.



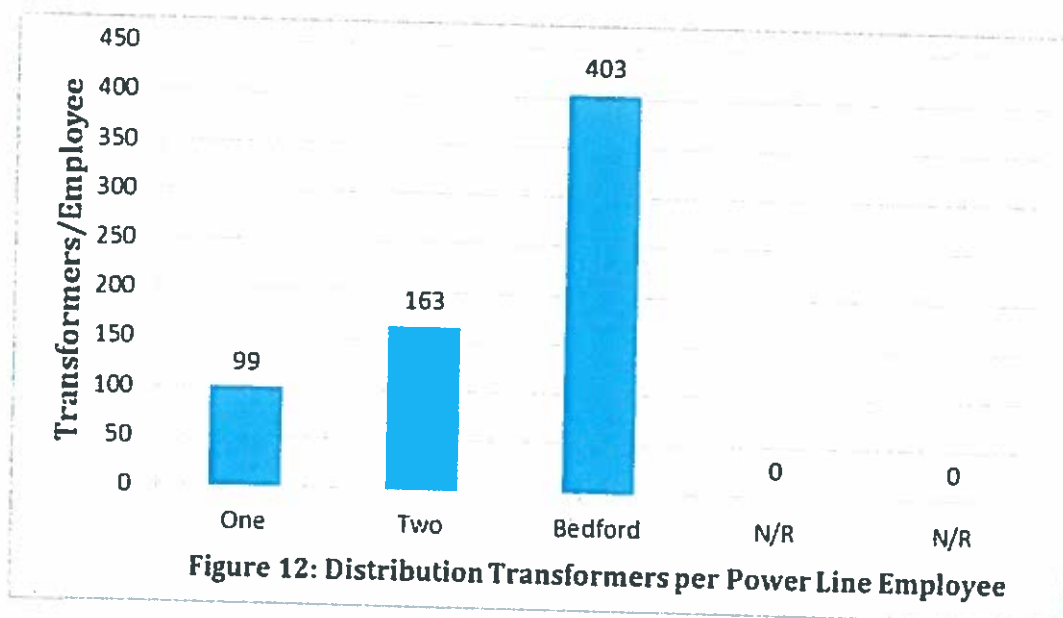
Retail Customers per Distribution Mile: Customers per mile ranged from 19 to 72 with Bedford serving the fewest customers per mile.



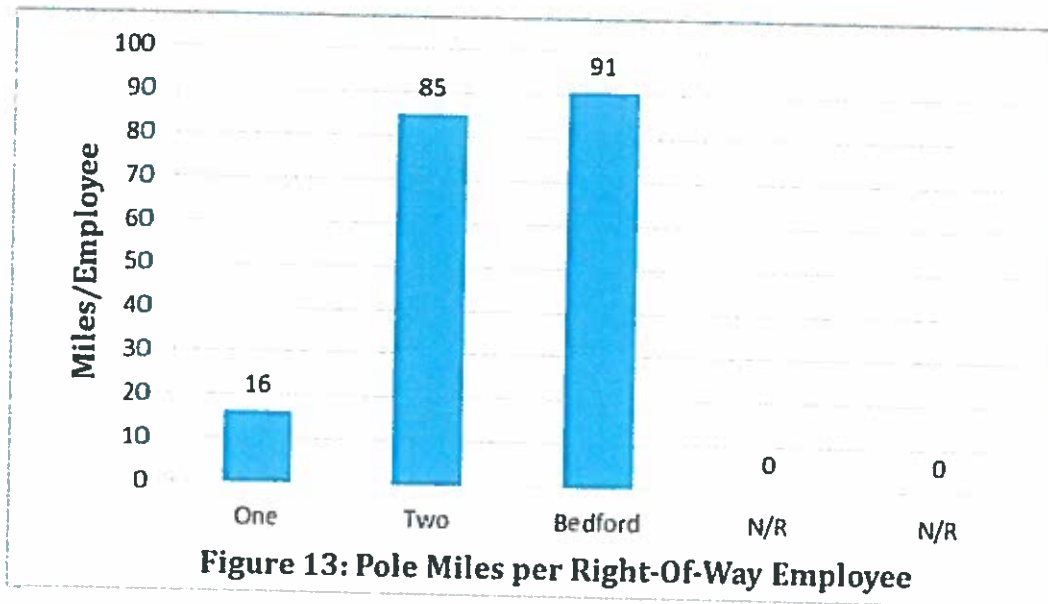
Distribution Miles per Power Line Employee: Distribution miles per power line employee ranged from 6 to 42 with Bedford having the highest. The system closest to Bedford had 29 miles served per employee.



Distribution Transformers per Power Line Employee: Among the three utilities that reported the number of distribution transformers, Bedford had 403 transformers per power line employee, the highest, while the other two systems had 99 and 163 transformers per employee.



Pole Miles per Right-of-Way Employee: Of the three systems that reported “right-of-way” employee numbers, Bedford had the highest number of miles per employee at 91. The other two systems had 16 and 85 miles per employee.

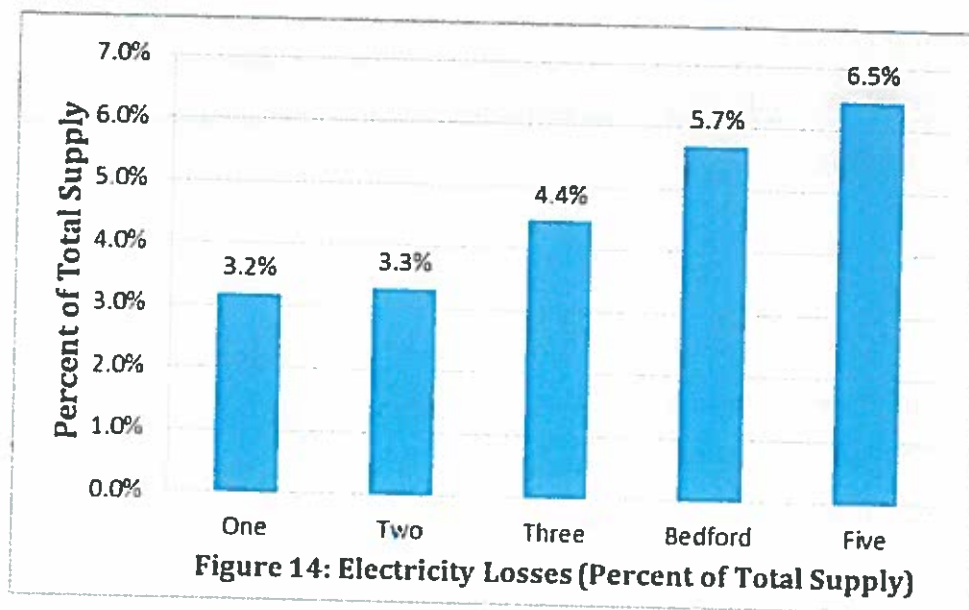


Energy Losses: Energy losses are the amount of kilowatt hours of electricity that come into a distribution system from high voltage transmission lines minus the amount of energy that is sold at retail.

More detailed information on losses was requested in the survey but several utilities did not provide it, so publicly available information was used.² The percent of losses for the systems ranged from 3.2 percent to 6.5 percent. Bedford had the second highest rate at 5.7 percent.

Since minimizing the amount of system losses is an important task of the electric system, historical information was collected to see how Bedford performed compared to other utilities. This data is discussed more fully in the section, “Interpreting the Indicators.”

² Data from the U.S. Department of Energy, Energy Information Administration Form 861 for 2013 were used.



Reliability: Only one utility provided information to calculate indicators of reliability. However, the information it provided and the recent experience of energy losses for this utility affirm the importance of reliability tracking systems and maintaining rights-of-way in minimizing energy losses and their concomitant costs. “Keeping the lights on” without undue service interruption is a central task of the electric system. This issue is discussed more fully below.

2. Financial Indicators

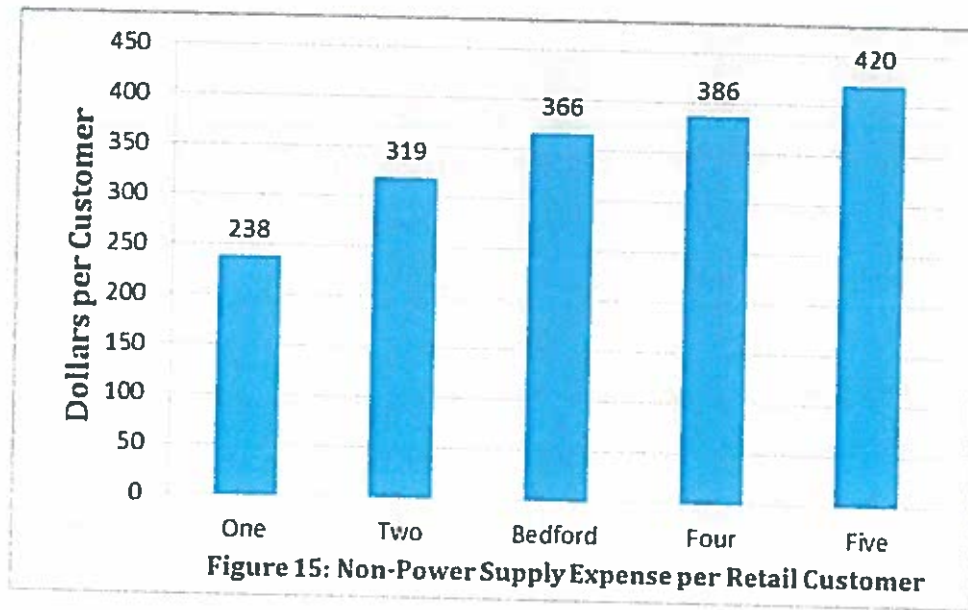
The survey requested detailed information that would identify the employee, materials, and supplies expense of maintaining and operating electric distribution systems. The main idea was to focus on the expense of the electric distribution system, as such, and separate them from the costs of power supply (either purchased or self-generated) as well as from allocations from other city or town departments that were not part of the electric department. Only two utilities provided this information. Because expense information is very important to the analysis, it was decided that less precise but more comprehensive information should be used. It was collected from the budgets of the cities and towns and used in the analysis.

It needs to be noted that there may be some inconsistencies in what is included in the expenses, but they are relatively small. The major expenses are for employee wages, salaries, benefits, and materials and supplies to operate and maintain the distribution systems, which are all included.

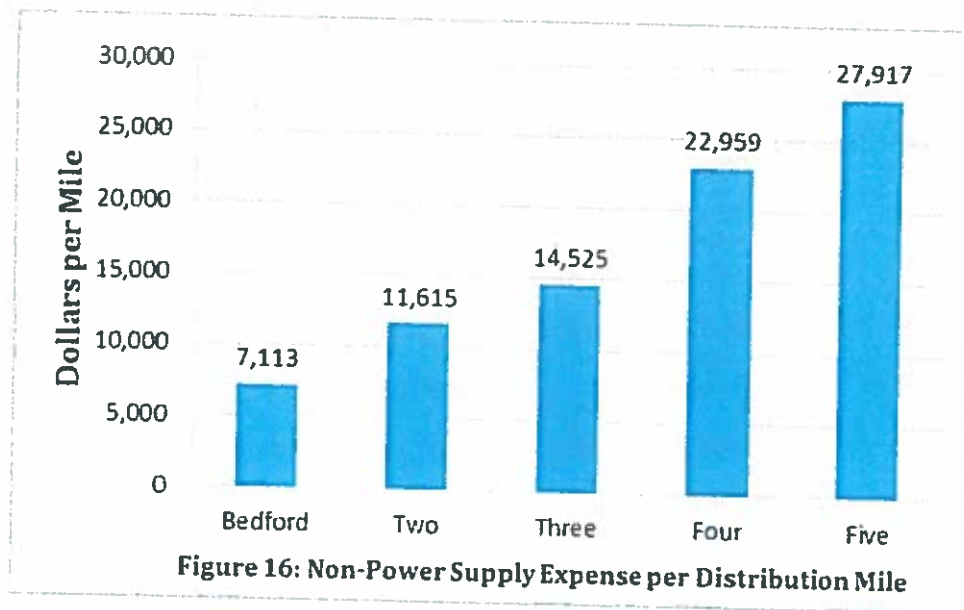
One problem with consistency is the allocation of the expenses of other city or town departments to the electric departments, i.e., prorating some of the general costs, usually personnel, of other city departments. These costs are included in the expenses for Bedford, but it could not be determined from the publicly available information if this was also true for the other cities and towns of interest. To the extent prorated expense are not included, the expenses and indicators for Bedford are biased on the high side. Additionally, if dollar amounts allocated were not as high as Bedford's, this too would bias the numbers toward the high end. There is also the possibility that the allocations of the other cities and towns could have been greater than Bedford's. However, even if this were so, it seems unlikely that these amounts would be much higher than Bedford's because the various allocation percentages from other departments to Bedford's electric department seemed to be at significantly large levels.

Most importantly, however, is the fact that the magnitudes of the differences in the financial indicators between Bedford and the other electric departments are large and cannot, in any event, be explained by relatively small inconsistencies in the amounts of the expenses due to the abovementioned proration or other similar items.

Non-Power Supply Expense per Customer: The expenses for the distribution system and for the 19 miles of transmission lines were \$366 per customer for Bedford. Two systems reported lower costs of \$238 and \$319 per customer and two reported higher costs of \$386 and \$420 per customer.



Non-Power Supply Expense per Distribution Mile: Distribution expense per distribution mile was lowest for Bedford at \$7,113 per mile. The next lowest were two systems at \$11,616 and \$14,525 per mile. Costs for the highest two systems were at \$22,959 and \$27,917 per mile.



C. Interpreting the Performance Indicators

Productivity: The number of retail customers in Bedford was roughly the same (about ten percent less) as the two utilities that served the highest number of customers and significantly more (18 and 28 percent) than the two utilities that served fewer customers.

Bedford's utility service territory was six times greater than the next highest utility and ten times or more than the other three utilities. The relative differences in the number of distribution miles (overhead and underground miles) are also large. Bedford, with 335 miles, served 135 miles more than the next highest utility and has almost twice the number of distribution transformers, 3,226 versus 1,632, as the next highest utility.

Bedford had the second highest quantity of gigawatt hours of electricity going through its electric distribution system, indicating that its facilities were used relatively more intensely.

Finally, Bedford's utility is one of two that had high voltage transmission lines to maintain. It had 29 miles of such lines while the other utility had 16. The skills and equipment required to maintain transmission lines are different from those required for lower voltage distribution lines.

Bedford's much larger service territory along with its relatively large number of lines and transformers to maintain indicate that it would likely require significantly more resources to effectively maintain Bedford's utility system compared to the other systems surveyed. Though unsurprising, this is the first important conclusion from the survey results and analysis.

The number of employees, 16, that Bedford had to maintain its electric system appear modest compared to the work to be accomplished and relative to the number of employees at the other systems. Bedford's utility operated with about the same number or significantly fewer employees than the other systems. One system with fewer employees, 13, had its right-of-way

tasks contracted out. If these services had not been contracted out it would require at least two additional part-time or full-time employees. The other utility with fewer employees, 15, reported that its staffing level was two employees less than usual in 2013. The other two systems reported 18 and 26 employees each.

Two systems reported seven power line employees each (both supervisory and non-supervisory employees). Bedford had 8 while the two systems with more than Bedford reported ten and eleven employees. One of the utilities that reported seven employees noted that it usually had at least one more power line employee.

Bedford's utility, with its sizable service territory, had three right-of-way employees compared to two and five each for the two other utilities that provided this information.

The second major conclusion is that with approximately the same number or fewer employees than other systems, Bedford's electric system served about the same or significantly more customers and maintained significantly more distribution facilities over a much wider service territory.

These results are reflected and supported in the performance indicators calculated from the survey; only one other system served more customers per employee than Bedford: 562 customers versus 407 customers. Additionally, one system served more retail customers per power line employee than Bedford: 1,044 customers versus 815 customers, while two others served slightly fewer than Bedford.

Though these indicators are favorable for Bedford, they do not reflect the much greater distances that have to be traveled by Bedford's employees to serve customers and maintain facilities. This fact is reflected in the number of customers per mile of distribution system: there were only 19 customers per mile on Bedford's system, which was about 70 percent less than for three comparable systems and nine percent less than the fourth.

The number of distribution miles per line employee, 42, at Bedford was 45 percent more than the next highest system at 29 miles per employee. Similarly, while only three systems provided information on the number of distribution transformers, Bedford, at 403 transformers per employee, maintained four times as many as one system and two and half times more than another.

Bedford's "right-of-way" employees maintained 91 miles of overhead distribution line per employee. The two other utilities that provided information maintained 16 and 85 miles, respectively. The system that reported 85 miles per employee said that it typically had one additional right-of-way employee than it reported. If this additional person were included in the calculation of the number of miles per employee, the ratio would fall to 57 miles per employee.

It is worth noting that Bedford's Electric Department also performed several non-utility tasks for the town as did the electric departments in the communities of the other utilities surveyed. Crews trim trees in places the town is responsible for maintaining but do not have power lines. Also, crews put up and take down holiday decorations and hang banners to advertise special town events. The amount of time electricity crews in the communities surveyed devoted to these non-electric system task are rough estimates, but four out of the five communities, including Bedford, reported between 100 and 140 days were devoted to such activities in 2013.

In summary, staffing and other information from the survey indicates that the productivity of employees at Bedford's electric system is in general as high as or higher than the other systems surveyed.

Financial Performance: The indicators on *non-power supply expense per customer* and *non-power supply expense per distribution mile* were used to compare the relative costs of providing for and maintaining the electric distribution systems in the five communities surveyed. (Recall

the discussion above that “non-power supply expense” is used as an estimate of distribution expense.) Bedford ranks favorably in both measures. However, each indicator doesn’t “speak for itself;” it must be interpreted with other indicators and noted that there are inherent limitations in the use of ratio measures.

Non-power supply expense per customer ranged from \$238 to \$420 with Bedford falling in the middle at \$366. Important factors that are not reflected in this indicator are: square miles of service territory, miles of distribution lines, and number of transformers. When considering these factors, the \$366 for Bedford compares quite favorably with the other systems and would likely put it at or near the bottom of costs per customer served.³

Bedford’s non-power supply expense per distribution mile, at \$7,113, was the lowest among the surveyed systems. It was almost forty percent less than next lowest system and almost half the expense of the third lowest system. The two highest systems had costs per mile three and four times greater than Bedford’s. Though this indicator reflects very favorably on Bedford’s cost performance, it is likely this indicator does not reflect other important factors. Most important is the fact that Bedford had significantly more distribution miles than the other utilities which consequently lowers the average expense per mile.

This indicator would be more reliable if the miles served by the five systems were more homogeneous. The fact that they are not and that Bedford’s system has significantly more distribution miles exaggerates the apparent cost efficiency.⁴ Nevertheless, the indicator is useful in that it shows that Bedford ranks where it would be expected given its significantly

³ Many more electric systems would be needed to perform such an analysis (using multiple regression or other statistical techniques) that produced reliable results.

⁴ The additional costs of distribution lines and serving customers outside a core area, other things being equal, increase total costs, but they do not do so in a linear way. The extra cost of a mile of line and of service to an additional customer are usually less than the average cost of serving the core geographic area to which they are added. Consequently, this is why significant differences in the number of miles produce large differences in distribution expenses per mile (average distribution cost per mile).

greater miles of distribution lines. It also adds credence to the interpretation of the above indicator such that there are no apparent inconsistencies.

When taken together and despite some limitations, these indicators provide reliable evidence that the expenses for operating and maintaining Bedford's electric distribution system are very reasonable and likely the lowest of the systems surveyed, especially considering the environmental contexts in which these utilities provide service.

Energy Losses: As mentioned, maintaining rights-of-way is important because it reduces energy losses and contributes to higher reliability of service. There are several factors that contribute to losses; one particularly relevant to Bedford is miles of distribution lines. Some losses due to the miles of line are not preventable. There are normal or expected amounts of loss due to the physics of electricity flowing through distribution lines. However, losses also accrue from trees and related obstacles that impede or damage power lines and from insufficient maintenance of distribution equipment.

Energy losses for Bedford were higher than most other utilities. Typically, reported losses are in the 3-4 percent range. Losses of just two or three percentage points more than what is regarded as normal can be costly. Though the data in Figure 14 above are only for a single year, the loss percentage for Bedford was high enough, at 5.7 percent, to warrant further investigation. Consequently, publicly available data on losses for Bedford and other Virginia municipal electric systems was collected for 2008 through 2012. (The latest data available was for 2012.)

This additional data showed that losses ranged from 1 percent to 18 percent. For the middle fifty percent of the 68 observations, losses ranged from 3.5 to 7.0 percent. For Bedford, however, losses were 10 percent or more for each of the same five years. Of the eleven highest loss percentages over the period, Bedford accounted for almost half of them.

In contrast the only surveyed system that systematically tracked reliability had the lowest loss percentage of all the systems surveyed and one of the lowest loss percentages of all municipal electric systems in Virginia. Its loss percentages over the period ranged from 2.3 to 4.4 percent. For four of the five years the percentage was 3.8 percent or less. It is also notable that this system stated that it gave a high priority to assigning sufficient resources for right-of-way maintenance.

In 2013 Bedford's energy loss percentage dropped by almost half from the previous five years, indicating that effective steps were being taken to reduce losses.

The financial significance of minimizing energy losses is reflected in a simple calculation of the energy cost of purchased power times the amount of kilowatt-hour losses. In 2013 Bedford reported energy losses were 13,238 MWh, or 5.7 percent of its total energy sources. Assuming a purchased power cost of \$.06 per KWh, a one percent reduction in losses would have saved over \$140,000.⁵

These calculations suggest that the cost of energy losses during the previous five years may have been more than more than \$700,000 dollars per year. The magnitude of the potential savings is large enough to warrant further, in-depth investigation of the causes of these high energy losses and consideration of devoting more resources to preventing them.

The initial investigation can be done at relatively low cost and with in-house resources. The first step would be to identify as clearly as possible the reason or reasons for the dramatic reduction in losses in 2013, and then continue to reinforce the factors or practices that brought about that reduction. Another option is to assess whether there is adequate maintenance of right-of-ways and whether there are adequate resources for the task, primarily employees, to do preventive maintenance that would reduce losses. Finally, other Virginia municipal electric systems with low loss percentages should be identified and asked if supervisors from Bedford's

⁵ Bedford had total energy supply of 238,618 MWh from all sources in the year 2013.

power line crews could visit the utilities to learn how they manage to keep energy losses relatively low.

RELIABILITY: Only one utility provided information that could be used to assess the reliability of the electric distribution systems. But the information it reported and conversations with the utility demonstrate the benefits of systematically and continually tracking outages.

Standard measures of distribution system reliability focus on the frequency of outages per customer and their duration. The utility with the tracking system reported 83 outages for 2012 and 62 for 2013. In 2013 it had, on average, only one in four of its customers experience an outage. This compares very favorably with the industry standard of 1.0 outage per customer.⁶ Furthermore, in terms of the duration of outages for customers who experienced them, on average they lasted about five minutes (This is an average: some customers' outages were longer and some shorter). It is noteworthy that this average is far below averages reported for other publicly owned and operated municipal utilities in the United States.⁷

This utility also reported, as noted above, that it gives a high priority to maintaining rights-of-way. The combination of conscientious maintenance of rights-of-way and an effective reliability tracking system are likely major reasons why the energy losses for this system have been among the lowest for municipal utilities in Virginia. In two of the five years from 2008 through 2012 it reported the lowest percent of losses of the fifteen municipal electric systems in Virginia. For the other years it was amongst the three or four lowest utilities. In five of the six years from 2008 through 2013 its loss percentage did not exceed 3.8 percent; In 2012 it was 4.4 percent and then fell to 3.3 percent in 2013.

Bedford's Electric Department significantly reduced energy losses in 2013 and is currently implementing a reliability tracking system which would assist efforts to further reduce losses.

⁶ See "Austin Energy Records Fewest Power Outages in its History," Transmission and Distribution World, <http://tdworld.com/smart-energy-consumer/austin-energy-records-fewest-power-outages-its-history>

⁷ See *Evaluation of Data Submitted in APPA's 2011 Distribution System Reliability & Operations Survey*, American Public Power Association, 2012, Washington, DC.

Given the potential cost savings from minimizing losses, implementation of the tracking system should be given high priority.

CHAPTER 3 INTERVIEW RESULTS

Town Council Interview Results

We began this project with brief interviews with 4 members of the Town Council. In this project we viewed our “client” as the Town Manager. However, we viewed the Town Council as the “Ultimate Client” for the study since any significant recommendations that emerged from the project would need the approval of the Council. Since we were not able to interview all the members we cannot conclude that the sample we have was representative of the views of the entire Council. The key question we posed to the members to determine their hopes for this assessment project was to ask members to complete this question. “I will consider this project to be a success if.....”

The responses to this question clearly focused on two aspects of utility performance – financial success and efficiency of operations including utilization of employees. The responses were:

- “we address personnel and operations, show how we can save money, and show how we can improve profit.”
- “we clarify what is working and what is not working”
- “we can learn how to make more money and operate the utility more efficiently”
- “we find out that it is functioning to the maximum and that all people are fully utilized”

In addition members of the council raised issues regarding the cost effectiveness and operation of the hydro plant; failure of the utility to pursue renewable energy tax credits; the culture of the department in relation to other Town Departments; the “surprise” congestion charge; and issues among staff with regard to whether all people were “carrying their load” and “putting in a full day’s work.” We were surprised that no member of the Council mentioned customers since the utility exists to serve the citizens of Bedford. When we probed that issue we were basically told that there was not an issue with respect to customer satisfaction. The only issues raised were occasional observations by customers of crews at work and questions about whether they were putting in a full day’s work.

Following a discussion with the Town Manager we defined the scope of the project to include all of the issues above with the exception of the congestion charge issue and the issue of renewable tax credits. We made some efforts to explore the issue of the cost effectiveness of

the Hydro Plant but we were not able within our project scope to obtain solid answers to the issue raised by the Council. The Utility Department Engineer is working with the contractor on improvements to the hydro plant and we would suggest referring questions on the viability of the plant to him.

Department Head Interview Results

Prior to the interviews with the Electric Department staff we conducted in-person individual interviews with the Department Heads of Finance, Police and Public Works. These were the departments suggested by the Town Manager as having the most direct contact with the Electric Department.

We asked the Department Heads to comment on how the Electric Department is viewed by the citizens of Bedford. The most general comment was “Many citizens don’t like government, but when the lights are on they are happy.” One person mentioned that a few citizens see the electric department as the “Taj Mahal” – an apparent reference to the renovated building that the department occupies. Another comment mentioned that some citizens feel that the department views itself as better than other government departments because they are an enterprise fund that provides money to the General Fund.

However, from these interviews, we drew the conclusion that as with the Council – citizens are basically happy with the electric department because they keep the lights on and respond quickly and effectively when outages occur. In addition the electric rates are somewhat lower than those of surrounding jurisdictions. Department heads reported that their view of customer perceptions of the utility was:

- “they are better than other places I have lived”
- “they are very good at responding to outages and responding to emergencies”
- “I have never seen an outage of more than 1-2 hours”
- “Overall they do a good job”

We then shifted the focus to how the Electric Department is viewed by other departments in the Town. There were some varied responses to this question: Examples were:

- They are usually cooperative
- In dealings with other departments they sometimes try to get what they want by pointing out that their mission is very important. This can cause other departments to see them as bullies and as arrogant.

- A city owned electric department is an asset for the Town. For companies in the Town the department can work with the customer with regards to rates and service to create value for the business and the Town.
- The Department and Town do not do a good job of public relations in explaining the benefits of a municipal utility to the citizens of Bedford.

Staff Interview Results

Individual, in-person structured interviews were held with each member of the Electric Department Staff. The interview form is included in Appendix A. The interview included four sections. Section 1 reviewed the tasks in the incumbent's job description. The purpose of this section was to develop a list of tasks that defined the total job. This list of tasks then served as the basis for a job analysis survey that will be discussed in Chapter 4.

Section 2 of the interview consisted of 2 sets of questions which were presented as rating scales. The first set of questions focused on the leadership of the Electric Department. Essentially, this became a rating of the leadership style of A.J. Fairchild who is the "default" leader of the Department even though his job description is that of a Line Superintendent. The leadership instrument used included a scale of "Forceful Leadership Dimensions" and "Enabling Leadership Dimensions". Successful leaders must utilize both leadership styles depending on the context and issue at hand. Each item was rated in terms of whether their leader used this dimension "not enough", "the right amount", or "too much."

The second set of questions in Section 2 of the interview dealt with the staff member's perceptions of the organizational climate of the Electric Department. This section consisted of 9 items which were rated on a 7-point rating scale which ranged from 1 – the characteristic does not exist in the climate of the Electric Department to 7 – the characteristic exists to a great extent.

Section 3 of the interview consisted of three open-ended questions that asked respondents to comment on three issues:

- What could be done to make me more effective on my job
- What could be done to increase my commitment to the job
- What changes do you hope will result from this assessment?

This chapter presents the results of the climate ratings and the responses to the open-ended questions listed above. The results of the leadership items were considered to be confidential and were discussed with Mr. Fairchild in a private feedback setting. He reacted positively to the

feedback and indicated an interest in acting to take actions based on the feedback to improve his leadership performance.

Electric Department Climate Rating Results

Figures 3.1 and 3.2 present a summary of the staff ratings of the Organization Climate of the Electric Department. In rating these dimensions the staff were asked to think about the Department as a whole in making their rating rather than their particular function or work group.

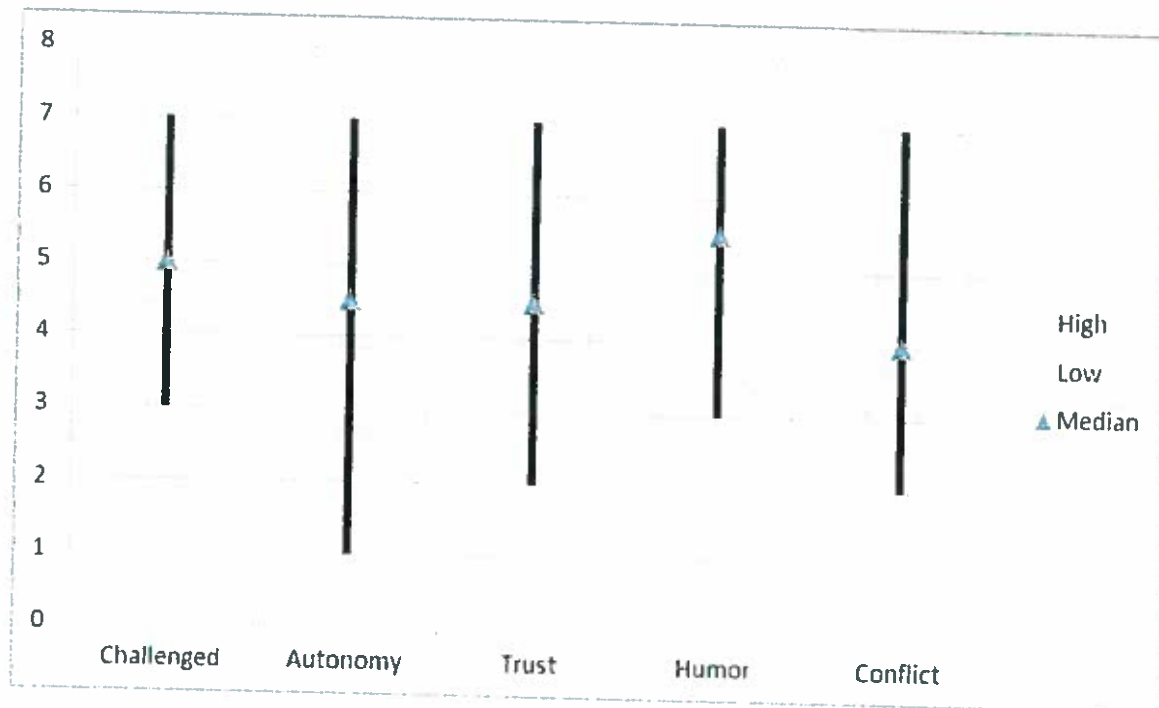


Figure 3-1 Electric Department Climate Ratings –Items 1-5

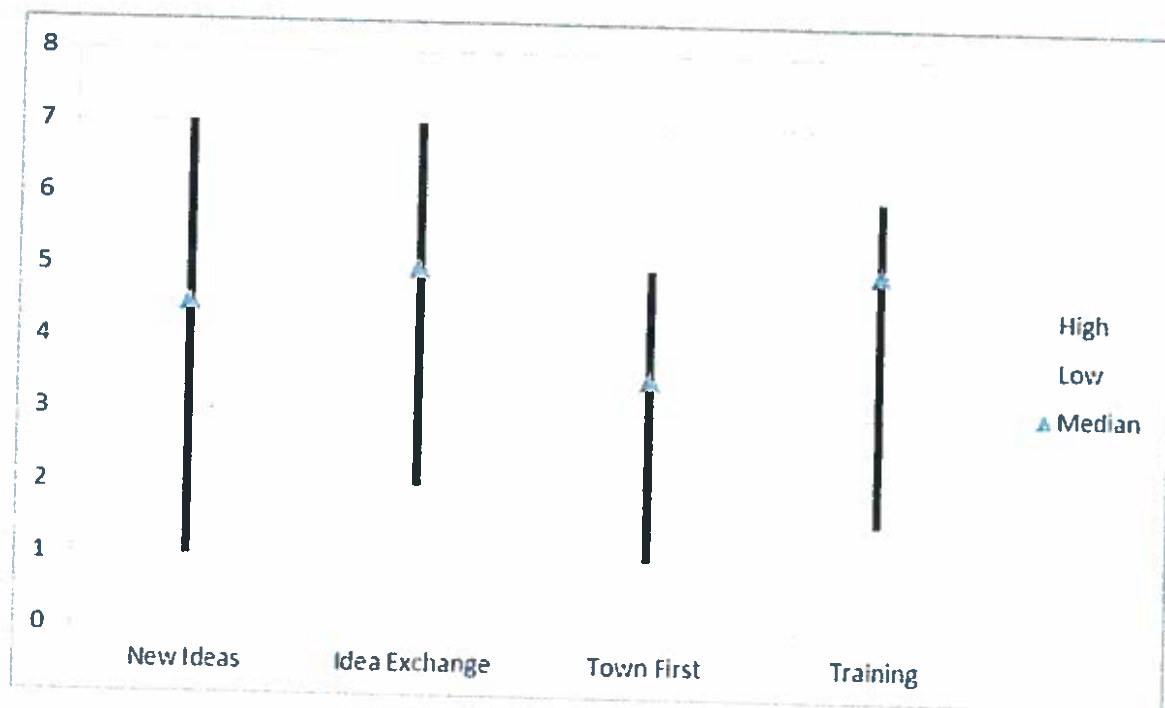


Figure 3-2 Electric Department Climate Ratings –Items 6-9

Each of the vertical lines depicts the range (distance between the highest and lowest ratings) of the staff ratings on the 7 point rating scale of the extent to which the climate attribute is present in the Electric Department. The climate item full definitions are shown in Table 3 below. The arrow point in the center of the lines depicts the median (mid-point) of the ratings. While there is some variability in medians across the nine dimensions the most striking finding from the climate ratings is the variability shown by the range of the ratings. From these ratings we can conclude that people in the Electric Department live in “different worlds” depending on their role and location.

One way to deal with the variability is to disaggregate the data into subgroups. Given the fact that we are only dealing with 15 individuals, the most logical sub-grouping is to form groups based on work location. This led to an analysis of those who are largely located in the “office” vs. those who work primarily in the “field”. This analysis is shown in Table 3-1. Overall there are relatively few major differences in the medians between the two sets of ratings. Variability, indicated by the range, is almost identical for the two groups. Only two items displayed a meaningful difference between the two groups. One is item 2 – “the degree of freedom and autonomy to plan and schedule work”. Field staff rate this relatively low – 3 on a 7 point scale while office staff rate it a 6 on a 7 point scale. The field staff particularly the linemen and right of way technicians (tree trimmers) typically do not know from one day to the next where they will be assigned to work. They arrive in the morning and in their morning meeting they receive

their work assignments. On the other hand, office staff have much more latitude in planning and scheduling their work. Several of them report viewing their job as essentially working alone – they know what they need to do and they do it with little direct supervision.

Table 3-1 Analysis of Climate Ratings By Work Location – Field Vs. Office

Climate Dimension	Field Staff Ratings		Office Staff Ratings	
	Median	Range	Median	Range
1. The degree to which employees are fully engaged and challenged in their work.	5	4	5	4
2. The degree of freedom and autonomy to plan and schedule work.	3	6	6	6
3. The degree of trust and openness among co-workers.	5	5	3.5	5
4. The degree of good natured humor and playfulness among co-workers.	6	4	5	4
5. The degree of personal and emotional conflicts in the workplace.	4	3	4	3
6. The degree to which new ideas are welcomed and supported.	4	5	5	5
7. The degree to which differing ideas and opinions are exchanged, debated and encouraged.	5	3	5	3
8. The degree to which all co-workers are made to feel that we are employees of the Town first and the electric department second.	4	4	3	4
9. The degree to which employees get the required training to keep their job skills current.	3	4.5	5	4.5

Within the field staff there are differences between the two line crews in terms of their perceived degree of freedom to plan and schedule work. One line crew reports having more freedom than the other line crew. Further analysis of this difference suggests that the two line crews are managed quite differently. When we probed the issue of why the crews were not given more latitude to plan and schedule their work we were told that the reason is that if someone was told in advance where they were being assigned to work in a particular area and if they did not want to go there they would call in sick. As a result, crews are not given any advance notice of where they will be assigned until they come to work in the morning.

Item number 3 – the degree of trust and openness among co-workers- was rated somewhat higher by field staff than by office staff. Each respondent was asked to think about the entire

department when making their rating however the line crews tended to focus on their own work group. Typically line crews reported having high trust within their own crew but much lower trust of the other crew. The ratings by office staff reflected what they perceive as a lack of trust between the two crews. Also, since many of the office staff work independently they do not have as close personal relationships as do crews where their life and death depend on each other's performance within a given crew.

The other area where there was a relatively large difference between the two groups was item nine which referred to their ability to get the required training to keep their job skills current. It appears that new people get the training required. However, after that initial training there is relatively little opportunity for additional training.

As individual employees responded to the culture survey items they had the opportunity to comment further on the rationale behind their ratings. A content analysis of these comments revealed two persistent themes that reflect attributes of the Electric Department culture.

These themes and some quotes which illustrate the themes are shown in Table 3.2 below.

Themes	Sample Comments from Interviews
Different Rules for Different People	<p>My crew is very good – trust is high; the other crew has low trust and openness. We don't follow the same standards and rules.</p> <p>...Assure that the rules apply to everyone, not just certain ones.</p> <p>.. there is a different set of rules for every crew</p> <p>Some people are pushed too hard and others are not pushed – there is favoritism.</p>
Lack of openness to new ideas	<p>... leaders are not receptive to suggestions</p> <p>... suggestions are not well taken in this town</p> <p>..they listen but it goes in one ear and out the other</p> <p>...will not listen to ideas regarding streamlining work but will listen better to ideas regarding how to do the job</p> <p>.. no one wants to change</p>

CHAPTER 4 JOB ANALYSIS RESULTS

At the beginning of the project, we asked for and received the formal job descriptions for each of the positions in the Electric Department. Based on these descriptions we compiled a list of tasks that each individual performs in their job. In our individual interviews we reviewed this task list with each job incumbent and made revisions as the individual reviewed the task list and noted changes, deletions and omissions. Based on this discussion of the tasks we created revised task lists for each position. These task lists by job title are shown in Appendix 2.

Following the interviews, the consultants created a task inventory that was presented to each staff member to complete. This task inventory presented the list of tasks and the two rating scales shown in Figure 4-1. Each staff member was asked to rate each task in terms of the relative time they spend on the task in relation to all the tasks they perform (e.g. much less to much more) and to rate the relative "difficulty" of the task . Difficulty was defined in the rating instructions as how much knowledge and skill it requires, how long it takes to learn to perform the task safely and efficiently and how much physical dexterity it demands in the conditions under which it is performed. The rating scales are shown in Figure 4-1.

Time Spent Rating Scale	Difficulty Rating Scale
Compared to the average amount of time that I spend on my job tasks I spend ____% on this one.	Compared to the average difficulty of the tasks that I perform the difficulty of this task is ____?
1 = much less time	1= much less difficult
2=less time	2= less difficult
3= about the same time	3= about the same
4= more time	4= more difficult
5= much more time	5= much more difficult

Figure 4-1 Job Analysis Rating Scales

Utilization Index

Based on these ratings we calculated a utilization index for each person that was based on the correlation between the ratings of time spent and difficulty across all of the tasks performed. The rationale for this index was that it is desirable organizationally and personally for the individual to be spending a significant amount of their paid work time on tasks that are difficult

and challenging. Organizationally this is important in that we want to allocate resources wisely so we would like to use our staff's paid work hours to accomplish significant tasks rather than simple, easy to perform tasks. From the individual staff member's perspective it provides a greater sense of accomplishment to perform tasks that demand one's knowledge and skills rather than more menial tasks.

The utilization index provides a very crude yardstick to measure how well our people are being assigned to tasks that make use of their abilities and that provide the Town with a good return on its investment in people. The index is by no means a perfect metric as it is based on rating data which is subject to a number of biases. If, we are willing to assume that individuals were conscientious as they made the ratings then the metric should be useful. The fact that both ratings come from the same individual builds in a correlation that tends to bias the results toward a more positive utilization percentage. At a minimum, the utilization percentage for an individual can lead them to question how their time is spent and possibly to have a discussion with their supervisor to see if the way they are spending time on their tasks is the most appropriate. It can provide an objective basis for such conversations.

What is a "good" utilization percentage? We do not believe that there will or should be a perfect correlation or utilization of 1.00. In any job if people only work on the most difficult tasks all day long they will probably experience "burn-out" which can impair judgment, safety and create too much stress. On the other hand if people spend none of their time on difficult tasks – a correlation of "0", then they are not likely to feel a sense of engagement or accomplishment and the organization will not get its money's worth from the people it is paying to do a job. So, we believe the optimum range for a utilization index would be between .40 and .70.

Individual Job Analysis Report


	Job Title		
	Time Spent	% time spent	Difficulty
 Listing of Tasks	3	0.04	4
	3	0.04	3
	3	0.04	4
	3	0.04	4
	4	0.06	4
	3	0.04	3
	4	0.06	5
	3	0.04	3
	3	0.04	3
Utilization		0.67	

Figure 4-2 Individual Job Analysis Report Format

Each staff member received an individual job analysis report that was presented in the format shown in Figure 4-2. On the left side was a listing of the tasks that comprised their job. The three columns displayed their rating of time spent, the derived index of % time spent and their rating of task difficulty. At the bottom of the page in Figure 4-2 is presented the utilization index which is the correlation coefficient computed between their time spent ratings and their difficulty ratings.

These job analysis reports were given to each staff member in the staff feedback sessions. We discussed briefly how they can be used to examine their job and examine their ratings and think about how they might improve the utilization index. Ideally, each individual would be able to have a discussion with their supervisor regarding the design of their job with the aim of creating a more appropriate relationship between the time spent and task difficulty.

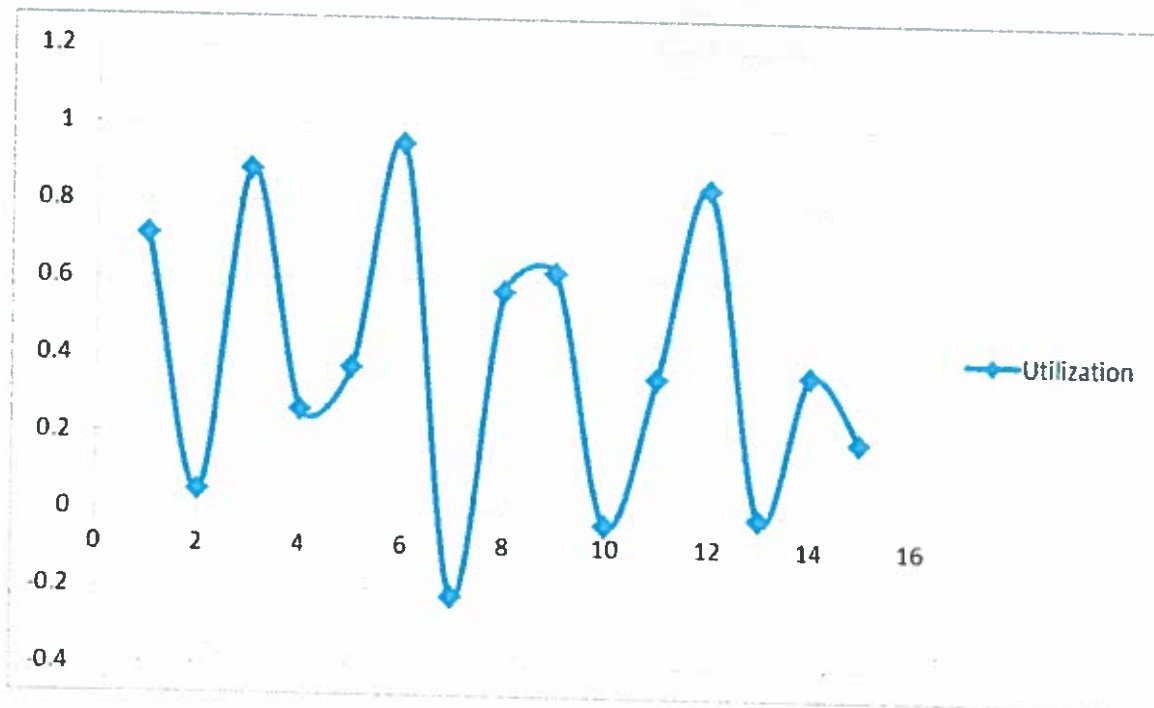


Figure 4-3 Plot of Utilization Index for Each Electric Department Staff Member

In addition to the use of the utilization indices at the individual level, we can also look at the utilization indices for the Department as a whole. Figure 4-3 shows a plot of the utilization index for each of the 15 staff of the Electric Department. If we accept the range from .40 to .70 as a desirable range what we find is that only two out of 15 staff fall within that range. If we expand the desirable range to be .35 to .75 then we have 6 out of 15 included.

Figure 4-4 plots the average utilization values calculated for the members of the three crews – 2 line crews and 1 right-of-way clearance crew. As you can see from this diagram, the crew utilization indices vary widely from a low of -.02 to .79. This supports the comments in Chapter 3 that some people may be pushed too hard e.g. the crew with utilization % of .79 (two members of that crew have utilization index of over .80). The crew with utilization index of -.02 raises a number of questions regarding what is going on here. One possibility is that they did not accurately complete the job analysis rating. Another possibility is that they are simply managed differently – they are not pushed as hard for example. We cannot say definitively from this analysis which is the case or whether it might be some of both. However, it raises questions that need to be investigated further. In Figure 4-4 each bubble represents one crew.

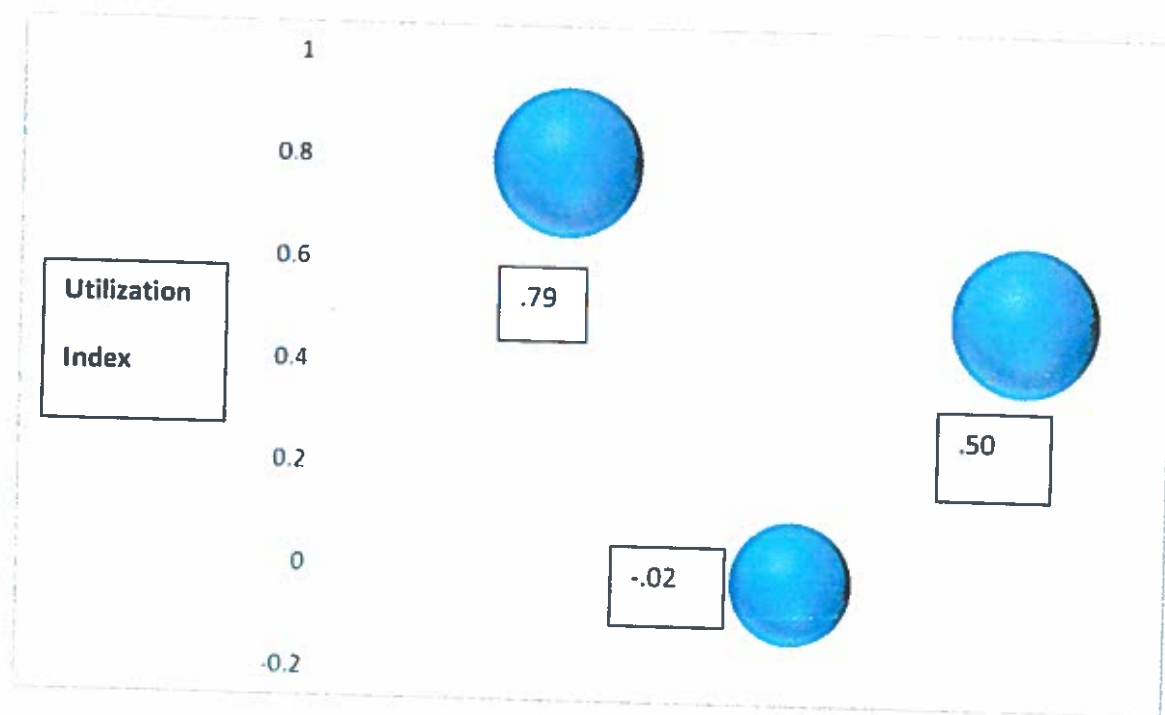


Figure 4-4 Average Utilization Index for Crews

Chapter 5 Recommendations From Staff

We stated at the beginning of this report that we adopted the approach of conducting this assessment “with” the staff of the Electric Department. A major way in which this occurred was that we summarized the data we collected through benchmarking, interviews and surveys into a presentation presented to staff. We delivered very candid feedback to the staff in two meetings, each comprised of approximately half of the Department. This was how we “held the mirror” up to the Staff and asked them to reflect on the data and then make recommendations regarding what needs to change in order to position the Electric Department for the future. The exact question that we asked each of these staff sub-groups to answer was:

What recommendations would you make for actions by the Town and the Electric Department to assure the future effective performance of the electric department?

We divided up the staff into two subgroups in order to obtain two independent sets of recommendations. This approach provides greater assurance that we have adequately captured the thinking of members of the Department regarding what needs to change. We also utilized a structured group process that forces consensus within the groups and that requires each individual to contribute their ideas. The detailed “blow by blow” procedure followed in these meeting is captured and displayed in Appendix C. Tables 4-1 and 4-2 below list the consensus recommendations that emerged from the two subgroups. Since the discussion method we used to arrive at consensus was a “convergent” discussion method there were initially many more ideas presented than we ended up with in the final group solution. In order to provide a sense of this convergent process we list under each recommendation the individual items that were merged to produce the final list of recommendations.

Staff Group 1 Recommendations

Table 4-1 presents the recommendation from Staff Group 1. Their first and strongest recommendation is to hire a qualified director for the Electric Department. This

recommendation resulted from a number of the points made during the feedback presentation. It seems clear to the staff group that the Department is suffering from a lack of effective Department wide leadership. This is not an indictment of A. J. Fairchild. AJ has worked very hard to try to take on the leadership role while continuing to act as the Line Superintendent. Most staff see clearly that it is not possible to handle both roles.

Recommendation 2 should be unnecessary since obtaining the OSHA mandated safety clothing and equipment should be a "given." However, that has not been the case.

Recommendation 3 reflects the staff view that the electric system has not received the degree of investment and modernization that is required to assure the level of performance that the citizens of Bedford expect. The staff point out more investment must be allocated to modernizing equipment as well as the physical electric system infrastructure.

Recommendation 4 is a call for better systems and processes in the Department. This would be a major focus on the new Director with respect to internal electric system improvement.

Recommendation 5 addresses the people management issues that were pointed out by our surveys, interviews and the job analysis results. Performance management is a key need of the Electric Department, another key focus for the new Director. However, it is very significant that members of the department recognize this need and want it to be addressed so that they can be a stronger Department.

Finally recommendation 6 is recognition that the resources currently devoted to right of way clearance are inadequate given the antiquated equipment utilized and the need for additional people to handle a service territory that is over twice as large as any of the benchmarking partners. Furthermore, vegetation interfering with electric lines is the single major cause of outages. If this is done, it would allow linemen to spend less time dealing with outages and more time upgrading the system.

Table 5-1 Summary of Recommendations – Staff Group 1

Final Rank	Original item No.	Item	*Vote
1	28	Hire a qualified director 2. Have effective electric department representation and advocacy at the Town Manager and Town Council level 22. Don't treat us like criminals	
2	18	Provide the training and safety gear that OSHA requires.	

3	27	<p>More electric department funds used to maintain and upgrade the system</p> <p>1. Fund capital projects 3. Better equipment and tools for the department. 5. More employees to get the job done. 19. Raise rates to fund capital projects. 26. Fund substation maintenance project (breakers, large post transformers).</p>	
4	30	<p>Systems to keep track of O&M efforts and results.</p> <p>14. Better pre-planning of work assignments (jobs) (e.g. customer connections and disconnect process; major projects, etc.) 16. Improve customer cutoff/reconnect procedures. 23. Keep up with outage information – build and maintain reliability tracking system. 24. Engineering study to assure efficient technology and operating system. 25. Install work order tracking system.</p>	
5	4	<p>Have proper evaluations of employees and corrective action to address needed improvements.</p> <p>7. Review salaries of other utilities. 8. Reassign code enforcement officer to Electric Department engineering (reallocate staff to create more field staff). 15. Promote from within. 17. Increase training/cross training. 20. Hold all staff (and council) accountable for their work. 21. Assure that new hires are qualified.</p>	
6	13	<p>Support right of way crew with equipment and manpower.</p> <p>29. Have right of way crews be paid for the work they do during outages (Hazardous duty pay).</p>	
		<p>* Group 1 arrived at consensus through discussion and did not need a second vote. So the voting results for the final recommendations are not presented.</p>	

Staff Group 2 Recommendations

Table 4-2 presents the recommendations that emerged from the discussion by Staff Group 2.

Table 5-2 Summary of Recommendations – Staff Group 2

Final Rank	Original item No.	Item	Vote*
1	21	<p>Increase communication and understanding of the electric department among all employees of the town and citizens of the Town.</p> <p>1. Communication and knowledge of the electric department city wide 2. Critics of ED need to see where our electric lines go and where we serve 5. Take the message to the city council and Department Heads</p>	7/35
2	22	<p>Improve morale and training of employees of the electric department.</p> <p>3. More money for employees 9. More training to do work more efficiently – training at all levels 14. Evaluate other departments. 15. Equal treatment of employees. 18. Involve employees in the solution of problems.</p>	7/25
3	16	<p>Concentrate on the problems that cause outages – increase tree trimming – have a revolving tree trimming plan</p>	7/15
4	10	<p>Raise electric rates and taxes to generate funds to modernize the system and increase reliability.</p> <p>19. Implement direct billing</p>	4/8
5	7	<p>Hire younger linemen.</p>	3/8

* The top number in the ratio presented refers to the number of people who voted for the item and the bottom number is the total number of points the item received. The most important item in individual staff member's secret ballot vote received a 5, next most a 4 and

so on. In group 2 there were 7 people. The ratio 7/35 means that all seven people voted for the item and that it received a total of 35 points.

The first recommendation from Group 2 is a plea for more effective advocacy in the community and within Town Government for the electric department. There are a number of issues embodied in this recommendation. First, it reflects a view that the Town Leadership does not really understand and appreciate what they do. They know that the Electric Department delivers significant contribution to the Town General Fund but the Department staff feel that they are taken for granted. They also feel that the system is being neglected in terms of investment and equipment. While this group did not explicitly call for hiring of an Electric Department manager, this recommendation represents a strong call for one of the roles of a qualified Department Manager and that is to represent the Department to external constituencies and keep the department informed regarding what is happening in the Town. In addition, the call is for more effective advocacy for the needs of the Department in the budget process.

Recommendation 2 is similar to Recommendation 5 made by Group 1. Underneath this recommendation is a view that the staff of the Department are not respected and appreciated for what they do.

Recommendation 3 is similar to Recommendation 6 made by Group 1. This recommendation recognizes that right-of-way maintenance is the most critical part of the effort to prevent line losses and outages and that this function needs additional resources and equipment.

Recommendation 4 represents a plea by the staff for increased investment in the electric system. They are painfully aware that the system is not being adequately maintained and that this neglect will be more costly in the future to repair and it will lead to customer dissatisfaction. Perhaps this group went "above their pay grade" to specify how to raise the revenue needed, but their intent is to strongly urge greater investment in the system.

Recommendation 5 is an effort to highlight the need to not only add more linemen but also to bring in younger people as linemen in the Department. The youngest lineman is 42 years old.

CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS

OUR CONCLUSIONS FROM THE DATA

1. When compared with its municipal utility peers in Virginia the Bedford Electric Department is at or above the median with respect to most traditional utility performance metrics. This level of performance is commendable given the differences in the organizational profile of Bedford. Bedford has a service territory that is roughly 6 times as large as its nearest peer, it has almost twice as many miles of overhead and underground lines and Bedford is one of only two peers that must maintain 69 Kv transmission lines which requires different skill, knowledge and equipment.
2. Our analysis suggests that additional staff and system investment are required. However more staff and new investments alone will not position the Bedford Electric Department to be successful for the future. To obtain the maximum benefit of any new investment in the Department, the Department needs a leader who respected in the municipal electric industry, who can gain respect in the Town and who will be respected by members of the Electric Department. Many of the issues we uncovered with respect to staff utilization, organizational climate, lack of innovation, questionable job design, out of date equipment and lack of organizational systems all point to the fact that the organization has lacked effective leadership for several years. The needs are quite clear. The Electric Department must have a General Manager who can focus and align the efforts of the entire staff on a vision of the Department for the future. The General Manager must be able to guide Town decision making with respect to acquiring cost effective power supply, must be a credible and effective leader for the Department, must be able to advocate effectively for the needs of the Department with Town Management and with the Town Council and must be a leader who will continue to assure that the Department remains focused on the current and emerging needs of customers. The Electric Department Manager should also be a key player on the Town's economic development team and position the utility as a key component in the Bedford value proposition that can promote the growth of the Town's residential, commercial and industrial base.
3. It is highly unlikely that Bedford will be able to maintain the current level of performance and customer satisfaction in the future unless significant effort is made to shift the maintenance focus of the department from corrective maintenance to preventive maintenance. There is a backlog of deferred maintenance that one staff member estimated to be five-years' worth.

The allocation of maintenance effort is also a concern. Modern maintenance philosophies call for a maintenance focus on both reliability and maintenance cost. This requires a utility to establish reliability-focused maintenance planning which assures that maintenance resources are allocated to those assets whose failure has the most impact on the system and on customers. It also attempts to shift resources from corrective maintenance to preventive maintenance and where justified to predictive maintenance – that is monitoring critical components with technologies such as infra-red detectors, vibration sensors, etc.

Currently our best estimate is that the line crews spend approximately 60% of their effort on corrective maintenance – fixing things that are broken or responding to emergencies- and 40% on preventive maintenance. The right-of-way clearance crews spend approximately 25 % of their effort on corrective maintenance and 75% on preventive work. It appears from our analysis that this allocation of right-of –way clearance effort needs to shift further to prevention. The data on power loss reduction shows that Bedford has made progress however the losses are still not in line with industry best practices. Given Bedford's large system footprint and the amount of vegetation that is around power lines both additional people and additional equipment for trimming will be required to prevent outages and reduce power losses. Our rough calculations are that power losses could cost Bedford between \$200,000 and \$300,000 per year.

Part of the reason that electric line crews spend so much time on corrective maintenance is that the right of way crews are not able to keep up with the growth of vegetation. If more resources are devoted to right-of-way clearance there will be fewer outages and reduced losses and line crews will have more time to devote to preventive and predictive maintenance.

4. The Department is unable to measure and systematically track a "core" parameter of modern electric systems. That is system reliability – the number, duration and severity of outages. It is difficult to mount a systematic preventive maintenance system without solid data on the frequency and causes of outages. The Department has made efforts in the past year to remedy this situation and there are some manual tracking initiatives that have helped guide some maintenance efforts that have paid off in terms of reduced losses and outages. However, the lack of an automated outage tracking system is a serious handicap to the Departments effort to create a systematic reliability improvement effort.

5. After some initial skepticism, the staff of the electric system responded positively and constructively to the effort to involve them in the process of the assessment. We believe their recommendations reflect a sincere desire to see the Department improve and to be engaged in helping to make that happen. Their recommendations were for the most part consistent with our findings and conclusions.

6. The staff of the electric department feel that their efforts to deliver reliable and cost competitive electric service to the citizens of Bedford and to generate significant revenue for the Town budget are not recognized and not appreciated. Evidence of this is that following this recently completed election one of the newly elected members of the Council made it a point to visit the Electric Department offices and interact with members of the staff. This Council person asked questions and listened attentively to the thoughts of the staff. This visit made such a significant impression on the staff and was very much appreciated because it is such a rare event. However, when they do hear from the Town Leaders is usually because of something negative. Such opportunities to interact with the leadership of the Town in positive ways have not happened often in recent years. As a result the belief of the staff has been that the Town Leadership simply wants to "milk" the Electric Department for its profit to the Town without taking an interest in learning about the system and showing a willingness to invest in improving the organization. Our data indicates that when asked if Electric Department employees see themselves as employees of the Town first and the Electric Department second we tend to get a resounding "no way." In order to change that and cause the Department to improve its relationships with other departments and to align themselves more with the Town initiatives they need more positive communication and information from the Town Leaders, more interaction with them in positive situations and to develop a greater sense that that the Town Leaders and citizens respect them and their work.

7. Our data highlighted a number of other areas in the area of human capital management that are in need of improvement. These include:

- the lack of a strategy and vision for the electric department;
- the need for improved departmental communication with respect to Electric Department specific strategy and performance issues as well as general information regarding issues in the Town (e.g. new subdivisions planned, new businesses moving in or expanding, rate increases, key events, initiatives being done by other departments that would provide an opportunity for joint work or collaboration (e.g. when public works is doing work on underground utilities that will involve digging up portions of a street can the utility also upgrade underground lines in this area) etc.
- the need to review the utilization of a number of staff who our data suggests are not being fully utilized. The data we assembled regarding task analyses and the utilization indices will aid in that process.
- the need to implement a performance management system that clarifies individual performance expectations, that evaluates individual and crew performance, and that identifies training needs and addresses them. The staff have identified the lack of accountability systems as a need of the Department.

- the lack of trust that exists between line crews. This is a complex performance issue that limits flexibility in crew assignments and in willingness to work with someone from another crew on trouble calls at night. In part the issue results from personality differences, different history in the department and with other electric line work organizations, different performance standards and work procedures across crews, etc. Nevertheless, the existence of this lack of trust is a key factor in crew utilization, work assignment flexibility and it increases costs for the Department.
- the lack of a culture that supports and values innovation.

8. The Electric Department line staff is aging. The youngest lineman is 42. The Department has two crews of three linemen each. Until recently, one of the crews had only two people working due to the fact that one lineman was on disability. For safety reasons a "two person" crew was limited in the type of work it can be assigned to do since a bucket crew must have one person in the bucket, another on the ground who can assist the person in the bucket in an emergency and who can do other tasks to support the person in the bucket, and a third person to protect the crew from traffic. This, in part, explains why there was a perception that some people are pushed too hard and others are not pushed enough. In addition, having only five linemen available for emergency calls at night meant that a lineman will be on call for a week every fifth week. Since many if not most emergency crew actions require at least two people this meant that the on-call person had to get a person who was not on-call out of bed to work with him. Because some linemen are unwilling to work with other linemen this further complicates the staffing challenge. As a result some linemen were on call much more than one-week out of 5.

OUR RECOMMENDATIONS

1. Conduct a National Search to Hire a General Manager for the Electric Department

Many, if not most of the opportunities for improvement that we identified in this assessment can be traced to a lack of effective leadership for the Electric Department as a whole. The Line Superintendent has worked very hard to fill the leadership gap. He has through his considerable effort held the organization together and had some success in terms of beginning to implement a reliability tracking system and reducing line losses which have saved the Department a considerable amount of money. Our data suggests that even when there was a General Manager who also had responsibility for the Public Works Department that there were still leadership issues in the Electric Department.

In our view, Bedford must conduct a national search for a General Manager who is from the Electric Utility Industry, preferably the public power industry, and is knowledgeable regarding

the current state of the electric utility industry. One staff member described the role of this General Manager as a leader who would "...work with budgets, supervise the people, set the direction for the future of the department, design and assign tasks, allocate resources correctly, get the right people, develop people and obtain the equipment we need to get the job done." To this we would add that the GM should represent the Town in its relationships with industry groups, (e.g. Blue Ridge Power Authority, Virginia industry groups, AMP-Ohio, and the American Public Power Association) and be a key participant with the Council and Town Manager in local and regional economic development initiatives. The individual needs to be credible to employees at all levels as well as the Council, Department Heads, and customers of the Electric Department - commercial, industrial and residential.

We believe that the recommendations below also help define the agenda for this individual. Few of the recommendations below can be effectively implemented without an effective leader in the General Manager position.

2. Take Corrective Action to Reduce Energy Losses Which Are Costing the Utility Approximately \$140,000 for each 1% of Energy Loss

For the five year period prior to 2013, Bedford's power losses were 10% or more. At today's energy prices a 1% power loss represents approximately \$140,000. In 2013 the losses dropped to 5.7% which was a considerable improvement but still high by industry standards. The large service territory and the number of miles that energy must travel mean that losses will never be reduced to zero. However the two key factors that drive losses, other than vandalism or energy theft, are downed poles due to vegetation or accidents, vegetation contacting power lines and maintenance of the electric grid components.

We recommend that Bedford take a number of steps to reduce losses further. The steps we recommend are:

- 1) Identify as clearly as possible the reason or reasons for the dramatic reduction in losses in 2013 and then continue and reinforce the factors that brought about this reduction.
- 2) Provide needed equipment and staff to the right-of-way clearance crew. The current estimate from the Department leadership is that the Right-of-Way crew spends approximately 75% of its effort on preventive maintenance and 25% on corrective maintenance. This percentage should be increased to at least 90 % on prevention. This may require at a minimum a temporary increase in staff either through hiring or through contract in order to shift the balance of time spent on prevention. However, since vegetation growth is continuous, the needed increase in resources is likely to be permanent.

3) Bedford is currently implementing a reliability tracking system which is also a critical element in the effort to have the data required to guide system improvements that will increase reliability and reduce losses. This initiative should be given high priority and the resources required to accelerate its implementation. We recommend consideration of a full time or part time analyst to provide the expertise necessary to assure that this system is implemented successfully.

4) Our research has helped identify at least one Virginia utility that might serve as a benchmark for reduction of losses. This one and perhaps others that could be identified as having low losses should be contacted and asked if a benchmarking visit could be arranged. If so, Bedford supervisors from the line crew and the right-of way crew should visit to learn what they have done to keep their energy losses relatively low.

5) As members of the Blue Ridge Power Authority, Bedford should encourage this organization to establish a working group on control of power losses. This would enable Bedford employees to participate with other Blue Ridge members to share ideas, procedures and perhaps even technology that could be used to address this issue.

6) Bedford is currently implementing a reliability tracking system which is also a critical element in the effort to have the data required to guide system improvements that will increase reliability and reduce losses. This initiative should be given high priority and the resources required to accelerate its implementation. We recommend consideration of a full time or part time analyst to provide the expertise necessary to assure that this system is implemented successfully.

3. Enable The Town Council To Fulfill The Dual Role of Council Member and Board of Directors for the Electric Department

Leadership for the Electric System must not only come from the Electric Department itself but also from the Town Manager and from the Town Council. Public Power systems in the U.S. have one of two basic organizational structures. They are either Departments in the Town or City as in Bedford or they are set up as an independent or quasi-independent authority directed by a Utility Board of Directors.

In the Town Department model the Town Council is the de-facto Board of Directors. Therefore members of the Council have a dual role. In order to serve as the Board of Directors of the Utility it is necessary for the members of the Council to become more engaged in the direction of the utility. This requires them to become educated in the policy issues that are important for the utility, e.g. participate in Board education programs conducted by the American Public Power Association and other industry groups such as your power supply provider AMP-Ohio.

By assuming this Board of Directors role, Council members have an accountability function but also a stewardship and advocacy function. In our data gathering with employees, there is a desire for more informed conversation, more shared understanding and more interaction with both the Town Manager and the Council.

We recommend that the Council consider adopting this dual role as Board of Directors for the Utility. We further recommend that the Council build on the example set by one of the new members to conduct "listening" visits to the electric department facilities. In addition, employees of the department should be invited periodically to council sessions to make a short presentation on topics that are relevant, such as "what we did in 2013 to reduce power losses from 10% to 5.7%, progress in implementing the reliability tracking system, or predictive maintenance applications that are relevant for Bedford, etc. " Not only will this activity serve to help educate the Council, it will be a way of showing Council interest in the electric department and most importantly, it will stimulate innovation within the Department.

4. Develop And Implement a 3-5 Year Strategic Plan for the Electric Department And Utilize the Plan As The Basis For Developing and Justifying The Capital and Operations Budgets.

One of the first actions of the new GM should be to convene a strategic planning process that will be a very inclusive process engaging not only the Town employees, and electric department employees but also citizens and businesses. The goal is this process is to build a sense of community ownership of the Electric System as a community asset. In addition, the process is a way to identify the emerging concerns of the Electric Department's customers. This process should engage the staff, much as we have done in this assessment, to build consensus on the vision, values, and strategies that will move the Electric Department successfully into the future.

5. Conduct A Human Capital Requirements Analysis to Determine Needed Skill Requirements for the Electric Department

Our data has identified a number of "people" issues that are important for the future of the Electric Department. Therefore, we recommend that following the strategic planning effort that an analysis be carried out to determine the skills that will be needed to implement the strategy, the skills that the organization currently possesses or can develop in a short time and the gap between the two (i.e. the gap between skills needed and skills that we have). Then a plan should be implemented to close these gaps.

A key area of focus for the requirements analysis should be on linemen and succession planning for the line crews since the current linemen are aging. We believe, based on our benchmarking data regarding service territory in relation to staffing that a case can be made for additional linemen in the Bedford Electric Department. This case is further strengthened by the need to

upgrade training of staff, the need to engage staff in process improvement activities, etc. These activities require some “organizational slack” which Bedford does not currently have.

While we recognize the need for additional staff, we believe this requirements analysis and recommendation number 6 below should precede additional hiring of linemen. The Department needs to determine the skill requirements needed, whether the Department will institute an Apprentice program to develop new linemen or continue as has been done in the past to hire experienced linemen “off the street.” We recommend strong consideration of a “grow your own” approach to line worker staffing. However, consideration of this must be done in the context of a human capital requirements planning approach that is aligned with the future direction of the Electric Department.

6. Implement A Performance Management System To Improve Staff Utilization and Performance Accountability

Our analysis and recommendations from the Electric Department employees have pointed to a need for a performance management system that will focus on accountability and effective talent utilization within the Bedford Electric Department. This recommendation also must be done in a way that is aligned with the Strategic Plan which will result from Recommendation 4. Furthermore, the performance management system must be led by the General Manager.

Components of this system will include job design, clear performance expectations, periodic performance reviews, identification and removal of roadblocks to performance, identification of training needs, providing needed training. Our analysis suggests that currently the way jobs are designed are not utilizing the skills and talent of a number of staff especially some of the non-field staff. In the performance management system this should become the first priority in order to determine if there is a way to restructure the jobs in a way that can improve utilization and free up staff time that can be re-allocated to Department needs – for example accelerating development of the reliability tracking system.

7. Provide the Necessary Resources To Shift the Electric System Maintenance Approach From a Corrective Maintenance Focus to a Preventive and Predictive Maintenance Focus

The current estimate is that 60% of the line worker maintenance effort is spent on corrective maintenance and 40% on preventive maintenance. Over time, that ratio must be shifted to be at least 60% on prevention and 40% on corrective work. Ideally, it would be shifted even more to prevention. However, this dichotomy in current maintenance philosophy has been replaced by a three-pronged maintenance philosophy which includes corrective, preventive and predictive. Predictive maintenance is using various types of sensors to determine if a component is “about to fail” and replacing it before it fails. Predictive maintenance fits well

with our recommendation number 2 which focuses on reducing losses. Obviously if we wait until a component fails to replace it we will be incurring greater power losses than if we replaced it before it failed.

We strongly believe based on input from the line staff and as is reflected in the employee recommendations that if recommendation number 2 is fully adopted including the additional resources dedicated to right-of-way clearance that this in itself will help shift the work of linemen from corrective to preventive maintenance.

However, that alone will not be sufficient to move the approach. Additional line worker resources will be required. Once recommendations 4-6 are carried out, the Department will be better able to effectively take the actions needed to make the shift to more focus on prevention and predictive maintenance.

In the meantime, we recommend actions similar to those recommended in Recommendation 2. These are:

- 1) Benchmarking maintenance practices of other Electric Departments in Virginia, NC and AMP-Ohio members;

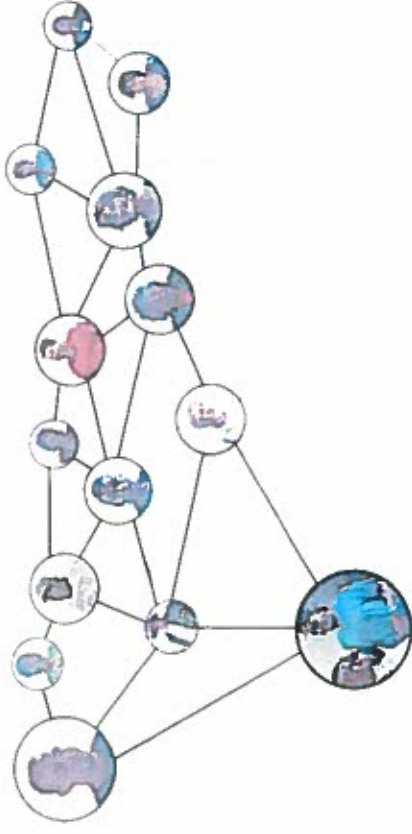
And

- 2) Forming a working group on predictive maintenance applications within the Blue Ridge or AMP-Ohio organizations.

APPENDIX VIII
Bond and Klaas: *Bedford Connections* (2014)

Bedford

Connections



Aaron Bond + Zach Klaas
University of Illinois at Urbana - Champaign
Department of Urban and Regional Planning
Spring 2014 Capstone
Advisor - Beverly Wilson

Foreword

Much of today's Urban Planning focuses on creating comprehensive or master plans that guide future development based on a unified vision for the community. Municipalities pour a tremendous amount of resources into community visioning processes, often hiring consultants to synthesize public input from workshops and focus groups into a community mission statement and identity. However, just as soon as these comprehensive documents are adopted, they are generally stowed away on a shelf as a reference that is seldom used by community members.

We recognize that small towns such as Bedford may not have the capacity to engage the public in large comprehensive planning processes nor the resources to carry out the grand development ideas resulting from comprehensive plans. All plans are subject to the vicissitudes of society, which can be hard to forecast in a rapidly changing world where national and global economies can heavily influence local development. Therefore, small towns with limited resources must make feasible and flexible plans that maximize their investment and allow for adaptations.

We also recognize that real communities are made up of multiple narratives, groups, and identities. For this reason, it is extremely difficult to generate one overarching vision for a place that reflects the needs and desires of all community members. However, the diversity in our communities is not a hindrance; in fact, it is what makes places interesting, vibrant, and abundant with opportunities. In order for our plans to be effective and beneficial, they must embrace the diverse visions and experiences of the different members of the community.

Bedford Connections is a model for fluid planning. Instead of creating large solutions, we wanted work with the community to design interventions that depend on the community's engagement and capacity. The project's interventions reflect the changing needs and desires of residents. Constructing these interventions, the community can develop areas of downtown iterations that allow for more resident engagement, feedback, and dialogue. Our hope is that the interventions become community projects that connect different residents and illustrate ways in which Bedford can continue to grow. We firmly believe that when residents are given agency in the planning and construction of their city or town, they become more active members and stewards of their community.

Table of Contents

Bedford Profile	4-5
Vision	6-11
The Process	12-13
Hear	14-37
Ideate	38-51
Create	52-73
Construct	74-79

Authored + Edited by: Aaron Arhoj Bond + Zachary Robert Klaas

The Town of Bedford is a community of nearly 6,500 residents in the rolling countryside beneath the Blue Ridge Mountains of South West Virginia. It is centrally located between the larger cities of Lynchburg and Roanoke, each only a 30-minute drive away. Health Care and Manufacturing are the largest employment sectors in Bedford. Though the Town has lost several significant manufacturing companies, it still is home to a number of manufacturers and has a 100-acre industrial park – the Bedford Center for Business.

Bedford has all the things of small town life – warm hospitality, neighborliness, deep family roots, picturesque natural setting, and architectural charm. Its Centertown is listed on the National Register of Historic Places and Virginia Main Street Communities. Several art studios, galleries, and restaurants in Centertown belong to the newly established Bedford Artisan Trail, an official part of the Artisan Center of Virginia's Artisan Trail Network.

Many tourists come to Bedford to visit the National D Day Memorial and spend time enjoying the nearby Smith Mountain Lake and Peaks of Otter.

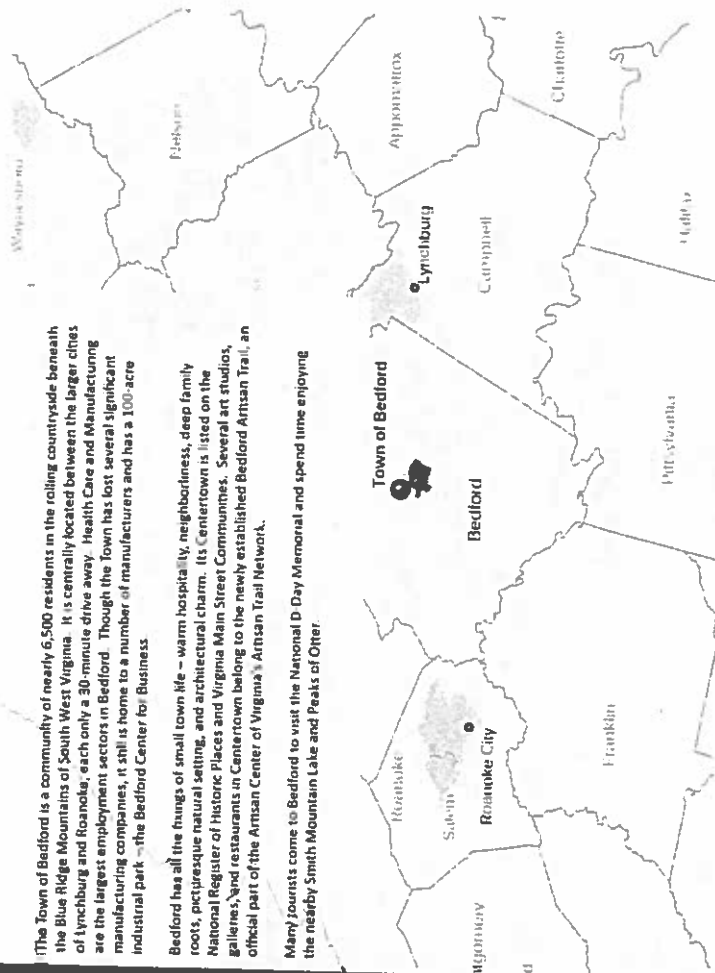


Table 1. Bedford Census Statistics

Median Age	Town of Bedford	Lynchburg Metro	Virginia
45	40	37	
Sex			
-Male	45%	48.0%	49.0%
-Female	55%	52.0%	51.0%
Race			
-White	76.0%	78.0%	70.0%
-Black	22.0%	17.6%	19.0%
-American Indian and Alaska Native	0.0%	0.4%	0.3%
-Asian	0.3%	1.3%	5.5%
-Native Hawaiian and Other Pacific Islander	0.1%	0.1%	0.1%
-Some Other Race Alone	0.1%	0.6%	2.3%
-Two or more races	1.5%	0.2%	2.8%
-Hispanic or Latino	1.7%	2.0%	7.8%
Education			
-High School Graduate or Equivalency	33.1%	32.4%	25.2%
-Bachelor's Degree	13.5%	14.7%	20.3%
Economy			
-Med. Household Income	\$35,863	\$45,953	\$63,636
-Unemployment Rate	5.6%	7.2%	6.3%
(Pop 20-60 years)			
-Population in Poverty	21.2%	15.3%	11.1%
-Households receiving SNAP*	20.2%	12.0%	8.4%
-Top Industries			
(Employing civilian population 15 years and over)			
1.	Health Care/Educ. Services/ Social Assistance	Health Care/Educ. Services/ Social Assistance	Health Care/Educ. Services/ Social Assistance
2.	Manufacturing	Manufacturing	Retail Trade
	22.4%	24.8%	21.2%
	16.4%	14.6%	10.9%

American Community Survey 5 Year AGDR, App 2 Estimates



Left: Jennifer Winters
Bedford Partners Market
August 6, 2013

Vision

Bedford Connections brings together Bedford residents around the goal of designing public space that exceptionally meet the needs of the community and provide a platform for continuous community exchange.

Our mission is threefold:

- Connect residents with each other, local government, and valuable assets Downtown.
- Empower residents to design and construct creative and relevant public space in Centertown.
- Encourage future community development centered around the needs and aspirations of Bedford residents.

The project is the result of multiple interviews and workshops with different town residents and stakeholders. While we encountered similar sentiments echoing through many of our conversations, we also heard a diversity of stories that conveyed different resident experiences and perceptions of the town. Based on the different narratives we heard and the ideas of residents who participated in our workshops, we designed feasible, small-scale interventions that could be constructed by community members. Collectively, these interventions will form a public space for continuous storytelling, idea sharing, and community engagement.

Why Bedford? Why Now?

On July 1, 2013, Bedford grew more in one day than it had over the last several decades. In accordance with a Voluntary Settlement between the City of Bedford and Bedford County, the City of Bedford reverted to a town in Bedford County. Before the reversion, Bedford had been an independent city since 1961. The reversion was only the beginning of a long list of changes spelled out in the intergovernmental agreement. Perhaps the most important of these changes was the extension of the previous City boundaries into three boundary adjustment areas.

As an independent City, Bedford could not annex any of the surrounding territory belonging to Bedford County. However, as a town within Bedford County, Bedford can finally expand its boundaries. Upon reversion, the Town of Bedford grew by 1.8 square miles, gaining several hundred new residents from the County. The settlement also allows for the Town to incorporate another 6 square miles of contiguous area over the course of the next ten years. With these boundary adjustments, the Town of Bedford will double the size of the old Bedford City boundaries pre-reversion.

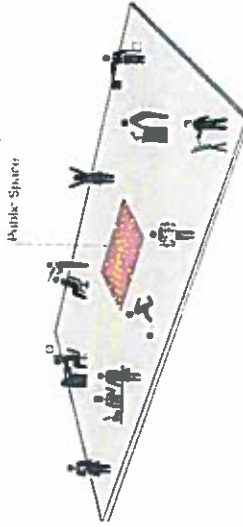
Even though the reversion will inevitably bring changes to Bedford, it did not receive the type of attention and community involvement we expected from such a large public decision. In fact very few residents attended the public hearings on the reversion and the few who did expressed concern over the obscurity of the Reversion Committee's decision-making process. Some residents were even disturbed by the lack of opportunity for public input in the drafting of the intergovernmental agreement. We felt that with a better understanding of the public's stories and visions, the new Town and County would be in a better position to collaboratively plan for a unified Bedford.

Why Bedford? Why Now?

The reversion and its subsequent changes mark a very pivotal moment in the history of Bedford. The Town of Bedford has a unique opportunity to renew its identity as a place and envision how it would like to develop in the future. As it enters into a new relationship with Bedford County, the town is tasked with balancing the needs of its residents and playing a key role in the economic and social vitality of the County.

Our project seeks to capitalize on this period of transition by providing opportunities for citizens of Bedford to engage in the physical development of their Downtown. Bedford Connections engages the community in assessing its own strengths and needs in order to design community-scale urban interventions in Centertown that illustrate the identity and aspirations of Bedford. By involving citizens in the design and construction of public space, we hope to increase connectivity between residents, neighborhoods, and valuable assets in Bedford. The relationships and collaboration spawned by the project will strengthen the foundation for the town's future planning initiatives. After all, Bedford's future can only be as bright as its relationships are strong.

The community interventions resulting from Bedford Connections will create a platform for community exchange and expression that connects residents with each other and local government. Through the process of Bedford Connections, citizens can begin to envision and develop Bedford to best serve and represent its community. Now is the prime time for Bedford's citizens to join in creating the town they desire!



Seeds of Inspiration

We drew inspiration from a number of different sources in order to tailor the process of our project. Both Ideo's Human-Centered Design Toolkit and Stanford's d.school's bootcamp bootleg were excellent resources showing how to implement design-thinking practices throughout the lifecycle of a community project. These resources gave us a framework for generating empathetic design. They are full of listening, brainstorming, and design activities that we used to craft our own



In order to get a better sense of asset based community projects happening on a small town scale, we referenced publications such as Small Town Sustainability written by Paul Knox and Heide Meyer, professors at Virginia Tech. These resources were helpful in highlighting ways of leveraging local assets to mobilize change in small towns and articulating challenges and issues that small towns face. They provided us case studies illustrating how local networks can successfully create innovative social and economic change in rural settings



Seeds of Inspiration

The design portion of the project focuses on mobilizing community groups to create vibrant public spaces which respond to community desires. The goal was not to design for the community; rather, it was to enable community members in helping to develop and design the future of their community. We referenced materials such as Tactical Urbanism, a guide which explains the process of creating small-scale urban projects that impact the surrounding context in a great way using a small budget. These projects allow local actors to test ideas within a real context without substantial infrastructure improvements or economic investment. They often transform vacant, underutilized, or obsolete spaces into active areas of everyday life. The physical transformation of these spaces can introduce a larger paradigm shift in the community and encourage residents to think creatively about their community's future.



We found numerous precedents for our project in the Better Block initiative, a movement which provides a means for communities to actively engage in the construction of public spaces. In different places across the nation, communities have recognized the need for improving their public space and mobilized to create change. Their interventions have taken different forms such as an informal crosswalk painted across a busy street by locals. Although a local government usually removes these spontaneous improvements, they more than often recognize the need which the improvements sought to address and sometimes go as far as adopting the improvements in an official plan. These creative small-scale urban interventions not only help respond to issues quickly, they also revive neglected urban areas.



The Process

Bedford Connections consists of a four-phase process -- **Hear**, **Ideate**, **Create**, and **Construct** -- for developing a vibrant public space Downtown. The process gives deliberate attention to the desires and experiences of the daily users of Bedford -- its residents. Each of the phases incorporates opportunities for residents to participate and collaborate with others.

First, in the **Hear** phase, we focused on listening to the different needs, aspirations, and stories of Bedford residents. The **Ideate** phase used the information collected in the **Hear** phase to determine the project's site and develop prototypes for the site's design. In the **Create** Phase, we elaborated on the ideas and prototypes of residents to create finished designs of community interventions for the project's site. The last phase, **Construct**, lies in the hands of residents and community partners that have expressed interest in the project. The **Construct** phase of this toolkit gives several considerations for implementing the project's community interventions. We have designed each of the community interventions so that they can be feasibly constructed with local resources and volunteer effort.



Fig. 1 Process Diagram



2013 Workshop
 Driver Center for the Arts
 August 10, 2013

HEAR

From August 4th to 12th, 2013, we performed a community assessment in Bedford to better understand and appreciate its history, people, and assets. During this time, we conducted interviews with a wide range of people. We spoke with long-time residents and newcomers; residents who use the Downtown and those who don't; business owners and passersby. In each of the interviews, we asked participants to share their experience living in Bedford. We relied on appreciative inquiry, focusing on ways in which Bedford is exciting and life-giving for people in order to discover residents' passions, hopes, and stories of their town. We found that people generally and genuinely wanted to tell their story. Whether residents expressed joy, hope, or disappointment, their stories and experience were intimately connected to the town and its community.

In addition to interviews, we hosted two community workshops at the Bedford Public Library where participants analyzed Bedford's Downtown, identifying prominent features. Through cognitive mapping exercises, residents illustrated their perceptions of different areas in town.

August 4 - 12	Community Interviews
August 20	Workshop
August 11	Workshop

Community Interviews



We asked residents:

How would you describe Bedford? What principles guide Bedford and what impact you in Bedford?

What excites you about Bedford?

What do you think Bedford will look like twenty years from now?

How would you like Bedford to be in the future?

Would you like to see anything change?



That's why we began:

Bedford is receptive to growth and change.



There is a need for bringing people together



"There needs to be a time where you step away from doing all the work you're doing and get people together to do social things and have conversations about what they want."



"We all got to meet on mutual ground... It's like everybody is kind of separated, everybody is wrapped up in doing what they're doing. Everyone has a story to tell but not everybody wants to listen or tell it."



"We need different activities to get people out."

Community Interviews

Bedford currently lacks opportunities and amenities for children and young adults



"This town will make you old."



"I would love for us to get more things for the children right here in the City of Bedford, to keep them busy and have them work their minds."



"The teenagers need something, more non-threatening places for teenagers to hang out I think would be of great help in Bedford."



"We do probably need a few more activities for young people... we probably need some after school and weekend activities."



"I like most parents around here, my concern is that if my children go away for college it's likely that they won't come back."

Bedford is a Friendly Community



"The people are really friendly and accepting"



"I like the people, I like the friendliness"



"It's a good family place"



"We are close, everybody knows everybody"



"Small, friendly town"

Bedford has multiple identities.



"Average small town, I suppose"



"I don't know if there is a homogeneous community. There are communities and different places for those communities. Often times there is not a lot of crossover"



"World's Best Little Town"

Community Interviews



"It's like a step back in a page of history"



"We are more of a retirement community... we have been for a number of years"

Bedford is in a transition period and the community will need to continue to find ways to grow in order to thrive.



"Bedford is trying to figure out what's next"



"People want to see the town thrive"



"It needs to upgrade a little more...make it exciting - the way it's supposed to look"



"The town either stays small and dies or it keeps the same spirit and grows"



"The driving force of change has been people themselves - individuals who saw their town decline and were willing to step up and figure out what to do to make it better"

Centertown Analysis

This project will look at the form and function of Centertown, its strengths and weaknesses, and its current and potential future development.



How do we want to live?

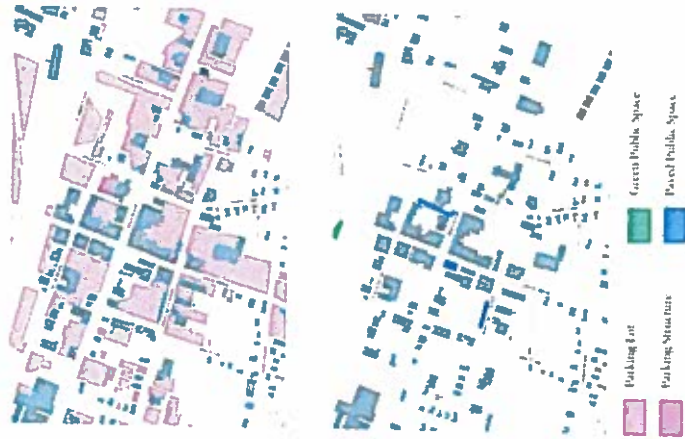


Fig. 2: Parking Area v. Public Space Area in Centertown

Parking vs. Public Space

Despite the common perception that Centertown lacks parking spaces, there is a lot of space dedicated to parking in the Centertown area. However, many parking spaces are underutilized primarily due to issues of design. Improvements to lot line stripping, signage, and pedestrian connections would increase the convenience and use of the existing parking lots.

Contrary to its large parking area, Centertown's public space is very limited. There are few public outdoor spaces where residents can gather and interact with each other. Public space plays an integral role in making a downtown inviting and comfortable for all. Quality public spaces allow for residents to spend longer periods of time enjoying downtown.

2nd Story Residential and Adaptive Re-use

Centertown's old and classic buildings make it such a unique and valuable place. Built before the introduction of the automobile, Centertown's buildings were designed to create a walkable and comfortable environment for pedestrians. Their unique architectural details would be hard to re-create today when much construction is now pre-fabricated or built to standard. Therefore, it is vital that Bedford encourages adaptive and creative uses of these older buildings in order to keep them vibrant spaces of activity drawing people to Centertown. Bedford has many successful examples of re-using buildings for purposes other than the use they were intended to serve. In fact, some of the most active spaces, such as the art galleries downtown, are within re-purposed buildings.

More and more people are recognizing the value and convenience of living downtown where everything is in walking distance and there are many different opportunities for entertainment and shopping. Bedford already has several opportunities for living downtown. Many residents that we talked with shared a desire for creating more second story apartments in Centertown. These residential opportunities would increase activity downtown and potentially attract younger adults.



Fig. 3- 2nd Story and Adaptive Re-Use Examples and Potential in Centertown

Centertown Building Use

Centertown has a mix of different uses making it an interesting and vibrant community. The two predominant building uses are general retail, such as antique and furniture stores, and professional services, which includes banks and attorney offices.

A number of religious and civic institutions are located in Centertown. These institutions bring a steady flux of people to Centertown and give it a sense of history and community pride. While restaurants are present in Centertown, many residents expressed a desire to have more entertainment opportunities especially at night.



Fig. 4: Centertown's Building Uses Map

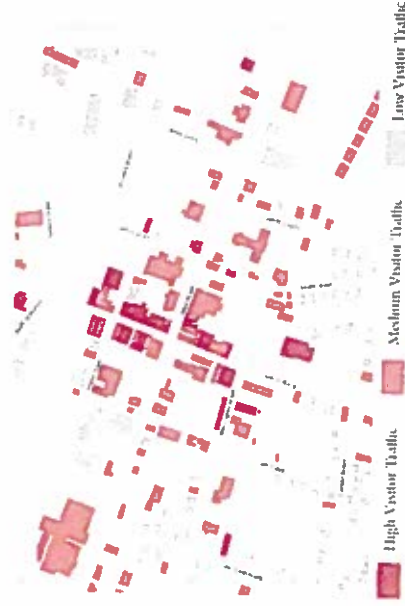


Fig. 5: Centertown Foot Traffic Map



Workshops

We hosted three workshops in order to collect resident's perceptions of Centertown. Two of our workshops were held in the Bedford Public Library. For our third workshop, we set up a mobile post at different art galleries during Centertown's 2nd Friday event where local restaurants and venues stay open later for the public. At these different locations, we were able to elicit the participation of numerous passersby that we might not have reached otherwise.

At each of our workshops, we asked each participant to identify 7 different elements on a map of Centertown and its surrounding area: landmarks, nodes, paths, districts, edges, barriers, and areas of promising potential. Participants were encouraged to contemplate on their mental image of Bedford and their daily interactions within its space. When it was time to draw out each element on the map, residents explained their ideas to each other, sharing their perspectives of Bedford with the group. Residents identified elements differently but were in general consensus with their finished image of Bedford.

Elements of the City

In our workshops, we asked residents to identify seven elements from their image of the larger Centertown area. These elements included:



Districts

Districts are areas with a specific character which creates a cohesive image of the area.



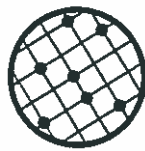
Landmarks

Landmarks are the key elements within the community which would be considered as the main monuments in the city.



Potentials

These are spaces perceived by the community as spaces with potential for growth and an opportunity for filling a community need in the near future.



Nodes

Nodes are spaces where individuals within the community converge and interact, often to travel to another location.



Pathways

Pathways are links between places and spaces in the community which unite individual elements.



Edges

Edges provide a visible barrier between two spaces and still allow a visual link between the spaces.



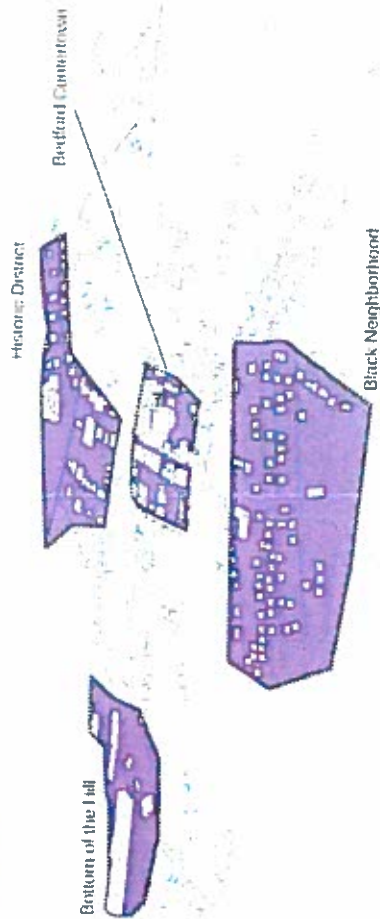
Barriers

These are places within the community which create either a physical or mental barricade within the community.



Fig. 6: Map from Community Workshop (August 2013)

Districts



Historic District

This district is mainly defined by its historic residences, a number of which date back to the 1800s. The Avenel Plantation, built circa 1838, is on the National Registrar of Historic Places and the Virginia Landmarks Registrar.

Bedford Centertown

These four blocks constitute the dense and active center of town. They are unique in their diverse composition of businesses that draw different people at different times of the day.

Black Neighborhood

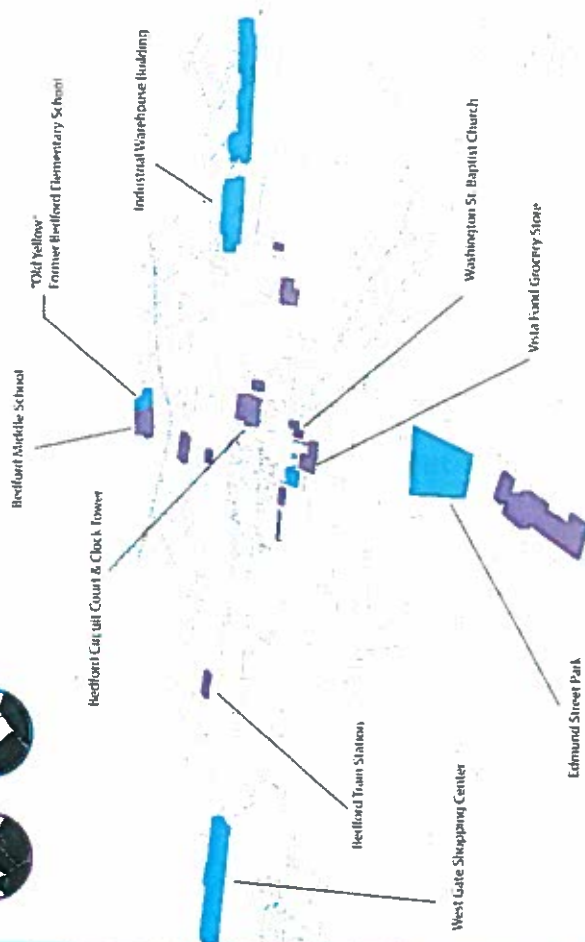
Many residents alluded to the fact that this area of town has long been home to the majority of Bedford's Black population. Workshop participants noted how Centertown, in some ways, acts as a barrier separating this area from the other neighborhoods in town, such as the Historic District. Residents expressed the need for Centertown to serve as a bridge connecting the different communities on its North and South ends.

Bottom of the Hill

According to residents, this area is characterized by its distinct depressed terrain and its shopping options. Win-Dine once anchored the West Gate Shopping Center at the bottom of the hill and a number of businesses such as Peebles and Schewels Furniture Company are still located in the strip mall. This district is significant to residents as it supplements the opportunities in Centertown. Residents expressed a desire for this district to be better connected to the surrounding area.

Fig. 7 District Map

Landmarks and Potentials



Bedford Circuit Court and Clock Tower

Most of the workshop participants agreed that the Bedford Circuit Court and its clock tower are iconic features within Centertown. The Clock Tower can be seen anywhere within the larger Centertown area and is an important reference point helping residents and visitors locate themselves within Bedford.

Vista Food

Locally owned grocery stores, especially those that are located within small towns, have become a rarity. Yet everyone in town knows Vista Food and many residents shop there. For these reasons, Vista Food is an important landmark in the community and an asset contributing to the identity of Centertown and the overall town.

Old Yellow

The early 1900s building was once Bedford's Elementary School but has been vacant since 1989. The building sits at the top of a hill with an incredible view of Centertown on one side and the Peaks of Otter on the other. Many residents expressed hope that the building would be kept and converted into space serving the community in the future.

West Gate Shopping Center

Workshop participants felt this area had potential but was in dire need of attention. The Center houses several retailers and has recently acquired an industrial business in what was once Win-Dine. However, the sprawling parking lot and the lack of safe and comfortable sidewalks leading to the site, make it less attractive for pedestrians to visit. Currently, people drive to the strip mall for a particular item and then leave. Residents believed the center could be improved to accommodate other activities as well, such as entertainment and recreation.

Fig. 8: Map of Landmarks and Potentials

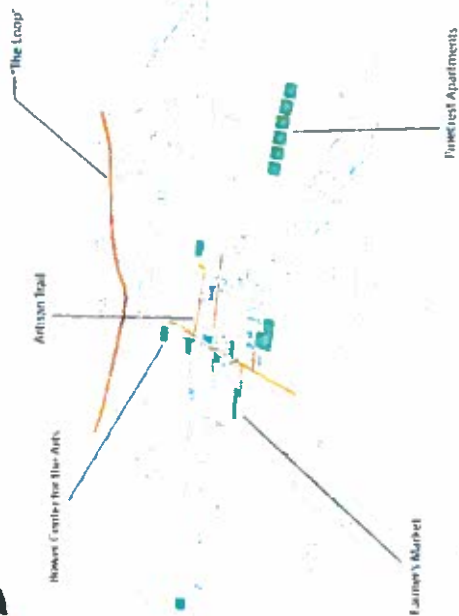


Fig. 19 Nodes and Pathways

Farmer's Market

The Farmer's Market is a space where people come not only to buy produce, the market is a place for meeting up with others and socializing as well. The market is one of the strongest spaces in Centertown for connecting residents.

Pinecrest Apartments

Workshop participants characterized pinecrest apartments as a center of activity. Pinecrest is one of the largest multi-family apartment complexes in the area. Many residents have some connection with Pinecrest whether they themselves are tenants or have a family member or friend who lives there. Therefore, Pinecrest serves as an important social hub for people to gather and spend time with one another.

The Loop

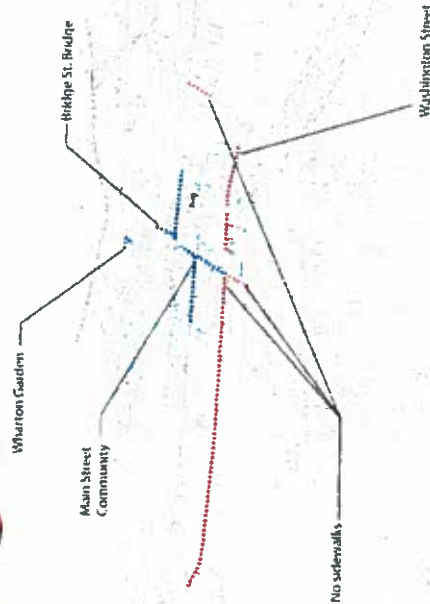
The loop is a 3 mile sidewalk path that runs along some historic homes and opens to some of Bedford's best views of the Blue Ridge Mountains. Residents frequently walk the trail at different times of the day and often walk with friends or family. The trail is used by school athletics and by the YMCA for its Christmas Classic

FAIR

Artisan Trail

Bedford recently established an official Artisan Trail Network with the Artisans Center of Virginia. This trail is comprised of a number of local art galleries, restaurants, and shops that have committed to leveraging their individual resources to strengthen the local community and their coalition of businesses. On 2nd Fridays, different venues in Centertown cooperate in creating a lively atmosphere with different activities that residents can walk to and from throughout the night.

Edges and Barriers



Bridge Street Bridge

The bridge on bridge street is a fun and interesting edge downtown. Residents enjoy walking across the bridge and stopping to watch the trains passing below or to look down the railroad to see the mountains in the distance. The bridge and the railroad below are ever-present reminders that Centertown is connected to the larger Bedford and the surrounding region.

Wharton Memorial Garden

This garden, full of various plantings and flower beds, creates a comfortable, enclosed public space for people to reflect, read, or relax. The garden is one of the few cozy and well-landscaped spaces in Centertown.

No Sidewalks

There are a number of streets downtown that do not have sidewalks or whose sidewalks are too narrow for people to comfortably walk. These sections of streets without sidewalks create a barrier for pedestrians.

Washington Street

While Washington Street is a busy road with a number of businesses and institutions that draw a lot of activity, it also is a barrier according to workshop participants and residents we interviewed. There is a general perception of Centertown, as it is commonly defined, stops at Washington Street at its Southern Edge. Residents noted that those who visit Centertown do not walk past Washington Street and those who live South of Washington Street do not frequently visit Centertown.

Fig. 10: Edges and Barriers



IDEATE

Based on all the information collected in the Hear phase, we selected a site for our project. We returned to Bedford to play to our site and meet with Town and Country staff to learn more about the site's conditions and potential for development. We used the information gathered from our meetings and analysis as a frame of reference for brainstorming different kinds of community interventions for the site. We held two design charrettes where we encouraged participants to think creatively about how the site could look in the future and what function it could fulfill as an integral part of Copletown. In each of the charrettes, we challenged residents to consider Bedford's needs and the stories that we heard from those who live in the neighborhood. We then designed for the site. Residents presented their visions for the site and shared what interventions they believed would be feasible for the Bedford community.

January 12 - 19

January 14

January 18

Inquiry about Site

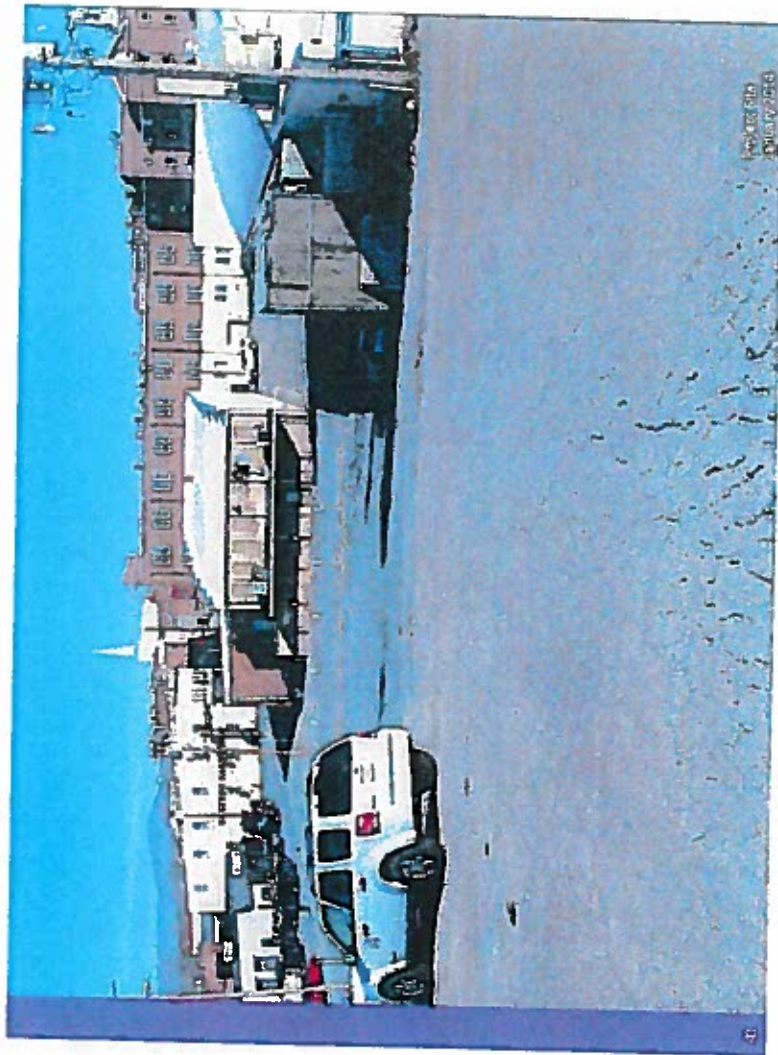
Design Charrette (Bedford Science and Technology Center)

Design Charrette (Bower Center for the Arts)

The Site

After reflecting on our time in Bedford and everything we heard from residents, we began looking for options for the project site. We looked over all the information we collected during the Hear phase and watched all the footage from our interviews and workshops in order to decide what space in Centertown was best fit for immediate transformation. We wanted a site that could host multiple activities and had potential for connecting several community assets in Centertown. We gave particular attention to sites that were less developed and could be transformed into attractive, usable space by community interventions. Since our project focuses on the community's capacity to create change, we did not consider sites in Centertown that would need large infrastructure improvements or re-development.

The site we chose for the project is the County owned parcel west of Vista Foods. While reflecting on our experience in Bedford, this site emerged as a potential hub of activity linking different sections of Centertown. Being already owned by Bedford County, the site also has the potential of serving the public and meeting goals of the larger Bedford community. The top of the site has the one of the best vistas of the Peaks of Otter in all of Centertown. Currently, the site is a 2-acre gap in Centertown dividing an otherwise busy street. Any improvements to the area would increase the overall connectivity in Centertown and inform future development on its South side.





Site Walk Sheds

Fig. 11. Walking Areas from Site for Residents walking average pace (3 mph)

Site Context

The project's site is located between Washington and Franklin Street. The site's western boundary is Bridge Street, Centertown's north/south thoroughfare, and its eastern boundary is Vista Food's Grocery Store and parking lot.

The site is surrounded by several of the most populated places in Centertown and sits at the edge of what many consider to be Centertown's Main Street community. Vista Food, in many ways, functions as a community cross section attracting locals from all around town. Many of Vista Food's customers who walk to the store enter through the parking lot from the residential neighborhood on the South Side of the site. Washington Street Baptist Church, which is directly east of Vista Food, is another place drawing people to the general area. In addition to its weekend services, it hosts kid's afterschool activities and serves as a meeting place for the local NAACP branch and other organizations.

On the west side of Bridge Street, people often congregate for activities and services at the Bedford Christian Ministries building as well as the Farmer's Market on Friday afternoons. People sit and hangout under the shade at the farmer's market stand; however, there is no seats or tables for those who want to meet with others or relax.

Centertown shops and businesses along with the County building are located on the block north of the site. The School Board building and one of the town's oldest neighborhoods are south of the site. Residents coming from this neighborhood must walk through the site on their way to Centertown.

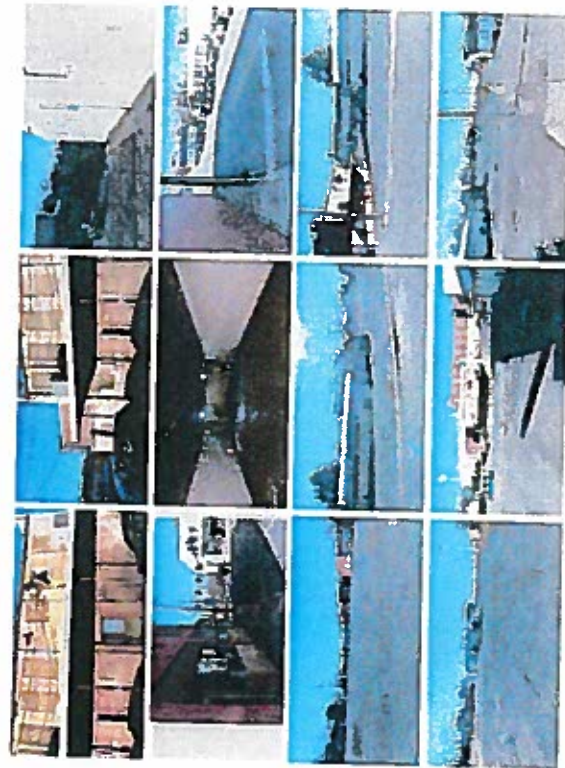


Fig. 12: Site Photos (January 2014)

Site Conditions

Two adjacent buildings, the Christmas Station and Archery Building, face Washington Street from the northwest corner of the site. Both of these buildings are uninhabitable and past the point of renovation.

Since the Berford County's Economic Development Authority acquired the buildings in 2001, it has spent nearly \$70,000 on repairs. However, due to severe flood damage on the back of the buildings and significant structural issues, the County Department of Public Works has determined that the poor condition of the buildings outweigh the continuous cost of renovation. The EDA estimated that the entire demolition of the two buildings would cost \$210,000, which would need to be spread out over the course of several fiscal years. While the EDA would like to see the buildings gone, it is likely that the buildings will remain standing and vacant for some time due to the high capital costs needed for demolition.

Apart from the two vacant buildings, the rest of the site is a large paved parking lot. The parking lot is predominantly used as spillover parking for County and School Board employees. Vista Foods has a loading dock on the east side of the parking lot. However, the majority of the parking lot is almost always empty.

Overall, the parking lot is in decent condition with some sections in need of re-stripping and repaving. Due to the steep slope in the middle of the parking lot and its vast impermeable surface, the low point of the parking lot at the north end of the site is prone to flooding after rain.

"There's not really anything outdoorsy to do downtown. There's no park or anything like that. So I think that might be nice."



Centertown's compact urban form makes it an enjoyable place to walk and see. However, it lacks park space where people can gather and recreate. Residents and tourists would be more apt to spend longer periods of time downtown if there were engaging public outdoor spaces where they could lounge, play, or connect with others. There are places such as the Farmer's Market that can be programmed for happy occasions and activities, but if there was a space that was designed for multiple and continuous activities, being the largest publicly owned vacant space in the downtown, the city has ample space for hosting a number of simultaneous users.

"This is the center of town. Everybody knows Washington Street."



Washington Street is a very important corridor for the Bedford community. Residents and visitors take Washington Street when entering Centertown from the South. Washington Street has two of the oldest and dearest Bedford institutions, Washington Street Baptist Church and Vista Food Grocery Store. Washington Street Baptist Church dates back to 1800 and has been located on the corner of Washington and South Street since 1810 when its trustees bought the parcel for a sum of one dollar. Vista Food has served Bedford residents for generations and is the only grocery store downtown. Washington Street is also home to the Bedford Furniture Mart and Bedford Farmer's Market, which are prominent nodes of activity on different days of the week.

The County owned part of the corner of Washington and Bridge Street is currently a void and lifeless space in the middle of what otherwise is a very rich and active area. By choosing this site, we hope to create a public space that can connect and accentuate the different assets on Washington Street.

Site Selection

"Vista Food is the cross section of the town because there's such a mix of people there."



Vista Food Grocery Store serves an invaluable purpose in Centertown. Not only is it the only grocery store downtown, it is the nexus linking different residents and neighborhoods in Bedford. For generations, Vista has offered a food selection and competitive prices that have attracted a racially and economically diverse clientele—both black and white, old and young, farmers, and newcomers shop at Vista. Throughout our interviews, many of the people who did not eat out for Centertown as a whole still valued the convenience and service at Vista Food.

We wanted to pick a site that had the potential of bringing different people together in order to strengthen the community and bridge new relationships. Therefore, we chose a location with a long history of indirectly bringing together different groups of people.

"The town itself, due to the history of this town, has a spirit of its own and it welcomes everybody here."



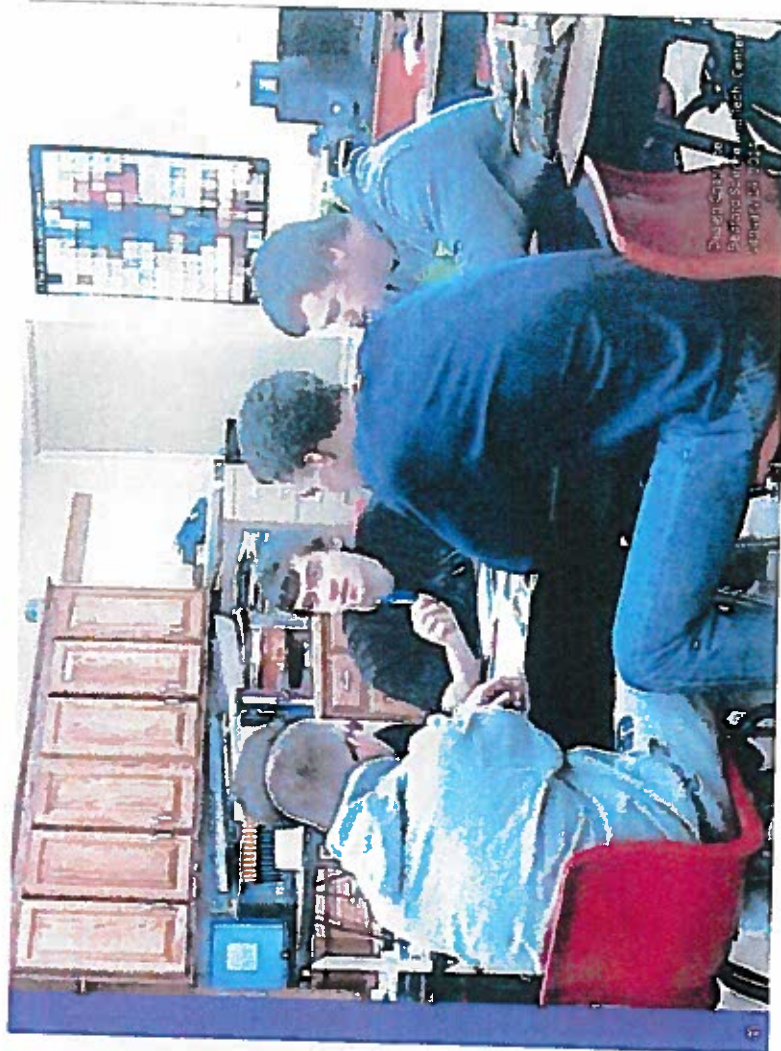
One of the aspects about Centertown that initially caught our attention was the discrepancy between its north and south entrance. The walk down Bridge Street from the North is comfortable and inviting. The pedestrian has sufficient sidewalk space, clear visibility through Centertown, the shade of downtown trees, and buildings on either side of the street to look at. This experience starkly contrasts with walking downtown from the south side of Bridge Street. Centertown's south side entrance is dark and disorienting. As you cross Franklin Street, you encounter a sea of parking lot and have only a small sliver of a sidewalk separating you from the road. It feels as though Centertown was not planned to be entered from the south side of town.

We felt this experience was important considering there is a stable residential neighborhood that must use it to access Centertown. Bedford identifies itself as a hospitable and welcoming community. This welcome must be present in the design of Centertown—Bedford's activity center. Choosing this site, allows us to design a space that welcomes and draws people from the south side of Bedford to Centertown.

Design Charrettes

We held two design charrettes, fast-paced collaborative sessions, for residents to generate a series of design prototypes and layouts for the site. We encouraged participants to consider both short term improvements and potential long-term development of the site centered around the needs and stories of the community. For our first charrette, we worked with Danny Thomas' Building Construction class at Bedford Science and Technology Center. The students, who have experience with woodworking and construction machinery, were working to finish a modular home for Habitat for Humanity. With their knowledge of construction and personal ties to the site and the Bedford community, the students designed community interventions that could immediately address certain needs of Centertown and be built using tools and material from their shop. The students were excited about the possibility of constructing any one of their design ideas on the site as a class project that would serve the community and memorialize their story.

The second charrette, held at the Bower Center for the Arts, was open to the general public and advertised through WP817 and the Bedford Bulletin. A dozen of residents with a diversity of experiences and expertise participated in the charrette, collaborating in small groups to design a vision for the site. The group shared a strong interest in Bedford's future development and a desire to see the town grow in its social and economic opportunities. Their passion and enthusiasm for envisioning Bedford's future were evident in the group work and conversations.



Design Charrettes

The objective of the charrettes was to design creative ideas that could be immediately implemented on the site using low cost materials, volunteer labor, and the site's existing infrastructure. At the same time, we encouraged participants to think big and consider larger, permanent development for the site, as an exercise for uncovering the sites potential and the community needs it was apt to meet. In order to get participants thinking creatively and innovatively before designing, we presented examples of urban interventions used to transform different spaces.



Fig. 13: Urban Intervention Examples (www.illustriskolossal.com)



Fig. 14: Design Charrette (January 14, 2014)

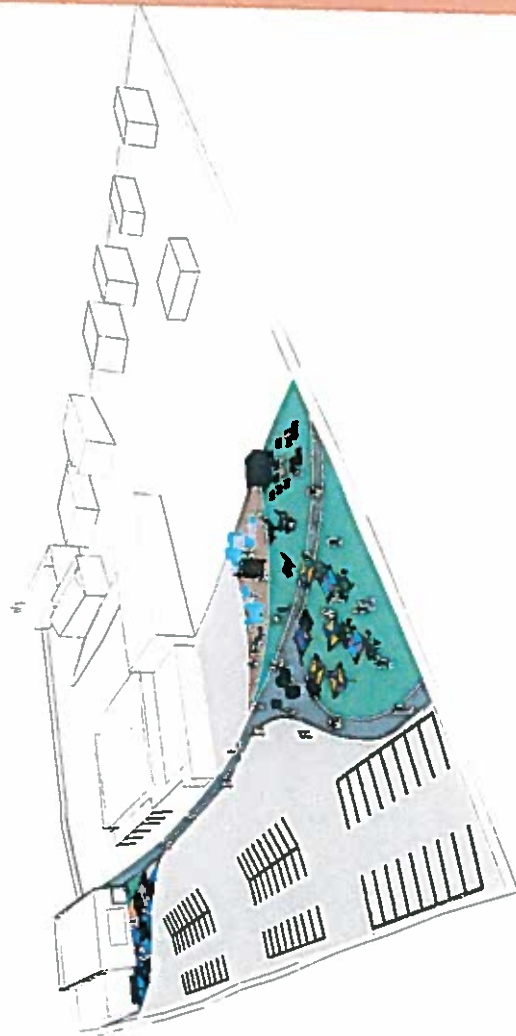
While there were many different interventions and site layouts designed in the two charrettes, there were a number of different designs and concepts that were shared among most of the groups. A number of the groups designed some type of park space at the top of the hill, taking advantage of the site's tremendous view of the Peaks. A pathway running through the site and connecting Franklin Street with Washington street was another prevalent design. Participants noted that residents frequently use the site as a passageway to Vista Food and other locations along Washington street despite the absence of a sanctioned path or delineated trail. Another common intervention was the use of building facades on the site for mural space or a movie screen. Knowing that the site's two vacant buildings were uninhabitable, participants proposed using the site to showcase important values or attributes of Bedford through art such as D-Day memorial or Liberty Highschool.



Fig. 15: Design Charrette (January 18, 2014)

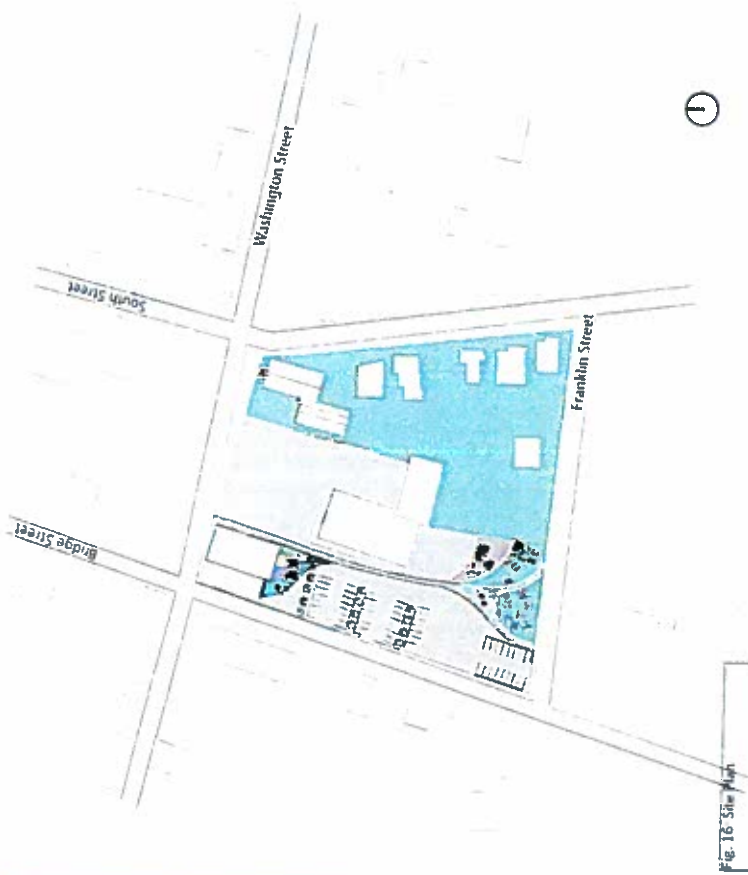
CREATE

In the Create phase, we drew from the community members' ideas in the Ideate phase to design a series of community-centered interventions for the site. The interventions all stem from the designs generated by participants in the charrettes and reflect different experiences and stories we heard from residents throughout the Hour phase. We intentionally designed interventions that can be built by community members regardless of their technical expertise and require minimal resources and financial investment. Collectively, these interventions have the potential to transform our site from a vacant, lifeless parking lot into an active public space connecting residents and different assets of Centertown. The interventions tie the site in with the rest of Centertown, increasing downtown's public space and bridging the divide between the activity and communities on either side of Washington Street. This guide will describe three potential spaces envisioned for the site and several specific designs which appear throughout the spaces.



Site Design

The site design we propose embodies various desires and needs we heard throughout our interactions with residents. The intent of this grab-bag of interventions is not to provide a specific set of construction documents dictating the precise way we believe the site must develop in order to be successful. Instead this is meant to become an example of one way the site might develop using small-scale interventions that respond to specific community desires. In our example, we have designed two distinct spaces at the north and the south of the site that are united by a pathway. These spaces are a park, pathway, and a platform for community exchange and activity. The goal was to create a site which could become an area of recreation as well as relaxation within Centertown, and to provide a space for a dialogue about the development of the community.





Rendering 2: Vista Park looking north

Vista Park

Currently, Centertown lacks public space where people can gather, retreat, or recreate. In our charrettes, participants continuously expressed the desire for a park space on the site that would accommodate a number of different activities. Vista Park is a colorful and homely space balancing several different activities represented in the interests of residents whom we interviewed. The space is located on the top of the site, nearest to Franklin Street, and looks out onto the cool blue Peaks of Otter. Residents can withdraw from the bustle of everyday life to rest on the park furniture and enjoy the sites of Centertown and the mountains. Meanwhile, gardeners can tend to their plots in the urban garden and children can run and play on the tire playground. Vista Park mixes the bucolic features of a country hillside with those of an urban park, providing opportunities for different residents to enjoy spending time in Centertown.

The site's green and natural landscaping can be accomplished through de-paving. In a number of communities, residents are working together to remove old and underused sections of asphalt pavement and replacing it with natural landscaping, urban farms, or community green spaces. Green spaces play an integral role in the health of our communities. They connect us with the natural ecosystem, give us respite, and inspire us with their beauty and vibrancy. The benefits of de-paving also go beyond the community's enjoyment of natural space. De-paving impervious surfaces mitigates storm-water runoff, which is currently a problem for the site. De-paving a surface requires a number of steps but can be accomplished through community partnerships and volunteer effort. Detailed instructions for de-paving can be found in Depave's "Guide to Freeing Your Soil" (depave.org).

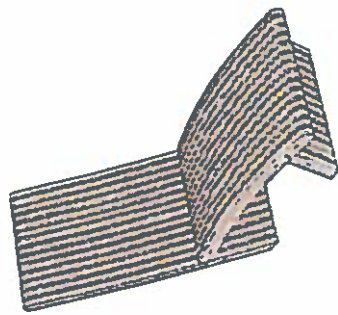
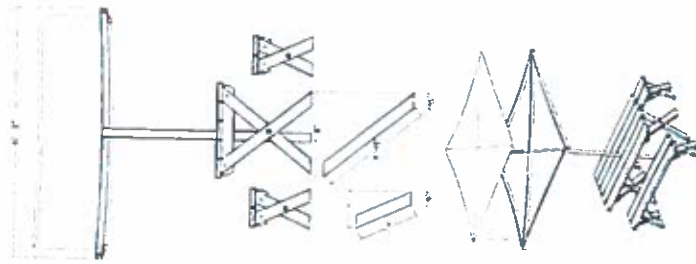


Fig. 17 Axonometric of Vista Park wooden lounge chairs



Park Furniture

Estimated cost = \$ 200 - 250

Locate an area of refuge and relaxation you must have a place to rest. We have designed two example types of seating: wooden lounge chairs and picnic benches. The lounge chairs are positioned to face Centerton's landscape and the Mountains, and the picnic benches are conveniently located near the on-site parking for those who want to drive to the site for a picnic or event.

Fig. 18 Axonometric of Vista Park picnic benches

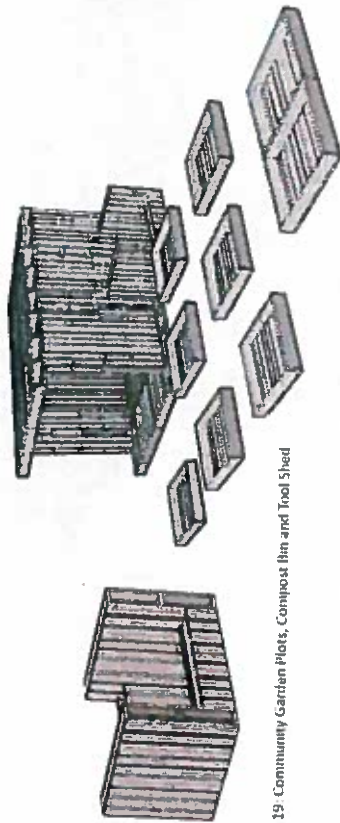


Fig. 19: Community Garden Plots, Compost Bin and Tool Shed



Fig. 20: Community Garden plot (lischun.honakidesigns.blogspot.com)

Urban Farming Furniture

estimated cost = \$ 50 - 150

The park includes a number of green features. The urban farm plots, which could be rented out to residents by the County, provide a unique opportunity for community members to share their love for gardening with others. The surface of the park is de-paved and planted with grass and natural landscaping to create a beautiful green pasture.

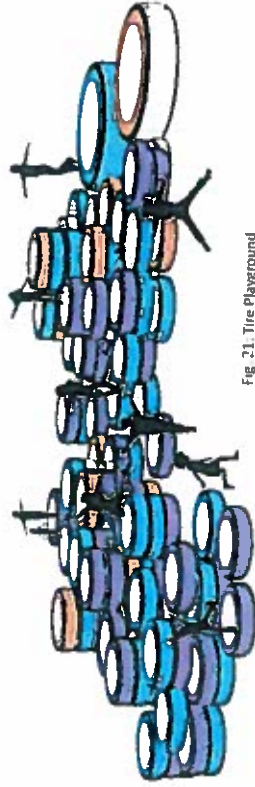


Fig. 21: Tire Playground



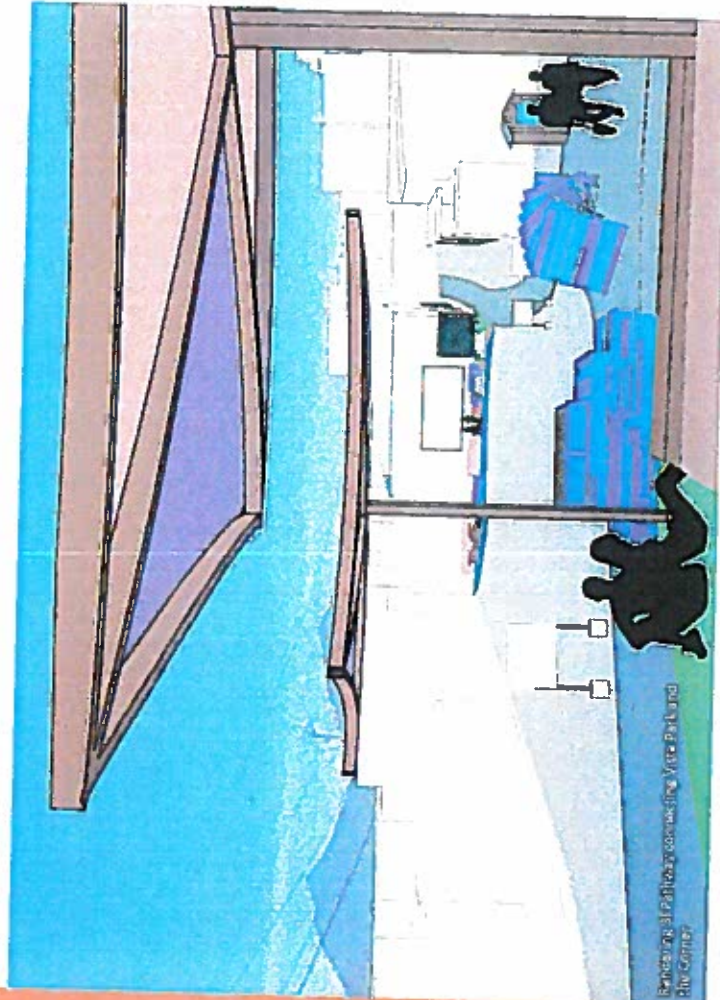
Recycled Tire Playground

estimated cost = \$ 100 - 450

In keeping with our goal of designing low cost interventions, the playground is made of re-used old tires. The tires are filled with sand and dirt and configured into interesting formations for children to play on and enjoy.

Pathway

The site's success heavily depends on its connections to the surrounding Centertown and neighborhoods. We also wanted a path to function as public route connecting the communities on either side of Washington Street. Therefore, we designed a comfortable pathway for residents to walk through the site on a route already taken by residents. The pathway is created from a number of different materials, making it interesting to walk. It is also lined with picture boards that illustrate different stories representative of Bedford's community. Residents walking from the south and north sides of the site can use the pathway to access the different spaces on the site as well as Vista Food Grocery store.



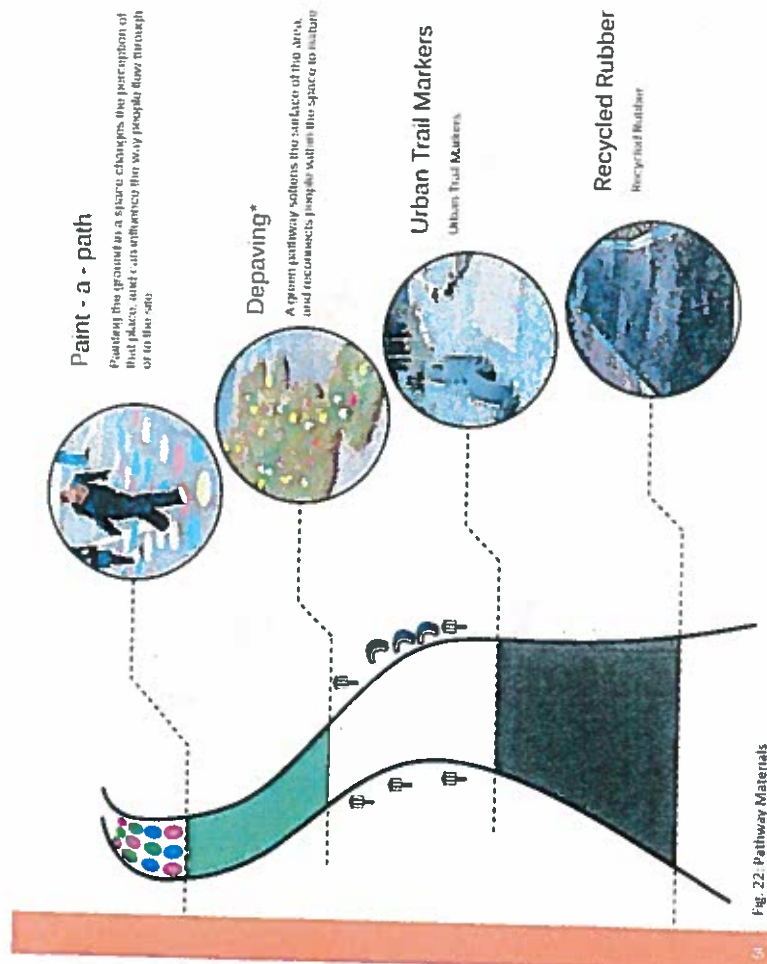


Fig. 22: Pathway Materials

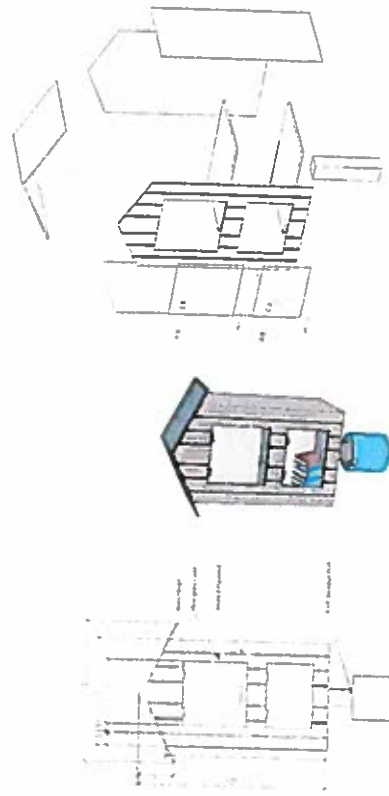


Fig. 23: Axonometric of Book Exchange

Pathway Markers

Estimated cost = \$ 25.50

The Pathway, itself, is a colorful and interesting feature, lending to the dynamic aesthetic of the site. A series of features such as a book exchange and story boards along with various surface treatments could be used to demarcate the path for visitors. The photo boards tell stories of Bedford to those walking the pathway. Either side of the board is fitted for a large photograph. The boards could be managed by the County, who could frequently change them to exhibit different artwork and stories of community members.

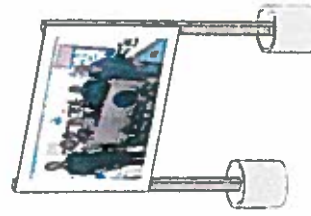
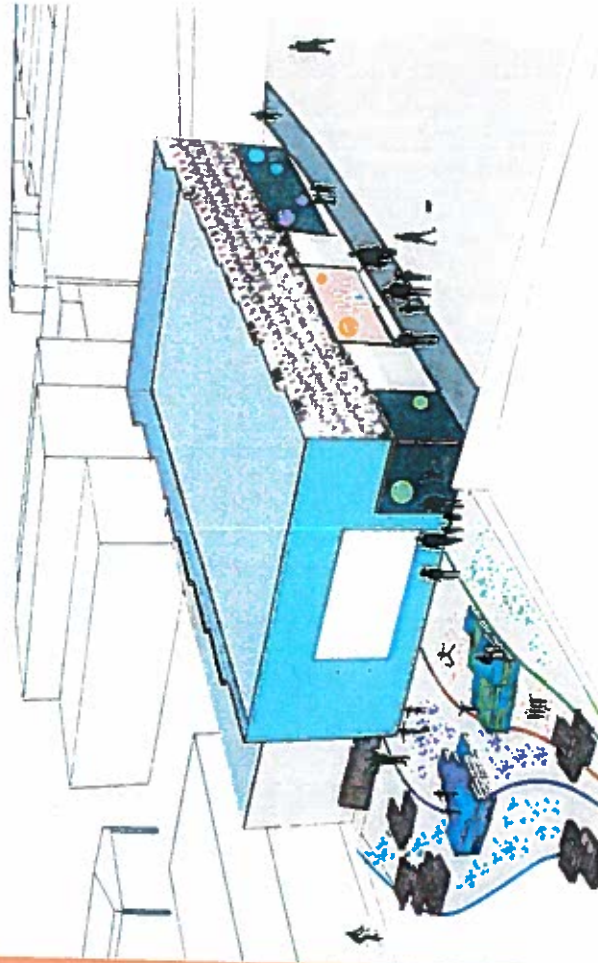


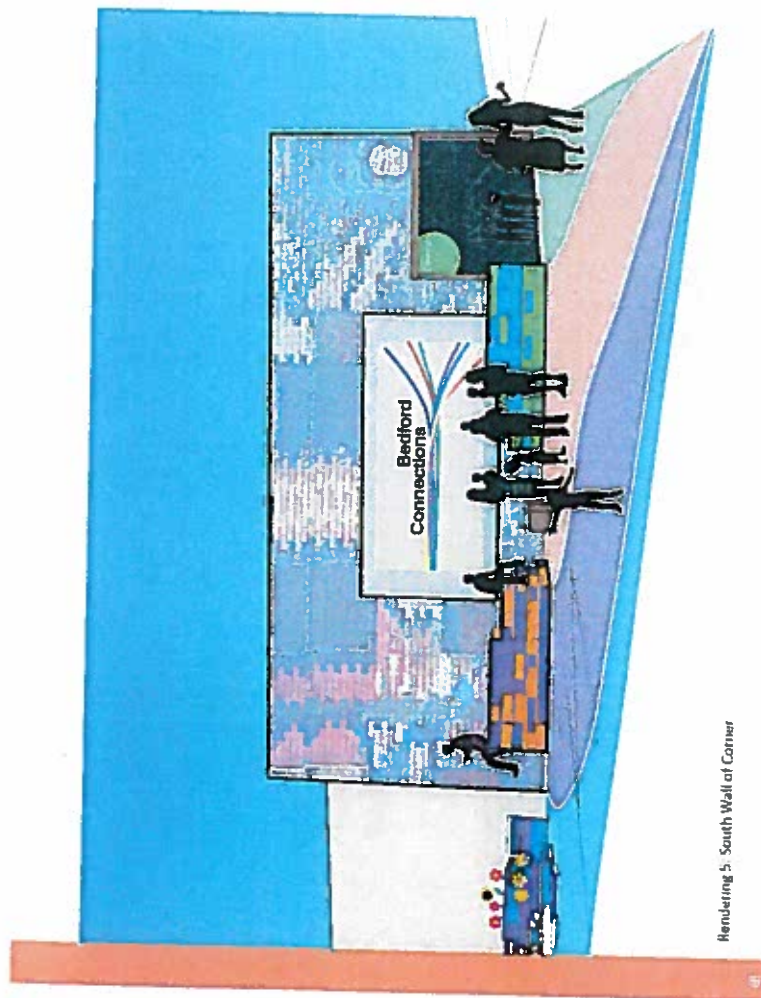
Fig. 24: Story Board



Rendering 4 The Corner - South and East Wall

The Corner

Throughout our interviews and workshops, residents spoke of the need for time and space where community members could come together to share their stories, become better acquainted, and discuss the state of Redford. The Corner is an active space along the facades of the site's vacant buildings that is designed specifically for community exchange and expression. On the west side residents can express their ideas and feelings and share plans and events on the interactive process wall. On the south side of the buildings is a flexible space for residents to meet, show movies, hold events, or take part in building interventions for the site. The Corner is a hub for various activities that all residents can use, re-construct, and enjoy. Its very temporary nature means that it can be repurposed as the community grows and changes in the future.



Rendering 5: South Wall of Corner

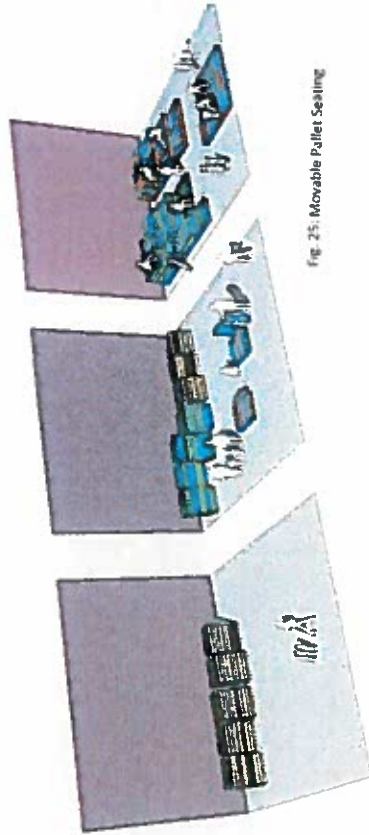


Fig. 25: Movable Pallet Seating

Flexible Space

estimated cost = \$ 50-100

On the back wall of the vacant buildings are attachments for a movie screen that can be hung up to show movies or presentations. Many residents alluded to the fact that Bedford currently does not have a movie theatre though, at one time, there was a popular drive-in theatre in town. The movie screen allows for the County to show public presentations and outdoor films to public audiences (as long as it pays for the viewing rights for films that are private).

Recycled pallets can be sanded down, painted, and sealed to create moveable seating for the Corner. These pallets can be stacked according to the likes of residents and can be configured to make discussion circles, work areas, or stacked movie theatre seating.

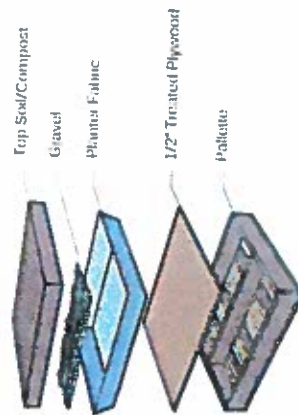


Fig. 26. Axonometric and Rendering of Pallet Planters



Fig. 27. Creative Pallet Uses for Gardening (distinguishabledesigns.blogspot.com)

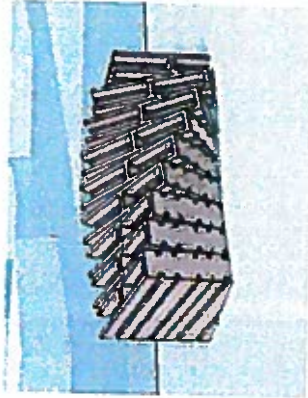


Fig. 28. Pallet Public Art

Pallet Planters

estimated cost = \$ 100 -100

The pallet planters use re-purposed wooden pallets designed to hold plantings. They are positioned at either end of the trail in order to create a colorful threshold inviting people into the two distinct spaces on either end of the site. These are examples of some of the ways these objects could be constructed but by no means do they represent the only ways these can or should be built!



Rendering 6: Process Wall and Community Mural

Process Wall + Community Mural

estimated cost = \$ 800

The process wall is the physical representation of our project's process. The wall transforms the blank eastern facade of the vacant buildings on the site into an interface for public expression and exchange. The installation will contain four sections, which represent the themes of each of the four phases in our project. Closest to Washington Street are the Hear and Ideate Sections, a large chalkboard inviting people to write out their desires, feelings, or ideas for what they want to see happen in Bedford's future. The corkboard Create Space will provide a place for exchange between community members and local government where events and opportunities can be advertised. Lastly, the Construct section is intentionally placed upon the corner of the building to draw the user down and around the building to the flexible space. This part of the wall is for people to post pictures of events or projects that have already occurred or write thank-you's or shout-outs to people they appreciate. The wall begins by catching the attention of people passing by and walking them around the building until they reach a public space designed and constructed through community partnerships.

In order to bring an extra layer of color and creative expression to Washington Street, a community mural is painted above the different phases of the wall. This mural designed and facilitated by local artisans is a vivid reflection of the strong assets on Washington Street and the overall Bedford Community. It will be a bright welcome for all those entering Centertown from Washington Street.

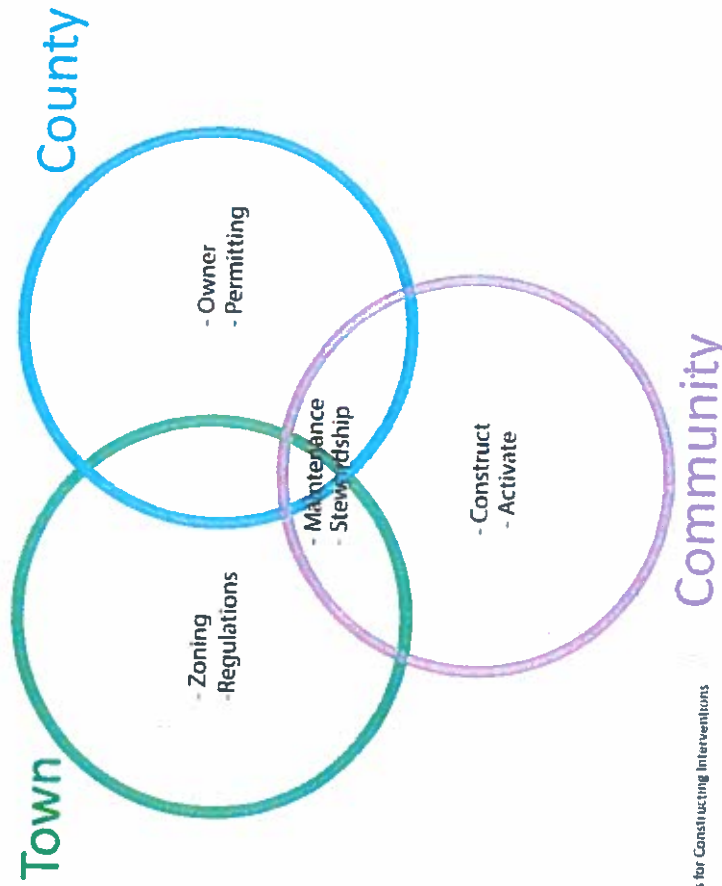


Fig. 28 Roles for Constructing Interventions

CONSTRUCT

There are a number of preliminary steps that must be taken before any of the interventions of this grab bag can be constructed on this site. Any development on this site relies on the mutual cooperation of the Town of Bedford and Bedford County. While the site is owned by the County's Economic Development Authority, it is located within Town boundaries and abides by the Town's Land Development Regulations and Zoning. Currently, the site sits within a Limited Business which does not include public parks as one of its permitted uses. However, Town Council can approve a public park as a conditional use in the B-3 District. It is in the public interest and consistent with the interests of the Town's Land Use Plan. We propose that the Town Council approve the use of a public park for the park. With this change in zoning, the County could then issue permits to community members or local organizations to construct different interventions on the site.

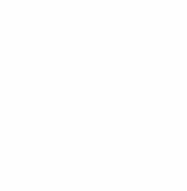
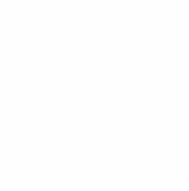
While zoning and permitting are necessary for developers, the success of the interventions is dependent on continuous maintenance and management. We propose that a Friends group of community members that are interested in the site and responsible for public spaces be created to steward the new public space. This group could be spawned with the help of Bedford's Main Street Organization and work in partnership with the County Economic Development Authority, the site's proprietor. The site interventions are only possible through the relationships between Bedford County, Town, and community members.

Now What?

These interventions can only be achieved through the support and initiative of community members (Like You!). We hope that this report, at the very least, inspires residents to make the changes they want to see and the local government to find new and innovative ways to engage residents in the planning and development of their Town. Bedford's real strength is in its connections.

If you would like to get involved, please visit our site and leave us a note
<http://bedfordconnections.wordpress.com>

We would like to hear more about your story and ideas. Bedford is a wonderful place because you live there and will only change if you make it happen! Your presence, engagement, and dreams are vital to the community's success and the Town's future.





Thank you!

We thank Bedford residents whose stories, hospitality, participation, and support made this project such an enjoyable and fulfilling experience. We have had such a wonderful time spending time and working with the Bedford community and our interest in Bedford has grown even deeper because of it. Our hope is for the chance to construct the interventions from the project alongside residents.

We liked to extend a special thank you to our community partners whose excitement and support made the project possible.

Sarah Hraaten, Bower Center for the Arts
Bart Warner, Bedford Town Manager Department
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