AGENDA--CITY COUNCIL MEETING
CITY OF MARTINSVILLE, VIRGINIA
Council Chambers – Municipal Building
CLOSED SESSION AT 7:00 p. m.

7:30 p.m. regular session– Tuesday, November 8, 2011

Invocation – Council Member Mark Stroud
Pledge to the American flag

1. Items to be considered in Closed Session, in accordance with the Code of Virginia, Title 2.2 Chapter 37—Freedom of Information Act, Section 2.2-3711—Closed Meetings, the following:
   A. A prospective business or industry or the expansion of an existing business or industry where no previous announcement has been made of the business' or industry's interest in locating or expanding its facilities in the community as authorized by Subsection 5.

2. Consider approval of Council minutes of September 27, 2011. (2 minutes)

3. Consider approval of Virginia Highway Safety Selective Enforcement Grant #K8-2012-52232-4610-20.601 ($27,490) and hold a public comment period. (5 minutes)

4. Consider approval of Virginia Highway Safety Piedmont Regional Occupant Protection Grant #K2-2012-51432-4695-20.602 ($28,000) and hold a public comment period. (5 minutes)

5. Consider approval of Virginia Highway Safety Piedmont Regional Occupant Protection Grant #K2-2011-51432-4694-20.602 ($10,000) and hold a public comment period. (5 minutes)

6. Consider setting a public hearing for November 22, 2011 on the 2011 update of the City of Martinsville's Solid Waste Management Plan. (5 minutes)

7. Consider approval, on second reading, the designation of the former Sara Lee property and Baldwin Block as urban development areas and to approve amending the Land Use Map, Comprehensive Plan and Zoning Ordinance to reflect urban development guidelines. (10 minutes)

8. Consider setting public hearing regarding pawnshops and amending zoning ordinance. (10 minutes)

9. Consider approval on first reading of preliminary ordinance for Building Energy Efficiency project. (10 minutes)

10. Hear an overview of the November 7, 2011 Neighborhood meeting from the Mayor. (5 minutes)

11. Consider approval of Consent Agenda. Accept and appropriate budget adjustments FY12. (2 minutes)

12. Consider approval of payroll deduction employee computer purchase program. (10 minutes)

13. Business from the Floor
This section of the Council meeting provides citizens the opportunity to discuss matters that are not listed on the printed agenda. Since the Council meetings are broadcast on Martinsville Government Television, the City Council is responsible for the content of the programming. Thus, any person wishing to bring a matter to Council's attention under this Section of the agenda should:
(1) come to the podium, state name and address;
(2) state the matter they wish to discuss and Council action requested;
(3) limit remarks to five minutes;
(4) refrain from making any personal references or accusations of a factually false and/or malicious nature.
Persons who violate these guidelines will be ruled out of order by the presiding officer and asked to leave the podium. Persons who refuse to comply with the direction of the presiding officer may be removed from the chambers.

14. Comments by Council Members. (5 minutes)
15. Comments by City Manager. (5 minutes)

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 2.

Department: Clerk of Council

Issue: Consider approval of City Council meeting minutes of September 27, 2011

Summary: None

Attachments: September 27, 2011

Recommendations: Motion to approve.

September 27, 2011

The regular meeting of the Council of the City of Martinsville, Virginia, was held on September 27, 2011, in Council Chambers, Municipal Building, at 7:30 PM, with Mayor Kim Adkins presiding. Council Members present included: Mayor Kim Adkins, Vice Mayor Kimble Reynolds, Gene Teague, Mark Stroud, Sr., and Danny Turner. Staff present included: Clarence Monday, City Manager, Brenda Prillaman, Eric Monday, Leon Towarnicki, Robert Ramsey, Dennis Bowles, Chris Morris, and Rob Fincher.

Mayor Adkins called the Council meeting to order and Gene Teague gave the invocation and Pledge of Allegiance to the flag.

The Mayor advised changes in the agenda: Commissioner of Revenue agenda item to be first and the AMP agenda item will be rescheduled due to travel issues.

Commissioner of Revenue Ruth Easley reported the following information: On December 13, 2005, Council adopted an ordinance that established a local program of personal property tax relief that requires City Council to annually set the relief allocation percentage that is anticipated to fully use the PPTRA relief funds provided to the city by the state. The Commissioner of the Revenue has completed the annual assessment of motor vehicles that have a Martinsville tax situs for tax year 2011. By ordinance, qualifying vehicles assessed at $1,000, or less, receive 100% relief. Qualifying vehicles with assessed values between $1,001 and the first $20,000 receive a calculated annual percentage of relief based on the number of qualifying vehicles and their associated assessments. The Commissioner of the Revenue estimates that a percentage rate of 60.17% will fully use all state PPTRA funds allocated to the city for Tax Year 2011. On a motion by Gene Teague, seconded by Kimble Reynolds, with a 5-0 vote, Council approved the following resolution:

RESOLUTION SETTING THE ALLOCATION PERCENTAGE FOR PERSONAL PROPERTY TAX RELIEF IN THE CITY OF MARTINSVILLE FOR TAX YEAR 2011

WHEREAS, on December 13, 2005 by Ordinance 2005-8 the Martinsville City Council established a local program of tax relief that serves the best interests of its citizens regarding personal property tax on qualifying use vehicles, pursuant to modifications made by the General Assembly of Virginia to the Personal Property Tax Relief Act of 1998 (PPTRA); and

WHEREAS, the city's relief program requires the city council to adopt an annual percentage of local tax relief for personal use vehicles valued between $1,001 and the first $20,000 that will fully exhaust the PPTRA relief funds provided to the city by the Commonwealth of Virginia; and

WHEREAS, the commissioner of the revenue has completed the annual assessment of motor vehicles with Martinsville tax situs for Tax Year 2011; and

WHEREAS, the commissioner of the revenue estimates that a percentage of relief of 60.17% applied to the first $20,000 of assessed values for qualifying vehicles valued over $1,000 will fully use all available state PPTRA relief allocated for tax year 2011.

NOW, THEREFORE BE IT RESOLVED by the Martinsville City Council that 60.17% shall be the percentage of relief to be applied to the first $20,000 in value of each qualifying vehicle with an assessed value more than $1,000 pursuant to and in accordance with provisions of Sec. 21-10 of the Martinsville City Code. Adopted this 27th day of September 2011.

Proclamations were presented by the Mayor to Melissa Gravely and Deborah Menefee of Citizens Against Family Violence in recognition of Domestic Violence Awareness Month and to Tyler Millner in recognition of Citizen Awareness Week.

Mayor Adkins reported that after hearing public input during the September 13, 2011 Council meeting, the Council adopted a Preliminary Ordinance, on first reading, that is before the Council now for second reading. The council also approved a Resolution, setting a Public Hearing for October 11, 2011. Also before the Council is another related Ordinance for

consideration on first reading. This particular Ordinance authorizes issuance of up to $9,300,000 as a General Obligation School Bond. This Ordinance will not be effective until after adoption on second reading which will occur after the Public Hearing.

Mayor Adkins then asked for any public comments at this meeting. Monty Ridenhour, 1231 Mulberry Rd., comments on the danger of continued use of fund balance, that higher taxes will be inevitable, need to consider city's $15 million capital needs list and Commonwealth Crossing issues, should limit school renovation debt to $6 million with adjustments of eliminating elevator and Global Access Center 2-story addition and should use vinyl instead of terrazzo tile, should consider wants vs. needs. School Superintendent Pam Heath spoke regarding the planned public input session and tour at MHS scheduled for Oct. 4 and stated the school board was open to all ideas. Vice Mayor Reynolds clarified that the vote on this preliminary ordinance is procedural and it serves as a placeholder in the process. On a motion by Kimble Reynolds, seconded by Danny Turner, with the following 4-1 recorded vote: Adkins, aye; Teague, nay; Reynolds, aye; Stroud, aye; and Turner, aye, Council approved the preliminary ordinance on second reading:

CITY OF MARTINSVILLE, VIRGINIA

AN ORDINANCE RECITING THE EXPEDIENCY OF THE ISSUANCE OF UP TO $9,300,000 PRINCIPAL AMOUNT OF GENERAL OBLIGATION BONDS OF THE CITY OF MARTINSVILLE, VIRGINIA, AND SETTING FORTH THE PURPOSE, IN GENERAL TERMS, FOR WHICH THE BONDS ARE TO BE ISSUED, THE MAXIMUM AMOUNT OF THE BONDS TO BE ISSUED AND THE MAXIMUM LENGTH OF TIME SUCH BONDS WILL BE OUTSTANDING

Adopted on September 27, 2011 (second reading)

Be it Ordained by the Council of the City of Martinsville, Virginia:

Section 1 - Findings and Determinations

The City Council **(the "City Council")** of the City of Martinsville, Virginia **(the "City")** proposes to issue bonds for the purpose of assisting in the construction, expansion, renovation and equipping of Martinsville High School in the City for school purposes **(the "Project")** and hereby finds and determines that: (i) the City is in need of funds to be used by the City for such construction and equipment needs for the Project and for costs of issuance of the Bonds (defined below); (ii) the obtaining of such funds will be for municipal purposes of the City, for the welfare of citizens of the City for purposes which will serve the City and its citizens pursuant to the authority of the City to provide funds for and otherwise support the City's public schools; (iii) the most effective, efficient and expedient manner in which to provide such funds to the City is through the issuance of general obligation bonds in an original principal amount not to exceed $9,300,000 to be issued by the City as further described herein **(the "Bonds")** to be used for the construction and equipping of the Project and for certain costs of issuance of the Bonds; (iv) the issuance of the Bonds is within the power of the City to contract debts, borrow money and make and issue evidence of indebtedness; and, (iv) the issuance of the Bonds is in the best interests of the City and its citizens.

Section 2 - Description of the Bonds

The City Council finds that it is expedient for the City to borrow money and issue the Bonds for the Project in a maximum amount not to exceed NINE MILLION THREE HUNDRED THOUSAND DOLLARS ($9,300,000). The maximum length of time that the Bonds will be outstanding is twenty years and one month from the date of issuance of the Bonds. The form and details of the Bonds which are proposed to be issued will be more specifically set forth in a City Ordinance to be entitled "ORDINANCE AUTHORIZING THE ISSUANCE OF A NOT TO EXCEED $9,300,000 GENERAL OBLIGATION SCHOOL BOND, SERIES 2011, OF THE CITY OF MARTINSVILLE, VIRGINIA TO BE SOLD TO THE VIRGINIA PUBLIC SCHOOL AUTHORITY AND PROVIDING FOR THE FORM, DETAILS AND PAYMENT THEREOF," which will be introduced before the Council and considered for passage following a public hearing on the issuance of the Bonds, as required by law. **Section 3 - Further Actions Authorized**

The City Manager, Clerk of the Council, City Treasurer, City Attorney, Sands Anderson PC as bond counsel, Davenport & Company LLC as financial advisor to the City and all other officers, employees and agents of the City are hereby authorized and directed to take any and all such further action as shall be deemed necessary or desirable to facilitate consideration of the issuance of the Bonds. All actions of the City Manager, Clerk of the Council, City Treasurer, City Attorney, bond counsel, the City's financial advisor and all other officers, employees and agents of the City in furtherance of the issuance of the Bonds and the financing of the Project are hereby approved and ratified.

Section 4 - Invalidity of Sections

If any section, paragraph, clause or provision of this Ordinance shall be held invalid or unenforceable for any reason, the invalidity or unenforceability of such section, paragraph, clause or provision shall not affect any of the remaining portions of this Ordinance.

Section 5 - Headings of Sections

The headings of the sections of this Ordinance shall be solely for convenience of reference and shall not affect the meaning, construction, interpretation or effect of such sections of this Ordinance. **Section 6 -Effective Date and Filing of Ordinance** Council hereby declares in the public interest that this Ordinance shall become effective immediately upon its passage. A copy of this Ordinance, certified by the Clerk of the Council, shall be filed with the Clerk of the Circuit Court of the City of Martinsville, Virginia.

The Members of the Council voted as follows on the foregoing Ordinance:

Ayes	**Nays**
Kim Adkins	Gene Teague
Kimble Reynolds	
Mark Stroud	
Danny Turner	

Absent **Abstentions**

Adopted this 27th day of September, 2011 (second reading).

Gene Teague noted that he does support the project, but did not vote for the motion set at $9.3 million and asked if meetings are scheduled to look at options for lower amounts. Danny

Turner pointed out we don't need to spend any more than we have to and schools need to look at less costly floor than tile. City Manager Clarence Monday will verify the deadline date to vote on amount. Pam Heath advised Council that actual sale of bonds is now December 15 and she said bond counsel suggests they follow the time line already set.

On a motion by Danny Turner, seconded by Kimble Reynolds, with the following 4-1 recorded vote: Adkins, aye; Teague, nay; Reynolds, aye; Stroud, aye; and Turner, aye, Council approved the following ordinance on first reading with amount not to exceed $9.3 million. Eric Monday, City Attorney, reported Mark Stroud has signed a conflict of interest disclosure.

ORDINANCE AUTHORIZING THE ISSUANCE OF A NOT TO EXCEED $9,300,000 GENERAL OBLIGATION SCHOOL BOND, SERIES 2011, OF THE CITY OF MARTINSVILLE, VIRGINIA, TO BE SOLD TO THE VIRGINIA PUBLIC SCHOOL AUTHORITY AND PROVIDING FOR THE FORM AND DETAILS THEREOF

[First reading]

WHEREAS, the City Council **(the "Council")** of the City of Martinsville, Virginia **(the "City")**, has determined that it is necessary and expedient to borrow an amount not to exceed $9,300,000 and to issue its general obligation school bond (as more specifically defined below, the "Local School Bond") for the purpose of financing the construction, expansion, renovation and equipping of Martinsville High School in the City, which constitutes a capital project for public school purposes **(the "Project")**; and

WHEREAS, the City will hold a public hearing, duly noticed, on October 11, 2011, on the issuance of the Local School Bond in accordance with the requirements of Section 15.2-2606, Code of Virginia 1950, as amended **(the "Virginia Code")**; and

WHEREAS, the School Board of the City has, by Resolution, requested the Council to authorize the issuance of the Local School Bond and consented to the issuance of the Local School Bond; and

WHEREAS, the Virginia Public School Authority **("VPSA")** has offered to purchase the Local School Bond along with the local school bonds of certain other localities with a portion of the proceeds of certain bonds to be issued by VPSA in the fall of 2011 **(the "VPSA Bonds")**; and

WHEREAS, VPSA intends to issue the VPSA Bonds as "qualified school construction bonds" **(referred to below as "QSCBs")** within the meaning of Section 54F of the Internal Revenue Code of 1986, as amended (the "Tax Code"), which section was added to the Tax Code by the American Recovery and Reinvestment Act of 2009 (Pub. L. No. 111-5, 123 Stat. 355), enacted on February 17, 2009; and

WHEREAS, VPSA intends to elect to treat the VPSA Bonds as "specified tax credit bonds" under Section 6431 of the Tax Code, as amended by the Hiring Incentives to Restore Employment Act (Pub. L. No. 111-147, 123 Stat. 301), enacted on March 18, 2010, which status enables an issuer of a QSCB to receive a direct payment of a refundable credit in lieu of providing a tax credit to the purchaser or holder of the QSCB; and

WHEREAS, the refundable credit payable with respect to each interest payment date will be equal to the lesser of (i) the amount of interest payable under the QSCB on such date or (ii) the amount of interest which would have been payable under the QSCB on such date if such interest were determined at the applicable credit rate determined under Section 54A(b)(3) of the Tax Code (that is, the rate used in computing the amount of tax credit that could be claimed by the QSCB holder absent the "specified tax credit bond" refundable credit election); and

WHEREAS, subject to the terms and conditions set forth or referred to below, VPSA will transfer to the City the allocable portion of the refundable credit actually received in cash by VPSA with respect to the VPSA Bonds; and

WHEREAS, the allocation of QSCB volume cap pursuant to which VPSA will issue the VPSA Bonds will be made by Executive Order to be issued by the Governor of the Commonwealth of Virginia **(the "Executive Order")**, to finance the Project along with a number of other projects selected through a competitive evaluation process administered by the Virginia Department of Education; and

WHEREAS, the Bond Sale Agreement (as defined below) shall indicate that $9,300,000 is the amount of proceeds requested **(the "Proceeds Requested")** by the City from the VPSA in connection with the sale of the Local School Bond; and

WHEREAS, VPSA's objective is to pay the City a purchase price for the Local School Bond which, in VPSA's judgment, reflects the Local School Bond's market value **(the "VPSA Purchase Price Objective")**, taking consideration of such factors as the purchase price to be received by VPSA from the sale of the VPSA Bonds, the underwriters' discount and the other issuance costs of the VPSA Bonds and other market conditions relating to the sale of the VPSA Bonds; and

WHEREAS, such factors may result in the Local School Bond having a purchase price other than par and consequently (i) the City may have to issue the Local School Bond in a principal amount that is less than the Proceeds Requested in order to receive an amount of proceeds that is substantially equal to the Proceeds Requested, or (ii) because the maximum authorized principal amount of the Local School Bond set forth in paragraph 1 of this Ordinance cannot exceed the Proceeds Requested, the purchase price to be paid to the City, given the VPSA Purchase Price Objective and market conditions, will be less than the Proceeds Requested.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MARTINSVILLE, VIRGINIA:

1. **Authorization of Local School Bond and Use of Proceeds**. The Council hereby determines that it is advisable to contract a debt and issue and sell its general obligation school bond in a principal amount not to exceed $9,300,000 **(the "Local School Bond")** for the purpose of financing the Project and the City's allocable share of (A) VPSA's costs of issuing the VPSA Bonds and (B) any upfront flat fees of VPSA as determined by VPSA to be necessary to compensate VPSA for the on-going costs related to administering the local school bonds purchased with the VPSA Bonds, including the City's Local School Bond (such upfront fees may be in lieu of the Annual Administrative Fee described in paragraph 4 in this Ordinance). The Council hereby authorizes the issuance and sale of the Local School Bond in the form and upon the terms established pursuant to this Ordinance and the Bond Sale Agreement.

2. **Sale of the Local School Bond**. The sale of the Local School Bond, within the parameters set forth in paragraph 4 of this Ordinance, to VPSA is authorized. Given the VPSA Purchase Price Objective and market conditions, the City acknowledges that the limitation on the maximum principal amount on the Local School Bond set forth in paragraph 1 of this Ordinance restricts VPSA's ability to generate the Proceeds Requested, however, the Local School Bond may be sold for a purchase price not lower than 90% of the Proceeds Requested. The Mayor of the City, the City Manager, or either of them and such other officer or officers of the City as either may designate are hereby authorized and directed to enter into an agreement with VPSA providing for the sale of the Local School Bond to VPSA **(the "Bond Sale Agreement")**. The Bond Sale Agreement shall be in substantially the form submitted to the Council at this meeting, which form is hereby approved.

3. **Details of the Local School Bond**. The Local School Bond shall be dated the date of its issuance and delivery; shall be designated "General Obligation School Bond, Series 2011;" shall bear interest from the date of delivery thereof payable semi-annually on dates specified by VPSA **(each, an "Interest Payment Date")** at the rates established in accordance with paragraph 4 of this Ordinance; and shall mature annually in the years **(each a "Principal Payment Date," and together with any Interest Payment Date, a "Payment Date")** and in the amounts **(the "Principal Installments")** determined by the City Manager, subject to the provisions of paragraph 4 of this Ordinance.

4. **Interest Rate and Principal Installments.** The City Manager is hereby authorized and directed to accept the interest rate on the Local School Bond established by VPSA, provided that each interest rate may be up to five one-hundredths of one percent (0.05%) over the interest rate to be paid by VPSA for the corresponding principal payment date of the VPSA Bonds, a portion of the proceeds of which will be used to purchase the Bonds, to the extent required by VPSA **(the "Annual Administrative Fee")**, and provided further that the true interest cost of the Local School Bond does not exceed seven and a half percent (7.50%) per annum. The Payment Dates and the Principal Installments shall be specified by VPSA. The City Manager is hereby authorized and directed to accept the final Payment Dates and the Principal Installments at the request of VPSA based on the final term to maturity of the VPSA Bonds, requirements imposed on VPSA by the nationally-recognized rating agencies and the final principal amount of the Local School Bond; provided, however, that the principal amount of the Local School Bond shall not exceed the amount authorized by this Ordinance and the final maturity of the Local School Bond shall be no later than the earlier of December 31, 2031 and the latest maturity date permitted under Section 54A of the Tax Code. The execution and delivery of the Local School Bond as described in paragraph 10 hereof shall conclusively evidence the approval and acceptance all of the details of the Local School Bond by the City Manager as authorized by this Ordinance.

5. **Certain Acknowledgements**. The City acknowledges that the interest rate on the Local School Bond will be set at the level necessary to pay the interest on the allocable portion of the VPSA Bonds plus the Annual Administrative Fee, if any, and that the City will be obligated to pay interest on the Local School Bond at the stated taxable rate thereon regardless of the elimination or reduction of the refundable credit to be received by VPSA due to (i) any amendments by Congress to Sections 54A, 54F or 6431 or any other applicable sections of the Tax Code, (ii) any failure or determination by Congress not to appropriate funds necessary to pay the refundable credit, (iii) any guidance or changes to guidance provided by the U.S. Department of Treasury or the Internal Revenue Service, or (iv) any action or omission by VPSA, the City or any other locality selling local school bonds to VPSA in connection with the VPSA Bonds that causes the VPSA Bonds to lose their status as QSCBs and/or specified tax credit bonds in whole or in part. It is also acknowledged that the City has the right to effect an extraordinary optional redemption of the Local School Bond in whole or in part upon the occurrence of any of these events as provided in the form of Local School Bond.

6. **Certain Investment Earnings.** The Council hereby acknowledges that VPSA will (i) issue the VPSA Bonds with multiple maturities or with a single "bullet" maturity, in either case, with a final maturity date on or shortly before the latest maturity date permitted for the VPSA Bonds under Section 54A of the Tax Code, (ii) invest the Principal Installments for the benefit of the City until they are applied to pay the principal of the VPSA Bonds and (iii) either remit the investment earnings periodically to the City or credit the investment earnings against the City's obligation to make Principal Installments, at the option of VPSA. The Council further acknowledges that VPSA may cause a portion of such earnings to be deposited into a reserve fund or account to be applied by VPSA for use to pay the costs, fees and expenses described in paragraph 15 below. Any balance in such reserve fund or account attributable to investment earnings on the City's Principal Installments as reasonably determined by VPSA will be remitted or credited to the City on the final maturity date of the VPSA Bonds.

7. **Form of the Local School Bond**. The Local School Bond shall be initially in the form of a single, temporary typewritten bond substantially in the form attached hereto as Exhibit A.

8. **Payment; Paying Agent and Bond Registrar**. The following provisions shall apply to the Local School Bond:

(a) For as long as VPSA is the registered owner of the Local School Bond, all payments of principal of and interest and premium, if any, on the Local School Bond shall be made in immediately available funds to, or at the direction of, VPSA at, or before 11:00 a.m. on the applicable Payment Date or date fixed for prepayment or redemption, or if such date is not a business day for Virginia banks or for the Commonwealth of Virginia, then at or before 11:00 a.m. on the business day next succeeding such Payment Date or date fixed for payment, prepayment or redemption.

(b) The Bond Registrar and Paying Agent for the Local School Bond shall be the banking institution selected by VPSA for such purposes.

9. **Prepayment or Redemption**. The Principal Installments of the Local School Bond may be subject to optional prepayment or redemption prior to their stated maturities as determined by VPSA. The Principal Installments of the Local School Bond will be subject to extraordinary mandatory redemption (i) if certain proceeds of the Local School Bond have not been spent within three years after the date of its issuance and delivery (which three year period may be extended by the U.S. Secretary of the Treasury or his delegate), (ii) due to a loss of "qualified tax credit bond" and "qualified school construction bond" status of the VPSA Bonds corresponding to the Local School Bond under Sections 54A and 54F of the Tax Code, and (iii) if due to (a) any amendments by Congress to Sections 54A, 54F or 6431 or any other applicable sections of the Tax Code or (b) any guidance or changes to guidance provided by the U.S. Department of Treasury or the Internal Revenue Service, there is a reduction or elimination of the direct payment of the refundable credit to be received by VPSA with respect to the VPSA Bonds. The Principal Installments of the Local School Bond shall be redeemed at the redemption prices and upon the other terms set forth in the Local School Bond.

10. **Execution of the Local School Bond**. The Mayor or Vice Mayor of the City and the Clerk or any Deputy Clerk of the Council are authorized and directed to execute and deliver the Local School Bond and to affix the seal of the City thereto.

11. **Pledge of Full Faith and Credit**. For the prompt payment of the principal of and interest and premium, if any, on the Local School Bond as the same shall become due, the full faith and credit of the City are hereby irrevocably pledged, and in each year while any of the Local School Bond shall be outstanding there shall be levied and collected in accordance with law an annual ad valorem tax upon all taxable property in the City subject to local taxation sufficient in amount to provide for the payment of the principal of and interest and premium, if any, on the Local School Bond as such principal and interest and premium, if any, shall become due, which tax shall be without limitation as to rate or amount and in addition to all other taxes authorized to be levied in the City to the extent other funds of the City are not lawfully available and appropriated for such purpose.

12. **Use of Proceeds Certificate and Tax Compliance Agreement**. The Mayor or Vice Mayor of the City, the City Manager and such other officer or officers of the City as either may designate are hereby authorized and directed to execute and deliver on behalf of the City a Use of Proceeds Certificate and Tax Compliance Agreement **(the "Tax Compliance Agreement")** setting forth the expected use and investment of the proceeds of the Local School Bond and containing such covenants as may be necessary for the VPSA Bonds to qualify as and to remain as "qualified tax credit bonds," "qualified school construction bonds" and "specified tax credit bonds" under Sections 54A, 54F and 6431 of the Tax Code and the applicable regulations. The Council covenants on behalf of the City that (i) the proceeds from the issuance and sale of the Local School Bond will be invested and expended as set forth in the Tax Compliance Agreement and that the City shall comply with the other covenants and representations contained therein and (ii) the City shall comply with the provisions of the Tax Code so that the VPSA Bonds will not lose their status as "qualified tax credit bonds," "qualified school construction bonds" and "specified tax credit bonds" under Sections 54A, 54F and 6431 of the Tax Code.

13. **State Non-Arbitrage Program; Proceeds Agreement**. The Council hereby determines that it is in the best interests of the City to authorize and direct the City Treasurer and Director of Finance to participate in the State Non-Arbitrage Program in connection with the Local School Bond. The Mayor or Vice Mayor of the City, the City Manager and such officer or officers of the City as either may designate are hereby authorized and directed to execute and deliver a Proceeds Agreement with respect to the deposit and investment of proceeds of the Local School Bond by and among the City, the other participants in the sale of the VPSA Bonds, VPSA, the investment manager and the depository, substantially in the form submitted to the Council at this meeting, which form is hereby approved.

14. **Continuing Disclosure Agreement**. The Mayor or Vice Mayor of the City, the City Manager and such other officer or officers of the City as either may designate are hereby authorized and directed to execute a Continuing Disclosure Agreement, as set forth in Appendix D to the Bond Sale Agreement, setting forth the reports and notices to be filed by the City and containing such covenants as may be necessary in order to show compliance with the provisions of the Securities and Exchange Commission Rule 15c2-12, under the Securities Exchange Act of 1934, as amended, and directed to make all filings required by Section 3 of the Bond Sale Agreement should the City be determined by the VPSA to be a MOP (as defined in the Continuing Disclosure Agreement).

15. **Fees, Costs and Expenses**. The City agrees to pay the following fees, costs and expenses incurred by VPSA in connection with its purchase and carrying of the Local School Bond within thirty days after receipt by the City Manager of a written bill therefor:

(A) The City's allocable share of (i) the fees, costs and expenses of the trustee, paying agent and bond registrar under the indenture pursuant to which VPSA will issue the VPSA Bonds and (ii) any fees, costs and expenses payable to third parties in connection with such indenture or VPSA's School Tax Credit Bond Program, as determined by VPSA; and

(B) To the extent permitted by law, the reasonable fees, costs and expenses, including reasonable attorneys' fees, if any, incurred by VPSA in connection with any false representation or certification or covenant default by the City or any City or School Board official, employee, agent or contractor under the Local School Bond, the Continuing Disclosure Agreement, the Tax Compliance Agreement, the Proceeds Agreement and/or any document, certificate or instrument associated therewith **(collectively, the "City Documents")**, or in connection with any extraordinary mandatory redemption of the Local School Bond as described in paragraph 9 above and the corresponding VPSA Bonds, any amendment to or discretionary action that VPSA makes or undertakes at the request of the City under any of the City Documents or any other document related to the VPSA Bonds.

16. **Filing of Ordinance**. The appropriate officers or agents of the City are hereby authorized and directed to cause a certified copy of this Ordinance to be filed with the Circuit Court of the City.

17. **Election to Proceed under Public Finance Act**. In accordance with Section 15.2-2601 of the Virginia Code, the Council elects to issue the Local School Bond pursuant to the provisions of the Public Finance Act of 1991, Chapter 26 of Title 15.2 of the Virginia Code **(the "Act")**.

18. **Further Actions**. The members of the Council and all officers, employees and agents of the City are hereby authorized to take such action as they or any one of them may consider necessary or desirable in connection with the issuance and sale of the Local School Bond and any such action previously taken is hereby ratified and confirmed. **Effective Date**. This Ordinance shall take effect immediately as provided for in the Act and pursuant to Section 3 of Chapter 3 of the City Charter.

Leon Towarnicki reported on the Building Energy Efficiency Project noting that since

September 27, 2011

February, 2011, City staff has been working with Trane and the Virginia Department of Mines, Minerals, and Energy (DMME) staff on the completion of a detailed energy audit for various City buildings and facilities. The energy audit has been completed, identifying a variety of projects that, if implemented, will result in substantial energy savings over time while addressing needed building infrastructure improvements. The City has received a grant in the amount of $400,000 from DMME to apply toward this project.

City of Martinsville Building Energy Efficiency Project

Tuesday, Sept. 27, 2011

Background

- In November, 2009, the City applied for a $400,000 ARRA grant through the Virginia Department of Mines, Minerals & Energy for the purpose of implementing various projects to make City buildings and facilities more energy efficient. The City was awarded the grant in early 2010. Funds under this grant are available through April, 2012.

Project Process

- The City contracted with Trane to perform a detailed building energy audit of the following buildings and facilities:
- Municipal Building (1968)
- Sheriff's Office Building (1977)
- Church St. and Southside Fire Stations (1968)
- Senior Services Building (<1950)
- Warehouse & Garage (1954)
- Water Treatment Plant (1948)
- Wastewater Treatment Plant (1962)

Project Process

- Building energy and water consumption records were reviewed
- Building lighting survey was conducted
- Building operations were reviewed
- HVAC systems/controls were reviewed
- Meetings with City & DMME staff to discuss findings, resulting in identification of a number of building upgrades to improve lighting, heating, and air conditioning while saving energy usage costs.

Project Options – "Option A"

- Use grant funds only - ($400,000) – no other funding needed. Project would consist of lighting upgrades only. Lighting upgrades in Municipal Building, Church St. & Southside Fire Station, Sheriff's office, Senior Center, Warehouse & Garage, Water Treatment Plant, and Wastewater Treatment Plant.

Project Options – "Option B"

- The "Base" option
- Addresses lighting in all buildings, controls issues in some buildings, and a significant number of control/HVAC issues in the Municipal Building.
- Lighting upgrades Municipal Building, Church St. and Southside Fire Stations, Sheriff's Office, Senior Center, Warehouse & Garage, Water Treatment Plant, Wastewater Treatment Plant.

"Option B", continued

- Controls upgrade at Senior Center, Sheriff's Office, Water Plant and Wastewater Plant
- Municipal Building – replacement of 2 electric boilers with gas units; AC-3 (police dept.) air handler replacement; computer server room AC installation; AC-5 (Council Chambers) duct modifications; replacement of all fan coil units, controls upgrades on remaining AHUs.
- Estimated project cost - $1,460,307 and guaranteed energy savings of $92,467/yr.

"Option B" continued

- Using the $400,000 DMME grant to pay down project costs results in a simple project payback period of approx. 11.5 yrs
- Under performance contract concept, the financed construction cost ($1,060,307) is paid by utilizing project energy savings.
- Option B takes care of many needs, but not all – roof replacement, chiller replacement, electric service, etc. are still needed.

Project Options – "Option C"

- The "Expanded" option
- Includes all work under option B/Base option
- Also includes replacement of 4 major air handlers (original to the building) in the remainder of the Municipal Building
- Estimated project cost - $2,162,499 and guaranteed energy savings of $108,519/yr.
- Using the $400,000 DMME grant to pay down project costs results in a simple project pay back period of 16.2 yrs.

"Option C" continued

- As with option B, many needs are addressed but not all – future needs includes roof replacement, chiller replacement, electric service upgrades, etc.

Recommendation

- Staff recommends pursuing option B at this time at an estimated cost of $1,460,307, utilizing the $400,000 DMME grant to pay down the construction cost, realizing the balance of $1,060,307 will be financed. Staff will explore financing options with Trane as well as conventional sources, and will bring a project financing proposal back to Council at a later date.

Conclusion

- Utilizing the $400,000 grant with option B under a performance contract concept allows many needed building improvements to occur while having no net effect on the City's budget. The combined energy saving costs in the buildings/facilities included in this project will be used to finance project construction costs.

After lengthy discussion, Council agreed to have staff proceed with financing options for Option B and bring back to Council for further Council discussion on how the debt service will be funded and the impact to future City budget.

September 27, 2011

On a motion by Gene Teague, seconded by Mark Stroud, with a 5-0 vote, Council agreed to amend the Drought Response and Contingency Plan ordinance as noted in the following strikethrough text: (d) Drought Emergency – Stage 2: As drought conditions continue to worsen, a drought emergency – stage 2 may be declared by the City Manager or their designee in accordance with the Drought Response and Contingency Plan. When a drought emergency – stage 2 exists, in addition to the restrictions imposed under the drought emergency – stage 1, the following will be prohibited:

> Watering lawns, grass, shrubbery, trees, or flowers, except persons regularly engaged in the sale of plants shall be permitted to use water for irrigation of their commercial stock ~~and golf courses may water greens~~

On a motion by Gene Teague, seconded by Kimble Reynolds, with the following 5-0 recorded vote: Adkins, aye; Teague, aye; Reynolds, aye; Stroud, aye; and Turner, aye, Council approved the Drought Response and Contingency Plan ordinance on second reading:

CITY OF MARTINSVILLE, VIRGINIA ORDINANCE NO. 2011-___

Sec. 23-4 Currently reserved, is hereby enacted as follows:

Sec. 23-4 Water Emergencies

A. Authority to declare water emergencies.

During the continued existence of climatic, hydrological and other extraordinary conditions the protection of the health, safety and welfare of the residents of the City of Martinsville may require that certain uses of water, not essential to public health, safety and welfare, be reduced, restricted or curtailed. As the shortage of raw or potable water becomes increasingly more critical, conservation measures to reduce consumption or curtail nonessential water use may be necessary. The definitions, water emergency criteria, and water use restrictions referenced in this ordinance are presented in greater detail in the City of Martinsville Drought Response and Contingency Plan, which is incorporated herein by reference.

The City Manager or their designee is authorized to declare a water emergency in the City restricting the use of water in any area of the City. All water stages are built upon and require compliance with previous water stages. For example when a Drought Emergency – Stage 1 is declared all provisions of a Drought Warning are in effect. Also the City Manager or their designee may declare any of the four stages; they do not have to be declared sequentially.

B. Publication of declaration.

Upon the declaration of a water emergency, the City Manager or their designee shall immediately post a written notice of the emergency at the front door of City Hall and shall place a notice in a newspaper of general circulation in the area in which such emergency has been declared.

C. Water use considerations.

Upon the declaration of a water shortage or emergency, the City Manager or their designee is authorized and directed to implement conservation measures by ordering the restricted use or absolute curtailment of the use of water for certain nonessential purposes for the duration of the water shortage or emergency in the manner hereinafter set out. In exercising this discretionary authority, and making the determinations set forth hereof, the City Manager or their designee shall give due consideration to water levels, streamflow conditions, available/usable storage on hand, draw down rates and the projected supply capability in the City; system purification and pumping capacity; daily water consumption and consumption projections of the system's customers; prevailing and forecast weather conditions; fire service requirements; pipeline conditions including breakages, stoppages and leaks; supplementary source data; estimates of minimum essential supplies to preserve public health and safety and such other data pertinent to the past, current and projected water demands.

D. Limitation of restrictions.

The provisions of this article shall not apply to any governmental activity, institution, business or industry which shall be declared by the City Manager or their designee, upon a proper showing, to be necessary for the public health, safety and welfare or the prevention of severe economic hardship or the substantial loss of employment. Any activity, institution, business or industry aggrieved by the finding of the City Manager or their designee may appeal that decision to the City Council.

E. Water conservation measures.

Upon a determination by the City Manager or their designee of the existence of the following conditions, the City Manager or their designee shall take the following actions that shall apply to all water users in the City:

(a) Drought Watch: When moderate but limited supplies of water are available and a drought watch is declared in accordance with the Drought Response and Contingency Plan, the City Manager or their designee shall, through appropriate means, call upon the general population to employ prudent restraint in water usage. Public outreach activities shall be identified to inform the general population of the potential for drought conditions to intensify and potential water conservation activities that may be utilized.

(b) Drought Warning: The drought warning stage includes voluntary water conservation actions due to imminent onset of a significant drought event. When a drought warning exists, the following voluntary water restrictions are requested:

- Voluntary, commercial, manufacturing, institutional and residential conservation measures will be strongly encouraged and recommended including the following:
  - Inspect and repair all faulty and defective parts of faucets and toilets.
  - Use shower for bathing rather than bathtub and limit shower to no more than five minutes.
  - Do not leave faucets running while shaving, rinsing dishes, or brushing teeth.
  - Limit use of clothes washers and dishwashers and when used, operate fully loaded.
  - Limit lawn watering to that necessary for plant survival.
  - Water shrubbery the minimum required, reusing household water when possible.
  - Limit vehicle washing.
  - Do not wash down outside areas such as sidewalks, patios, driveways, etc.
  - Install water flow restrictions in showerheads and other water saving devices.
  - Use disposable and biodegradable dishes where possible.
  - Install water saving devices in toilets, such as early closing flapper valves.
  - Do not fill swimming pools.
- An extensive publicity campaign will be initiated using public media and specialized methods to inform the public of an impending water shortage.

- Water supply line pressure should be reduced where feasible to reduce water consumption if it will not affect operation of fixtures, equipment or public safety devices.
- Conservation in public buildings, institutions, dormitories, and similar facilities is encouraged by reducing pressure at plumbing fixtures and by installation of restricting devices.
- All residents, business, and institutions are requested to delay new landscape work until the water shortage has ended.
- Water conservation should be followed during all phases of construction related activities. Where appropriate, water needed should be obtained from supplemental sources and construction related activities, which require water, should be delayed until such time as the water emergency has ended.

All industrial, manufacturing, and commercial enterprises shall reduce consumption to any degree feasible with a goal of a reduction of 10%.

(c) Drought Emergency – Stage 1: As drought conditions continue to worsen, a drought emergency – stage 1 may be declared by the City Manager or their designee in accordance with the Drought Response and Contingency Plan. When a drought emergency – stage 1 exists, the following will be prohibited:

- Watering lawns, grass, shrubbery, trees, flower, and vegetable gardens except by hand held hose, container, or drip irrigation system, except persons regularly engaged in the sale of plants will be permitted to use water for irrigation of their commercial stock and golf courses may water greens;
- Filling of newly constructed swimming pools and/or wading pools or refill swimming and/or wading pools, which have been drained;
- Operating water-cooled air conditioners or other equipment that does not recycle cooling water, except when health and safety are adversely affected;
- Washing automobiles, trucks, trailers, boats, airplanes, or any other type of mobile equipment, except persons regularly engaged in the business of washing motor vehicles and any commercial car wash facility will be permitted to use water for such purposes;
- Washing down outside areas such as streets, driveways, service station aprons, parking lots, office buildings, exteriors or existing or newly constructed homes or apartments, sidewalks, or patios or to use water for similar purposes;
- Operation of ornamental fountain, pool, or pond or other structure making similar use of water;
- Serving drinking water in restaurants, cafeterias, or other food establishments, except as requested by the customer;
- Using public or private fire hydrants for any purpose other than fire suppression or other public emergency or Utility Department need ;
- Using water for dust control or compaction; and
- Using water for any unnecessary purpose or intentionally waste water.

All industrial, manufacturing, and commercial enterprises shall reduce consumption to any degree feasible with a goal of a reduction 10-15%.

(d) Drought Emergency – Stage 2: As drought conditions continue to worsen, a drought emergency – stage 2 may be declared by the City Manager or their designee in accordance with the Drought Response and Contingency Plan. When a drought emergency – stage 2 exists, in addition to the restrictions imposed under the drought emergency – stage 1, the following will be prohibited:

- Watering lawns, grass, shrubbery, trees, or flowers, except persons regularly engaged in the sale of plants shall be permitted to use water for irrigation of their commercial stock ~~and golf courses may water greens~~;
- Watering any vegetable garden, except by hand held hose, container, or drip irrigation system;
- All nonessential use of water for commercial or public use;
- Using water outside a structure for any use other than an emergency use involving fire or as needed by the water utility to maintain the water system;
- Operating an evaporative air conditioning unit which recycles water, except as may be required for health and safety; and
- Other restrictions as may be deemed appropriate and adopted by the City Council.

All industrial, manufacturing, and commercial enterprises shall reduce consumption to any degree feasible with a goal of a reduction of at least 15-25%.

F. Penalty and enforcement.

(a) Any person who violates any provision of this article shall be subject to the following civil penalties:

(1) For the first offense, violators shall receive a written warning delivered in person or posted by a representative of the City.

(2) For the second offense, violators shall be fined fifty dollars ($50.00), the fine to be imposed on the violator's next water bill, or in the case of violators not on the public water system, in a written notice.

(3) For the third and each subsequent offense, violators shall be fined one hundred dollars ($100.00) for each offense, the fine to be imposed on the violator's next water bill, or in the case of violators not on the public water system, in a written notice.

(4) Each violation by a person shall be counted as a separate violation by that person, irrespective of the location at which the violation occurs.

(b) Persons who have been assessed a penalty shall have the right to challenge the assessment by providing a written notice to the City Manager or their designee within ten (10) days of the date of the assessment of the penalty. The City Manager or their designee shall determine that the penalty was properly assessed and notify the complaining person in writing of his determination.

(c) The City Manager or their designee may waive the penalty if he determines that the violation occurred due to no fault of the person.

G. Notification of end of water emergency.

The City Manager or their designee, following discussions with the Authority, shall notify the City Council when, in his opinion, the water emergency situation no longer exists. Upon concurrence of the City Council, the water emergency shall be declared to have ended. When this declaration is made, the information shall be conveyed to the general public through the news media.

On a motion by Gene Teague, seconded by Kimble Reynolds, with a 5-0 vote, Council approved the following consent agenda including approval of minutes of Council meetings of August 23, Sept. 9, Sept. 12 tour, and Sept. 12, 2011:

BUDGET ADDITIONS FOR 9/27/11

ORG	OBJECT	DESCRIPTION	DEBIT	CREDIT
FY11				
GENERAL FUND				
01101917	442810	Categorical Other State - Highway Projects		2,808
01413151	503140	Thorofare Construction - Prof. Service Engineering	2,808	
		state reimbursements-Liberty St.		

01100909	490132	Recovered Costs - Project Lifesaver		980
01217078	506047	Sheriff - Courts - Project Lifesaver additional recovered costs	980	
01101917	490110	Categorical Other State - Nat'l Guard Armory		4,077
01715213	506007	Armory - Repairs & Maintenance Additional Reimb	4,077	
Total General Fund:			7,865	7,865

BUDGET ADDITIONS FOR 09/27/11

ORG	OBJECT	DESCRIPTION	DEBIT	CREDIT
FY12				
GENERAL FUND				
1100909	490134	Recovered Costs - Parks & Recreation		106
1711210	506091	Parks & Recreation - Special Events/Cruise In Costs recovered from various sponsors	106	
1101917	442810	Categorical Other State - Highway Projects		4,584
1413151	503140	Thorofare Construction - Prof. Service Engineering state reimbursements-Liberty St.	4,584	
Total General Fund:			4,690	4,690

Council asked that in the future that the minutes be listed as a separate agenda item rather than with the consent agenda.

Business from floor: Ural Harris, 217 Stuart St., comments regarding school funding and AMP.

Council comments: Reynolds-encouraged attendance at Oktoberfest; Stroud-commended Farmers Market for weekend event and encouraged citizens to tour the high school; Turner-condolences to family of Lorene Martin.

In accordance with Section 2.1-344 (A) of the Code of Virginia (1950, and as amended) and upon a motion by Gene Teague, seconded by Danny Turner, with the following 5-0 recorded vote: Adkins, aye; Teague, aye; Reynolds, aye; Stroud, aye; and Turner, aye, Council convened in Closed Session, for the purpose of discussing the following matters:

A. Discussion of the award of a public contract involving the expenditure of public funds, including interviews or bidders or offerors, and discussion of the terms or scope of such contract, where discussion in an open session would adversely affect the bargaining position or negotiating strategy of the public body as authorized by Subsection 29.
B. Discussion or consideration of the acquisition of real property for a public purpose, or the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body as authorized by Subsection 3.
C. Discussion concerning a prospective business or industry or the expansion of an existing business or industry where no previous announcement has been made of the business' or industry's interest in locating or expanding its facilities in the community as authorized by Subsection 5.
D. Discussion or consideration of the investment of public funds where competition or bargaining is involved where, if made public initially, the financial interest of the governmental unit would be adversely affected as authorized by Subsection 6.

At the conclusion of Closed Session, each returning member of Council certified that (1) only public business matters exempt from open meeting requirements were discussed in said Closed Session; and (2) only those business matters identified in the motion convening the Closed Session were heard, discussed, or considered during Session. On a motion by Gene Teague, seconded by Danny Turner, with the following recorded 5-0 vote: Adkins, aye;

Reynolds, aye; Teague, aye; Stroud, aye; and Turner, aye, Council returned to Open Session. The following action was taken: On a motion by Gene Teague, seconded by Mark Stroud, with a 5-0 vote, Council authorized the execution of the following revised Facilities Cost Agreement for Social Services, City of Martinsville, and Henry County:

FACILITY COSTS AGREEMENT

THIS FACILITY COSTS AGREEMENT (FCA) is made this _____ day of _____, 2011, by and between The County of Henry, Virginia, (hereinafter referred to as the "County") whose address is P. O. Box 7, 3300 Kings Mountain Road, Collinsville, Virginia, and the City of Martinsville, Virginia, (hereinafter referred to as the "City") whose address is P. O. Box 1112, 55 East Church Street, Martinsville, Virginia, 24112, hereinafter referred to as (the "Owners"), and The Henry-Martinsville Department of Social Services, (hereinafter referred to as the "Agency") whose address is P. O. Drawer 832, Martinsville, Virginia, 24114, 20 Progress Drive, Martinsville, 24112.

The Owners hereby designate the County of Henry to act on behalf of the Owners for all matters related to this FCA.

In consideration of the mutual promises and covenants set forth below, as well as other good and valuable consideration, the receipt of which is acknowledged, the parties hereto agree as follows:

1. REAL PROPERTY, TERM OF OCCUPANCY, AND RENEWALS. Owners hereby assign right of occupancy to the Agency for the property and improvements at the "Premises" (as shown on the attached exhibit) for the term of five (5) years, beginning October 1, 2011 and expiring on October 1, 2016. This FCA shall automatically renew for additional one year terms, each year unless a party hereto provides the other parties written notice of intent not to renew ninety (90) days prior to the expiration of the term.

2. ADA ACCESSIBILITY. Prior to delivery of facility to the Agency, the County shall certify to the Agency that the premises comply with the minimum requirement of the American's with Disabilities Act of 1990 (ADA).

3. USE OF PREMISES. The Premises will be used by the Agency as the offices of the Henry-Martinsville Department of Social Services and for no other purpose.

4. ACCEPTANCE OF PREMISES AND ANNUAL INSPECTION. The County and the Agency agree that prior to occupancy of premises, a representative of the Owners and Agency shall inspect the Premises to determine if there are any repairs necessary before occupancy. Prior to March 1 of each year the Owners and Agency shall inspect the facility to determine if any items are in need of repairs or replacement that would be the responsibility of the Owners to be considered in the annual budget process. The Agency is responsible for submitting the annual inspection report.

5. FACILITY COSTS. The Agency agrees to pay as facility costs the total sum of ($69,192.71) annually. Beginning upon occupancy said facility costs will be paid in arrears in equal monthly payments due and payable on the last day of business each month, without notice, demand, or offset, in monthly payments of ($5,766.05). Due to the joint ownership of the occupied premises the Agency will remit 66% of the facility costs ($3,805.59) to the County of Henry and 34% of the facility costs ($1,960.46) to the City of Martinsville, as designated in this FCA. Facility costs shall not be duplicated in the CSAP.

FACILITY COST DATA.

A) The County purchased the building for $1,650,000 and the Department of Social Services is allocated 55.412% (37,320 sq. ft.) of the total square footage of the building. The remaining 44.588% (30,030 sq. ft.) of the building is unfinished space.

B) The maximum amount of office space per employee is 198.

C) The useful life assigned to the building is 30 years.

D) The amount of depreciation expense reported to date is $121,087.26 through September 30, 2011.

E) The outstanding useful life is 28 years and 3 months at a monthly depreciation cost of $5,766.05 or $69,192.71 annually.

6. PARKING. The County agrees to provide 199 parking spaces for the non-exclusive use of the Agency. Eight parking spaces shall be designated for handicapped parking. If the Owners upfit additional unfinished space in the building and lease to one or more additional tenants, the Owners agree to provide additional parking spaces to accommodate the additional tenants.

7. SIGNAGE. The County will cooperate with the Agency to allow installation of building and monument signage of an agreed upon size and style.

8. UTILITIES. The Agency shall pay, as and when the same become due and payable, all charges for water and sewer, and all charges for electricity, gas, heat, telephone service and other utilities supplied the Premises. These charges are not included in the facility costs and will be incurred and billed by means of separate service contracts between the Agency and the service providers.

9. ALTERATIONS AND IMPROVEMENTS. Agency agrees that no alterations, installations, and major repairs shall be done to the Premises without the County's written consent. Such consent will not be unreasonably withheld.

10. MAINTENANCE AND REPAIRS OF PREMISES.

(A) During the term of this FCA, the Agency shall keep the interior of the Premises in good order and repair. Damage by fire, the elements or other casualty, and repairs or replacements as outlined herein shall be the obligation of the County. Agency shall also keep the premises free from refuse and other debris during the term hereof. Agency will also be responsible for procuring janitorial services for the Premises; said janitorial services are not included in the facility costs.

(B) Agency shall enter into preventative maintenance contracts and be responsible for all repairs to heating, ventilating and cooling equipment, elevator and fire alarm/security systems installed on the premises; provided, however, that the County shall be responsible for the replacement thereof when necessitated by age and ordinary wear and tear, fire, the elements or other casualty.

(C) Agency also accepts the responsibility for payment of the first one thousand dollars ($1,000) of any repairs to the premises. Those amounts incurred over $1,000 shall be pre-approved by the Owners and billed to and paid by the County of Henry (66%) and the City of Martinsville (34%).

11. SNOW REMOVAL AND LAWN MAINTENANCE. Agency is responsible for maintenance of all exterior common areas including the collection and removal of litter and trash, mowing of grass, maintenance of landscaping and removal of snow and ice from sidewalks. The City agrees to remove snow from the parking lot area. Agency acknowledges that said snow removal from parking lot by Owners shall occur at the same time as snow is removed from Progress Drive by the City of Martinsville.

12. INSPECTIONS AND ACCESS. The County and its representatives may enter the premises to make inspections, repairs, decorations, alterations or improvements. Except in case of emergency or when it is impractical to give notice, the County will give Agency reasonable notice of the County's intent to enter and may enter the Premises only at reasonable times.

13. COVENANTS BY OWNERS. The County shall keep the Premises insured against loss or damage. The City shall pay 34% of said costs. Agency is responsible for insuring the contents of the occupied area and shall pay for same and provide proof of insurance to the County.

14. COVENANTS BY AGENCY.

(A) Agency shall (1) use, maintain and occupy the Premises in a careful, safe, proper and lawful manner, keep the appurtenances, including adjoining areas and sidewalks in a clean and safe condition; (2) maintain the Premises at its own expense in a clean, orderly and sanitary condition, free of insects, rodents, vermin and other pests; (3) not permit undue accumulations of garbage, trash, rubbish and other refuse; (4) remove such refuse at its own expense.

(B) Agency shall, at its expense, keep the Premises, signs and sidewalks and the parking areas, as designated, adjacent to the premises, in a clean, safe and sanitary condition; conform to applicable laws, ordinances, regulations, and codes; and store all trash and garbage within the premises, or in such places as the County may designate. Agency shall not mark, drill, deface, injure or damage the premises; conduct business so as to constitute a nuisance to other property owners or tenants or occupants in the building and area; burn trash on the property; permit rubbish, refuse or garbage to accumulate or a fire hazard to exist about the Premises; overload any floor facility; or throw foreign substances in plumbing facilities or use the same for any purpose other than that for which constructed.

Agency agrees not to change or add locks without giving the County immediate notice and a duplicate of all keys, except in those areas where checks, marketable securities, food stamps and any confidential documents are stored.

Agency agrees to pay all costs resulting from the intentional or negligent destruction, damage or removal of any part of the Premises by Agency or by any of Agency's guests or other persons on the Premises with Agency's consent.

15. **ASSIGNMENT OR SUBLET.** Agency will not assign this FCA or sublet the Premises without the County's prior written consent. No assignment or sublet will release Agency from continuing liability for the full performance of this FCA unless the County signs a written statement clearly releasing Agency from such liability.

16. **NOTICES.** All notices in writing required or permitted by this FCA may be delivered in person, or sent by certified mail, return receipt requested (postage prepaid) to the County of Henry, Agency, or Agent at such parties' addresses, as set forth herein or at such other address as a party may designate from time to time by notice given in accordance with the terms of this section; however, Agency shall be deemed to have received notice if such notice is delivered or served at the address of the Premises. The County's recipient for notice shall be the County Administrator whose address is P. O. Box 7, 3300 Kings Mountain Road, Collinsville, Virginia 24078. The City's recipient for notice shall be the City Manager whose address is P. O. Box 1112, 55 East Church Street, Martinsville, Virginia, 24112. The Social Services recipient for notice shall be the Director whose address is P. O. Drawer 832, 20 Progress Drive, Martinsville, Virginia 24112.

17. **HEADINGS.** The headings of the sections of this FCA are inserted for convenience only and do not alter or amend the provisions that follow such headings.

18. **GOVERNING LAW.** This FCA is entered into and shall be construed under the laws of the Commonwealth of Virginia.

19. **SEVERABILITY.** Any provision of this FCA which is prohibited by, or unlawful or unenforceable under, Virginia law shall be ineffective only to the extent of such prohibition without invalidating the remaining provisions of this FCA.

20. **AMENDMENTS.** This FCA may be amended only by a writing signed by the parties, or by a change in the County's rules and regulations, provided that at least 90 days notice of such change is given to Agency and provided that such changes do not substantially modify Agency's arrangement with the County.

21. **ENTIRE AGREEMENT.** This FCA and any rules and regulations of the County constitute the entire agreement between the County and the Agency. No oral statements made by either party shall be binding.

The City of Martinsville joins in this agreement to acknowledge the FCA was prepared by the County of Henry and to signify their agreement to all the terms herein.

WITNESS the following signatures:

COUNTY OF HENRY
By _____
Debra Buchanan, Chairman
Henry County Board of Supervisors

ATTEST:
_____
Benny Summerlin, Clerk to the Board

State of Virginia,
County of Henry, to-wit: The foregoing instrument was acknowledged before me this _____ day of _____, _____, by Debra Buchanan, Chairman of the Henry County Board of Supervisors and Benny Summerlin, Clerk to the Henry County Board of Supervisors, respectively, on behalf of the County of Henry.

_____
Notary Public

_____
Commission Expiration & ID No.

(Notary Seal)

Witness the following signatures:

CITY OF MARTINSVILLE
By _____
Kim Adkins, Mayor

ATTEST:
_____
Clarence Monday, Clerk of Council

State of Virginia,
City of Martinsville, to-wit: The foregoing instrument was acknowledged before me this _____ day of _____, _____, by Kim Adkins, Mayor of the City of Martinsville and Clarence Monday, Clerk of City Council, respectively, on behalf of the City of Martinsville.

_____
Notary Public

_____
Commission Expiration & ID No.

(Notary Seal)

Witness the following signatures:

HENRY-MARTINSVILLE DEPARTMENT
OF SOCIAL SERVICES
By _____
Ron Ferrill, Chairman
Henry-Martinsville Board of Social Services

September 27, 2011

ATTEST:

_____

Amy Tuttle, Director
Henry-Martinsville Department of Social Services

State of Virginia,
City of Martinsville, to-wit: The foregoing instrument was acknowledged before me this _____ day of _____, _____, by Ron Ferrill, Chairman of the Henry-Martinsville Board of Social Services and Amy Tuttle, Director of Social Services, respectively, on behalf of the Henry-Martinsville Department of Social Services.

_____
Notary Public

_____
Commission Expiration, & ID No.

(Notary Seal)

Description of Occupied Premises

The occupied premises shall include non-exclusive use and access to all outside common areas to include parking as well as 36,000-square feet of interior office space and fixtures as shown in the attached exhibit.

There being no further business, the meeting adjourned at 10:37 PM.

_____
Clarence Monday
Clerk of Council

_____
Kim Adkins
Mayor

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 3.

Department: Police

Issue: Consider approval of Virginia Highway Safety Selective Enforcement Grant # K8-2012-52232-4610-20.601 ($27,490) and hold a public comment period.

Summary: The Martinsville Police Department received a selective enforcement grant of $27,490 to be used between October 1, 2011 and September 30, 2012 for highway traffic safety. These funds will be used by the Martinsville Police Department to address general traffic safety issues through checking details, speed enforcement, and various other enforcement endeavors.

Attachments:

Recommendations: Staff requests a motion for approval of this grant to satisfy the governing body review requirement and open the floor to public comment to satisfy the public comment requirement of this grant. (no notice/advertisement required for public comment)

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 4.

Department: Police

Issue: Consider approval of Virginia Highway Safety Piedmont Regional Occupant Protection Grant # K2-2012-51432-4695-20.602 ($28,000) and hold a public comment period.

Summary: The Martinsville Police Department received a regional occupant protection grant of $28,000 to be used between October 1, 2011 and September 30, 2012 for seat belt law enforcement. These funds were designed to increase seat belt usage in our region and will be shared between the City of Martinsville, Henry County, the City of Danville, Pittsylvania County, Gretna Police Department and Chatham Police Department. The Martinsville Police Department was designated as the fiscal agent to administer this grant due to past performance and positive use of these types of funds.

Attachments: none

Recommendations: Staff requests a motion for approval of this grant to satisfy the governing body review requirement and open the floor to public comment to satisfy the public comment requirement of this grant. (no notice/advertisement required for public comment)

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 5.

Department: Police

Issue: Consider approval of Virginia Highway Safety Piedmont Regional Occupant Protection Grant # K2-2011-51432-4694-20.602 ($10,000) and hold a public comment period.

Summary: The Martinsville Police Department received a regional occupant protection grant of $10,000 to be used during September 2011 for seat belt law enforcement. These funds were designed to increase seat belt usage in our region and were shared between the City of Martinsville, Henry County, the City of Danville, Pittsylvania County, Gretna Police Department and Chatham Police Department. The Martinsville Police Department was designated as the fiscal agent to administer this grant due to past performance and positive use of these types of funds. There

Attachments:

Recommendations: Staff requests a motion for approval of this grant to satisfy the governing body review requirement and open the floor to public comment to satisfy the public comment requirement of this grant. (no notice/advertisement required for public comment)

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 6.

Department: Public Works

Issue: Consider setting a Public Hearing for the November 22, 2011 Council meeting on the 2011 update of the City of Martinsville's Solid Waste Management Plan.

Summary: Section 9 VAC 20-130-175.F of the Solid Waste Planning and Recycling Regulations, Amendment 2 requires that solid waste management planning units submit a plan update on a 5-year cycle. The City's last SWMP update was approved by Virginia DEQ on December 12, 2006, with the 5 year update due on or before December 12, 2011.

The City and Henry County (including the Town of Ridgeway) have submitted joint plans previously and will do so again with the current update with the City's solid waste engineering consultant, Joyce Engineering, Inc., handling the project. The Public Hearing on November 22nd is required to fulfill the public participation element of the plan and Henry County will likewise hold their hearing on the same date.

A detailed review of the plan will be presented at the November 22nd Council meeting. In the meantime, copies of the plan are being placed for public review at the Library on East Church Street, in the Martinsville Public Works office, Room 226 of the Municipal Building, and at the Henry County Administration Building. Additionally, a link to the plan will be posted on the City's website for viewing via the Internet.

Attachments: Letter from DEQ titled "Guidance for the SWMP 5-Year Update"
SWMP Plan document for viewing

Recommendations: Staff recommends that Council set a Public Hearing for the Solid Waste Management Plan update for the November 22, 2011 meeting.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
TDD (804) 698-4021
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

September 24, 2010

Mr. Leon Towarnicki, Director
Department of Public Works
City of Martinsville
PO Box 1112
Martinsville, VA 24114

Subject: Guidance for the Solid Waste Management Plan 5-Year Update

Dear Mr. Towarnicki:

Section 9 VAC 20-130-175.F of the Solid Waste Planning and Recycling Regulations, Amendment 2 requires that solid waste management planning units submit a plan update certification letter on or before the five-year anniversary of the Department's plan-approval date.

The Department approved the City of Martinsville's Solid Waste Management Plan on December 12, 2006. Therefore the 5-year update for the City of Martinsville is due on or before December 12, 2011.

Enclosed is the Virginia Department of Environmental Quality's Final Guidance for the Solid Waste Management Plan 5-Year Update.

This Guidance can also be found online at the Virginia Regulatory Townhall: http://townhall.virginia.gov/L/GDocs.cfm?boardid=119.

This letter should not be considered a legal opinion or case decision as defined by the Administrative Process Act, Va. Code § 2.2-4000 *et seq*.

If you have any questions, please call me at (804) 698-4218.

Sincerely,

Daniel S. Gwinner
Environmental Engineer Senior
Office of Waste Technical Support
Waste Division

Enclosure

cc: Aziz Farahmand – VADEQ (letter only)
Sanjay Thirunagari – VADEQ (letter only)

Solid Waste Management Plan 5-Year Update Guidance
Guidance 04-2009

I. Introduction

The purpose of this document is to provide guidance for the five-year anniversary update of their solid waste management plans (SWMPs) by the solid waste planning units.

II. Authority

Under Section 9 VAC 20-130-175.F of the Solid Waste Planning and Recycling Regulations, Amendment 2 the solid waste management planning units are required to maintain current solid waste management plans.

Section 175.F further requires that each planning unit shall submit a plan update certification letter on or before the five-year anniversary of the Department's plan-approval date. The letter of certification will be used in the department's assessment of whether any plan amendments are necessary and to ensure compliance with 9 VAC 20-130-110.E.

III. Reporting Requirements

The items to be considered for the plan update are found in Section 9 VAC 20-130-120.C of the regulations. Listed below are the items to report for the update:

A. Waste generation estimate are current, both in quantities generated and composition.
B. The scheduled 20-year planning increments have been met
C. The projected 20-year waste management capacity remains available or the projects designed to meet the required capacity are on schedule.

Other items from Section 9 VAC 20-130-120.C that should be taken in consideration in determining the status of the above items are:

- Population information and projections for 20 years of population growth and development patterns;
- Estimates of solid waste generation from residential, commercial institutional, industrial, construction, demolition, debris and other types of sources, including the amounts reused, recycled, recovered as a resource, incinerated and landfilled.
- Existing and planned solid waste collection, storage, treatment, transportation, disposal and other management facilities, their projected capacities, expected life and systems for their use;
- All milestones in the implementation of the solid waste management plan over the 20-year projection and the parties responsible for each milestone;
- The assessment of all current and predicted needs for solid waste management for a period of 20 years and a description of the action to be taken to meet those needs.

IV. Update Reporting Content

The five-year anniversary update report should consist of a letter from the solid waste planning unit certifying that the items in Section III. A through C above have been maintained and updated. Each item should be specifically named and accompanied by a statement that the item has been maintained and updated.

It is not required that the planning unit submits data to corroborate the updated items. However, the planning units are encouraged to supply any information necessary to keep the Department's copy of the plan in current condition, or submit an updated plan for the record. Any updated information should be kept on file by the solid waste planning unit as part of the Solid Waste Management Plan.

Submit the five-year anniversary update to:

Daniel S. Gwinner
The Virginia Department of Environmental Quality
Office of Waste Technical Support
PO Box 1105
Richmond, VA 23218

PREPARED FOR:

CITY OF MARTINSVILLE
55 WEST CHURCH STREET
MARTINSVILLE, VIRGINIA 24112

CITY OF MARTINSVILLE
HENRY COUNTY
TOWN OF RIDGEWAY

SOLID WASTE MANAGEMENT PLAN FIVE-YEAR UPDATE

OCTOBER 2011

PREPARED BY:

JOYCE ENGINEERING
2211 WEST MEADOWVIEW ROAD, SUITE 101
GREENSBORO, NORTH CAROLINA 27407
NC LICENSE NUMBER C-0782
PHONE: (336) 323-0092
FAX: (336) 323-0093
JEI PROJECT NO. 00241.1101.11.01

CITY OF MARTINSVILLE AND HENRY COUNTY
SOLID WASTE MANAGEMENT PLAN

Table of Contents

SECTION **PAGE**

1.0 INTRODUCTION 1

1.1 SUMMARY 1
1.2 PLAN GOALS 1

2.0 PROJECTIONS AND WASTE QUANTITIES 1

2.1 SWMP COVERAGE AREA 1
2.2 POPULATION DATA AND PROJECTIONS 2
2.2.1 CITY OF MARTINSVILLE 3
2.2.2 HENRY COUNTY 3
2.2.3 TOWN OF RIDGEWAY 4
2.3 COMPOSITION OF SOLID WASTE 4
2.4 CURRENT MARKET CONDITIONS 5
2.5 SOLID WASTE GENERATION AND FLOW PATTERNS 6
2.5.1 TYPES OF WASTE GENERATED 6
2.5.2 WASTE STREAM PROJECTIONS 7
2.5.2.1 Municipal Solid Waste 7
2.5.2.2 Industrial Waste 9
2.5.2.3 Sludge 9
2.5.2.4 Recyclable Materials 10
2.5.2.5 Other Special Wastes 11
2.5.2.6 Household Hazardous Waste 12

3.0 SOLID WASTE MANAGEMENT SYSTEM 12

3.1 COLLECTION 12
3.1.1 RESIDENTIAL WASTE AND RECYCLING 12
3.1.1.1 City of Martinsville 12
3.1.1.2 Henry County 13
3.1.1.3 Town of Ridgeway 13
3.1.2 COMMERCIAL INSTITUTIONS AND INDUSTRIES 14
3.2 DISPOSAL 14
3.2.1 MUNICIPAL SOLID WASTE 15
3.2.2 INDUSTRIAL WASTE 15
3.2.3 SLUDGE 15
3.3 RECYCLING 16
3.4 WASTE TREATMENT 17
3.5 PUBLIC EDUCATION 17
3.6 PUBLIC/PRIVATE PARTNERSHIPS 18
3.7 SOLID WASTE ARCHIVE 18
3.8 EVALUATION OF SOLID WASTE COLLECTION SYSTEMS 19

4.0 HIERARCHY 19

4.1 SOURCE REDUCTION 19
4.2 REUSE 20
4.3 RECYCLING 20

4.4 WASTE-TO-ENERGY/INCINERATION....21
4.5 LANDFILL....21
4.6 TRANSFER STATION....22

5.0 OBJECTIVES....22

6.0 PLAN IMPLEMENTATION....23

6.1 SOURCE REDUCTION....23
6.2 REUSE....24
6.3 RECYCLING....24
6.4 WASTE-TO-ENERGY/INCINERATION....26
6.5 LANDFILL....27
6.6 TRANSFER STATION....27

7.0 FUNDING AND CONSTRUCTION SCHEDULES....28

7.1 FUNDING....28
7.2 CONSTRUCTION SCHEDULES....29

8.0 PUBLIC PARTICIPATION....29

8.1 PUBLIC/PRIVATE PARTNERSHIPS....29
8.2 PUBLIC HEARINGS....29
8.3 RESOLUTIONS....30

9.0 CONCLUSION....30

LIST OF APPENDICES

APPENDIX 1.....REGIONAL MAP
APPENDIX 2..... POPULATION PROJECTIONS
APPENDIX 3..... ANNUAL WASTE SUMMARY REPORTS
APPENDIX 4..... SOLID WASTE PROJECTIONS
APPENDIX 5.....MAP OF ACTIVE SOLID WASTE FACILITIES IN HENRY COUNTY
APPENDIX 6.....LIST OF ALL SOLID WASTE FACILITIES IN HENRY COUNTY
APPENDIX 7..... SAMPLE LOCALITY RECYCLING RATE REPORT FORM
APPENDIX 8.....RECYCLING RATE ESTIMATES
APPENDIX 9.....PUBLIC HEARING NOTICES AND MINUTES
APPENDIX 10..... BOARD RESOLUTIONS

1.0 INTRODUCTION

1.1 SUMMARY

The purpose of this revised Solid Waste Management Plan (SWMP) is to meet the requirements of 9VAC20-130-10 et seq., which are the Regulations for Solid Waste Management Planning, Amendment 1, effective August 1, 2001. The Plan outlines the long-term strategy and goals set by the City of Martinsville, Henry County, and the Town of Ridgeway concerning solid waste management. This agreement is set to expire on December 31, 2015. Prior to that date, the parties will evaluate their solid-waste disposal options.

1.2 PLAN GOALS

The goals of this SWMP include coordinating the efforts of the City of Martinsville, Henry County, and the Town of Ridgeway regarding solid waste management and planning. The Plan will develop objectives for the management of solid wastes, including, at a minimum, all of the following elements: source reduction, reuse, recycling, resource recovery (waste-to-energy), landfilling and transfer stations. In addition, the Plan will demonstrate how the goals and objectives for solid waste management will be met, as well as include a schedule for the implementation of these goals, as necessary.

2.0 PROJECTIONS AND WASTE QUANTITIES

2.1 SWMP COVERAGE AREA

The coverage area of this SWMP is the City of Martinsville (the City), Henry County (the County), and the Town of Ridgeway (the Town), herein called the Region. A Regional Map is provided in Appendix 1. The Region is located in the southern Piedmont region of Virginia, approximately 50 miles southeast of Roanoke and 40 miles north of Greensboro, North Carolina. The Region is surrounded by the Blue Ridge Mountains and borders North Carolina to the south.

The City of Martinsville, Henry County, and the Town of Ridgeway are members

of the West Piedmont Planning District Commission (PDC), which also includes the Counties of Franklin, Patrick, and Pittsylvania; the City of Danville; and the Town of Rocky Mount. The majority of the residential growth in the Region is centered around the existing cities and along primary transportation routes. Major transportation arteries through the Region include United States (U.S.) Highways 57, 58, and 220, and State Route 174.

The February 2011 unemployment rates for the City of Martinsville and Henry County were 17.8% and 11.6%, respectively. These values are much higher than the State of Virginia's unemployment rate for February of 2011, of 6.4%. Major employers (100± employees) in the Region include A.C. Furniture Co, Inc., American Fiber Industries Corp., Diversified Distribution, J&J Corrugated, Nationwide Homes, Inc., NV Warehouse Co Inc., Nylstar, Sara Lee Casualwear, Hanesbrands, Nautica, ICF International, Applied Felts, Bassett Furniture, Hooker Furniture, Commonwealth Laminating, CP Films/Solutia, GSI Commerce, Faneuil, Nilit, Monogram Meat Snacks, and Drake Extrusion.

2.2 POPULATION DATA AND PROJECTIONS

Population data and projections for the Region were obtained from the Virginia Employment Commission (VEC), who in turn references the U.S. Census Bureau. Table 1 summarizes the population data and projections for the planning period of 2010 through 2030. Generally, the total population for the entire Region is projected to decrease approximately 6.65% over the next twenty years. The population for the City is projected to decrease from 14,376 persons in 2010, to 13,952 persons in 2020, and then remain steady for the next 10 years. This corresponds to an average population decrease of 3.99% over the next twenty years. The population for Henry County is projected to decrease from 54,483 persons in 2010, to 52,979 persons in 2020, and then remain steady for the next 10 years, corresponding to an average population decrease of 2.85% over the next twenty years.

Table 1. Population by Jurisdiction.

Jurisdiction	2000	2004	2005	2010	2015	2020	2030
City of Martinsville	15,416	15,207	15,156	14,376	14,165	13,952	13,952
Henry County*	57,930	56,491	56,137	54,483	53,735	52,979	52,979
Town of Ridgeway	775	--	--	--	--	--	--
Totals	**73,346**	**71,699**	**71,293**	**68,859**	**67,900**	**66,931**	**66,931**

*The population for Henry County includes the Town of Ridgeway.

The 2010 Census Population provided by VEC for the City, as well as projections for the next 20 years is provided in Appendix 2. General information regarding size, location, and general information for each jurisdiction is provided below.

2.2.1 CITY OF MARTINSVILLE

The City of Martinsville is centrally located within Henry County, and encompasses approximately 11 square miles. As shown in Table 1, the 2010 Census Population for the City of Martinsville was 14,376 persons. Primary travel throughout the City is provided by U.S. Highways 58 and 220 and State Route 57.

The City of Martinsville is home to many of the larger industries and employers in the Region, such as Nationwide Homes, Inc. and Southern Finishing Corp.

2.2.2 HENRY COUNTY

Henry County is located in the southern Piedmont region of Virginia and is bordered by Patrick County to the west, Franklin County to the north, Pittsylvania County to the east, and North Carolina to the south. The County is approximately 382 square miles in size and includes the Town of Ridgeway. Other unincorporated communities within the County include Axton, Bassett, Chatmoss, Collinsville, Fieldale, Laurel Park, Spencer, and Stanleytown. In addition, Henry County is home to the Martinsville Speedway, which hosts the NASCAR Sprint Cup Racing Series, bringing thousands of visitors and tourists

into the Region multiple times a year. The 2010 Census Population for Henry County was 54,483 persons (excluding the Town of Ridgeway population).

Generally, land use throughout the communities consists primarily of small to medium residential areas, commercial business areas and industrial parks. The County and its surrounding Counties provide a variety of recreational activities to visitors year round, such as Fairystone State Park, Smith Mountain Lake, Smith River, and the Blue Ridge Parkway. Primary travel throughout the County is provided by U.S. Highways 58 and 220, and State Route 57.

2.2.3 TOWN OF RIDGEWAY

The Town of Ridgeway is located in the southern portion of Henry County and is the only incorporated town within the County. The Town is approximately 0.94 square miles in size and had a 2000 Census Population of 775 persons.

2.3 COMPOSITION OF SOLID WASTE

All of the solid waste, except recyclables, collected within the City of Martinsville, Henry County, and the Town of Ridgeway is transported to the First Piedmont Transfer Station where the ultimate disposal will be determined. Based on the 2010 waste stream volumes recorded at the First Piedmont Transfer Station, solid waste from residents, businesses, and industries within the City of Martinsville accounts for approximately 25 percent of the waste collected. Residents, businesses, and industries in Henry County and the Town of Ridgeway generate the remaining 75 percent.

Of the waste accepted at the transfer station during 2010, residential/commercial waste represents 38 percent of the total waste collected within the Region. Industrial, construction demolition debris (CDD) and yard waste represents 23 percent. Sludge, which is not accepted at the Transfer Station but rather hauled directly to Upper Piedmont Landfill (UPL) in Roxboro, NC represents 11 percent. Recyclables accounts for the remaining 28 percent. Recyclables are collected separately from the solid waste and transferred to a local processing facility; thus, those values are reported in the upcoming sections of this report. Waste summary reports for 2010 are presented in Appendix 3.

2.4 CURRENT MARKET CONDITIONS

1. A jurisdiction's ability to provide recycling services to its residents and businesses is directly related to the overall value of those collected recyclables. The City of Martinsville and Henry County are continuously investigating markets and providing recycling services to residents and businesses, as economically feasible based on the available recycle/reuse markets. Currently, there is no composting performed by the City or County. All yard waste is transported to the First Piedmont Transfer Station. Glass recycling was discontinued when it was no longer cost efficient. However, there are private companies within the region that accept this material for recycling. The City is recycling paper, cardboard, metals, plastic, tires, used oil, used antifreeze, batteries, and paint for reuse and/or recycling. The County is recycling cardboard, newspaper, aluminum and tin cans, Nos. 1 and 2 plastics, and most basic household electrical items such as toasters, VCRs, DVD players, and televisions 20 inches or smaller. The County also recycles used oil and reuses it for shop equipment. The City also reuses oil to heat their garage complex. They also recycles wood waste into boiler fuel for use outside the Region. Milled pavement material is recycled/reused for roadway base and/or shoulder stone. The current markets in the County and the surrounding region allow certain materials such as newspaper, cardboard, plastics, and metal and aluminum tin cans to be cost-effectively collected and transferred to a local processing facility for recycling and/or reuse.

Unfortunately, based on the local and regional markets, it is currently not cost-effective for the City and the County to recycle textiles, glass, yard waste, electronics (except for those sited above), and abandoned automobiles. The City and County will continue to investigate the local and regional markets to determine if a cost-effective method of recycling these materials becomes available.

2.5 SOLID WASTE GENERATION AND FLOW PATTERNS

Currently, solid waste is collected from residences, businesses, and industries through curbside collection or private contractors. Convenience center sites are also provided throughout the Region.

2.5.1 TYPES OF WASTE GENERATED

Generally, the waste generated and handled within the Region consists of residential and commercial municipal solid waste (MSW), industrial waste, commercial demolition debris (CDD), sludge, vegetative and yard waste, and primary recyclable materials (PRM). PRM generally includes paper; cardboard; metal; plastic; glass; chipped or mulched waste wood; textiles; tires; used oil and oil filters; used antifreeze; batteries; electronics; and tree stumps greater than six inches in diameter. For the purposes of this report, waste will be presented in four(4) categories: MSW, Industrial, sludge and recyclables. MSW will include residential and commercial waste and Industrial will include industrial waste, CDD and yard waste. Based on the waste collection and disposal records for the Region in 2010, MSW, Industrial waste and sludge constitutes approximately 38 percent, 23 percent and 11 percent respectively, of the solid waste generated and collected within the Region. The remaining 28 percent consists of primary recyclable materials (PRM). The percentages of these items and the composition of the waste generated in the Region are presented in Chart 1.

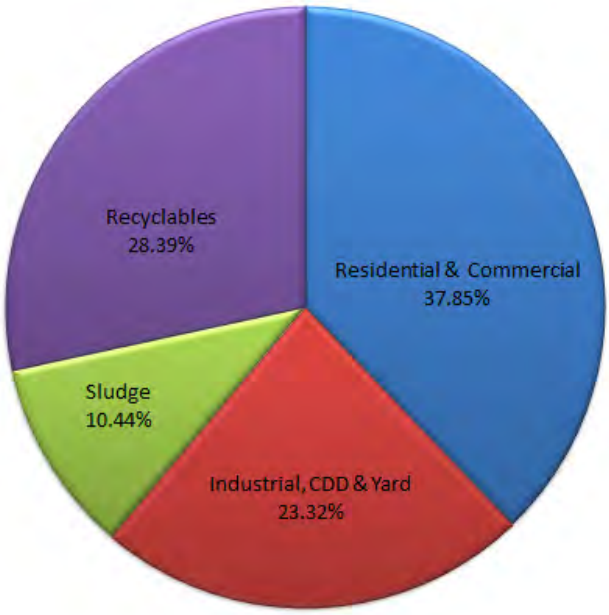


Chart 1. Composition of the solid waste generated and collected in the Region.

2.5.2 WASTE STREAM PROJECTIONS

Solid waste generation projections were calculated based on per day per capita rates estimated from the waste quantities recorded at the First Piedmont Transfer Station and the local jurisdictions during 2010. Descriptions of the projection methodology for each of the major types of waste generated in the Region are presented in the sections below. Supporting calculations are presented in Appendix 4.

2.5.2.1 Municipal Solid Waste

The Environmental Protection Agency (EPA) Office of Solid Waste and Emergency Response published per capita municipal solid waste (MSW) rates for the U.S. in a report entitled *Municipal Solid Waste Generation, Recycling and Disposal in the United States: Facts and Figures for 2008.* In 2008, Americans generated about 250 million tons of trash and recycled/composted 83 million tons of this material. On average, the per day per capita MSW generation estimate for the U.S. was 4.50

pounds with 1.5 pounds of this waste being recycled/composted. If recycling and recovery is removed, the average of the per day per capita MSW generation rate for 2008 was 3.00 pounds.

In order to determine if the average waste generation rate for the U.S. is applicable for the Region, the published per day per capita value was compared to the estimated tons per day per capita based on scalehouse records at the transfer station for 2010. In 2010, a total of 34,665 tons of MSW was disposed at the transfer station. As presented in the population projections in Appendix 3, the population in 2010 was 68,859 persons. Using the formula presented below, the per capita tonnage of MSW (PCT_{MSW}) for the City of Martinsville, Henry County, and the Town of Ridgeway, is 1.380E-03 tons per day per capita or 2.76 pounds per day per capita.

$$PCT_{MSW} = 34{,}665 \text{ tons}*(1 \text{ year}/365 \text{ days})*(1/68{,}859 \text{ persons})$$

$$= 1.380\text{E-}03 \text{ tons/day/capita}$$

$$= 2.76 \text{ pounds/day/capita}$$

The City of Martinsville, Henry County, and Town of Ridgeway MSW generation rate is almost half of the published U.S. MSW generation rate value. This is primarily due to the large amount of materials that are recycled within the Region.

As a result, to be conservative, the average U.S. MSW generation rate of 3.00 pounds per day per capita was selected to calculate the MSW generation projection for the planning period of 2010 through 2030. To calculate the total annual and cumulative MSW generation quantities, the per capita rate was then applied to the annual population projections for the Region. Recycling quantities were removed from the per capita rate since they will be calculated for the Region separately.

As presented in Appendix 4, it is estimated that approximately 775,380 tons of residential waste will be generated in the Region between 2010 and 2030.

2.5.2.2 Industrial Waste

Industrial waste is collected separately in the Region from residential waste, and hauled to the First Piedmont Transfer Station. Since there are no published per capita generation rates for these types of waste, projections were estimated by calculating the per day per capita generation rate based on the 2010 scalehouse records provided by the transfer station.

During 2010, approximately 21,354 tons of non-hazardous industrial waste was collected in the Region and disposed at the sanitary transfer station. Using an estimated population in 2010 for the Region of 68,859 persons, the per day per capita tonnage of industrial waste (PCT_{IW}) is 8.496E-04 tons per day per capita or 1.70 pounds per day per capita, as presented in the formula below.

$$PCT_{IW} = 21{,}354 \text{ tons}*(1 \text{ year}/365 \text{ days})*(1/68{,}859 \text{ persons})$$

$$= 8.496\text{E-}04 \text{ tons/day/capita}$$

$$= 1.70 \text{ pounds/day/capita}$$

To calculate the total annual and cumulative non-hazardous industrial waste generation quantities, the PCT_{IW} was then applied to the annual population projections for the Region. Using this methodology, it is estimated that approximately 439,190 tons of industrial waste will be generated in the Region in the next twenty years. Calculations are presented in Appendix 4.

2.5.2.3 Sludge

The methodology used to calculate the industrial waste projections was also used to project the amount of sludge generated in the Region. During 2010, approximately 9,563 tons of sludge were hauled in the Region. Using a 2010 population of 68,859 persons, the per day per capita tonnage of sludge (PCT_{SLUDGE}) is 3.470E-04 tons per day per capita or 0.88 pounds per day per capita, as presented below.

PCT_{SLUDGE} = 9,563 tons*(1 year/365 days)*(1/68,859 persons)

= 3.840E-04 tons/day/capita

= 0.77 pounds/day/capita

It is estimated that approximately 198,533 tons of sludge will be generated in the Region in the next twenty years. Calculations are presented in Appendix 4.

2.5.2.4 Recyclable Materials

The recyclable materials projections were estimated using the per capita generation rate calculated from the 2010 population in the Region and the total amount of recyclable materials collected by the City of Martinsville, Henry County, and the Town of Ridgeway. For the purpose of this evaluation, recyclable materials were assumed to include paper, metal, plastic, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, batteries, electronics, processed grease, and food waste.

The reported total quantity of recyclables collected in the Region in 2010 was 25,996 tons. Based on the population in 2010 of 68,859 persons, and the formula given below, a per capita tonnage of recyclable materials (PCT_R) for the Region of 1.034E-03 tons per day per capita or 2.07 pounds per day per capita was calculated.

PCT_R = 25,996 tons*(1 year/365 days)*(1/68,6859 persons)

= 1.034E-03 tons/day/capita

= 2.07 pounds/day/capita

To calculate the total recyclable material projections, this PCT_R was then applied to the annual population projections for the Region. Using this methodology, it is estimated that approximately 534,660 tons of recyclable materials will be generated in the Region between 2010 and 2030. Calculations are presented in Appendix 4.

2.5.2.5 Other Special Wastes

2.5.2.5.1. Mining Wastes

Mining waste is not recorded separately from the commercial and industrial waste tonnages. As a result, mining waste projections cannot be broken out individually and are included in the commercial and industrial waste projections presented in Section 2.5.2.2, respectively.

2.5.2.5.2. Agricultural Wastes

Agricultural waste is not recorded separately from the industrial waste tonnages. As a result, agricultural waste projections cannot be broken out individually and are included in the commercial and industrial waste projections presented in Section 2.5.2.2, respectively.

2.5.2.5.3. Spill Residues

Spill residue waste is not recorded separately from the industrial waste tonnages. As a result, spill residue waste projections cannot be broken out individually and are included in the commercial and industrial waste projections presented in Section 2.5.2.2, respectively.

2.5.2.6 Household Hazardous Waste

Since household hazardous waste (HHW) is exempt from coverage under the hazardous waste regulation, the majority of residents dispose of these materials with the rest of their household garbage. The actual quantities of HHW are typically very small in comparison to general MSW; therefore, the projections of HHW are included in the MSW projections. Henry County, the City of Martinsville, and Gateway Streetscape work jointly to sponsor Household Hazardous Waste Days during the year. At these events, City and County residents may dispose of such items as paint, motor oil, gas, antifreeze, batteries, computer parts and used cell phones. Again, no business or commercial entities are allowed to participate.

3.0 SOLID WASTE MANAGEMENT SYSTEM

3.1 COLLECTION

3.1.1 RESIDENTIAL WASTE AND RECYCLING

Residential waste and recyclables are collected in the Region in three ways: (1) through convenience centers sites located throughout the County, (2) curbside collection programs, or (3) independent contracts with private haulers. A description of the residential collection for the City, County, and Town are presented below.

3.1.1.1 City of Martinsville

The solid waste collection needs for the majority of the residents in the City of Martinsville are handled by a City-run curbside waste collection program. The City collects residential waste once per week for transport to the First Piedmont Transfer Station. Many apartment

complexes in the City supply dumpsters for their residents to use. In addition, residents may choose to transport/haul their waste directly to the transfer station, if they so desire. The City also provides bulky trash (such as furniture, refrigerators, and washers) and brush pick-up to residents of the City, but require scheduling in advance. Also, an annual bagged leaf collection is provided in the fall.

Residents may drop-off their recyclable materials at the City of Martinsville drop-off center, which is operated by the City. The drop-off center does not have a designated capacity, and will be operated for as long as economically feasible for the City, but at least for the next 20 years, or through the planning period.

3.1.1.2 Henry County

Henry County does not provide curbside residential waste collection services to its residents. Therefore, residents may choose to independently contract with a private contractor or haul their waste directly to the transfer station. In addition, the County provides convenience centers for residents to utilize. These convenience centers do not have set capacities and will be operated for as long as economically feasible for the County, but at least for the next 20 years, or through the planning period.

Henry County also provides recycling of cardboard, plastics, newspaper, and scrap metal at the convenience sites located throughout the County.

3.1.1.3 Town of Ridgeway

The Town of Ridgeway does not provide curbside residential waste collection services to its residents. Therefore, residents may choose to independently contract with a private contractor or haul their waste directly to the transfer station. In addition, residents within the Town may

utilize the various greenbox drop-off collection sites and convenience centers located throughout Henry County.

3.1.2 COMMERCIAL INSTITUTIONS AND INDUSTRIES

Commercial and industrial waste and recyclables are generally collected in two ways: (1) collection programs provided by the local jurisdiction or (2) independent contracts with private haulers such as Waste Management or First Piedmont. No roll offs are provided by City or County. All of the waste collected from businesses, commercial institutions, and industries within the Region is transported to the First Piedmont Transfer Station for disposal. Waste delivered to the transfer station by private haulers is assessed a tip fee at the transfer station.

The City of Martinsville provides collection to many of the businesses and institutions throughout the City. The City has different collection routes for each day of the week; thus, the number of times the City picks up at each business varies. Many of the businesses and institutions in the City are provided with collection by City trucks numerous times in one week. Commercial institutions, business, and industries in Henry County and the Town of Ridgeway, as well as those within the City of Martinsville who are not provided refuse collection from the City, must contract individually with a private hauler for their waste collection and disposal. However, all of this waste is transported to the First Piedmont Transfer Station where final disposal is determined.

3.2 DISPOSAL

There is currently not an active permitted solid waste landfill located in the Region. The permitted waste disposal capacity for the Martinsville Sanitary Landfill was consumed in 2006. Upon closure, the City of Martinsville contracted with First Piedmont Corporation to operate a transfer station located at the existing landfill site.

The First Piedmont Transfer Station transports all waste that the Martinsville Landfill previously accepted to permitted facilities. The transfer station is located at 225 Arden Circle in Henry County, Virginia, approximately one mile northeast of the

Martinsville City limits. The transfer station is a 16,000 square foot facility. A map indicating the location of this facility is provided in Appendix 5. A list of the solid waste facilities in the Region that have at one time received a permit from the Department of Environmental Quality (DEQ) is provided in Appendix 6.

3.2.1 MUNICIPAL SOLID WASTE

The First Piedmont Transfer Station accepts household waste, MSW, CDD, non-hazardous industrial waste that meets all of the requirements of the Virginia Solid Waste Management Regulations (VSWMR), yard waste, recyclables, and many other items. The transfer station does not accept polychlorinated biphenyls (PCBs), regulated medical waste, regulated hazardous waste, radioactive waste, friable asbestos, sewage, flammable liquids/solids, and liquid wastes. Sludge is not accepted at the transfer station but hauled directly to UPL in Roxboro, NC along with any residential and commercial waste that may contain food.

3.2.2 INDUSTRIAL WASTE

There are currently no active industrial waste or CDD landfills permitted in the Region. Thus, industrial waste, CDD and yard waste generated within the Region that is acceptable at the First Piedmont Transfer Station is transported to the First Piedmont landfill in Ringgold, VA. Waste that is not authorized for disposal is sent to a facility outside of the Region, which is permitted to accept those wastes.

3.2.3 SLUDGE

There are currently no active sludge disposal facilities permitted in the Region and this waste is not accepted at First Piedmont Transfer Station, but is hauled by FPC directly to Upper Piedmont Landfill (UPL) in Roxboro, NC. Waste that is not authorized for disposal is sent to a facility outside of the Region, which is permitted to accept those wastes.

3.3 RECYCLING

As mentioned previously, the City of Martinsville, Henry County, and the Town of Ridgeway provide the collection of recyclables to their residents through convenience center sites located throughout the County, and drop-off sites for recyclables in the City of Martinsville. Recyclables, such as newspaper and newspaper inserts, paper products, cardboard, metal, plastics, wood waste, waste tires, used oil, used oil filters, used antifreeze, batteries, processed grease, and food waste, are recycled by residents, commercial institutions, businesses, and industries in the Region. Glass recycling quantity represented is from private companies within the Region that collect this material. The general composition of the recyclables collected within the Region in 2010 is presented in Chart 2.

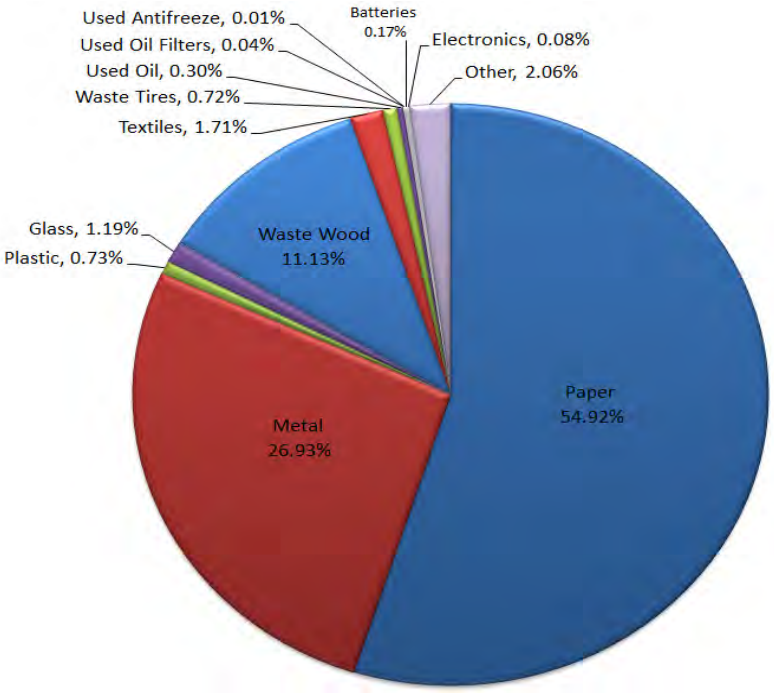


Chart 2. Composition of the recyclable materials collected and handled in the Region.

As shown in Chart 2, paper accounts for approximately 55 percent of all of the materials recycled in the Region. Metals represent the next highest percentage of the recyclables collected in the Region with 27 percent.

3.4 WASTE TREATMENT

Currently, the City of Martinsville, Henry County, and the Town of Ridgeway do not perform any waste treatment processes. At this time, no waste treatment processes are proposed during the 20-year planning period; however, the City and County will continue to evaluate waste treatment processes throughout the planning period.

3.5 PUBLIC EDUCATION

Information about solid waste management programs and recycling is provided to residents and businesses through local information programs. Each jurisdiction's information program includes news releases and advertisements for both local and regional newspapers. Newsletters, brochures, flyers, and presentations are also used, as necessary.

The City of Martinsville utilizes a local television channel that announces the times and dates of recycling collections, as well as what materials are collected for recycling. Henry County and the City of Martinsville also have a joint program called *Gateway Streetscape* that sponsors household hazardous waste collection events. The program also sponsors a Smith River Clean-Up event, which provides volunteers to collect trash that has accumulated along the banks of Smith River.

Gateway Streetscape also provides educational materials to local residents of the City and the County regarding proper waste disposal and litter prevention. In addition, the City of Martinsville and Henry County also each imposes fines to those that are caught littering or illegally disposing waste materials. The City and the County plan to continue these educational and litter prevention programs throughout the planning period. In addition, the City and the County plan to investigate and implement additional litter prevention programs, as economically feasible, throughout the planning period.

3.6 PUBLIC/PRIVATE PARTNERSHIPS

As mentioned in the previous sections, there are many partnerships between the local jurisdictions within the Region and private companies. Many homeowners in the City of Martinsville and Henry County contract with a private hauler to provide curbside collection of residential waste to its members. In addition, many of the businesses and industries in the City, County, and Town contract independently with private haulers, such as Waste Management, Inc., First Piedmont Corporation, and BFI, to provide waste collection and hauling services to the transfer station.

Henry Count contracts with The City of Martinsville regarding their waste disposal. The City of Martinsville contracted with First Piedmont Corporation in 2005 when the landfill closure occurred for the operation of a transfer station to handle all of the Regions waste disposal needs.

The individual jurisdictions may seek and enter into additional public/private partnerships on an as-needed basis in the future to continue to provide cost-effective solid waste management services to their residents.

3.7 SOLID WASTE ARCHIVE

Records and documentation for the First Piedmont Transfer Station, owned and operated by the First Piedmont Corporation, are stored on-site in the main office, and have been submitted to the Director of the DEQ or his/her designee. A record of the waste quantities billed to the City by First Piedmont Transfer Station and the waste quantities from the City owned and operated drop-off facility, are kept on-file at the City's Public Works Department. The City and *Gateway Streetscape* submit annual recycling reports, as required.

A record of the waste quantities billed for the County by First Piedmont Transfer Station and the waste quantities from the County owned and operated drop-off facilities, are kept on-file at the County's Public Works Department. Records for the closed County solid waste landfills are stored at the County's Engineering Department. Finally, records related to the closed EI DuPont Incinerator and Landfill are retained by DuPont. The

DEQ has been informed of the associated contact and archive location for these facilities, as well as the other facilities presented on the list in Appendix 5, but not mentioned here. Any new solid waste disposal sites will be documented and a copy will be submitted to the Director of the DEQ or his/her designee.

3.8 EVALUATION OF SOLID WASTE COLLECTION SYSTEMS

Each year, the City of Martinsville and Henry County evaluate the cost of providing solid waste collection services to local residents against the funding available through rates/fees. In addition, the City and/or the County investigate additional recycle and reuse markets. Based on these evaluations, the City and/or the County determine what solid waste services it can cost-effectively provide to local residents and businesses.

4.0 HIERARCHY

The Virginia Waste Management Board Regulations for Solid Waste Management Planning, Amendment 1, 9 VAC 20-130-10 *et seq*., require the Plan to develop comprehensive and integrated solid waste management plans that consider, at a minimum, all components of the following hierarchy: (1) source reduction; (2) reuse; (3) recycling, (4) resource recovery (waste-to-energy); (5) incineration; and, (6) transfer stationing. A general description of each of the components is presented in the sections below. Implementation of each component of the hierarchy is presented in Section 6.0 of the Plan.

4.1 SOURCE REDUCTION

The purpose of source reduction is to reduce the amount of waste generated at the point of generation, or at the source. Source reduction may mean a change in a method of packaging or a change in a process design to eliminate or reduce waste. In most cases, packaging of a product influences the buyer either to purchase or not to purchase the product. As this is the case, controls will need to be placed on packaging from the state or federal level.

It is not believed that viable source reduction can occur at these industries at this

time on a local level. In order to quantify source reduction, a full-scale regional study would need to be performed, which is beyond the scope of this Plan update.

4.2 REUSE

Reuse is the use of a solid waste material that has been separated from the waste material, without processing or changing the material's form, for the same or another end use. Some examples of reusable items are glass soft drink bottles, bricks, and some wood products.

At this time, there are very few markets for reusable waste products. In the majority of cases, a manufacturer uses all new materials when manufacturing a product. Additionally, many waste products are not reusable until cleaned or disinfected. These processes require time and money, which most manufacturers are not willing to expend.

4.3 RECYCLING

Recycling is the process of separating a given waste material from the waste stream and processing it so that it is used again as a raw material for another product, which may or may not be similar to the original product. Recycling involves the separation of a waste material from the waste stream, collection, processing, marketing, sale, and utilization as a raw material.

There are several positive aspects to recycling. Recycling removes products from the waste stream resulting in less waste disposed. Less waste disposed conserves transfer station space. Recycling also removes, in most cases, materials that are non-biodegradable and would not decompose in a landfill, even if they were disposed. Recycling helps in the conservation of natural resources by utilizing materials that have already been processed, rather than using virgin materials. The use of recycled products rather than the use of virgin materials does not generally affect the usability of a manufactured product. However, it can affect the quality of a manufactured product.

4.4 WASTE-TO-ENERGY/INCINERATION

A resource recovery system, or a waste-to-energy system, is defined as a solid waste management system that provides for the collection, separation, recycling, and recovery of energy or solid wastes, including the disposal of non-recoverable waste residues. Incineration is defined as the controlled combustion of solid waste for disposal. It is different from resource recovery in that no usable product is generated from the combustion of the waste. The sole purpose of incineration is to burn the waste to reduce the quantity to be managed or disposed.

The two major types of resource recovery facilities are (1) the refuse derived fuel (RDF) facility and (2) the mass burn facility. RDF systems utilize a separation process that divides material that is combustible from material that is non-combustible. The non-combustible material may be collected and sold as a recyclable or reusable product. The combustible material is processed into pellets or fluff (RDF) and sold or used by the manufacturer as a fuel for combustion. Revenue results from the sale of both the non-combustible material, as well as the RDF itself.

Mass burn facilities do not utilize a separation process. All municipal solid waste is directly fed into the incinerator, which burns the waste at a high temperature. The resulting heat may be used to generate steam or electricity. It should be noted the mass burn of municipal solid waste results in the production of both air emissions and ash. The air emissions are regulated by state and federal agencies. The ash must be transfer stationed as a waste. This being the case, the locality must still plan for the disposal of a waste product, although the amount of waste to be disposed will be greatly decreased.

4.5 LANDFILL

Generally, a landfill is a facility that is permitted to accept waste materials for the placement and burial of that waste. As mentioned previously, there is not an active solid waste landfill located in the City of Martinsville, Henry County, and the Town of Ridgeway that currently services the disposal needs of the Region. At this time, transfer stationing appears to be the most feasible of the solid waste disposal alternatives. It is

possible; however, with the rising costs of meeting stricter regulatory requirements, transfer stationing may become as nearly an expensive venture as other hierarchy items, such as resource recovery and the option of landfilling within the Region could be investigated again.

4.6 TRANSFER STATION

Generally, a transfer station is a facility that is permitted to accept waste materials for transport to a permitted landfill, incinerator, recycling center or other waste disposal facility. Municipal and private trucks collect waste and haul it to a transfer station for temporary deposition. Transfer stations can be equipped with material recovery facilities to remove recyclables from the waste stream. When a region does not possess the resources to develop and operate a solid waste landfill, a transfer station is a feasible solution to provide the necessary waste disposal services to the area.

5.0 OBJECTIVES

The primary objective of this SWMP is to coordinate the efforts of the City of Martinsville, Henry County, and the Town of Ridgeway regarding solid waste management and planning. To accomplish this goal, each jurisdiction should continue to develop and implement budgets and funding strategies, as well as maintain a solid waste archive.

A second objective of this SWMP is to enlist public participation for solid waste management. To accomplish this objective, each jurisdiction should continue to develop education programs to increase public awareness and provide information to residents regarding locations of recyclable collection areas and materials accepted at the areas. In addition, each jurisdiction should continue to promote the importance of recycling to their residents, as well as provide incentives to businesses who participate in the recycling program.

The third and final objective of this SWMP is to maintain regulatory compliance with the Virginia Solid Waste Management Planning Regulations, Virginia Solid Waste Management Regulations, and additional state regulations, federal regulations, and local ordinances. This will

be done by consistently providing regular updates and necessary amendments, as required by 9VAC20-130-10 *et seq.*

6.0 PLAN IMPLEMENTATION

A description of how each component of the hierarchy is currently implemented in the Region and a schedule of future component implementation, as applicable, is presented in the sections below. An implementation schedule of activities to be performed by the City, County, and/or the Town during the next 20 years, concentrating on implementing the related hierarchy items, is presented below:

Year(s)	Activity
2005	Contracted with First Piedmont Corporation to construct the transfer station at the landfill site.
2005 – 2007	Identified methods to increase reuse and recycling of collected materials. Investigated local markets for recyclable materials.
2006 – 2007	Closed the City of Martinsville Landfill and update the SWMP.
2011	Submit SWMP 5-Year Update Plan.
2011 – 2030	Evaluate emerging technologies designed to promote source reduction, reuse, and recycling.

6.1 SOURCE REDUCTION

As mentioned previously, at this time, it is not believed that viable source reduction can occur on a local level; thus, there is currently no active plan to implement source reduction programs in this SWMP.

During the planning period, the City of Martinsville, Henry County, and the Town of Ridgeway will identify and evaluate regional or local programs that utilize and encourage practices that minimize waste generation. The City and the County through its *Gateway Streetscape* program will also promote to consumers the benefits of purchasing items in bulk and with less packaging. Through the public awareness program, the City and the County will achieve source reduction at the consumer level.

Further investigation is needed to fully understand and quantify source reduction programs that are occurring within the Region at the local businesses and industries.

6.2 REUSE

Currently, there are few markets for reusable waste products within the Region. As mentioned previously, most industrial facilities in the Region use new materials when manufacturing a product. Additionally, many waste products are not reusable until cleaned or disinfected, which require time and money, which most manufacturers are not willing to expend. However, the City is currently reusing wood waste and asphalt.

Reuse typically occurs on an industry level and cannot be controlled at this time by the local jurisdictions within the Region. During the planning period, the City of Martinsville, Henry County, and the Town of Ridgeway will identify and evaluate regional or local programs that utilize and encourage practices that reuse materials. The City and the County through its *Gateway Streetscape* program will provide educational programs and materials to the residents, businesses, and industries that promote the benefits of reusing materials through direct donations between user and reuser and/or packaging.

6.3 RECYCLING

To determine the existing level of recycling that is occurring in the Region, the adjusted recycling rate for 2010 was calculated. From this, the need for additional recycling programs can be determined and implemented, as necessary. The recycling rate is defined as the sum of the quantity of recycled Principal Recyclable Material (PRM) and Total Number of Credits(Recycling Residue, Solid Waste Reused, Non MSW Recycled) divided by the sum of the quantity of PRM recycled, credits granted, and total MSW disposed, multiplied by 100, as shown in the following equation:

$$\frac{Total\ PRM + TotalCredits}{Total\ PRM + Total\ Credits + Total\ MSW\ Disposed} \times 100$$

A sample of the Locality Recycling Rate Report Form that each jurisdiction is required to complete and submit to the DEQ is provided in Appendix 7.

Using the information collected by each jurisdiction within the Region, the parameters in the recycling rate equation are as follows:

Total PRM Recycled = 25,996 tons

Total Credits (Solid Waste Reused) = 614 tons

Total MSW Disposed = 55,830 tons

Using these values, the above calculation yields an adjusted recycling rate of approximately 32.3 percent.

This recycling rate exceeds the minimum recycling rate of 15 percent required by the Virginia Regulations for the Development of Solid Waste Management Plans. Supporting calculations are provided in Appendix 8.

The City of Martinsville, Henry County, and the Town of Ridgeway plan to continue to successfully achieve and maintain a countywide recycle rate of at least 15 percent. To do this, the City, County, and the Town will continue to evaluate the need for additional services or methods that will help to increase the recycling rate. An implementation schedule of activities to be performed by the City, the County, and/or the Town during the next 20 years is presented in Section 6.0.

Currently, the City is operating a drop-off collection site for recyclables, and the County is operating several convenience centers for residents to deliver their recyclables, such as paper, metals, plastic, used tires, used oil, and used anti-freeze. The City and the County will continue to provide these services, and investigate adding additional services when economically feasible. In addition, the City will also investigate expanding their recycling services to items such as electronics and textiles. Currently, the markets in the region do not allow these materials to be recycled cost-effectively.

In addition, the City of Martinsville and Henry County will continue to encourage businesses to actively recycle. Currently, businesses are requested to provide Gateway Streetscape with solid waste generation and recycling levels every year. Businesses will

be educated on what materials can be reused and/or recycled; more efficient use of paper; or using recyclable paper rather than new paper. The City and the County will investigate providing incentives to businesses that are actively participating in the recycling program.

Educating students in the Martinsville City Public School system and the Henry County Public School system, starting as early as kindergarten and continuing through high school levels, is also an effective way of informing future adults of proper solid waste management, as well as informing parents and the community. Students often become the biggest advocates of recycling, ensuring that recycling is occurring in the schools as well as in their homes. Therefore, the City and the County will investigate expanding their existing educational program into the school system, thereby increasing student awareness and involvement in the recycling program.

For recycling to be completely successful, participation must be obtained from governments, businesses, and residents, such that recycling is a part of people's daily routine. On-going educational programs and publications are vital to obtain a countywide recycle rate greater than the state mandated rate of 25 percent. The City and the County should provide every effort to adequately educate the public about recycling programs, make these programs conveniently available, and consider incentives that promote source reduction, reuse, and recycling. Since many find it easier to dispose of their waste rather than recycle, residents must be directly encouraged in a positive way to participate or be provided with incentives to do so.

6.4 WASTE-TO-ENERGY/INCINERATION

Currently, a waste-to-energy or incineration facility is not a financially advantageous option to the Region due to the available transfer station disposal space and high level of recycling maintained throughout the Region. The City of Martinsville, Henry County, and the Town of Ridgeway may investigate participating in a waste-to-energy or incineration facility, if so desired in the future. However, a landfill gas (LFG) to energy plant is located at the closed Martinsville Landfill.

6.5 LANDFILL

As a result of costs and the amount of waste generated in the Region, other than recycling, landfilling is not the most feasible of the solid waste disposal alternatives available to the Region; thus, it has not been selected as the primary component of the hierarchy to provide solid waste management for the Region.

As mentioned previously, the Martinsville Sanitary Landfill was closed in 2006 once the permitted capacity was consumed. Now that the landfill is closed, the City of Martinsville and Henry County have contracted with First Piedmont Corporation to operate a transfer station located at the existing landfill site. FPC utilizes two landfill sites for ultimate disposal of most of the waste collected within the Region.

FPC's Industrial landfill operates under the Virginia Department of Environmental Quality (DEQ) Permit Number 065 and encompasses approximately 250 acres. The gross capacity of the facility is approximately 8,165,757 cubic yards. Based on the current waste acceptance rate, the anticipated life of the facility is 37 years. Currently, the landfill's regular operating hours are 7:00 am to 5:00 pm Monday through Friday, and from 7:00 am to 12:00 pm on Saturday. The landfill is closed on Sundays and on New Years Day, Thanksgiving Day, and Christmas Day.

The UPL facility operates under the North Carolina Department of Natural Resources (NCDNR) Permit Number 73-04. The gross capacity of the facility is approximately 8.5 million cubic yards. The annual capacity is approximately 240,900 tons per year and the anticipated life of the facility is 35 years (at its current rate of waste acceptance). The landfill's regular operating hours are 7:00 am to 4:30 pm Monday through Friday, and from 7:00 am to 12:00 pm on Saturday. The landfill is closed on Sundays and on the New Years Day, Thanksgiving Day, and Christmas Day

6.6 TRANSFER STATION

At closure of the Martinsville Landfill, First Piedmont Corporation funded to construct a transfer station. They operate, maintain and finance the transfer station at the existing landfill. This facility accepts wastes that were previously taken at the landfill

except for sludge which is hauled directly. The transfer station is privately owned and funded; thus, the City of Martinsville is a customer under contract with First Piedmont Corp. who charges them a tipping fee by weight. Henry County and the Town of Ridgeway contract with the City of Martinsville and thus pay the same tipping fee.

It is anticipated that the transfer station will be in operation through the planning period of 2010 to 2020, and beyond. The transfer station operates at an average of 215 tons of waste per day. The maximum rated capacity of the transfer station facility is 1,850 tons per day.

The transfer station's regular operating hours are 7:00 am to 4:30 pm Monday through Friday, and from 7:00 am to 12:00 pm on Saturday. The transfer station is closed on Sundays and on the following holidays: New Years Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. However, FPC will operate the Transfer Station an additional 6 weekend hours (2 on Saturday/4 on Sunday, or all 6 on Sunday) to accommodate Henry County's weekend collection program. In addition, they will operate on any holiday when Upper Piedmont Landfill is accepting waste.

First Piedmont Corporation (FPC) transports the incoming waste from the City, the County, and the Town to a solid waste disposal facility permitted to accept these types of materials. Residential and commercial waste is currently transported to Upper Piedmont Landfill (UPL) in Roxboro, North Carolina. Industrial, CDD and yard waste are transported and disposed at the First Piedmont Landfill in Ringgold, Virginia. First Piedmont Corporation (FPC) may choose to transport the waste collected at their transfer station to another permitted disposal facility in the future, as necessary. Further information on these facilities is provided under Section 6.5 Landfill.

7.0 FUNDING AND CONSTRUCTION SCHEDULES

7.1 FUNDING

As presented in Section 3.0 of this Plan, each jurisdiction within the Region possesses its own mechanisms to provide waste services to their residents and businesses. Residents and businesses within the City of Martinsville are assessed a fee for their waste

collection services, and are directly billed by the City. Henry County funds its solid waste management services through general tax funds. Services that are provided to residents, businesses, or industries by private haulers are direct billed by those private contractors.

The facility is required to assure all closure construction costs and post-closure care costs with the DEQ through a general reserve fund. To date, the 42.5-acre facility has been closed. It is estimated that approximately $3.5 million is required for post-closure care. Post-closure care costs include landfill gas monitoring, groundwater monitoring, leachate management (if necessary), routine maintenance and mowing, and vector control.

7.2 CONSTRUCTION SCHEDULES

No construction anticipated in the next 5 years.

8.0 PUBLIC PARTICIPATION

8.1 PUBLIC/PRIVATE PARTNERSHIPS

As mentioned in Section 3.5 of this Plan, there are many public and private partnerships in the Region concerning solid waste management. It is anticipated that these partnerships will continue throughout the planning period, as necessary, to provide cost-effective services to the residents of each jurisdiction.

Commercial and business establishments are required by the Region to submit information on waste generated and recycled. With this information, generation quantities and waste types can be more accurately determined. In addition, potential expansions in solid waste services provided to businesses and industries within the Region can be investigated.

8.2 PUBLIC HEARINGS

Public hearings will be held by Henry County and the City of Martinsville on November 22nd, 2011, in accordance with the public participation requirements outlined

in 9VAC20-130-130. A copy of the notices published in the local and regional newspapers and the minutes of the City of Martinsville's public hearing will be provided in Appendix 9.

Copies of the Solid Waste Management Plan will be posted at various locations in the City of Martinsville and Henry County for public review prior to the public hearing. In addition, the plan will be reviewed by a member of the Gateway Streetscape Foundation.

8.3 RESOLUTIONS

Board of Supervisors and City Council meetings will be held by Henry County and the City of Martinsville on November 8th, 2011. The City of Martinsville and Henry County's action to adopt this Solid Waste Management Plan will occur concurrent with the public hearing meetings on Nov 22nd and will be provided in Appendix 10.

9.0 CONCLUSION

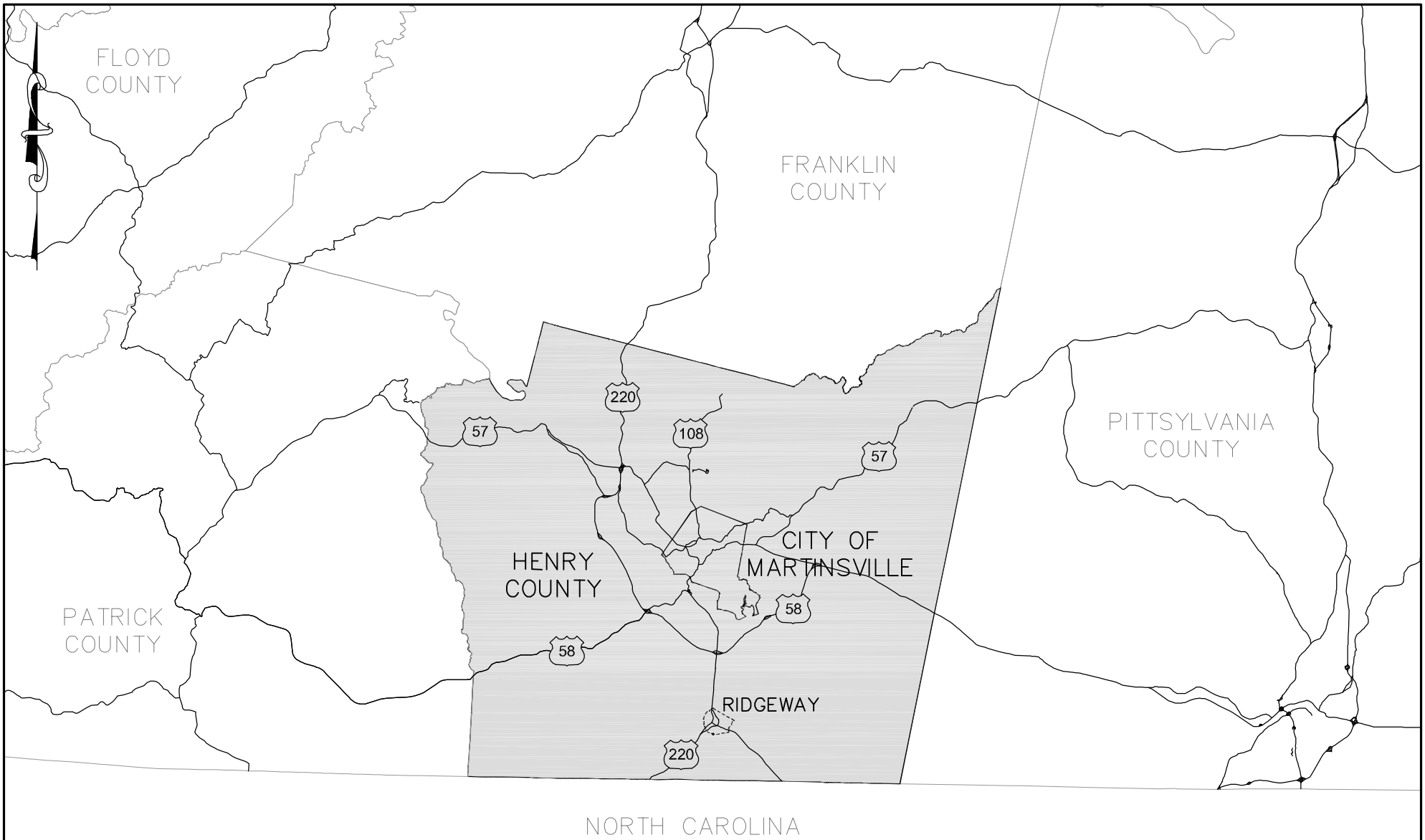
The purpose of this Plan is to provide the City of Martinsville, Henry County, and the Town of Ridgeway with goals for the long-term management of solid waste. For the Plan to succeed, the full participation of all of the residents, businesses, and industries of the Region must be acquired.

Based on the information provided by the Region, recyclables account for over half of the materials generated and handled within the Region, resulting in a 32.3 percent adjusted recycling rate being achieved by the residents and businesses in the Region. This exceeds the regulatory minimum rate of 15 percent. To maintain this recycling rate and regulatory compliance, each jurisdiction should continue to promote recycling and investigate providing incentives to businesses that actively participate in the recycling program.

In addition, the Region should continue to evaluate alternatives to landfilling whenever feasible, and implement available alternatives when it is economically beneficial to the Region. Finally, the Plan should be updated, as necessary, to maintain regulatory compliance and consistency with the actual services and needs of the Region.

APPENDIX 1

Regional Map



NOTE:
BASE MAP INFORMATION PROVIDED BY VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT).

GRAPHIC SCALE

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(MILES)

REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

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2211 W. MEADOWVIEW RD.
GREENSBORO, NC 27407
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SCALE	PROJECT NO.	CITY OF MARTINSVILLE AND HENRY COUNTY SOLID WASTE MANAGEMENT PLAN REGIONAL MAP	DRAWING NO.
1"=6 MILES	241.1101.11		1

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APPENDIX 2

Population Projections

POPULATION PROJECTIONS
CITY OF MARTINSVILLE, HENRY COUNTY AND THE TOWN OF RIDGEWAY
(2010-2030)

Year	City of Martinsville	Henry County*	Total Regional Population
2000	15,416	57,930	73,346
2001	15,364	57,567	72,931
2002	15,311	57,206	72,518
2003	15,259	56,848	72,107
2004	15,207	56,491	71,699
2005	15,156	56,137	71,293
2006	15,104	55,785	70,890
2007	15,053	55,436	70,489
2008	15,002	55,088	70,090
2009	14,951	54,743	69,694
2010	14,376	54,483	68,859
2011	14,334	54,333	68,666
2012	14,291	54,183	68,474
2013	14,249	54,033	68,282
2014	14,207	53,884	68,091
2015	14,165	53,735	67,900
2016	14,123	53,587	67,710
2017	14,082	53,439	67,521
2018	14,040	53,292	67,332
2019	13,999	53,144	67,143
2020	13,952	52,979	66,931
2021	13,952	52,979	66,931
2022	13,952	52,979	66,931
2023	13,952	52,979	66,931
2024	13,952	52,979	66,931
2025	13,952	52,979	66,931
2026	13,952	52,979	66,931
2027	13,952	52,979	66,931
2028	13,952	52,979	66,931
2029	13,952	52,979	66,931
2030	13,952	52,979	66,931

*Population projections for Henry County include the Town of Ridgeway.

APPENDIX 3

Annual Waste Summary Report

TABLE I

TOTAL WASTE STREAM BY GEOGRAPHIC AREA
JANUARY, 2010 - DECEMBER, 2010

Type of Waste	CITY (tons)	% of City Waste	COUNTY (tons)	% of County Waste	TOTAL	% of WASTE
Residential & Commercial	8,666	37.85%	25,999	37.85%	34,665	37.85%
Industrial, CDD & Yard	5,339	23.32%	16,016	23.32%	21,354	23.32%
Sludge	2,391	10.44%	7,172	10.44%	9,563	10.44%
Recyclables	6499	28.39%	19497	28.39%	25,996	28.39%
TOTALS	**22,894**		**68,683**		**91,578**	
% of total tons	25%		75%			
Avg. Tons/Day	292.6					

NOTE: The landfill recycled 576 tons of waste tires, 258.5 tons of scrap metal and 1,042 tons of waste wood for the year 2010.

TABLE II

WASTE STREAM FOR REGION
JANUARY, 2006 - DECEMBER, 2010

YEAR	RESIDENTIAL/ COMMERCIAL	INDUSTRIAL/ CDD/YARD	SLUDGE	TOTAL
2007	46,351	22,336	9,411	78,098
2008	35,885	24,568	9,777	70,230
2009	34,880	19,020	9,326	63,226
2010	34,665	21,354	8,663	64,682
TOTALS	151,780	87,279	37,177	276,236
% of WS	54.9%	31.6%	13.5%	
AVG. TONS/YR		69,059		
AVG. TONS/DAY		220.6		

*FPC began receiving sludge from the Region in 11/2006 so this year data was not inlcuded in the calculations.

APPENDIX 4

Solid Waste Projections

MUNICIPAL SOLID WASTE GENERATION PROJECTIONS FOR THE CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Given:

Tons MSW/person/day = 1.500E-03

(Use EPA estimate of 3.00 lbs/person/day)

Year	Total Regional Population	Tons MSW/day	Annual MSW Needs (Tons)	Cumulative MSW Needs (Tons)
2010	68,859	103	37,700	37,700
2011	68,666	103	37,595	75,295
2012	68,474	103	37,490	112,785
2013	68,282	102	37,385	150,169
2014	68,091	102	37,280	187,449
2015	67,900	102	37,176	224,624
2016	67,710	102	37,071	261,696
2017	67,521	101	36,968	298,664
2018	67,332	101	36,864	335,528
2019	67,143	101	36,761	372,289
2020	66,931	100	36,645	408,933
2021	66,931	100	36,645	445,578
2022	66,931	100	36,645	482,223
2023	66,931	100	36,645	518,868
2024	66,931	100	36,645	555,512
2025	66,931	100	36,645	592,157
2026	66,931	100	36,645	628,802
2027	66,931	100	36,645	665,446
2028	66,931	100	36,645	702,091
2029	66,931	100	36,645	738,736
2030	66,931	100	36,645	775,381

INDUSTRIAL WASTE GENERATION PROJECTIONS FOR THE CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Given:

Total Industrial Waste (IW) Disposed in 2010 (tons) =	21,354
Total Population in 2010 (persons) =	68,859
Tons Industrial Waste/person/day =	8.496E-04

Year	Total Regional Population	Tons IW/day	Annual IW Needs (Tons)	Cumulative IW Needs (Tons)
2010	68,859	59	21,354	21,354
2011	68,666	58	21,294	42,648
2012	68,474	58	21,235	63,883
2013	68,282	58	21,175	85,058
2014	68,091	58	21,116	106,174
2015	67,900	58	21,057	127,231
2016	67,710	58	20,998	148,228
2017	67,521	57	20,939	169,167
2018	67,332	57	20,880	190,048
2019	67,143	57	20,822	210,870
2020	66,931	57	20,756	231,626
2021	66,931	57	20,756	252,382
2022	66,931	57	20,756	273,138
2023	66,931	57	20,756	293,894
2024	66,931	57	20,756	314,650
2025	66,931	57	20,756	335,406
2026	66,931	57	20,756	356,162
2027	66,931	57	20,756	376,919
2028	66,931	57	20,756	397,675
2029	66,931	57	20,756	418,431
2030	66,931	57	20,756	439,187

SLUDGE GENERATION PROJECTIONS FOR THE CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Given:

Total Sludge Disposed in 2010 (tons) = 9,653
Total Population in 2010 (persons) = 68,859
Tons Sludge/person/day = 3.841E-04

Year	Total Regional Population	Tons Sludge/day	Annual Sludge Needs (Tons)	Cumulative Sludge Needs (Tons)
2010	68,859	26	9,653	9,653
2011	68,666	26	9,626	19,279
2012	68,474	26	9,599	28,878
2013	68,282	26	9,572	38,450
2014	68,091	26	9,545	47,996
2015	67,900	26	9,519	57,514
2016	67,710	26	9,492	67,006
2017	67,521	26	9,465	76,472
2018	67,332	26	9,439	85,910
2019	67,143	26	9,412	95,323
2020	66,931	26	9,383	104,706
2021	66,931	26	9,383	114,088
2022	66,931	26	9,383	123,471
2023	66,931	26	9,383	132,854
2024	66,931	26	9,383	142,237
2025	66,931	26	9,383	151,619
2026	66,931	26	9,383	161,002
2027	66,931	26	9,383	170,385
2028	66,931	26	9,383	179,767
2029	66,931	26	9,383	189,150
2030	66,931	26	9,383	198,533

RECYCLABLE MATERIALS GENERATION PROJECTIONS FOR THE CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Given:

Total Recycled in 2010 (tons) = 25,996
Total Population in 2010 (persons) = 68,859
Tons Recyclables/person/day = 1.034E-03

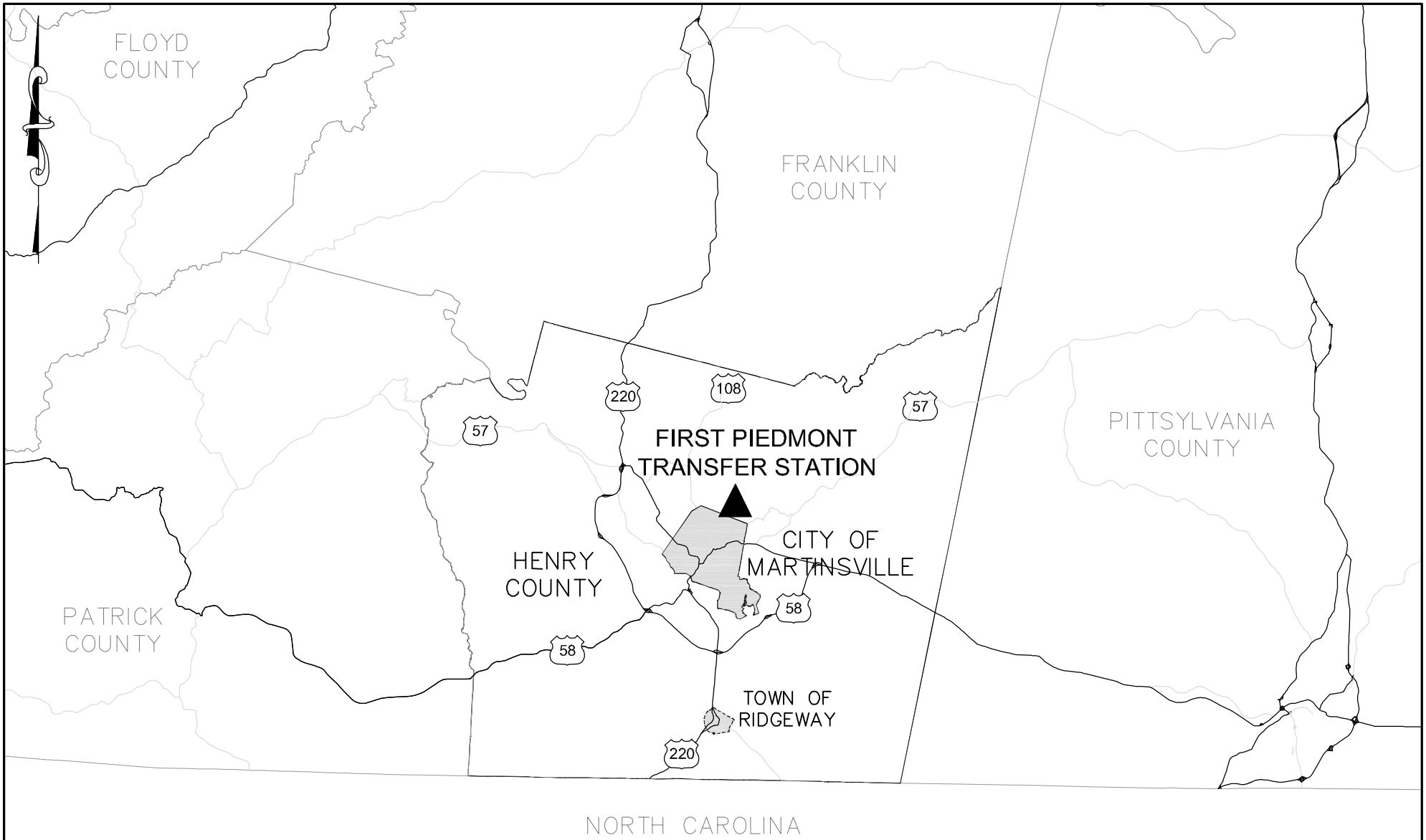
Year	Total Regional Population	Tons Recyclables/day	Annual Recyclable Needs (Tons)	Cumulative Recyclable Needs (Tons)
2010	68,859	71	25,996	25,996
2011	68,666	71	25,923	51,919
2012	68,474	71	25,851	77,770
2013	68,282	71	25,778	103,548
2014	68,091	70	25,706	129,254
2015	67,900	70	25,634	154,888
2016	67,710	70	25,562	180,451
2017	67,521	70	25,491	205,942
2018	67,332	70	25,419	231,361
2019	67,143	69	25,348	256,709
2020	66,931	69	25,268	281,977
2021	66,931	69	25,268	307,246
2022	66,931	69	25,268	332,514
2023	66,931	69	25,268	357,782
2024	66,931	69	25,268	383,050
2025	66,931	69	25,268	408,318
2026	66,931	69	25,268	433,586
2027	66,931	69	25,268	458,854
2028	66,931	69	25,268	484,122
2029	66,931	69	25,268	509,391
2030	66,931	69	25,268	534,659

TOTAL SOLID WASTE GENERATION PROJECTIONS FOR THE CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Year	Annual Disposal Needs Less Recycling (Tons)	Cumulative Disposal Needs Less Recycling (Tons)	Cumulative Disposal Needs With Recycling (Tons)
2010	68,707	68,707	94,703
2011	68,515	137,222	189,141
2012	68,323	205,545	283,315
2013	68,132	273,677	377,225
2014	67,941	341,618	470,873
2015	67,751	409,369	564,258
2016	67,561	476,930	657,381
2017	67,372	544,302	750,244
2018	67,183	611,486	842,847
2019	66,995	678,481	935,191
2020	66,784	745,265	1,027,242
2021	66,784	812,048	1,119,294
2022	66,784	878,832	1,211,346
2023	66,784	945,615	1,303,397
2024	66,784	1,012,399	1,395,449
2025	66,784	1,079,183	1,487,501
2026	66,784	1,145,966	1,579,552
2027	66,784	1,212,750	1,671,604
2028	66,784	1,279,533	1,763,656
2029	66,784	1,346,317	1,855,707
2030	66,784	1,413,100	1,947,759

APPENDIX 5

Map of Active Waste Facilities in the Region



NOTE:
BASE MAP INFORMATION PROVIDED BY VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT).

GRAPHIC SCALE

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REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

JOYCE ENGINEERING, INC.

2211 W. MEADOWVIEW RD
GREENSBORO, NC 27407
PHONE: (336) 323-0092

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SCALE	PROJECT NO.	CITY OF MARTINSVILLE AND HENRY COUNTY SOLID WASTE MANAGEMENT PLAN ACTIVE SOLID WASTE MANAGEMENT FACILITIES	DRAWING NO.
1"=6 MILES	241.1101.11		2

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APPENDIX 6

List of All Solid Waste Facilities in the Region

SOLID WASTE FACILITIES IN THE CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Facility Name	Permit Number	Type of Facility	Status	County/City	Year Permitted	Mail Address	Telephone
EI DuPont Incinerator	007	Incineration/Energy	Closed	Henry	1971	EI DuPont, Martinsville, VA 24112	540-632-9761
EI DuPont Landfill	008	Industrial	Closed	Henry	1971	EI DuPont, Martinsville, VA 24112	540-632-9761
Henry County Sanitary Landfill	003	Sanitary	Closed	Henry	1971	Henry County, Collinsville, VA 24078	540-638-5311
Henry County Sanitary Landfill	320	Sanitary	Closed	Henry	1981	Henry County, Collinsville, VA 24088	540-638-5311
Patrick County Correctional Unit #2	PBR281	RMW (S)	Unknown	Henry	--	Route 2, Ridgeway, VA 24148	Not Available
Martinsville Sanitary Landfill	049	Sanitary	Closed	Martinsville	1972	City of Martinsville, Martinsville, VA 24114	540-666-5180
First Piedmont Corporation - Martinsville Transfer Station	PBR520	Transfer Station	Active	Martinsville	2005	P.O. Drawer 1069, Chatham, VA 24531	434-432-0211
Memorial Hospital of Martinsville and Henry County	PBR130	RMW (I)	Closed	Henry	1998	Memorial Hospital of Martinsville and Henry County, P.O. Box 4788, Martinsville, VA 24115	540-666-5311
Memorial Hospital of Martinsville and Henry County	PBR297	RMW (I&S)	Unknown	Martinsville	--	Memorial Hospital of Martinsville and Henry County, P.O. Box 4788, Martinsville, VA 24115	540-666-7601

Legend:
Incineration/Energy = Incineration/Energy Recovery Facility
Industrial = Industrial Landfill
RMW (I) = Regulated Medical Waste Incineration
RMW (I&S) = Regulated Medical Waste Incineration & Steam Sterilization
RMW (S) = Regulated Medical Waste Steam Sterilization
Sanitary = Sanitary Landfill

APPENDIX 7

Locality Recycling Rate Report Form

The Virginia Annual Recycling Rate Report

Calendar Year 2009 Summary

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

November 2010

TABLE OF CONTENTS

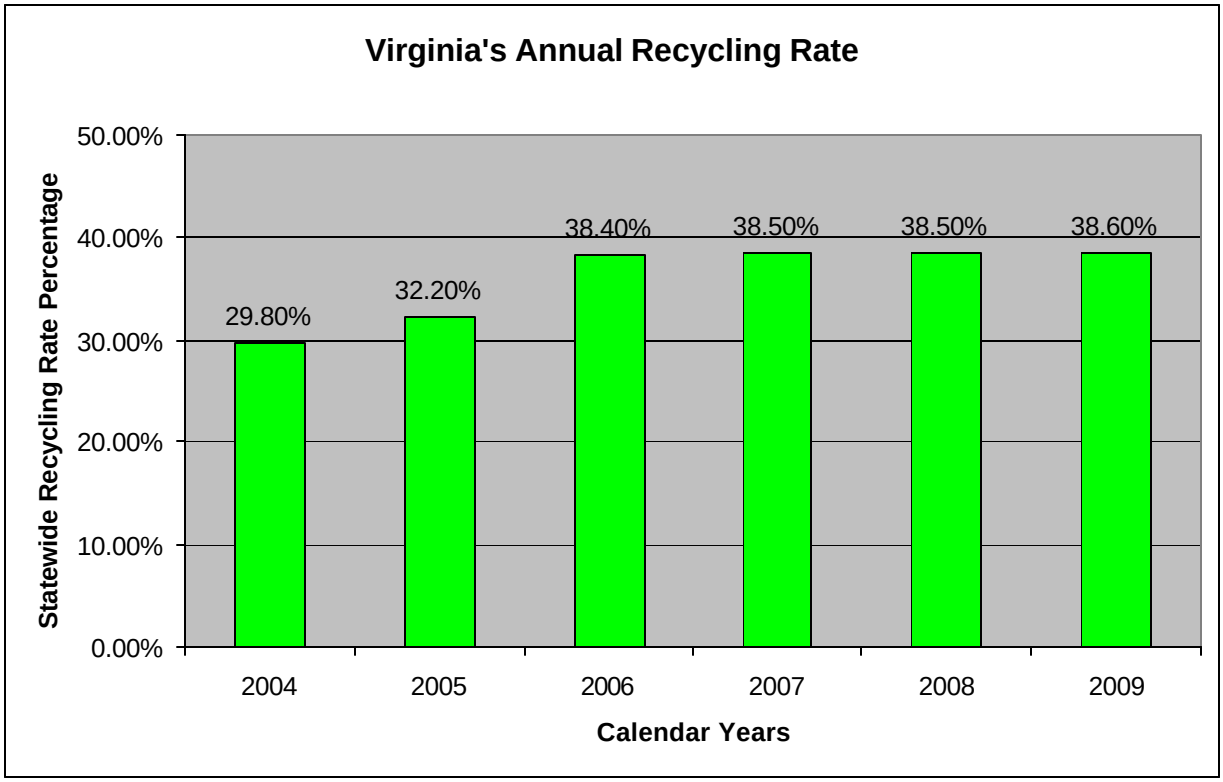
Topic	Page Number(s)
Introduction, Recycling Rate Graph and Data Summary	1
Areas Reporting Highest Recycling Rates	2
Trends for CY 2009	2
Mandated Recycling Rate Results	3
Recycling Action Plans	3
Table of Recycling Rates by Solid Waste Planning Units	4 - 8
Recycling Rate Report Summary	9
Recycling Pie Chart	10

VIRGINIA'S STATEWIDE RECYCLING RATE

FOR CALENDAR YEAR 2009

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year (CY) 2009. The data for this summary report was compiled from the reports submitted by the 71 solid waste planning units (SWPUs), and represents recycling information from 324 Virginia cities, counties and towns. In some cases, reported data was adjusted for consistency with the Virginia Solid Waste Planning Regulation (9 VAC 20-130 et. seq.).

Virginia's calculated recycling rate for CY 2009 is 38.6%. For the first time since the adoption of the recycling mandate in 1989, all Solid Waste Planning Units have met or exceeded their respective required recycling rates. This achievement reflects well upon the commitment made by Virginia localities to promote and support recycling over the last twenty-one years.



Statewide Recycling Rate Data – 3-year summary

2009 – 3,490,151 tons of material recycled or reused, and 9,098,045 tons of solid waste generated (calculation includes + .23% for source reduction initiatives)
2008 – 3,661,027 tons of material recycled or reused, and 9,542,428 tons of solid waste generated (calculation includes +.17% for source reduction initiatives)
2007 – 3,637,933 tons of material recycled or reused, and 9,526,959 tons of solid waste generated (calculation includes +.27% for source reduction initiatives)

Areas Reporting Highest Rates – 2007-2009

Higher recycling rates were reported in the more densely populated areas of the state. For CY 2009, these areas reported a total of 3 million recycled tons, or 86 % of all recyclables collected, and had a calculated average recycling rate of 41 %. These areas include:

Calculated Regional Recycling Rates by Year

Area	CY 2009	CY 2008	CY 2007
Bristol Area	41.7 %	39.5%	31.4%
Roanoke Area	42.1 %	33.3%	32.9%
Lynchburg Area	32.0 %	34.0%	40.7%
Northern Shenandoah Valley	36.5 %	33.5%	35.8%
Fredericksburg Area	51.4 %	47.1%	46.5%
Richmond Area	52.8 %	52.8%	53.0%
Northern Virginia	37.2 %	37.1%	35.4%
Hampton Roads/Tidewater Area	36.5 %	31.2%	43.3%

Trends Observed in CY 2009 Reports

In reviewing the statewide totals from the recycling rate reports, the following trends were observed:

- **Principal Recyclable Materials* (PRMs) decreased about 1 %; Credits* decreased overall by 15 %; and Municipal Solid Waste* (MSW) disposed decreased by 5 %.**

  **** PRMs, Credits and MSW disposed are defined on Page 8 of this report.***

As subsets of the PRM category, the commodity capture rates changed as indicated:

- **Paper 17.0 % down from CY 2008 level**
- **Metals 9 % up from CY 2008 level**
- **Plastics 5 % up from CY 2008 level**
- **Glass 10 % down from CY 2008 level**
- **Commingled 18 % down from CY 2008 level**
- **Waste tires 9 % down from CY 2008 level**
- **Yard/Wood waste 4 % up from CY 2008 level**
- **Used oil/filters/antifreeze 42 % up from CY 2008 level**
- **Electronics 69 % up from CY 2008 level**

Mandated Recycling Rate Results

In each of the last four reporting years, more of the reporting entities (SWPUs) have met the required recycling rate:

Year (% meeting rate)	# Reports	25 % or Greater	15% to 25 %	# below mandated recycling rate
CY 2009 (100 %)	**71**	**51**	**20**	**0**
CY 2008 (97 %)	71 *	48	21	2
CY 2007 (89 %)	74	49	19	8
CY 2006 (86 %)	74	46	18	10

**** The reduction in number of reports submitted is due to consolidation and re-alignment of SWPU membership.***

Each SWPU is required to achieve a minimum 25 % recycling rate *unless*

- **its population density is less than 100 persons per square mile, or**
- **its civilian unemployment rate is 50 % or more above the state wide unemployment average.**

SWPUs meeting these criteria were required to achieve a minimum 15 % recycling rate. Using this two-tiered recycling mandate standard, 71 of the 71 SWPUs (or 100 %) met or exceeded their minimum mandated recycling rate.

Solid Waste Management Planning and Recycling Action Plans

DEQ continues to review the required Solid Waste Management Plans (SWMPs) and any updates submitted by the SWPUs for completeness, including locality or regional recycling program information. If at any time the SWPU reports less than the required 15 % or 25 % recycling rate, DEQ will require a Recycling Action Plan (RAP) be submitted as an amendment to the SWPU's Solid Waste Management Plan to identify specific elements of the recycling program that will be improved in order for the SWPU to achieve its mandated recycling rate.

A RAP requires both a commitment by the SWPU to provide resources necessary to improve its program, as well as a timeline for achieving the program elements. The RAP must be adopted by the administrative governmental board(s) for all localities covered by the Solid Waste Management Plan, and then approved by DEQ. Regular reporting on the progress made on the RAP elements is required until such time as the SWPU meets its minimum required recycling rate.

Calculated Recycling Rates for CY 2009

Solid Waste Planning Unit Recycling Rates and Data

REPORTING ENTITY (Solid Waste Planning Units)	CY 2009 Recycling Rate* (%)	CY 2009 Total Recycled Tons (PRMs + Credits)	CY 2009 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Statewide Totals	38.6 % *	3,490,151 tons	9,098,045 tons
Accomack County SWPU	25.1 *	8,770	33,733
Alexandria (City) SWPU	28.6	56,051	195,791
Alleghany Highlands SWPU	21.6	5,094	23,635
Amelia County SWPU	29.8 *	2,621	8,797
Amherst County SWPU	28.5	8,755	30,680
Arlington County SWPU	40 *	124,275	279,410
Augusta –Staunton-Waynesboro SWPU	26.6	33,691	126,842
Bath County SWPU	26.2 *	1,525	6,297
Bedford County SWPU	42 *	25,748	64,372
Botetourt County SWPU	19.1	3,679	19,245
Bristol (City) SWPU	41.7	10,096	24,219
Brunswick County SWPU	25.3	4,162	16,430
Buckingham County SWPU	35	5,390	15,409
Caroline County SWPU	15.3	2,141	13,963
Carroll-Grayson-Galax SWPU	29.8	12,084	40,538
Central Virginia Waste Management Authority SWPU (Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, Prince George; Cities of Richmond, Hopewell, Colonial Heights and Petersburg)	52.8 *	656,461	1,121,670

REPORTING ENTITY (Solid Waste Planning Units)	CY 2009 Recycling Rate* (%)	CY 2009 Total Recycled Tons (PRMs + Credits)	CY 2009 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Craig County SWPU	22.8	812	3,566
Culpeper County SWPU	30.4	10,273	33,752
Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)	35.3 *	29,460	83,516
Danville (City) SWPU	41.4	10,790	26,073
Fairfax (City) SWPU	49.9	24,182	48,455
Fairfax County SWPU	39.4 *	445,624	1,190,306
Falls Church (City) SWPU	57.6 *	7,183	12,922
Fauquier County SWPU	31.8 *	33,496	102,654
Floyd County SWPU	24.7 *	3,954	15,223
Franklin County SWPU	29.6	14,507	49,012
Gloucester County SWPU	31.8	12,824	40,307
Greater Rockingham SWPU	27.5	17,392	63,291
Harrisonburg (City) SWPU	25.9	19,558	75,376
Herndon (Town) SWPU	38.9	9,569	24,607
Highland County SWPU	20.6	402	1,951
King George County SWPU	20 *	51,021	66,265
Lee County SWPU	17.8	3,472	19,481
Loudoun County SWPU	31.2	95,869	306,986
Louisa County SWPU	35.8	7,781	21,724

REPORTING ENTITY (Solid Waste Planning Units)	CY 2009 Recycling Rate* (%)	CY 2009 Total Recycled Tons (PRMs + Credits)	CY 2009 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Lunenburg County SWPU	17.2	2,371	13,797
Madison County SWPU	24.9	1,969	7,920
Manassas (City) SWPU	43	24,404	56,701
Manassas Park (City) SWPU	42.1	8,293	19,678
Martinsville (City)/Henry County SWPU	30.3	23,457	77,357
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)	32.1	34,388	95,077
Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington, and Wythe)	26	21,689	83,304
Newport News (City) SWPU	36.7	159,306	350,392
New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)	31.4	34,759	90,660
Northampton County SWPU	21.6	3,757	17,389
Northern Neck PDC SWPU (Counties of Lancaster, Northumberland, Richmond and Westmoreland)	22.1	12,010	54,230
Northern Shenandoah Valley Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	36.5	72,388	198,282
Nottoway County SWPU	15	3,101	20,652
Orange County SWPU	21.5	9,067	25,762
Patrick County SWPU	36.3	4,345	11,971
Pittsylvania County SWPU	30.1	13,202	43,794
Prince Edward - Cumberland SWPU	22.2	5,873	26,483

REPORTING ENTITY (Solid Waste Planning Units)	CY 2009 Recycling Rate* (%)	CY 2009 Total Recycled Tons (PRMs + Credits)	CY 2009 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Prince William County SWPU	36.1	157,646	432,877
Rappahannock County SWPU	22.4	1,311	5,847
Rappahannock Regional Solid Waste Management Board SWPU (County of Stafford and City of Fredericksburg)	45.4	61,430	141,430
Region 2000 (Counties of Nelson, Appomattox and Campbell, Cities of Lynchburg and Bedford)	32 *	101,110	302,317
Roanoke (City) SWPU	48.7	63,445	108,597
Roanoke County SWPU	28	17,325	61,843
Rockbridge – Lexington – Buena Vista SWPU	43.8	15,882	36,294
Salem (City) SWPU	46.9	20,662	44,080
Scott County SWPU	16.2	2,919	17,965
Southeastern Public Service Authority SWPU (Counties of Isle of Wight and Southampton; Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach)	32.7 *	555,210	1,588,823
Southern Crater Region SWPU (Counties of Dinwiddie, Greensville, Surry, and Sussex; City of Emporia)	17.7	12,734	72,084
Southside Regional PSA SWPU (Counties of Charlotte, Halifax and Mecklenburg)	15.4	8,325	53,925
Spotsylvania County SWPU	37.3	50,041	108,646
Tazewell County SWPU	22.1	15,603	70,544
Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna, and Greene; City of Charlottesville)	31.2	54,399	179,551
Vienna (Town) SWPU	53	5,378	10,142

REPORTING ENTITY (Solid Waste Planning Units)	CY 2009 Recycling Rate* (%)	CY 2009 Total Recycled Tons (PRMs + Credits)	CY 2009 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Vinton (Town) SWPU	41.3 *	6,597	10,459
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King & Queen, Mathews, Middlesex, and York; Cities of Hampton, Poquoson, and Williamsburg)	35.4	144,234	407,174
Wise County SWPU	30.4	18,319	60,234
STATEWIDE TOTALS CY 2009	38.6 % *	3,490,151 tons	9,098,045 tons

* All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120, with a 5 % maximum percentage allowed for credits to the base recycling rate calculated by a solid waste planning unit. A 2 % source reduction credit may have been added to the calculated recycling rates for a documented source reduction programs.

PRMs = Principal Recyclable Materials (paper, metal, plastic, glass, commingled materials, yard waste, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, inoperative automobiles, batteries, electronics and other)

CREDITs = Recycling Residues, Solid Waste Reused, and Non-MSW Recycled (includes construction and demolition material, ash and debris), and Source Reduction Initiatives. Source Reduction Initiatives must be documented as SWPU policy and promoted across the SWPU.

MSW Disposed = Municipal solid waste delivered to sanitary landfills or incinerators for disposal.

Recycling Rate Report Summary

Virginia Solid Waste Planning Units Reporting Rate Information for CY 2009

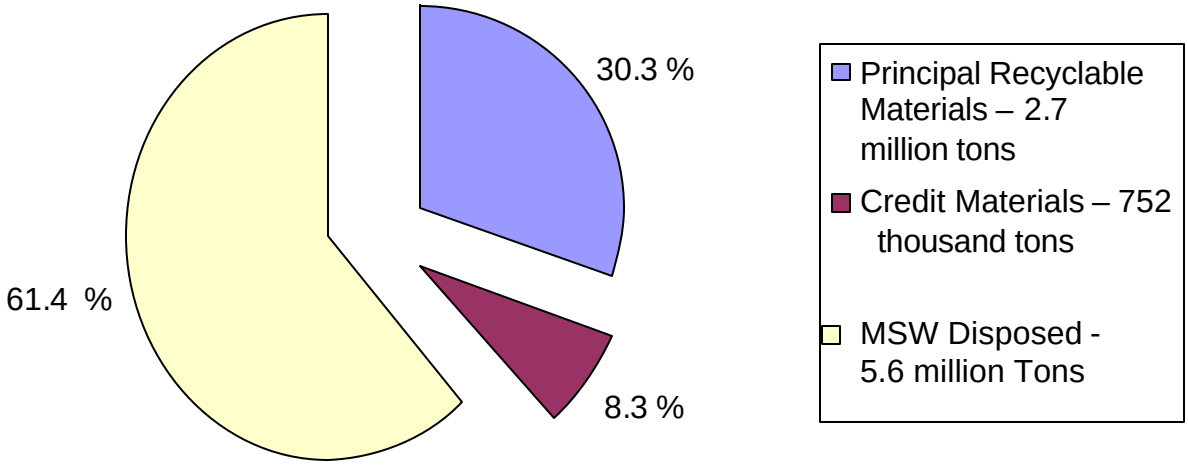
71 Recycling Rate Reports, representing **324 Virginia localities** and every **Solid Waste Planning Unit**, were received. This represents a return rate of 100 %. Totals for all reports are presented below:

Principal Recyclable Material (PRM)					**Total MSW Disposed**	
Paper	725,026	**Credits**			Household Waste	4,539,568
Metal	782,609	Recycling Residue	14,750			
Plastic	30,667	Solid Waste Reused	605,039		Commercial Waste	958,629
Glass	24,005	Non-MSW Recycled	132,721			
Commingled	144,753	**TOTAL CREDITS (C) (Tons)**	**752,510**		Institutional Waste	104,567
Yard Waste	537,675					
Waste Wood	231,406				Other:	5,130
Textiles	23,117					
Waste Tires	60,961				**TOTAL MSW (M) (Tons)**	**5,607,895**
Used Oil	66,454	**2 % Source Reduction Credit**	8 entities, equaling .23% overall			
Used Oil Filters	1,786					
Used Antifreeze	5,954				**2009 State Recycling Rate**	
Auto Bodies	4,101	**((P+C)/(P+C+M) x 100) + Source Reduction Credit** **(3,490,151/9,098,045)X100)+.23%**			**38.6 %**	
Batteries	16,212					
Electronics	7,755					
Other:	75,159					
		(rounding of individual data entries may affect sums in Totals)				
Total PRM (P) (Tons)	**2,737,641**					

*** All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120.**

RECYCLING IN VIRGINIA

2009 Statewide Recycling Rate of 38.6 %



Percentages as shown reflect adjustment based upon Source Reduction Credit of .23% applied to calculations.

PRMs = Principal Recyclable Materials (paper, metal, plastic, glass, commingled materials, yard waste, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, inoperative automobiles, batteries, electronics and other)

CREDITs = Recycling Residues, Solid Waste Reused, and Non-MSW Recycled (includes construction and demolition material, ash and debris), and Source Reduction Initiatives. Source Reduction Initiatives must be documented as SWPU Policy and promoted across the SWPU.

MSW Disposed = Municipal solid waste delivered to sanitary landfills or incinerators for disposal.

Report prepared by Steve Coe, Virginia DEQ
steve.coe@deq.virginia.gov or 804-698-4029

APPENDIX 8

Recycling Rate Estimates

RECYCLING RATE ESTIMATES
FOR THE
CITY OF MARTINSVILLE, HENRY COUNTY, AND THE TOWN OF RIDGEWAY

Principal Recycle Materials (PRM)

Item	**Quantity (Tons)**	**% of Total**
Paper	14,277.69	54.92%
Metal	7,001.11	26.93%
Plastic	190.04	0.73%
Glass	308.29	1.19%
Commingled	0.00	0.00%
Yard Waste	0.00	0.00%
Waste Wood	2,894.38	11.13%
Textiles	445.62	1.71%
Waste Tires	188.37	0.72%
Used Oil	77.07	0.30%
Used Oil Filters	10.21	0.04%
Used Antifreeze	3.65	0.01%
Abandoned automobiles recovered	0.00	0.00%
Batteries	44.20	0.17%
Electronics	19.54	0.08%
Other	536.29	2.06%
Total Recyclables	**25,996**	
Total Disposed	55,831	
Total Credits	614	
Base Recycle Rate*	**31.8%**	
Final Recycle Rate**	**32.3%**	

*Recycle Rate = Total Recyclables / Total Reyclables+Total Disposed
** Recycle Rate = (Total Recyclables+Credit)/(Total Recyclables+Credit+Disposed)

APPENDIX 9

Public Hearing Notice and Minutes

APPENDIX 10

Board Resolutions

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011
Item No: 7.
Department: Community Development

Issue: Consider approval, on second reading, the designation of the former Sara Lee property and the Baldwin Block as urban development areas and to approve amending the Land Use Map, Comprehensive Plan and Zoning Ordinance to reflect urban development area guidelines.

Summary: As a way to address some of the negative effects of suburban sprawl and strip development, particularly on traffic and transportation, new legislation was adopted in 2007 as Virginia Section 15.2-2223.1 of the Code of Virginia, requiring certain high-growth localities to amend their comprehensive plans to incorporate one or more Urban Development Areas (UDAs). The City of Martinsville received a grant to 1) Amend the Comprehensive Plan to reflect the addition of Urban Development Areas and 2) Amend the Zoning Ordinance to add the UDA overlay district(s). The UDA(s) must be sized to meet projected residential and commercial growth in the locality for the ensuing period of at least 10 years, but not more than 20 years. In addition, federal, state and local transportation, utility, economic development, and other public funding should, to the extent possible, be directed to the UDA(s). UDAs should be established in areas that are appropriate for higher density development due to (a) their proximity to transportation facilities, (b) the availability of public water and sewer infrastructure, and (c) their proximity to existing developed areas.

The Cox Company was retained by VDOT to be the City's Consultant for the UDA study and work. Working with the City, stakeholders, and property owners, the Cox Company identified the Baldwin Block area and the Sara Lee Property as two Urban Development Areas in the City of Martinsville. This designation will encourage mixed-use development and denser residential that is allowed in this district. A duly advertised Public Hearing was held Tuesday, August 30, 2011 during the Planning Commission meeting. One person was present and she spoke about her concerns that whatever was built on the Baldwin Block would reflect the heritage of the community and to keep in mind the national marker already installed that comments on the history. After the hearing, the Planning Commission voted unanimously (5-0) to send the recommendation to City Council to designate the former Sara Lee property and the Baldwin Block as urban development areas and to amend the Land Use Map, Comprehensive Plan and Zoning Ordinance to reflect urban development area guidelines.

A duly advertised public hearing was held by City Council on October 25, 2011, and no one spoke for or against the Urban Development Areas. Community Development staff has received one request to add a parcel near the Sara Lee property to the UDA from a developer, and the developer was told that this could go through the process at a later date. Both the Sara Lee property and the Baldwin Block are still excellent candidates for this overlay and stakeholders still agree with this

Attachments:
Zoning Ordinance Insert
UDA Overlay Map
Comprehensive Plan Amendment

Recommendations: Staff recommends that City Council approve , on second reading, to designate the former Sara Lee property and the Baldwin Block as urban development areas and to amend the Land Use Map, Comprehensive Plan and Zoning Ordinance to reflect urban development area guidelines.

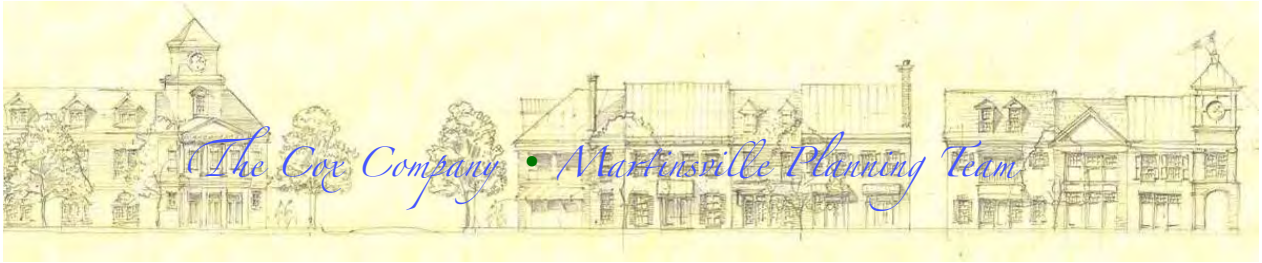
UDA Planning Study
and
Zoning Ordinance Update

Martinsville
A CITY WITHOUT LIMITS

Final Draft:

THE TND OVERLAY DISTRICT

June 1, 2011 / July 15, 2011 / August 18, 2011



Traditional Neighborhood Development Overlay District, TND-O

A. Purpose and Intent

The TND Overlay District (TND-O) provides the regulatory framework upon which the City may consider by-right applications for development plans and subdivision plats for Traditional Neighborhood Developments (TND) or other mixed-use forms of land use in the City's designated Urban Development Areas (UDAs) and other Uptown locations. The overlay approach encourages Applicants to utilize the TND-O District as a by-right approach to develop mixed uses at more compact densities. The principal aim of any TND application should be to contribute to the City's goal to expand and enhance its urban core areas, including both residential and non-residential neighborhoods in order to best serve existing and future Martinsville residents and businesses.

The TND-O District should be employed when a more flexible and creative approach is deemed to best serve the goals and objectives of the Comprehensive Plan. The TND-O District is intended to better define the mix, scale, character, form and intensity of any given development or redevelopment proposal than that which could be otherwise governed by the application of the existing underlying zoning districts. The TND-O District encourages design flexibility to avoid the *one size fits all* configuration of the underlying districts and places an emphasis on the physical form of the built environment. While single use projects may be permitted on smaller parcels, the principal TND goal is to create a mix of uses with flexible approaches to organizing building, streets, density and complementary civic spaces.

The geographical areas that are permitted for a by-right TND-O District application are delineated by the Official Zoning Map. In order to respect the Uptown and other city-center land use patterns (as well as the Comprehensive Plan's policies for future urban development), the Official Zoning Map may recognize four distinct geographical Sub-Areas within the TND-O District. Three primary TND Sub-Areas--**Core, Transitional, and Residential**--may be established to uniquely differentiate areas for new development as well as infill and redevelopment uses but which emphasize one class of uses over another. A fourth potential Sub-Area--**Economic Development**--should be employed to delineate certain land uses--such as large-scale industry and big box retail--that are not commonly located within traditional neighborhood developments and the city center.

Requests for approvals of new development and redevelopment projects within the TND-O District shall be initiated by the Applicant. Applications for by-right TND-O uses shall be accepted on properties for which adequate public facilities are available or where adequate public facilities and infrastructure can be provided by the Applicant. The review and approval of an Application Plan and its corresponding Code of Development shall be guided by the principles for Traditional Neighborhood Development in the Comprehensive Plan and as further outlined herein. In a fashion similar to the City's current site plan and subdivision process, the Applicant shall be responsible for submission of an Application Plan and Code of Development that fully addressed the proposed development along with supporting regulations, guidelines, and conditions that satisfy the requirements of the overlay district.

The Application Plan for a TND project shall demonstrate a strong physical interrelationship to contiguous parcels and neighborhoods, individual buildings, civic spaces, infrastructure, and landscaping that creates a *sense of place and community.* Individual buildings should be defined by varying scale and architectural stylings. Except where constrained by geographical location, parcel size, terrain features, and environmental conditions, each TND project shall have a mix of uses. Vertically integrated uses (*e.g.* the placement of residential or other uses above office and retail uses) are encouraged in the mixed-use components of a TND project.

By-right land use applications in the TND-O District shall be evaluated on the basis of how well the project demonstrates compatibility with the above mentioned purpose and intent as well as adherence to the following traditional neighborhood development principles:

1. **Appropriate Location and TND Densities:** Establish viable areas for residential and commercial land uses in the City at a compact, but pedestrian, scale, with densities appropriate for TND growth, that are located either within or close to existing developed areas and community facilities.

2. **Mix of Uses:** Establish a blended mix of residential and non-residential land uses within the UDAs that reflect TND planning objectives, enhance the quality of life of those who live there, and best serve the demographic demands of future Martinsville residents.

3. **Variety of Housing**: Create a variety of housing types to meet the the range of projected family income distributions of both existing residents and future residential growth.

4. **TND Lot Types and Geometry:** Encourage better spatial organization through the reduction of front and side yard building setbacks and smaller lot sizes.

5. **Pedestrian and Vehicle Compatibility:** Incorporate a network of pedestrian-friendly road and street designs for projects where new or upgraded streets are to be introduced.

6. **Design Standards and Criteria for TND Streets:** Reduce subdivision street widths and turning radii at street intersections, and provide contemporary standards for street landscaping, pedestrian improvements, and pavement design.

7. **Neighborhood Connectivity:** Establish interconnectivity between streets and pedestrian networks within the TND project.

8. **Local and Regional Transportation Connectivity:** Promote the interconnection of new local streets with existing local streets and the City's existing collectors and thoroughfares.

9. **Environmental Preservation:** Ensure the preservation of Martinsville's sensitive environmental areas and open space in conjunction with the TND planning process.

10. **Adequate Public Infrastructure:** Demonstrate (a) the availability and adequacy of public water and sewer systems and other requisite public infrastructure, or (b) the ability to concurrently provide for these systems and infrastructure.

11. **Phasing of Development:** Plan for the phasing of TND development within the UDAs that is consistent with the City and Region's anticipated population and employment growth as well as public facilities and infrastructure capacity.

B. TND Overlay Sub-Areas

The TND-O District, as depicted on the City's Official Zoning Map, may be further mapped to distinguish among four distinct geographical areas--know of Sub-Areas--internal to the City's designated Urban Development Areas. The Sub-Areas shall be be characterized on the basis of the unique set of land use parameters that establish their own neighborhood identity. Each Sub-Area within the larger overlay district may be defined by its individual land use character, mix of uses, land use intensity, and development scale. The Sub-Areas that are most commonly associated with traditional neighborhood development are the **Core, Transitional, and Residential Sub-Areas**. A fourth Sub-Area--**Economic Development**--may be recognized to delineate areas within the UDAs that contain existing strip commercial, retail centers, business offices, manufacturing , warehousing, and other employment uses that are not customarily located within traditional neighborhood developments. The regulations for each Sub-Area incorporate a separate set of by-right and special permit uses.

1. **Core Sub-Area:** The Core Sub-Areas shall be the primary location for the urban-scaled commercial and business uses within the designated UDA and other Uptown areas. The Core Sub-Areas in the City encourage a mix of uses that are to be organized into an inviting destination point for civic life and business activities. With relatively few large undeveloped parcels these UDA locations, infill and redevelopment activities will anchor much of the future land use activities within the City's Core Sub-Districts. However, the remaining larger, undeveloped land within the UDAs should be subject to more extensive review by the City.

   With a focus on cultivating and expanding compact "main street" forms of development in the City, Core Sub-Area development proposals should promote projects that encourage for a range of retail, services, restaurant, office, lodging, institutional, and civic uses. A Core Sub-Area is not intended as appropriate for the location of big box, power center, industrial, or other large-footprint commercial buildings that should otherwise be considered for the Economic Development Sub-Area.

   TND projects incorporating compact residential dwellings (multifamily, townhouse, and small SFD lots) are recommended for the Core Sub-Area. New and redevelopment proposals should be planned as pedestrian-friendly mixed-use areas with a street system that provides vehicular and pedestrian interconnectivity with the adjoining residential and transitional neighborhoods. Building frontages should define the public streetscape, with on-street parking, utilities, and landscaping located within the public right of way.

   TND development proposals for the Core Sub-Area shall be reviewed for consistency with the adopted traditional neighborhood development goals for the UDA as well as for other relevant policies of the Comprehensive Plan.

2. **Transitional Sub-Area:** The Transitional Sub-Area should be designated in locations to better accommodate small infill and redevelopment projects. It is intended to promote a graduated mix of lower intensity uses in areas that separate (*ie*. buffer) the Core Sub-Area from the lower density, stable residential neighborhoods in and around the UDAs. Respecting existing, stable land uses and neighborhoods in the Sub-Area, the by-right use of the overlay provisions should be applied to create more compatible redevelopment and infill development. Residential uses within the Transitional Sub-Area should be within a five to ten minute walking-distance of a Core Sub-Area.

As with the Core Sub-Area, lot sizes, frontages, setbacks and building formats should be scaled to complement neighborhood streetscapes and to stimulate neighborhood interaction. For projects of sufficient size *(> 2-acres)*, a mix of TND lot types should be provided. Light commercial uses and shops are permitted but individual uses should complement, not compete, with those in the village centers. A variety of residential uses and lot types are permitted in the Transitional Sub-Area along with community centers, churches, live-work residential, restaurants, and neighborhood-scaled shops (refer to *Section F: Lot and Yard Types*).

Where feasible, right of way improvements should include sidewalks, landscaping, street lights, drainage improvements, and on-street parking where public road frontage is impacted. This should also apply to individual infill lots. To preserve the capacity of on-street parking, public street access to front loaded parking pads and garages is discouraged in new residential projects while off-street parking should be relegated to the rear of individual residential lots. Single family and attached residential off-street parking and garages should be accessed by alleys, where feasible.

All development proposals for the Transitional Sub-Area shall be reviewed for consistency with the adopted traditional neighborhood development goals and policies of the Comprehensive Plan. During the application process, close coordination between the Applicant and City Staff will be required to determine these relationships.

3. **Residential Sub-Area:** The Residential Sub-Area provides for infill and limited redevelopment opportunities at residential densities that are lower than those found in the Core and Transitional areas. The Residential Sub-Area is intended to envelope stable neighborhoods where larger scale, near-term or intermediate-term redevelopment activities are neither anticipated nor desired. With few remaining large vacant parcels, new residences in this Sub-Area shall adhere to TND principles. To optimally serve the predicted level of demographic growth and marketplace characteristics, the Residential Sub-Area could encourage larger-scale projects at selected locations with a mix of lot sizes, frontages, setbacks, and housing types. Where public and private interests intersect, mixed housing types and lot types are recommended, with guidelines for the mix established with the Applicant's site plan.

Interconnected neighborhood street patterns with pedestrian improvements are a priority in the Residential Sub-Areas, and cul-de-sacs should be avoided except in cases where severe terrain limitations restrict their use. Rear alleys that access off-street parking for individual lots are encouraged but not required. Where public street access to private, off-street parking is provided, frontage driveways should be shared between adjoining lots, and private garages should be located to the rear of the principal structure. All new streets should be public and constructed to appropriate VDOT standards.

While smaller infill projects may not be of sufficient size to create ample open spaces, the Applicant and City should work together to ensure that plans are in place for neighborhood playgrounds, greens, and parks that are central and accessible to Sub-Area neighborhoods. Development proposals for the Residential Sub-Area shall be reviewed for consistency with the adopted traditional neighborhood development goals and policies of the Comprehensive Plan.

4. **Economic Development Sub-Area:** The Economic Development Sub-Area recognizes that certain existing land uses with higher densities and more intense community impacts may be appropriate for inclusion in the Martinsville's UDAs. This Sub-Area may be applied to locations for both existing land uses and future new or redevelopment projects in locations where TND development would be otherwise infeasible at present. The Economic Development Sub-Area should recognize those large-scale commercial and industrial uses of a scale, orientation, and impact not typically found in traditional neighborhood developments, but which, otherwise, hold the real potential to be shaped to fulfill the City's long-range redevelopment objectives.

   While this Sub-Area can be viewed today as a "grandfather" zone for existing uses, the long range potential remains for adaptation to TND forms of development. The majority of the land in the Uptown area and along the City's entry corridors is zoned to commercial or some other conventional zoning district. Many of the existing commercial uses that have been in existence for well over a generation are located on properties that could be eventually redeveloped at substantially higher densities. In addition to existing retail and business establishments, the scattered mix of shopping centers, industrial, or non-retail employment uses will need encouragement and assistance from both the City and the marketplace to redevelop to TND standards. Development proposals for the Economic Development Sub-Area shall be reviewed for consistency with both the traditional neighborhood development goals and the Economic Development policies of the Comprehensive Plan.

C. TND-O District Area Requirements

1. TND-O District size: There is no minimum or maximum size for a TND-O District project. The proposed size and configuration of the TND-O District project shall be described by a current boundary plat prepared by the Applicant that establishes the metes and bounds and acreage.

2. TND Sub-Area size: For projects that impact two or more of the City's designated TND-O District Sub-Areas, the size and configuration of the Core, Transitional, Residential, or Economic Development Sub-Areas shall be depicted on an Application Plan. The exhibit shall describe the boundary and acreage for the properties are located within multiple Sub-Areas.

3. Requests by an Applicant for modification to the geographical expansion of an approved project within a TND-O District constitutes a major change and shall require a new application (refer to *Section I.8* hereinafter).

D. Permitted Land Uses, Special Permit Uses, and Land Use Categories

1. Permitted uses to be included in the TND-O District shall be defined by the Applicant's Code of Development, provided that the City, at its sole discretion, may establish certain prohibited or restricted uses.

2. The Code of Development shall identify permitted uses and special permit uses within each Sub-Area. The permitted uses shall be defined in terms of the specific uses as provided in ***Table 1*** hereinafter.

Table 1:

Martinsville TND-O District

Permitted, Special Permit and Non-Permitted Uses

Use Group	TND Sub-Areas / Land Uses	Core	Transitional	Residential	Econ. Dev.	Use Group
Category 1: Residential	Single family detached residential	P	P	P	NP	Category 1: Residential
	Townhouse/attached residential	P	P	P	NP	
	Multifamily residential	P	P	SP	NP	
	Live-work (townhouse) residential	P	P	SP	NP	
	Residential in mixed use building	P	P	NP	SP	
	Assisted living facility	P	P	NP	NP	
	Nursing home	P	P	NP	NP	
	Accessory apartment or dwelling	SP	SP	SP	SP	
	Bed and breakfast establishments	SP	SP	SP	NP	
	Child or adult day care facilities	P	SP	NP	SP	
	Neighborhood greens, parks or playgrounds	P	P	P	NP	
	Community gardens	SP	SP	SP	SP	
	Home occupation uses	SP	SP	SP	NP	
	Other: TBD per Code of Development	SP	SP	SP	NP	
	Other: TBD per Code of Development	SP	SP	SP	NP	
	Other: TBD per Code of Development	SP	SP	SP	NP	
Category 2: Commercial, Office, and Lodging	Retail sales establishments	P	P	NP	SP	Category 2: Commercial, Office, and Lodging
	Personal service establishments	P	P	NP	SP	
	Professional and medical offices	P	P	NP	P	
	General offices	P	P	NP	P	
	Financial service establishments	P	P	NP	P	
	Artisan shops and sales establishments	P	P	NP	P	
	Studios for art, dance, or music	P	P	NP	P	
	Hotels and motels	P	SP	NP	P	
	Restaurants and eating establishments	P	P	NP	P	
	Vertical mix of Category 1 and 2 uses	P	P	NP	SP	
	Commercial education facilities	P	SP	NP	SP	
	Commercial fitness and health clubs	P	P	NP	SP	
	Child or adult day care facilities	P	SP	NP	SP	
	Hospitals and medical clinics	P	SP	NP	SP	
	Funeral homes	P	SP	NP	SP	
	Gas stations and vehicular service	SP	SP	NP	SP	
	Outdoor storage, display, and sales	SP	SP	NP	SP	
	Drive-thru facilities	SP	SP	NP	SP	
	Special events, festivals, and outdoor displays	SP	SP	NP	SP	
	Temporary Wayside Stands	SP	SP	NP	SP	
	Category 2 uses > 10,000, < 20,000 sq. ft. on ground floor per establishment	SP	SP	NP	P	
	Category 2 uses > 20,000 sq. ft. on ground floor per establishment	NP	NP	NP	SP	
	Other: TBD per Code of Development	SP	SP	NP	SP	
	Other: TBD per Code of Development	SP	SP	NP	SP	
	Other: TBD per Code of Development	SP	SP	NP	SP	

Table 1:

Martinsville TND-O District

Permitted, Special Permit and Non-Permitted Uses

Use Group	TND Sub-Areas / Land Uses	Core	Transitional	Residential	Econ. Dev.	Use Group
Category 3: Public and Quasi-Public	Places of workship	P	P	SP	SP	Category 3: Public and Quasi-Public
	Community centers	P	P	SP	SP	
	Cemeteries	SP	SP	NP	SP	
	Museums and galleries	P	P	NP	P	
	Government offices (federal, state, local)	P	P	NP	P	
	Public schools and colleges	P	SP	SP	SP	
	Private schools and colleges	P	SP	SP	SP	
	Public safety facilities	P	P	SP	P	
	Public parks and recreation facilites	P	P	SP	P	
	Recycling facilities	P	SP	SP	P	
	Other: TBD per Code of Development	SP	SP	SP	SP	
	Other: TBD per Code of Development	SP	SP	SP	SP	
	Other: TBD per Code of Development	SP	SP	SP	SP	
Category 4: Economic Development	Research and development facilities	SP	NP	NP	P	Category 4: Economic Development
	Manufacturing and assembly establishments	SP	NP	NP	P	
	Warehousing and storage facilities	SP	NP	NP	P	
	Wholesale sales and distribution facilities	SP	NP	NP	P	
	Machinery and equipment sales	SP	NP	NP	P	
	Repair service facilities (non-vehicular)	SP	NP	NP	P	
	Repair service facilities (vehicular)	SP	NP	NP	P	
	Category 4 uses > 10,000 sq. ft. on ground floor per establishment	SP	NP	NP	P	
	Outdoor storage, display, or sales	SP	NP	NP	SP	
	Other: TBD per Code of Development	SP	SP	SP	SP	
	Other: TBD per Code of Development	SP	SP	SP	SP	
	Other: TBD per Code of Development	SP	SP	SP	SP	
Category 5: Uses Specifically Excluded	*to be added to this table in the final COD for each excluded use*	NP	NP	NP	NP	Category 5: Uses Specifically Excluded
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	
		NP	NP	NP	NP	

E. Development Density and Yields

1. The TND-O District regulates both minimum and maximum development densities. The Applicant may submit proposals for TND-O District land use densities that are contained within the stipulated maximum and minimum. The total minimum and maximum development yields for individual land uses within a TND-O District project shall be established by the Code of Development.

2. Density regulations applicable to each Sub-Area shall apply to new development, redevelopment and infill development uses.

3. Minimum Density: Development densities for the land uses proposed for each Sub-Area project shall achieve a minimum density of at least the levels for the individual land uses as indicated in ***Table 2*** hereinafter or as shall otherwise be established by the Code of Development.

4. Maximum Density: Development densities for the land uses proposed for each Sub-Area project shall not exceed the levels for the individual land uses as indicated in ***Table 2*** hereinafter or as shall otherwise be established by the Code of Development.

5. The Applicant shall demonstrate in the project's Code of Development the appropriateness of the level of minimum and maximum densities proposed for each land use.

6. Upon request of the Applicant, the Planning Commission, at its sole discretion, may reduce the minimum required density for individual uses within a TND-O District project, provided that the revised minimum density for each land use shall be incorporated into the Application Plan. It shall be the responsibility of the applicant to demonstrate the justification for the reduction in density.

7. Upon request of the Applicant, the Planning Commission, at its sole discretion, may increase the maximum required for individual uses within a TND-O District project, provided that the revised maximum density for each land use shall be incorporated into the Application Plan. It shall be the responsibility of the applicant to demonstrate the justification for the increase in density.

8. The allowable range of land use yields within a TND-O District project shall be calculated based on the Qualifying Area (or Net Acreage) of the individual Sub-Area. The calculation of minimum and maximum yield for individual uses to be located in each project shall be based on the application of the minimum and maximum density for each use *(see **Tables 2 and 3** hereinafter)* to an adjusted Qualifying Area that reduces the gross area of the TND by the total of the non-qualifying land components within the Sub-Area.

   The **Qualifying Area (or Net Acreage) = (Gross Acreage) - (Acreage of the sum of the Non-Qualifying land components.)** The land components that comprise the Non-Qualifying land area include:

   a. existing rights of way and easements,

   b. existing land uses that are to remain on the property,

   c. areas deemed unbuildable due to geological, soils, or other environmental deficiencies,

Table 2:

Development Density: Maximum and Minimum Density for TND-O Sub-Districts

Martinsville TND-O Zoning District

Use Group	TND Sub-Districts	Core			Transitional			Residential			Economic Development			Use Group
	Land Uses	Density Minimum	Density Maximum	units	Density Minimum	Density Maximum	units	Density Minimum	Density Maximum	units	Density Minimum	Density Maximum	units	
Category 1: Residential	Single family detached residential	4	6	units/acre	4	6	units/acre	4	6	units/acre	NP	NP	units/acre	Category 1: Residential
	Townhouse/attached residential	6	14	units/acre	6	12	units/acre	6	10	units/acre	NP	NP	units/acre	
	Multifamily residential	14	36	units/acre	12	24	units/acre	8	24	units/acre	NP	NP	units/acre	
	Live-work residential (attached)	6	12	units/acre	6	8	units/acre	NP	NP	units/acre	NP	NP	units/acre	
	Residential in mixed use building	per COD	per COD	units/lot	per COD	per COD	units/lot	NP	NP	units/lot	NP	NP	units/lot	
	Assisted living facility	per COD	per COD	units/lot	per COD	per COD	units/lot	NP	NP	units/lot	NP	NP	units/lot	
	Nursing home	per COD	per COD	units/lot	per COD	per COD	units/lot	NP	NP	units/lot	NP	NP	units/lot	
	Accessory apartment or dwelling	0	1	units/lot	0	1	units/lot	0	1	units/lot	0	1	units/lot	
	Bed and breakfast establishments	per COD	per COD	beds/unit	per COD	per COD	beds/unit	NP	NP	beds/unit	NP	NP	beds/unit	
	Child or adult day care facilities	per COD	per COD	occupancy/unit	per COD	per COD	occupancy/unit	NP	NP	occupancy/unit	NP	NP	occupancy/unit	
	Other: TBD per Code of Development	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	
	Other: TBD per Code of Development	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	
	Other: TBD per Code of Development	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	per COD	
Category 2: Commercial, Office, and Lodging	Retail sales establishments	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	Category 2: Commercial, Office, and Lodging
	Personal service establishments	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	
	Professional and medical offices	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	
	General offices	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	
	Financial service establishments	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	
	Artisan shops and sales establishments	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	
	Studios for art, dance, or music	0.4	4.0	FAR	0.4	2.0	FAR	NP	NP	FAR	0.2	4.0	FAR	
	Hotels and motels	per COD	per COD	units/lot	per COD	per COD	units/lot	NP	NP	units/lot	per COD	per COD	units/lot	
	Restaurants and eating establishments	per COD	per COD	occupancy/unit	per COD	per COD	occupancy/unit	NP	NP	occupancy/unit	per COD	per COD	occupancy/unit	
	Vertical mix of Category 1 and 2 uses	per COD	per COD	per COD	per COD	per COD	per COD	NP	NP	per COD	per COD	per COD	per COD	
	Commercial education facilities	per COD	per COD	sf gfa/lot	per COD	per COD	sf gfa/lot	NP	NP	sf gfa/lot	per COD	per COD	sf gfa/lot	
	Commercial fitness and health clubs	per COD	per COD	sf gfa/lot	per COD	per COD	sf gfa/lot	NP	NP	sf gfa/lot	per COD	per COD	sf gfa/lot	
	Child or adult day care facilities	per COD	per COD	occupancy/unit	per COD	per COD	occupancy/unit	NP	NP	occupancy/unit	per COD	per COD	occupancy/unit	
	Hospitals and medical clinics	per COD	per COD	occupancy/unit	per COD	per COD	occupancy/unit	NP	NP	occupancy/unit	per COD	per COD	occupancy/unit	
	Funeral homes	per COD	per COD	sf gfa/lot	per COD	per COD	sf gfa/lot	NP	NP	sf gfa/lot	per COD	per COD	sf gfa/lot	
	Gas stations and vehicular service	per COD	per COD	sf gfa/lot	per COD	per COD	sf gfa/lot	NP	NP	sf gfa/lot	per COD	per COD	sf gfa/lot	
	Category 2 uses > 10,000 sq. ft. on ground floor per establishment	per COD	per COD	FAR	per COD	per COD	FAR	NP	NP	FAR	per COD	per COD	FAR	
	Drive-thru facilities	per COD	per COD	per COD	per COD	per COD	per COD	NP	NP	per COD	per COD	per COD	per COD	
	Other: TBD per Code of Development	per COD	per COD	per COD	per COD	per COD	per COD	NP	NP	per COD	per COD	per COD	per COD	
	Other: TBD per Code of Development	per COD	per COD	per COD	per COD	per COD	per COD	NP	NP	per COD	per COD	per COD	per COD	
	Other: TBD per Code of Development	per COD	per COD	per COD	per COD	per COD	per COD	NP	NP	per COD	per COD	per COD	per COD	

Table 2:

Development Density: Maximum and Minimum Density for TND-O Sub-Districts

Martinsville TND-O Zoning District

Use Group	TND Sub-Districts	Core			Transitional			Residential			Economic Development			Use Group
	Land Uses	Density			Density			Density			Density			
		Minimum	Maximum	*units*	Minimum	Maximum	*units*	Minimum	Maximum	*units*	Minimum	Maximum	*units*	
Category 3: Public and Quasi-Public	Places of workship	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	Category 3: Public and Quasi-Public
	Community centers	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Cemeteries	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Museums and galleries	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Government offices (federal. state. local)	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Public schools and colleges	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Private schools and colleges	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Public safety facilities	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Public parks and recreation facilites	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Recycling facilities	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Other: TBD per Code of Development	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Other: TBD per Code of Development	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Other: TBD per Code of Development	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
Category 4: Economic Development	Research and development facilities	0.4	4.0	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	Category 4: Economic Development
	Manufacturing and assembly facilities	NP	NP	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	
	Warehousing and storage facilities	0.4	1.0	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	
	Wholesale and distribution facilities	0.4	1.0	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	
	Repair service facilities (non-vehicular)	0.4	1.0	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	
	Repair service facilities (vehicular)	0.4	1.0	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	
	Category 4 uses > 10,000 sq. ft. on ground floor per establishment	0.4	per COD	*FAR*	NP	NP	*NP*	NP	NP	*FAR*	0.4	1.0	*FAR*	
	Outdoor storage, display, or sales	per COD	per COD	*per COD*	NP	NP	*NP*	NP	NP	*NP*	per COD	per COD	*per COD*	
	Other: TBD per Code of Development	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Other: TBD per Code of Development	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
	Other: TBD per Code of Development	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	per COD	per COD	*per COD*	
Category 5: Uses Specifically Excluded	*to be added to this table in the final COD for each excluded use*													Category 5: Uses Specifically Excluded

d. wetlands and floodplains (FEMA 100-year floodplain),

e. existing ponds, stormwater management facilities and water features that are not defined by wetlands or floodplains, and

f. terrain with slopes in excess of thirty percent (30%).

(*See **Appendix A**: **Density Calculation Work Sheet** for an illustrative example employing the Qualifying Acreage approach to calculate minimum and maximum densities within the TND-O District.)*

F. Lot and Yard Types: Size, Lot Dimensions, and Height Regulations

1. Lot types: ***Table 3: Lot Types and Lot Development Standards*** provides a matrix of representative lot types that are permitted in the TND-O District.

   a. Lots for small detached residential dwellings:
      (1) Cottage Lot
      (2) Village Lot

   b. Lots for medium detached residential dwellings
      (1) Neighborhood Lot #1
      (2) Neighborhood Lot #2

   c. Lots for attached and multifamily residential dwellings:
      (1) Townhouse Lot #1
      (2) Townhouse Lot #2
      (3) Multifamily Lot

   d. Lots for commercial and live-work commercial buildings:
      (1) Commercial Lot
      (2) Live-work Lot

   e. Lots for Economic Development and special permit buildings: established by Code of Development.

2. Lot development standards: ***Table 3*** establishes the regulations and guidelines for the size and dimensions of individual lot types as permitted within the individual TND Sub-Areas. ***Table 4: TND-O District Residential Lot Mix Work Sheet*** establishes the mix of lot types that are to be contained within each Sub-Area.

   a. Lot dimensions
   b. Lot area
   c. Yard and setback regulations
   d. Lot coverage and frontage

3. Supplemental notes for Lot Types and Lot Development Standards: In (1) - (9) below, the notes refer to footnotes (1) - (9) as cited in ***Table 3.***

(1) This table is regulatory except where noted by asterisk (*) as guidelines. Guidelines for variations to the indicated dimensions and percentages shall be approved by the Planning Director.

(2) Lot dimensions are provided in the matrix for interior lots. For corner lots, lot width and side yards shall be increased by 5' in addition to the prescribed dimensions.

(3) For attached dwellings, town homes and multifamily buildings, the indicated side yard regulations apply only to end units.

(4) Rear setback applies to principal structure only. Garages and/or accessory units may have zero setback when an alley is present. A minimum of 5′ setback is required in the absence of an alley.

(5) Lot frontage percentage represents the the ratio between the building width and corresponding width of the lot on which the building is located.

(6) Lot coverage ratio guideline applies to maximum percentage of building coverage. Lot areas for townhouses and multifamily units exclude areas for required off-street parking. Ratio for townhouses applied to internal units; end unit ratios not governed.

(7) The Code of Development shall include a Lot Mix Matrix for the planned distribution of lot types that are permitted within a TND-O District project. (See *Appendix A* for illustrative example and density calculation work sheet.)

(8) The lot dimensions, lot area, yard and setback regulations, and lot frontage regulations shall be established with the Code of Development.

(9) The Applicant shall submit a supplement to the Lot Types and Lot Development Standards matrix to identify, define, and regulate any additional land uses and lot types that are to be incorporated into the Code of Development. Additional uses and lot types shall be approved by the Planning Commission.

(***Appendix B: TND Lot Types*** provides illustrations of lot types and building configurations.)

4. Building heights for individual uses:

Building heights shall be identified and established by the Code of Development for each land use or combination of land uses within a TND-O District project, and, further, building heights shall be subject to the following minimum and maximum height limits as outlined in ***Table 5*** hereinbelow:

Table 3:

Lot Types and Lot Development Standards: TND-O District

Lot Group	Building Lot Type	Lot Dimensions Width min.	Lot Dimensions Width max.	Lot Dimensions Depth min.	Lot Area * (1) min.	Lot Area * (1) max.	Yard and Setback Regulations Front min.	Front max.	Side (2) (3) min.	Side (2) (3) max.	Rear (4)	Lot Frontage Percentage (5) min. * (1)	Lot Frontage Percentage (5) max.	Lot Coverage Ratio * (1) (6) max.	TND Sub-District Permitted (7)	Lot Group
1. Small Detached	Cottage Lot	34'	38'	80'	3000 sf	4000 sf	10'	15'	5'	8'	15'	60%	80%	60%	Core, Transitional, Residential	1. Small Detached
	Village Lot	38'	42'	85'	3500 sf	5000 sf	10'	15'	5'	9'	15'	60%	75%	60%	Transitional, Residential	
2. Medium Detached	Neighborhood Lot 1	42'	48'	90'	4000 sf	5000 sf	10'	15'	5'	10'	15'	60%	80%	60%	Transitional, Residential	2. Medium Detached
	Neighborhood Lot 2	48'	60'	90'	5000 sf	7000 sf	12'	25'	8'	12'	15'	60%	70%	60%	Transitional, Residential	
	Suburban Lot	60'	100'	100'	6000 sf	12,000 sf	15'	30'	10'	15'	15'	50%	70%	50%	Residential	
	Other Detached Lot: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	Core, Transitional, Residential	
3. Attached & Multifamily	Townhouse Lot 1	16'	24'	85'	1400 sf	2500 sf	10'	15'	5'	12'	15'	100%	100%	80%	Core, Transitional, Residential	3. Attached & Multifamily
	Townhouse Lot 2	20'	30'	90'	1800 sf	3000 sf	12'	20'	5'	12'	15'	100%	100%	80%	Core, Transitional, Residential	
	Multifamily Lot	regulated per COD with conditions * (8)					12'	25'	10'	15'	15'	per COD	100%	80%	Core, Transitional	
	Other Attached Lot: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	Core, Transitional	
4. Commercial	Live-Work Lot	18'	32'	85'	1530 sf	3000 sf	5'	15'	5'	12'	15'	60%	60%	80%	Core, Transitional	4. Commercial
	Commercial & Mixed Use Lot	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					60%	60%	100%	Core, Transitional	
5. Economic Development & Special Uses	ED or Special Use #1: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	regulated per COD	5. Economic Development & Special Uses
	ED or Special Use #2: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	regulated per COD	
	ED or Special Use #3: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	regulated per COD	
	ED or Special Use #4: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	regulated per COD	
	ED or Special Use #5: tbd/COD * (9)	regulated per COD with conditions * (8)					regulated per COD with conditions * (8)					regulated per COD		per COD	regulated per COD	
	ED or Special Use #6: tbd/COD * (9)	regulated per COD with conditions					regulated per COD with conditions * (8)					regulated per COD		per COD	regulated per COD	

Footnote Reference: See Section G.3.(1)-(9) of the TND Zoning District text for footnotes indicated by an asterisk (*) hereinabove.

Table 4:

Residential Lot Mix Work Sheet by TND-O Sub-Districts

Lot Group	TND Sub-Districts	Core Sub-District			Transitional Sub-District			Residential Sub-District			TND District Totals		Notes	Lot Group
	Residential Lot Types	Lot Mix	Residential Yield (# units)		Lot Mix	Residential Yield (# units)		Lot Mix	Residential Yield (# units)		Residential Yield (# units)			
		Approx. range (%)	Minimum	Maximum	Approx. range (%)	Minimum	Maximum	Approx. range (%)	Minimum	Maximum	Minimum	Maximum		
1. Small Detached	Cottage Lot													1. Small Detached
	Village Lot													
	Other Detached Lot: tbd/COD													
2. Medium Detached	Neighborhood Lot 1													2. Medium Detached
	Neighborhood Lot 2													
	Suburban Lot													
	Other Detached Lot: tbd/COD													
3. Attached & Multifamily	Townhouse Lot 1													3. Attached & Multifamily
	Townhouse Lot 2													
	Multifamily Lot													
	Other Attached Lot: tbd/COD													
4. Commercial	Live-Work Lot													4. Commercial
	Residential Mixed Use Lot													
	Totals: Residential Units by Sub-Districts	100%			100%			100%						

NOTES:

1. Minimum and maximum residential lot and unit yield for each Sub-District shall be regulatory.
2. Minimum and maximum residential lot and unit mix for each Sub-District shall be a guideline
3. TND District minimum and maximum lot mix and unit yield shall be regulatory.

Table 5:

Core (Village Center) Sub-Area	Minimum	Maximum
Retail commercial	*24′*	*48′*
Commercial office and service	*24′*	*60′*
Vertically mixed retail and office	*24′*	*60′*
Vertically mixed retail/office and residential	*30′*	*60′*
Hotels and motels	*30′*	*72′*
Live-work residential	*30′*	*48′*
Residential, townhouse and attached	*30′*	*48′*
Residential, multifamily	*36′*	*60′*
Special permit uses and all other uses	*per COD*	*per COD*

Transitional Sub-Area	Minimum	Maximum
Retail commercial	*24′*	*36′*
Commercial office and service	*24′*	*36′*
Vertically mixed retail and office	*24′*	*36′*
Vertically mixed retail/office and residential	*30′*	*48′*
Hotels and motels	*30′*	*48′*
Live-work residential	*30′*	*48′*
Residential, single family detached	*30′*	*48′*
Residential, townhouse and attached	*30′*	*48′*
Residential, multifamily	*36′*	*48′*
Special permit uses and all other uses	*per COD*	*per COD*

Residential Sub-Area	Minimum	Maximum
Live-work residential	*30′*	*48′*
Residential, single family detached	*30′*	*48′*
Residential, townhouse and attached	*30′*	*48′*
Residential, multifamily	*30′*	*48′*
Special permit uses and all other uses	*per COD*	*per COD*

Economic Development Sub-Area	Minimum	Maximum
Special permit uses and all other uses	*per COD*	*per COD*

5. Upon request by the Applicant, the Planning Commission may increase or decrease the regulations for building heights, yards, and lots for individual uses within a TND-O District project, provided that the revised regulations shall be established for each land use or lot and incorporated into the Code of Development. It shall be the responsibility of the Applicant to demonstrate the justification for the requested adjustments to these regulations.

G. Civic Space, Parks, Open Space, and Recreation Areas

1. TND-O District projects with a gross area of ten (10) acres or greater shall provide usable and centrally located civic space, parks, common open space, or recreation areas that are accessible to residents, visitors, and workers within the TND-O District. Civic space, public parks, common open space, or recreation areas shall be strategically located and designed to provide recreational opportunities for the neighborhood as well as relate to the physiographic character and accessibility to the entire TND.

2. For TND-O District projects with a gross area of ten (10) acres or greater, these areas shall be sized, located, and improved to a level that satisfies the needs of the residents of the project, provided that a minimum of fifteen percent (15%) of the total Qualifying Area of the TND shall be allocated to these areas. (See *Section E.7* for definition of Qualifying Area.) The Application Plan and Code of Development shall establish the type, mix, arrangement, and quality of the planned on-site improvements for civic space, parks, common open space, recreation areas, buffer areas, and protected natural areas.

3. For TND-O District projects with a gross area of ten (10) acres or greater, the location, mix, type, quality and phasing of civic space, parks, common open space, recreation areas, buffer areas, and protected natural areas shall be consistent with the Comprehensive Plan or other criteria established by the City. These areas shall be delineated on the Application Plan and may include greens, squares, plazas, community centers, club houses, trails, pocket parks, or community gardens.

4. For TND-O District projects with a gross area of ten (10) acres or greater, the areas of property designated for civic space, parks, common open space, recreation areas, buffer areas, and protected natural areas shall be (a) subject to approval of the Planning Commission, and (b) permanently set aside for the sole benefit, use, and enjoyment of occupants of the TND-O District through covenant, deed restriction, or similar legal instrument; or, if agreed to by the Planning Commission, the civic space, parks, common open space, recreation areas, buffer areas, or protected natural areas may be conveyed to a governmental agency for the use of the general public.

5. Land within the TND that is designated to remain private for any of these areas and improvements shall be owned and maintained by a property owners' association or homeowners association.

6. Upon request of the Applicant, the Planning Commission, at its sole discretion, (a) may decrease or eliminate certain requirements for open space and recreation land and improvements in a TND-O District project, provided that the revised regulations shall be established and conditioned by the Code of Development, or (b) elect for the Applicant to contribute to a pro-rata share fund, provided that the City of Martinsville has established and adopted a parks and recreation master plan for the City and pro-rata sharing funding policy for the UDAs.

7. Any City parks and recreation master plan shall address the specific regional needs, specific improvements, and funding policy for the development of civic space, parks, open space, and recreation areas that inure to the benefit of all citizens within the TND-O District. The amount of the pro-rata share contribution shall be updated and recalculated on an annual basis by the City.

8. For projects that are less than ten (10) acres in gross area, the Applicant shall contribute to a pro-rata share fund as may be established by the City Council in a parks and recreation master plan for the City. In the absence of an adopted City parks and recreation master plan and pro-rata share funding policy for the UDAs, there shall be no contribution requirement on an Applicant for projects less than ten (10) acres.

9. The amount of the pro-rata share contribution shall be updated and recalculated on an annual basis by the City.

H. Application Plan and Code of Development: Application Requirements

1. **TND Application Plan:** The Application Plan establishes the size, location, and configuration for the TND-O District project and other internal planning areas (parks, open space, dedicated areas, etc.). It provides preliminary site plan detail for the project's transportation network, land use scheme, and other key components of development of the property, including but not limited to the requirements of Sections C. - F. hereinabove and the following. The Application Plan supplants the requirement for a preliminary site plan and preliminary subdivision plat. Upon approval of the Application Plan, a final plat and plan shall be required.

   a. Existing conditions plan depicting existing land uses, existing road and utilities, dedicated rights of ways and easements, historic and cultural features, tree coverage, and sensitive environmental areas of the property, including 100-year floodplain, wetlands, slopes > 30%, unbuildable areas, and other features as may be required by the Planning Director.

   b. Certified boundary plat, deed description, tax map reference and zoning district designation of the property (or properties) subject to the TND District zoning application, zoning district designations and ownership of adjoining properties, and topographic mapping (minimum 1″= 50′ horizontal scale and 2′ contour intervals, or at a scale and interval as otherwise approved by the Planning Director).

   c. Graphic plan exhibit depicting the internal layout and organization of Sub-Areas; to include the number, size, location, and boundary for each of the Sub-Areas (to be prepared at a minimum 1″=50′ horizontal scale or at a scale as otherwise approved by the Planning Director).

   d. Graphic plan depicting the proposed location, size and amenities to be provided in public and private open spaces, buffer areas, public parks, environmental preservation areas, and recreation areas.

   e. Overlay plan exhibit depicting the projected development phasing plan.

   f. Illustrative master plan exhibit depicting the general location of planned mix of uses and lot types for uses to be allocated within each Sub-District (to be prepared at a minimum 1″=100′ horizontal scale or at a scale as otherwise approved by the Planning Director).

2. **Development Code:** Sections *H. 2-6* comprise the Applicant's **Code of Development**. Section H.2 incorporates a narrative report and graphic exhibits that codifies the key components of the project proposed and that establishes the governing land use regulations, criteria, and guidelines, to address the following:

   a. The Applicant shall prepare a statement of compatibility of the proposed project with the City's TND-O District and Comprehensive Plan land use policies.

   b. Lot Types and Lot Development Standards matrix (*Table 4*), to incorporate supplemental standards as may be required by additional proposed land uses and lot types.

   c. Table of proposed by-right land uses, special permit uses, and specific land use exclusions applicable to use.

   d. Graphic representation of proposed generalized building forms, types and densities.

   e. Residential Lot Mix Work Sheet *(Table 4)*, to address proposed mix of residential lot types within the project, to include documentation for proposed lot variations and special conditions.

   f. Narrative and graphic exhibits to support justification, qualifications, and conditions related to special permit uses.

   g. Statement of minimum and maximum density, to include submission of Density Calculation Worksheet for the Sub-Areas (See *Appendix A* for illustrative example and density calculation work sheet.)

   h. Parking impact study, if required, to assess parking area and loading requirements.

   i. Documentation and plan demonstrating compliance with VDOT State Secondary Street Acceptance Requirements.

   j. A signage plan which establishes a uniform sign theme with graphic representation of the design character, style, number, size, height, and number of signs to be permitted with the project. Signs shall share a common style, as to size, shape, and material. Where signs otherwise vary in requirements with the existing City sign ordinance, the Applicant shall provide justification for the proposed variation. Upon approval of the Application Plan and Code of Development, the signage plan will regulate all signs within the TND-O District in lieu of the City's sign ordinance.

   k. Projection of planned project's infrastructure demands on public water, sewer and other facilities and infrastructure, and an assessment of availability and adequacy of existing public infrastructure and facilities.

3. **Street Classification Plan:** For any TND-O District project that proposes to construct new streets (public or private), a regulating street classification plan shall graphically address and depict the street system, street types, and streetscape design criteria for the types of vehicular and pedestrian access improvements within

the project:

a. Regulating plan for the alignment and classification of the project's street system, identifying interior and frontage streets, and including designation of street types, block lengths and geometry, alley locations, and pedestrian improvements within each project.

b. Graphic standards to illustrate plan and street cross sectional views, including right of way or easements specifications, for individual streets types (including alleys and pedestrian improvements).

c. Design guidelines for public hardscape, landscaping, street lighting, and placement of utility, storm drainage, and related infrastructure, including easement requirements and regulations.

4. **Building Form and Landscape Design Guidelines:** Documentation and graphics to describe the proposed characteristics of building design and landscape architectural improvements for the TND-O District project:

a. Graphic representation of proposed architectural themes.

b. Building form and styles, to address building scale, architectural proportions, and heights for uses within the project.

c. Landscape design guidelines to depict proposed landscape treatment of streets, neighborhoods, civic spaces, open areas, parking areas, and other activity centers within the project.

5. **Schematic Infrastructure Plans:** Schematic plans shall be prepared of sufficient alignment and design detail to demonstrate the feasibility and functionality of the project to the satisfaction of the City to address the following:

a. Storm drainage, stormwater management facilities, and LID and best management practices.

b. Sanitary sewer.

c. Domestic water.

d. Site grading (proposed finished grades at minimum 2' contour intervals and 1" = 50' horizontal scale, or at a scale and interval as otherwise approved by the Planning Director).

e. Easement specifications and requirements for each public utility and facility, to include coordination requirements and agreements that may be needed by and between utility providers and the City.

6. **Traffic Impact Analysis:**

a. The City and Applicant shall determine whether or not the subject TND-O District project shall require a traffic impact statement to be prepared consistent with VDOT 527 regulations.

b. If a 527 traffic impact analysis is required by VDOT regulations, the Applicant shall prepare and submit a Pre-Scope of Work Meeting Form to the City on or before the date of formal submission of the zoning district amendment application. The Pre-Scope form shall be processed, reviewed by and between the City, VDOT and the Applicant in accord with adopted regulations and procedures.

c. If a 527 Traffic Impact Analysis is not required by VDOT regulations, the Planning Director may require an abbreviated traffic study. The Applicant shall meet with the Planning Director to determine the required scope for a traffic analysis for the TND project. The Planning Director shall approve the elements to be addressed in the study scope. The traffic analysis shall be submitted with the zoning amendment application. Minimum requirements may include the following:

(1) Existing traffic counts (AM and PM peak hour) at intersections to be identified by the City.

(2) Trip generation estimates for the planned land uses within the proposed development, employing ITE methodologies.

(3) Trip distribution and assignments to the existing road network of traffic projected for the development at full-buildout.

(4) Estimates of background traffic growth on impacted streets and highways.

(5) Analysis of future conditions, to include level of service calculations for impacted intersections.

(6) Signal warrants analysis.

(7) Statement of recommended transportation improvements.

I. Additional Application Requirements and Agreements

1. The Applicant shall identify and establish standards for TND utility and infrastructure design and easement requirements. The Applicant shall also identify and establish procedures to pursue any required waivers and modification of existing City zoning, subdivision, and design standards related thereto, as applicable to implement the proposed project.

2. The Applicant shall establish agreements for public ownership, management, and maintenance of properties within the project to be dedicated to public use, including parks, civic areas, open space, stormwater management facilities, and recreational facilities, where applicable, and establish rules for common property ownership and maintenance, if applicable.

3. The Applicant, in conjunction with the City, shall establish design criteria and use conditions for each land use subject to special use permit approval.

4. The Applicant shall provide written request and adequate documentation in support of any amendment, waiver or modification associated with the TND Application Plan.

5. If all or any portion of the property is to have land or improvements that are to be dedicated to a property owner(s)' association, the Applicant shall identify the property or improvements subject to dedication and shall submit draft articles of incorporation, by laws, and related operating documents for City review.

J. TND Application and Review Process:

1. Pre-Application Meeting: The Applicant shall schedule a meeting with the Planning Director for an introductory work session to discuss the key elements and impacts of the proposed project. The Planning Director and other City agency representatives shall provide guidance on (a) application requirements, (b) timeframe for processing of the Application Plan, (c) Comprehensive Plan considerations, (d) identification issues related to public infrastructure and facilities, and (e) other matters as may be uniquely related to the Applicant's property. At this meeting, the Applicant shall present a sketch plan that depicts the following: (a) general boundary and location of property subject to rezoning application, (b) land area to be contained within the TND-O District, (c) conceptual plan for the project, (d) planned mix of land uses and densities, and (e) general approach for the provision of adequate transportation, infrastructure and community facilities.

2. TND Application Package Submission Meeting: The Applicant shall schedule a meeting with the Planning Director to submit and initially review the contents of the Application Plan for completeness. Within five (5) working days of the completion of the meeting, the Planning Director shall notify the Applicant in writing if the application package meets the City's expectations for completeness. If the Application Plan package does not meet expectations, the Planning Director shall provide written notification to the Applicant of the additional requirements necessary to establish a complete application. Once an application has been deemed a formal "complete application" by the Planning Director, the application package shall be distributed for formal review in accord with City policy. An incomplete application will not be reviewed.

3. Staff Review Meeting #1: The Planning Director shall notify the Applicant upon completion by City staff and relevant agencies of the first review of the Application Plan. Written comments shall be provided to the Applicant at the first staff review meeting. The Applicant shall revise and resubmit materials as necessary to satisfy City comments.

4. Staff Review Meeting #2 (if required): The Planning Director shall notify the Applicant upon completion of the second review by City staff and relevant agencies of the Application Plan. The Applicant shall revise and resubmit materials as necessary to satisfy City comments.

5. Planning Commission Work Session: A work session with the Planning Commission may be requested by either the Applicant or the Planning Director at any time subsequent to Staff Review Meeting #1.

6. Planning Commission Public Meeting: One or more public meetings may be conducted by the Planning Commission to review and take formal action on the Applicant's project.

7. Public notifications and work sessions: The City may determine it is in the public interest to schedule a work session at any time during the application process.

8. Changes and modifications to an approved Application Plan and Code of Development: Any subsequent changes and modifications to the approved Application Plan, the Code of Development, or other elements related to the original conditions for approval of the TND-O District project shall be submitted by the Applicant to the Planning Director. The Planning Director shall determine whether the requested change is a major or minor change. Major changes shall require approval by the Planning Commission. Minor changes shall require approval by the Planning Director, who, at his/her discretion, may obtain recommendations from the Planning Commission. The City, at its discretion, may establish policies for major and minor changes.

K. Waivers, Variances and Modifications for TND Application Plans

1. The Applicant shall clearly identify and document all waivers, variances and modifications to existing City codes, ordinances, and development standards that may be required to implement the proposed Application Plan.

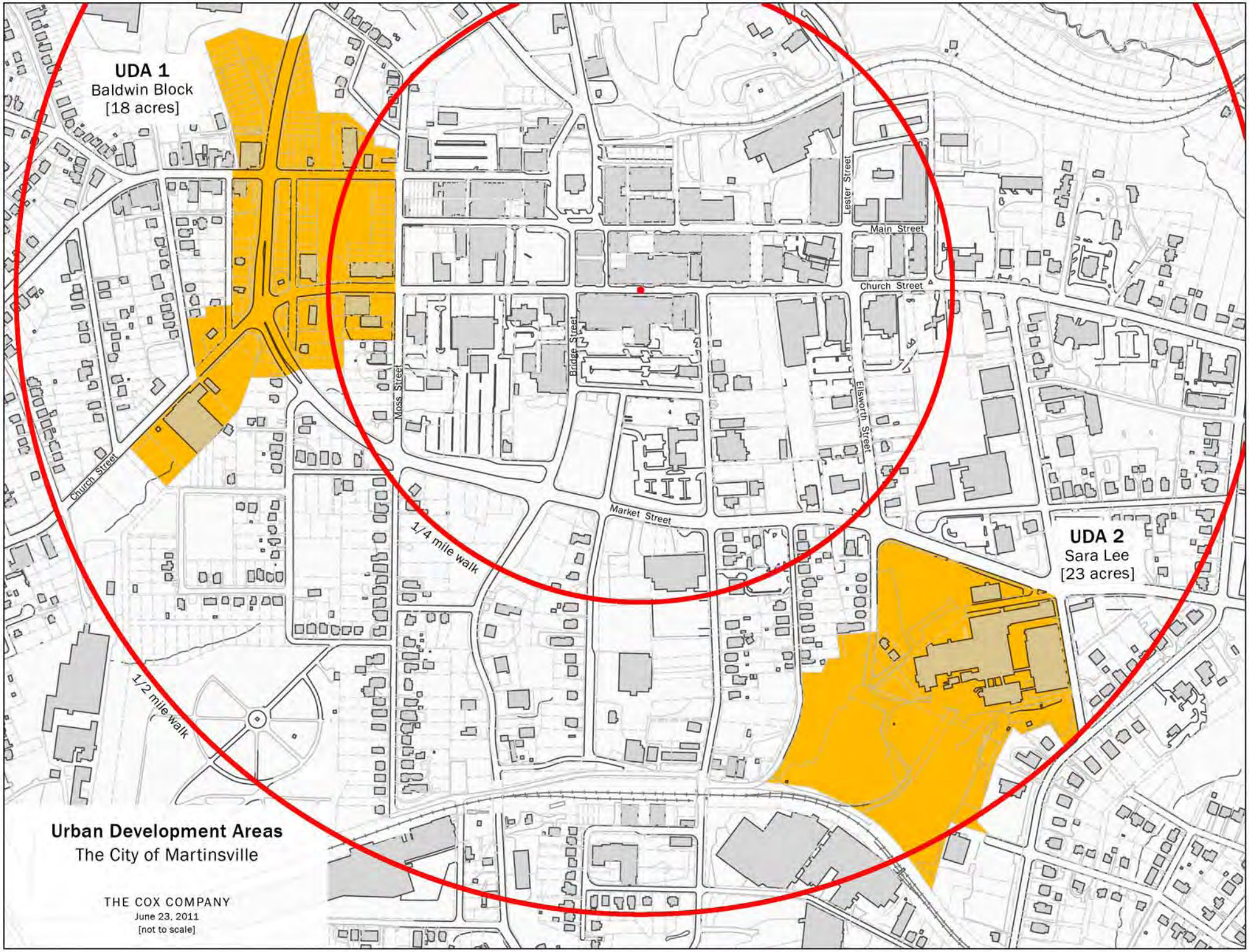
2. Documentation to be submitted with Application Plan shall (a) address the justification for each requested waiver, modification, or development standard, and (b) recommend alternative substitute proposals, including design and construction standards, where applicable. Graphic exhibits shall clearly depict areas and locations where the waiver, variance, or modifications impacts the proposed project.

3. The Planning Commission, upon its consideration of the recommendation of the Planning Director, may, at is sole discretion, act to approve, modify, or deny each requested waiver, variance, or modification.

4. No approval or modification shall be granted by the Planning Commission for any waiver, variance, or modification in the absence of an adequate and sufficient substitute, including design and construction details and standards, where applicable. Where a waiver, variance, or modification is approved by the Planning Commission, the accepted substitute shall become a binding condition of the Application Plan approval.

5. The City recognizes an approved TND Application Plan as having fulfilled its requirements for a preliminary subdivision plan or preliminary site plan. Upon such recognition, the Applicant may proceed with the preparation of final plats and plans in accord with the approved Application Plan.

6. Appeals to decisions of the Planning Commission related to this chapter may be made to the City Council, provided that such appeal is filed in writing within thirty (30) calendar days of such decision.


UDA 1
Baldwin Block
[18 acres]
UDA 2
Sara Lee
[23 acres]
Church Street
Moss Street
Bridge Street
Lester Street
Main Street
Church Street
Ellsworth Street
Market Street
1/4 mile walk
1/2 mile walk
Urban Development Areas
The City of Martinsville
THE COX COMPANY
June 23, 2011
[not to scale]

- Uptown Martinsville -

Urban Development Areas

Comprehensive Plan Amendment

Martinsville
A CITY WITHOUT LIMITS

DRAFT July 14, 2011

THE COX COMPANY
Planners · Landscape Architects
Civil Engineers · Urban Designers
220 East High Street
Charlottesville · Virginia
22902 · (434) 295 7131

Table of Contents

I. Urban Development Areas
- Legislation and Requirements
- Importance and purpose

II. Demographic Analysis
- Population projections
- Employment analysis
- UDA sizing

III. UDA Locations
- Baldwin
- Sara Lee

IV. UDA Comp Plan Goals

V. TND Planning Principles
- Principles
- Transects

VI. UDA Land Use Plan
- Core
- Transitional
- Residential
- Economic Development

VII. TND Design Guidelines
- Introduction
- TND Residential Lots
- TND Streets
- Other TND Features
- Building Form
- Landscape and Parks
- Stormwater and BMP
- Utilities

VIII. Transportation Benefits of TND
- Benefits
- Infrastructure Savings
- Transportation Comparison
- Transportation Analysis
- TND and Comutting

IX. TND Implementation
- Implementation elements
- Phasing

I.

Martinsville
A CITY WITHOUT LIMITS

- Urban Development Areas -

I.

Urban Development Areas

The shape of American towns and cities has changed over time, with a major shift in American town planning coming in the late 1940s, when suburbs as we now know them today were developed. These new real estate projects placed new homes outside of existing towns, where they could only be accessed by car, rather than close to, or within, existing towns where walking or bicycling to destinations was possible. The new suburbs were largely made up of only one type and style of home, rather than the mix of home designs and sizes common in older villages.

Suburban development also strictly separated uses so that homes, shops, and offices were all in different locations that had to be driven to. This separation of uses was in contrast to the mixed-use character of older towns and cities, where a resident might find a grocery store at the end of a residential block. Most importantly, suburban development put houses on large lots, while older towns had been relatively compact. This type of single-use suburban development has been popular in certain areas of Martinsville, to the detriment of the traditional core of the City in Uptown.

While suburbanization brings certain benefits, ill effects of suburban development have been felt by municipalities, whose resources have been stretched by the utility, public safety, and maintenance needs of increased traffic and separated uses.

The UDA Legislation

As a way to address some of the negative effects of suburban sprawl and strip development, particularly on traffic and transportation, new legislation was adopted in 2007 as Virginia Section 15.2-2223.1 of the Code of Virginia, requiring certain high-growth localities to amend their comprehensive plans to incorporate one or more Urban Development Areas (UDAs).

The UDA(s) must be sized to meet projected residential and commercial growth in the locality for the ensuing period of at least 10 years, but not more than 20 years. In addition, federal, state and local transportation, utility, economic development, and other public funding should, to the extent possible, be directed to the UDA(s).

UDAs should be established in areas that are appropriate for higher density development due to (a) their proximity to transportation facilities, (b) the availability of public water and sewer infrastructure, and (c) their proximity to existing developed areas. The boundaries of the selected UDA areas should be identified on the Future Land Use Map.

Pursuant to the statutory requirements, the UDAs shall create appropriate areas within the City for development at more compact densities, on developable acreage, of at least:

- *Four single family residences per acre,*
- *Six townhouses per acre, or*
- *Twelve apartments or condominium units per acre; and*
- *A floor area ratio of at least 0.4 for commercial development.*

Development within designated UDAs should be based on the principles and features of Traditional Neighborhood Design (also called new urbanism). These features may include, but aren't limited to, (i) pedestrian-friendly road design, (ii) interconnection of new local streets with existing local streets and roads, (iii) connectivity of road and pedestrian networks, (iv) preservation of natural areas, (v) mixed-use neighborhoods, including mixed housing types, with affordable housing to meet the projected family income distributions of future residential growth, (vi) reduction of front and side yard building setbacks, and (vii) reduction of street widths and turning radii at subdivision intersections.

The Benefits of UDAs

The primary purpose of Virginia's urban development areas legislation is to improve the future efficiency of state-funded road building and maintenance. By expanding outward, rather than inward, and by strictly separating residential and commercial uses, suburban style development has brought about increased traffic and the financial burden of maintaining a busy and expanding road network.

The benefits of town-scale development, as seen in the existing Uptown area, can address some of the transportation effects of suburban development. By locating a residences and businesses closer together, and by mixing commercial and residential uses together in the same neighborhood, traditional development requires much shorter trips to access daily needs. The pedestrian focus of these areas also means that some trips may be made by walking or biking, thus removing vehicle trips from city streets.

In addition to transportation and preservation benefits, compact development can also mean shorter infrastructure connections for public water and sewer utilities, reduced need for school busing, and improved response times for police and fire services.

II.

Martinsville
A CITY WITHOUT LIMITS

- Demographic Analysis -

II.

Demographic Analysis

Objective and Definitions

The approach to determining the boundaries and acreage of the UDAs adheres to the definitions and requirements of Section 15.2-2223.1 of the Code of Virginia. The major statistical objective of the legislation is to plan for the City's anticipated population growth over the next 10 to 20 years, and designate UDAs to accommodate this growth.

Because recent population projections for Martinsville by the Virginia Employment Commission forecast virtually no growth in the next 10 to 20 years, this study makes adjusted population projection with more positive assumptions. The projections employed here are for a 2% City growth rate between 2010 and 2020, and for 4% growth between 2020 and 2030. These growth assumptions will be applied to land uses specified in the UDA legislation according to the following method.

Land uses to be included in the UDA are defined by the legislation to include residential, commercial, and offices. Residential uses are divided into detached single-family, town homes and attached residential units (such as duplexes), and multifamily residential dwellings (such as apartments and condominiums). The Virginia planning legislation states that UDA densities are to be applied to the calculation of UDA developable acreage, that is, the primary area for active development exclusive of existing parks, road rights-of-way, railroads, utilities, and other public facilities.

Development Densities

The UDA legislation establishes minimum densities for basic land uses within UDAs. These densities are based on levels that have been found to be appropriate for application within Traditional Neighborhood Developments. The following densities are to be applied to the individual uses proposed for the City's UDA

URBAN DEVELOPMENT AREA LAND USE CATEGORIES

a. UDA Single Family Detached Residential:	*4 units/acre*
b. UDA Attached Residential:	*6 units/acre*
c. UDA Multifamily Residential:	*12 units/acre*
d. UDA Commercial and Office Employment:	*0.40 FAR*

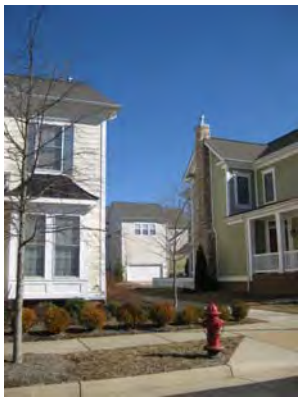
e. A proportional mix of the above densities and intensity of use.

While the UDA statute provides a general definition to guide the sizing of the UDA, it does not address a specific technique and process for arriving at the developable acreage requirements for the UDA land uses. In order to provide a detailed projection of UDA land use needs, the consultant has constructed the UDA Land Use Model. The model generates calculations based on the density thresholds required by the legislation as well as assumed parameters for the distribution of density as established by the City and consultant. The following section describes the methods and assumptions adopted by this report to establish the total land area that is sufficient to meet the legislative sizing parameters for the UDA developable acreage and the overall yield of the uses contained within the UDA boundaries.

Distribution of Population Growth by Dwelling Type

The UDA is intended to provide opportunities for both the existing and future population that seeks to live in higher density residential neighborhoods. Such neighborhoods currently exist near Uptown, and current planning efforts have expressed a desire to continue such patterns. Future population demands for particular residential types could vary broadly based on national building conditions, local housing preferences, housing affordability, bank lending patterns, income levels of new residents, proximity to jobs, employment security in the marketplace, changes in City housing policies, infrastructure availability, and other factors.

Since the UDA residential developable acreage is intended to recognize a mix of housing types, the designation of the total residential area must be balanced among Detached Single-Family Residential, Town Home and Attached Residential, and Multifamily Residential. The Land Use Model produces a total of three different scenarios for the distribution of population by housing type. These scenarios range from growth being accommodated in mostly single family homes to an option that places a heavy reliance on town homes and multifamily development.



The most important planning consideration in the assessment of these alternatives is to understand the relationship between (a) the population projections, (b) the type of dwellings this future population may desire, and, ultimately, (c) the amount of land ("UDA Developable Acreage") necessary to absorb and be designated for this population during the years ahead. Ultimately, during the planning process, city officials will have to make the final selection of the preferred distribution of dwelling unit types to be assigned to the residential portions of the UDA.

For the purpose of testing the amount of required UDA developable acreages, the three scenarios focus on differing distributions of population among the three UDA housing types.

DISTRIBUTION OF RESIDENTIAL POPULATION GROWTH

	Single Family	Townhouses	Multifamily
Scenario 1:	*80%*	*10%*	*10%*
Scenario 2:	*25%*	*45%*	*30%*
Scenario 3:	*33%*	*33%*	*33%*

The findings show relatively small differences in total land demand based on the various housing type mixes tested by Scenarios 1, 2, and 3. This result is caused by the very different numbers of people living in different house types. While multi-family apartment or condo projects increase the density of housing units per acre, multi-family units tend to be home to fewer persons per unit. As a result, the three scenarios vary by only about 4%, making housing type mix a relatively small variable when calculated the required land area necessary to absorb residential demands.

Residential Dwelling Demand

The residential dwelling demand is calculated by applying the projected population to be distributed within each of the three housing categories to the corresponding density for the housing types. As indicated above, these densities are fixed based on those stipulated by the UDA statute. Keep in mind that the total future dwelling demand is a function of the distribution of projected dwelling types as well as the projected housing occupancy rates by dwelling type. For example, if 100% of future City residents seek to live in higher occupancy single family detached residences, there will be fewer dwelling units than if 100% of the residents lived in smaller (low occupancy) multifamily units.

Employment Projections

The model calculates existing and projected future employment by comparing the established VEC population growth projections to the percentage of City residents employed within the City. This percentage is derived from existing VEC statistics. The model also projects that this percentage will increase moderately in the future as UDA development works to stem out-commuting among City residents. Employment projections are used to estimate commercial land use sizes and allocations within the UDAs. The employment calculation incorporates a wide variety of business sectors that create the employment marketplace. These sectors are incorporated into three primary employment categories, including: (a) UDA Commercial and Office, (b) Non-qualifying Employment Uses (ie. job generating uses that support new towns and villages but which are not included in the UDA definitions), and (c) Government and Education Uses (also, not included in the UDA definitions.) The statistical distribution of and projections for employment within each of the three categories is unique to each locality.

UDA Commercial and Office Demand

Since the legislation recognizes the need for both residential and commercial uses within the UDAs, the Land Use Model also provides estimates for future office, retail, and other commercial land uses as well as justification for the calculation of the areas that they require. Using the generated employment growth projections, the model applies factors for representative building square feet per employee. These factors are applied in ranges based on commonly held factors and existing studies. As mentioned in the previous section, the commercial calculations are divided into three categories: UDA Commercial, Other Non-Qualifying Commercial (ie. employment uses not included in the UDA definition of "commercial"), and Government and Education.

These three categories allow for recognition of the differing building space and occupancy needs of these various land use categories that will be demanded over the course of the two decennial projection periods. "UDA Commercial" uses are generally defined by the legislation as retail, lodging, restaurants, professional offices, and service-related uses. As with the model's residential calculations, a vacancy rate is assumed in order to arrive at adjusted estimates that better reflect the actual commercial space needs within the UDAs.

UDA Developable Acreage

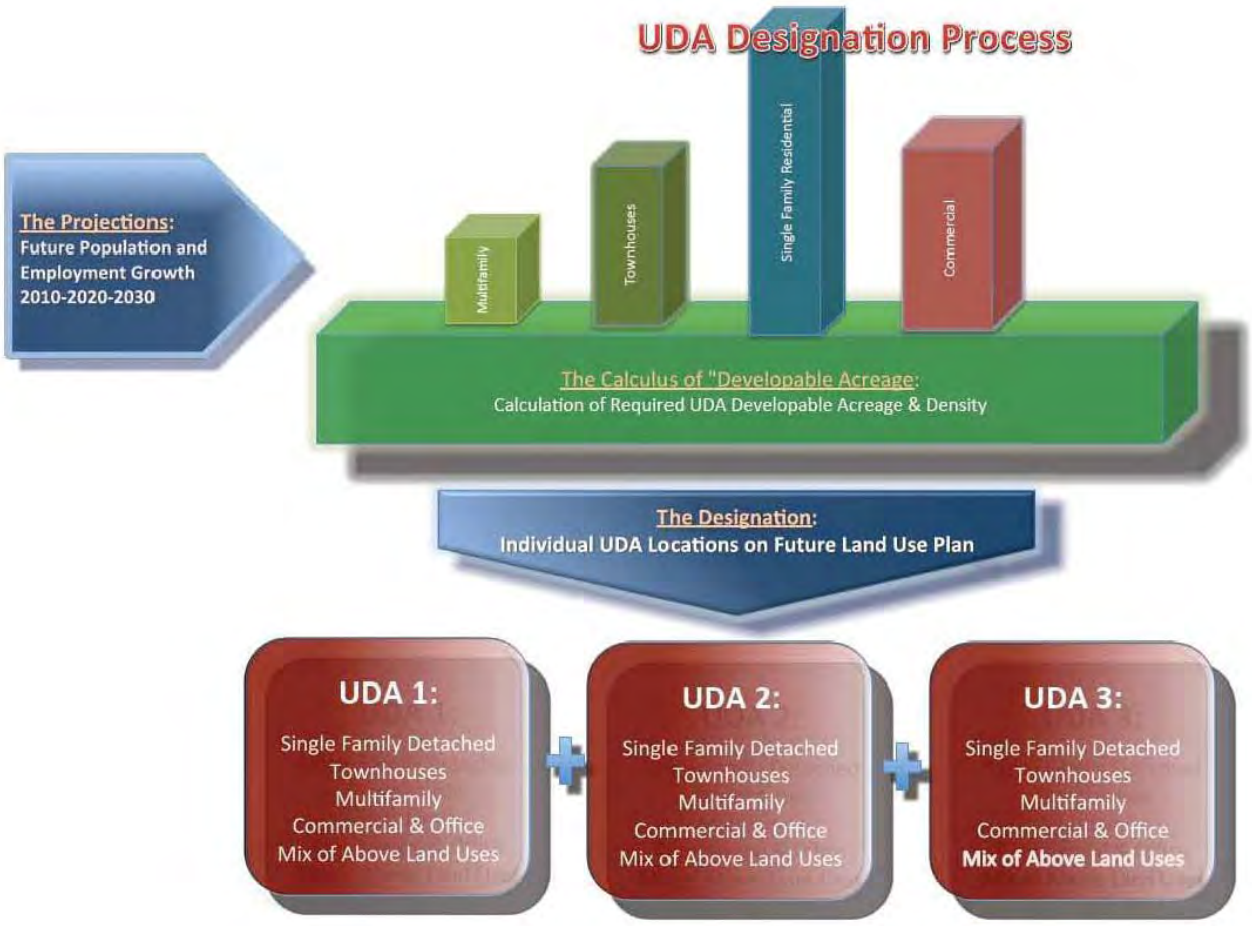
"UDA developable acreage" represents the land area necessary to accommodate the City's projected population and employment demands at the legislatively prescribed density thresholds. The total UDA acreage can then be divided among the three UDA locations in the City by either individual UDA use categories or a combination of categories that best represents a more balanced and proportional mix of uses. "UDA developable acreage" is assigned to both undeveloped land and redevelopment or revitalization areas that may be suitable for the absorption of the projected levels of qualifying residential, commercial or mixed uses.

Since the total "UDA developable acreage" for these uses is legislatively collared between the growth projections for the 2010-2020 and the 2010-2030 periods, the model's results are expressed as minimum and maximum areas for the absorption of future development or redevelopment activities. For the purpose of determining the "UDA developable acreage" of the land that is to be allocated to defined residential and commercial development, the calculation is derived by applying the "unit/acre" divisor for the residential category *(as established by the statute)* to the corresponding category's "total residential dwelling demand" quotient.

As an example, if the anticipated demand for single family housing were determined to be 200 units, the "developable acreage" for this category of residential use would be 50 net acres (200 units/4 dwelling units per acre). Accordingly, if only detached housing were to be included in the UDA, then the comprehensive plan must recognize a minimum of 50 "developable acres". However, since the intent of the UDA is provide the opportunity for a mix of uses, the net acreage must be determined for each of the land use categories included in the comprehensive plan, employing the "dwelling unit per acre" and "floor area ratio" factors prescribed by the legislation.

The equation for the determination of the total UDA land area to be designated by the City is expressed by the following:

UDA Developable Acreage =
UDA Single Family Detached + UDA Attached Residential +
UDA Multifamily Residential + UDA Commercial



UDA Impact Area

It is important to note that the Urban Development Areas are functionally planned as areas for village-like development within certain land use categories. For example, the legislative definition of TND commercial use, as it applies to UDAs, excludes certain economic development activities such as manufacturing, processing, assembling, storage, warehousing, and distribution facilities, as well as agricultural and forestal land uses. The definition of UDA developable acreage further excludes existing street rights of way, easements, parks, civic spaces, and other publicly owned lands. Of course, a wide variety of land uses, including those specifically excluded from the UDA developable acreage, are important to the overall function of any community, and cannot be discounted.

While not specifically defined or excluded, it is also important to recognize the stability and importance of certain existing land uses, as well as the development restrictions posed by certain environmental or topographic factors within the desired Urban Development Area.

Because Traditional Neighborhood Development as envisioned for UDA land use activities does not, and cannot, exist in a vacuum, the Land Use Model recognizes and incorporates "UDA Support Areas" into several of its calculations. The UDA Support Areas are meant to quantify the land use categories that evolve in response to the future population and employment demands. The support areas should be sized for incremental growth in civic uses, open spaces, recreation uses, transportation infrastructure, utility easements, and environmental protection areas. These support areas should be considered separately, and at rates that may vary based on perceived and assumed needs. These UDA-supporting areas may also include areas that provide support for employment growth and other uses that are not specifically identified or defined in the UDA legislation. The sum of the defined UDA Developable Acreages and the UDA Support Areas are viewed as creating a UDA Impact Area. Although only the UDA developable acreage is defined and designated by this model, the City should recognize and plan for support uses as a part of the overall comprehensive planning process.

Summary

Given the broad fluctuations that inevitably occur in predicting actual demographic demands from one decennial period to the next, estimates for the UDA developable acreage are presented in a broad range that represents the probable inside and outside acreage. From a comprehensive planning perspective, the estimated acreage must be viewed as a guideline to be revisited on a periodic basis with adjustments made to reflect evolving demographic trends and land use patterns.

Results

The City's Urban Development Areas will be sized to accommodate 10 to 20 years of projected city growth according to the assumed 2% 10 year growth rate and 4% 20 year growth rate mentioned earlier. These modest growth rates should deliver Martinsville to a population of 14,664 by the year 2020, and 15,250 by 2030. As a result, the City should plan for UDAs to accommodate between 388 and 874 new residents.

To properly size the city's urban development areas, The Cox Company prepared mathematical studies based on existing US Census and Virginia Employment Commission demographic data. The purpose of these studies was to transform existing and projected city population numbers, as well as data on city employment, into an accounting of the land area that would be necessary to accommodate future city growth at given TND densities. These studies were based on several different scenarios of the mix of residential unit types, from as much as 80% single family homes, with only a few townhouses or condos, to an equal mix of these three types,

each at densities contained in the UDA legislation. In all scenarios, commercial uses were also considered at the 0.4 FAR specified by the legislation. The charted results of these three scenarios are included on the following pages. The result of these exercises showed a need for UDA areas containing between 24 and 85 developable acres for residential uses, as well as 4 to 13 acres for commercial uses, for a total UDA developable acreage of 28 to 98 acres.

The City of Martinsville — Summary of Scenarios 1, 2 and 3: UDA Developable Areas and Impact Areas

RESIDENTIAL POPULATION GROWTH ASSUMPTIONS	Single Family Detached: 80%	Townhouse/Attached: 10%	Multifamily/Condos: 10%
SCENARIO #1: UDA ACREAGE	*Unadjusted UDA Acreage*	FMM = 1.5	FMM = 2.0
UDA Residential Developable Acreage			
Minimum Designation Area Threshold (2010 - 2020)	24.6	36.9	49.2
Maximum Designation Area Threshold (2010 - 2030)	81.3	122.0	162.6
+ UDA Commercial Developable Acreage			
Minimum Designation Area Threshold (2010 - 2020)	3.6	5.4	7.2
Maximum Designation Area Threshold (2010 - 2030)	13.1	19.7	26.2
= Total: UDA Designated Developable Acreage (= Residential + Commercial)			
Minimum Designation Area Threshold (2010 - 2020)	28.3	42.5	56.6
Maximum Designation Area Threshold (2010 - 2030)	94.4	141.6	188.8
+ add: UDA Developable Acreage + Impact Area Support (= UDA Residential + UDA Commerical + Industry + Support Area)	*Unadjusted UDA Acreage*	FMM = 1.5	FMM = 2.0
Minimum Designation Area Threshold (2010 - 2020)	52.6	78.9	105.2
Decennial Increment (2010 - 2020)	139.1	208.7	278.2
Maximum Designation Area Threshold (2010 - 2030)	191.7	287.6	383.4
+ add: EXISTING LAND USE IN UDA IMPACT AREA	*(to be determined by County upon selection of UDA location and acreage)*		
= Total: UDA DEVELOPMENT IMPACT AREA	(= Existing Land Use + UDA Residential + UDA Commerical + Other Employment + Support Area)		

** FMM: Free Market Multiplier - by designating multiple, competing properties, free market competition may be increased, and more urgent, higher quality development created.*

The City of Martinsville — Summary of Scenarios 1, 2 and 3: UDA Developable Areas and Impact Areas

RESIDENTIAL POPULATION GROWTH ASSUMPTIONS	Single Family Detached: 25%	Townhouse/Attached: 45%	Multifamily/Condos: 25%
SCENARIO #2: UDA ACREAGE	*Unadjusted UDA Acreage*	FMM = 1.5	FMM = 2.0
UDA Residential Developable Acreage			
Minimum Designation Area Threshold (2010 - 2020)	24.7	37.1	49.4
Maximum Designation Area Threshold (2010 - 2030)	85.3	128.0	170.6
UDA Commercial Developable Acreage			
Minimum Designation Area Threshold (2010 - 2020)	3.6	5.4	7.2
Maximum Designation Area Threshold (2010 - 2030)	13.1	19.7	26.2
Total: UDA Designated Developable Acreage (= Residential + Commerical)			
Minimum Designation Area Threshold (2010 - 2020)	28.3	42.5	56.6
Maximum Designation Area Threshold (2010 - 2030)	98.4	147.6	196.8
add: UDA Developable Acreage + Impact Area Support (= UDA Residential + UDA Commerical + Industry + Support Area)	*Unadjusted UDA Acreage*	FMM = 1.5	FMM = 2.0
Minimum Threshold: 2010 -2020	54.1	81.2	108.2
Decennial Increment: 2020 - 2030	150.4	225.6	300.8
Maximum Threshold: 2010 - 2030	204.5	306.8	409.0
add: EXISTING LAND USE IN UDA IMPACT AREA	*(to be determined by County upon selection of UDA location and acreage)*		
Total: UDA DEVELOPMENT IMPACT AREA	(= Existing Land Use + UDA Residential + UDA Commerical + Other Employment + Support Area)		

** FMM: Free Market Multiplier - by designating multiple, competing properties, free market competition may be increased, and more urgent, higher quality development created.*

The City of Martinsville

Summary of Scenarios 1, 2 and 3: UDA Developable Areas and Impact Areas

UDA RESIDENTIAL POPULATION ASSUMPTIONS	Single Family Detached: 33%	Townhouse/Attached: 33%	Multifamily/Condos: 33%
SCENARIO #3: UDA ACREAGE	*Unadjusted UDA Acreage*	FMM = 1.5	FMM = 2.0
UDA Residential Developable Acreage			
Minimum Designation Area Threshold (2010 - 2020)	23.9	35.9	47.8
Maximum Designation Area Threshold (2010 - 2030)	82.2	123.3	164.4
UDA Commercial Developable Acreage			
Minimum Designation Area Threshold (2010 - 2020)	3.6	5.4	7.2
Maximum Designation Area Threshold (2010 - 2030)	13.1	19.7	26.2
Total: UDA Designated Developable Acreage (= Residential + Commercial)			
Minimum Designation Area Threshold (2010 - 2020)	27.5	41.3	55.0
Maximum Designation Area Threshold (2010 - 2030)	95.3	143.0	190.6
add: UDA Developable Acreage + Impact Area Support (= UDA Residential + UDA Commerical + Industry + Support Area)	*Unadjusted UDA Acreage*	FMM = 1.5	FMM = 2.0
Minimum Designation Area Threshold (2010 - 2020)	52.6	78.9	105.2
Decennial Increment (2020 - 2030)	145.8	218.7	291.6
Maximum Designation Area Threshold (2010 - 2030)	198.4	297.6	396.8
add: EXISTING LAND USE IN UDA IMPACT AREA	*(to be determined by County upon selection of UDA location and acreage)*		
Total: UDA DEVELOPMENT IMPACT AREA	(= Existing Land Use + UDA Residential + UDA Commerical + Other Employment + Support Area)		

** FMM: Free Market Multiplier - by designating multiple, competing properties, free market competition may be increased, and more urgent, higher quality development created.*

III.

Martinsville
A CITY WITHOUT LIMITS

- UDA Location -

III.

UDA Locations

The areas selected to serve as Urban Development Areas must be carefully chosen to take advantage of existing facilities and infrastructure, and to continue Traditional Neighborhood Development in a way that best promotes the City's vision for its future growth. The City's low growth rate, and the potential densities of TND projects, means that a relatively small number of individual parcels will be included within the UDAs. Careful selection of UDAs should focus on designating areas that are acceptable locations for higher density given the community's vision, as well as areas that best provide the infrastructure support necessary to make TND projects successful. In general, UDAs should be located based on:

- *Proximity to existing transportation facilities,*
- *Availability of public water and sewer systems, and*
- *Proximity to areas of existing development.*

In Martinsville, the selection of an Urban Development Area must also be sensitive to future employment needs and ongoing planning efforts focused on revitalization. Unlike some rural counties, traditional, town-scaled development is not foreign to the City. Martinsville has areas of existing urban development that can, and should, be enhanced and built upon through this effort, rather than beginning new.

Uptown

As the geographic and historical heart of Martinsville, the Uptown area is well-positioned as an Urban Development Area, and the center of future dense, mixed-use growth. With already substantial city streets and in-town development, this area certainly meets the designation criteria of being close to existing development efforts. The Uptown area is no stranger to density, mixed-use, on-street parking, pedestrian amenities, civic spaces, and other features that are the hallmarks of Traditional Neighborhood Design and Virginia's recent UDA efforts. City staff, as well as community organizations, have invested significant time and effort planning for the revitalization and continued success of the Uptown area. The emerging New College Institute also has the potential to add vitality and foot traffic to the area. Through this planning effort, the Urban Development Area designation should be used as a tool to enhance this existing and important urban area, rather than to shift the focus of urban development to other areas of Martinsville.

The Uptown area, in addition to having substantial existing urban growth, is well-served by transportation facilities. The core of the area is made up of Main and Church Streets, a parallel, one-way system with good capacity. Commonwealth Boulevard (SR 457) is a major regional route, with close proximity to Uptown. Starling Avenue (SR 57/58) also provides an important regional connection to the south. Within the city, Market Street makes important cross-town connections, with four total lanes that provide good traffic capacity.

The availability of public water and sewer utilities are an important consideration for future growth in Martinsville. By encouraging future development with the Uptown area, rather than in areas at the edge of the city, where new utility lines would need to be extended, the City can save substantially on new infrastructure costs. Vacant or underutilized sites within Uptown already have utility service within or nearby the site, although overall system capacity concerns must be carefully weighed. Savings may also be seen in other public services, including fire, police, school busing, and others by growing with the established area of Uptown rather than in relatively un-developed areas of the City.

UDA 1 – Baldwin Block

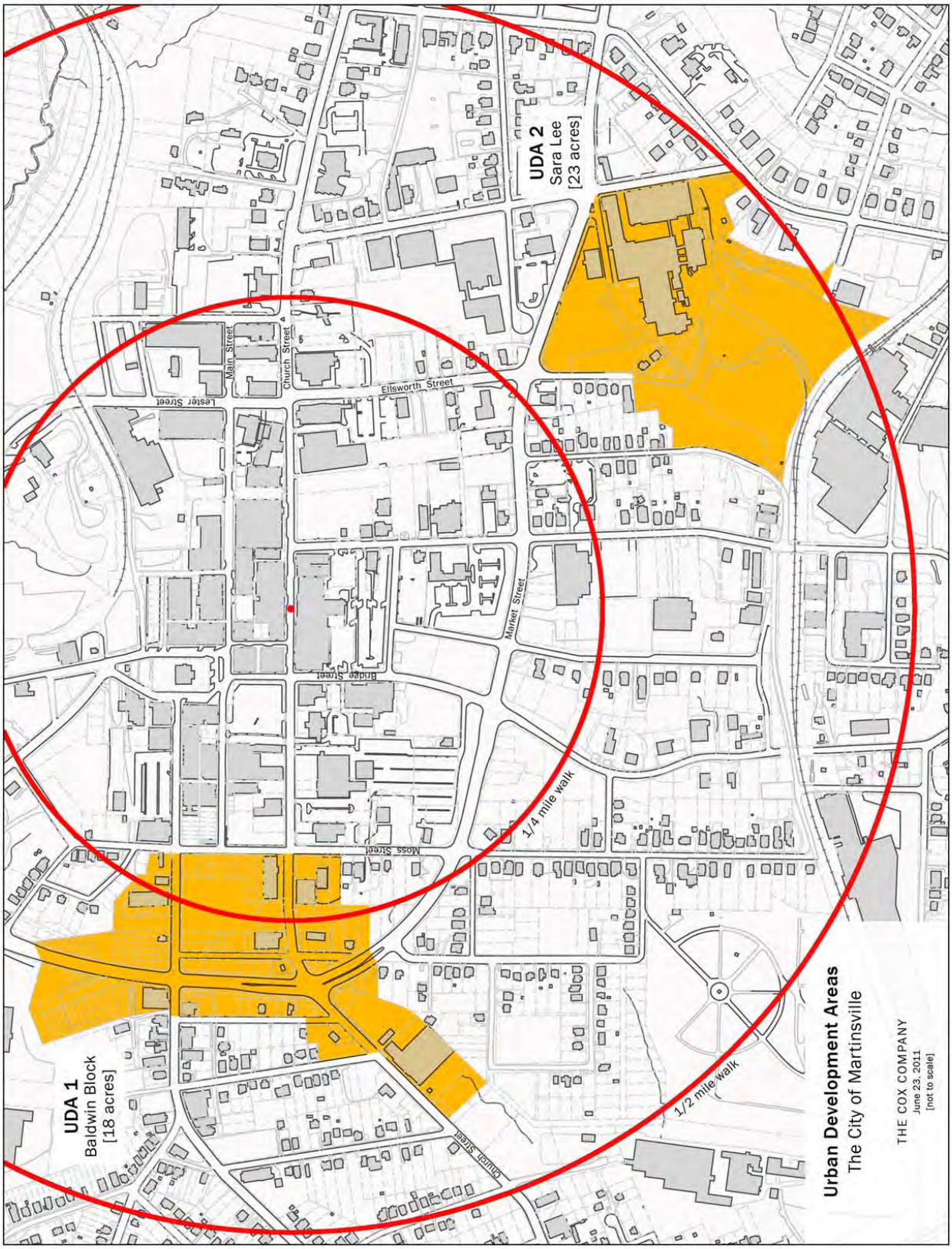
Commonly known as the Baldwin Block, a major Uptown infill parcel currently sits empty at the western terminus of Main Street. At about five acres, the future development of this site will be a very visible and important change to the character of the Uptown area. Future development on this block should be encouraged to continue existing street and building patterns that fit with the UDA definition, as well as with the existing character of Uptown, and to add new residential, commercial, and institutional uses.

This plan recommends an Urban Development area that encompasses the Baldwin Block, as well as adjacent infill and redevelopment sites along Church and Market Streets, for a total of 18 acres. With frontages on both sides of Church, Market, and Fayette Streets, TND development of these parcels has the opportunity to frame these streets and create meaningful streetscapes. New development within this entire area should strive to meet the TND conditions outlined later in this report, while any new street dividing the Baldwin Block should embody TND street design principles as described in this report.

UDA 2 – Sara Lee

To the south and east of the Uptown core, the former Sara Lee facility represents the largest contiguous infill, redevelopment, or adaptive reuse site in the Uptown area. At 23 acres, this site contains large amounts of undeveloped land, as well as former industrial buildings that are appropriate for adaptive reuse as commercial, residential, or other uses. With direct access to Market Street, and close access to Starling Avenue, the site is well served for automobile access. In addition, the property is within ½ mile of the center of Uptown, making for an approximate 10 minute walk to Church Street businesses.

The future development and redevelopment of the Sara Lee site should focus on the TND reuse of existing structures as residential condominiums and neighborhood supportive commercial uses. Development of the remainder of the property should include residential condos, town homes, and single family homes, with select commercial uses. By developing this site as a major new neighborhood of Uptown Martinsville, new pedestrian life, and new support for businesses, can be added to Uptown.


UDA 1
Baldwin Block
[18 acres]
UDA 2
Sara Lee
[23 acres]
Urban Development Areas
The City of Martinsville
THE COX COMPANY
June 23, 2011
[not to scale]
1/4 mile walk
1/2 mile walk
Lester Street
Main Street
Church Street
Ellsworth Street
Market Street
Bridge Street
Moss Street
Church Street

IV.

Martinsville
A CITY WITHOUT LIMITS

- UDA Comprehensive Plan Goals -

IV.

UDA Comprehensive Plan Goals

Future development within the Uptown Urban Development Areas will be guided by this, and other, sections of the Comprehensive Plan, as well as by applicable zoning, subdivision, and other ordinances, and should reflect the community's shared vision for its future, as well as state requirements.

The Comprehensive Plan Amendment for the City's Urban Development Area integrates a set of goals and objectives that specifically embrace the TND principles underlying the UDA legislation. While these goals and objectives are intended to be applied only in the designated UDAs, it is important that they are consistent and compatible with the Planning Commission and City Council's land use vision for the City. It is notable that the Martinsville's City Council has fully promulgated a vision for Traditional Neighborhood Development and "smart growth" in previous planning initiatives. This vision is well expressed in the guiding principles and goals found in the City's Comprehensive Plan Update, adopted February 24, 2009, the Uptown Vision 2015 document, the Uptown Martinsville Revitalization Plan, dated February, 2010, and other key documents related to the City's demographic, housing, and market characteristics.

Perhaps the best articulation of the vision for Martinsville and the region to become a reinvigorated environment in which people can *"live, shop, work, play and learn"* is stated in the six principles found in the Uptown Martinsville Vision 2015 document:

- *To become an entrepreneur-friendly community.*
- *To promote higher education and artisans to generate new income earning potential.*
- *To promote an arts-driven "creative economy".*
- *To make tourism a significant economic development activity for the region.*
- *To create new housing opportunities that will generate housing demand within Uptown.*
- *To enhance pedestrian amenities and create recreational experiences.*

The 2009 Comprehensive Plan embraces the concept and application of smart growth in Martinsville, and it places strong emphasis on the need to concentrate compact and walkable mixed-use development in the city center:

> *"Smart growth is a planning theory that concentrates growth in the center of a city and advocates compact, transit oriented, walkable, bicycle-friendly land use including mixed-*

use developments with a range of housing choices that foster a distinctive, attractive community with a strong sense of place.
Smart growth practices take advantage of existing infrastructure and resources, promote in-fill and redevelopment opportunities, as well as mixed use districts with retail or commercial space on the first floor combined with residential units on subsequent floors.
Smart growth uses comprehensive planning to guide, design, develop, revitalize and build communities for all that:

- *have a unique sense of community and place;*
- *preserve and enhance valuable natural and cultural resources;*
- *equitably distribute the costs and benefits of development;*
- *expand the range of transportation, employment and housing choices in a fiscally responsible manner;*
- *value long-range, regional considerations of sustainability over short-term, incremental, geographically-isolated actions; and*
- *promote public health and healthy communities.*

In looking towards the future of Martinsville, it is essential that the City consider smart growth planning principals today to help guide the future growth and development of tomorrow. The Future Land Use map has been modified to include a new classification for Mixed-Use District. These districts would be located adjacent to the Central Business District along Market Street and Cleveland Avenue as well as a portion of Fayette Street. They would promote mixed-use opportunities, in-fill as well as redevelopment of an existing manufacturing structure and would be located within close proximity to the center of the City. Compact, transit accessible, pedestrian-oriented, mixed-use development patterns and land reuse epitomize the application of the principles of smart growth.

According to planning theory, the ideal land use composition is approximately 60 percent commercial activity to 40 percent residential. This mix of land use allows for a strong economic base that supports healthy growth and development within the community. The City's existing land use distribution pattern is approximately 43 percent professional, commercial and industrial to 57 percent residential.
In order to move towards a more economically viable land use mix, it is crucial for the City to look at ways to promote a healthy jobs-housing balance. By allowing for the mix of land uses, the City is providing the potential for opportunities to both live and work in close proximity, which will help support a better balance between jobs and housing, will promote compact development principals and will reduce transportation dependency." (Martinsville Comprehensive Plan, Chapter 9-6)

Further support for having the Future Land Use Map recognize TND development and mixed-use policies can be drawn from the 2009 Plan's "Land Use Summary":

Future Land Use Maps geographically assign the adopted mix of land use classifications upon which future zoning decisions are based. Changes to the Future Land Use Map are based on various factors including population trends, economic indicators, smart growth principals as well as planned development projects.

The City's trend toward an older population base led to the creation of a Residential Retirement District, which would be made up of small homes and villages in quiet neighborhoods with close proximity to necessary amenities.

Economic indicators attest to the decline in the manufacturing segment of the economy while showing growth in areas such as health, service and professional. These indicators dictate the need for increased Professional District designations while decreasing the number of manufacturing districts on the Future Land Use Map.

Smart growth practices take advantage of existing infrastructure and resources, promote in-fill and redevelopment opportunities, as well as mixed use districts with retail or commercial space on the first floor combined with residential units on subsequent floors. The addition of Mixed Use Districts adjacent to the Central Business District is an example of smart growth planning that promotes mixed-use opportunities, in-fill as well as redevelopment of an existing manufacturing structure, with close proximity to the center of the City.

Planned development projects and transportation projects that will impact the land use planning efforts of the City include the construction of a sports complex and arena in Uptown Martinsville and a professional/commercial development and street widening project on Liberty Street. These projects contributed to the decision to expand the Central Business District and designate the Liberty Street corridor as a Commercial corridor. ***(Martinsville Comprehensive Plan, Chapter 9)***

Recognizing the diverse interests and pressing needs of the City, its business community and its residents, the Comprehensive Plan acknowledges many of the land use, community facility, transportation, and urban infrastructure priorities and initiatives around which UDA land uses as well as supporting housing, economic growth, and industrial development goals and objectives can be pursued. Critical to UDA legislative objectives, the 2009 Plan underscores many of the key transportation planning principles that are essential to successful TND planning, particularly urban core development and redevelopment. Most important among these is the absolute necessity to view transportation planning and land use planning as a fully integrated objective; and not to be viewed as a process where transportation plans follow behind (and are subordinate to) land use plans. In TND planning and growth management practices, transportation plans establish the backbone (ie. *grid*), in both a figurative and literal sense, for the comprehensive planning process. The 2009 Comprehensive Plan extends these principles into the following relevant recommendations:

Population and Demographic Analysis Recommendations:

- *Market the area as a desirable and affordable place for retirees to locate.*
- *Plan for retirement residential development areas to accommodate an increasingly aging population.*
- *Continue to concentrate on providing a greater variety of recreational opportunities for all age groups, especially the young adults.*
- *Provide educational opportunities for all segments of the City's population, especially the*
- *Hispanic sector, to ensure that it is truly inclusive.*

- *Provide community programs to entice the younger segment of the City's population to remain or return to the area once they have completed their educational goals.*
- *Continue to support efforts of the area educational institutions to keep the college age persons in the City, or encourage new individuals to locate here.*
- *Research and provide programs to encourage entrepreneurs of all age groups to establish businesses in the City. Create an atmosphere for small business development. The premise being that job opportunities attract numbers of people.*
- *Market the area as a family-friendly area in which to locate.*

Economy Recommendations:

- *Support the development and expansion of identified target business clusters in health care, plastics manufacturing, tourism, logistics, and food processing to continue diversification of the local economy.*
- *Continue to develop and support existing business resources to help maintain and strengthen existing businesses.*
- *Promote entrepreneurial development and small business expansion.*
- *Continue to support the Martinsville-Henry County Economic Development Corporation.*
- *Increase base of workers and residents in Uptown Martinsville.*
- *Develop new specialized retail clusters in Uptown focused on home furnishings, African-American culture and sports.*
- *Encourage the construction of I-73 beginning at the North Carolina border and continuing north through Henry County.*

- *Encourage redevelopment of vacant buildings and industrial sites.*
- *Continue marketing efforts for Rives Road Industrial Park and Clearview Business Park.*
- *Maintain an up to date inventory of all vacant land and buildings for possible infill development.*
- *Encourage corridor overlay districts to enhance Martinsville's visual appeal to business, industry, residents and tourists.*
- *Continue to encourage the growth of tourism.*
- *Encourage the development of a "land banking" program.*
- *Continue to encourage job training and education programs geared towards creating a trained workforce.*
- *Evaluate the creation of a Technology Zone.*

- *Pursue the creation of a "Cyber City" designation for Uptown Martinsville to include maps and signage for wireless hot spots.*
- *Continue to support the marketing of revenue sharing lots at the Patriot Centre and the newly acquired Roma Property sites.*
- *Continue to work towards creating a "pro-business" environment.*
- *Support the development of the proposed multi-purpose field house and arena complex in Uptown Martinsville.*
- *Community Facilities, Services, and Utilities Recommendations:*
- *Continue to market the benefits of the MINet (Martinsville Informational Network) fiber optic network. This has the potential to be a good revenue generator.*
- *Make better use of public facilities, such as schools and other community buildings to ensure that they are truly multi-use.*

- *Research and plan for more efficient placement of fire facilities to ensure optimum coverage of the City neighborhoods.*
- *Develop strategies for educating the public about existing services and resources in order to lower the number of health related issues.*
- *Develop strategies to enable the City of Martinsville to achieve the goal of being a "truly wired city".*
- *Continue to market the concept that a "healthy city is a happy city", utilizing the programs already in place.*
- *Continue the effort to maintain and upgrade the assortment of recreational facilities in the City.*
- *Complete the network of walking and biking trails within and without the City.*
- *Continue to support the growth of the New College Institute as an integral component of the growth and upgrading of the City in general, and Uptown area in particular.*

- *Develop facilities that meet the needs of the residents of the City, particularly the young families.*
- *Incorporate private buildings located in the Uptown area in the public education of elementary and middle school students. This type of mixed use can possibly offset the costs associated with the growing costs of capital improvements necessary every year. It can also utilize the newly constructed Uptown Arena/ Multi-Purpose Center to meet the recreational needs of the students.*

Housing Recommendations:

- *Ensure that all properties are maintained in keeping with the character of the neighborhoods in which they are located.*
- *Increase the number of single-family homes to stabilize and increase the currently decreasing population.*
- *Continue to market the Uptown area as a residential neighborhood for the more urban-minded, middle-income and upper-income residents.*
- *Plan residential retirement areas and market the area as a desirable and affordable place for retirees to locate.*
- *Develop transitional housing for single men and families with a male householder present.*
- *Continue the revitalization of neighborhoods as a vehicle to stabilize the City as a whole.*
- *Encourage the development of a purchase / rehab and sale program for residential properties.*
- *Encourage the infill development of vacant lots for new residential housing.*
- *Explore and implement amendments to the zoning ordinances to encourage new and innovative housing throughout the City.*
- *Develop additional renter-occupied, multi-family units for low- to moderate-income families.*
- *Pursue greater enforcement of the existing property maintenance and building codes as it applies to investor-owned residences.*
- *Research and develop undersized lots for possible consolidation into larger building lots for the construction of single-family residences.*
- *Update or create an action plan to address the vacant and abandoned properties to ensure that all properties are maintained in keeping with the character of their respective neighborhoods.*

Transportation Recommendations:

- *Continue development of trails in the City working with Harvest Foundation, VDOT and others as sources of funding.*
- *Develop program for signing principal bicycle routes in the City plus striping lanes on streets where this is practical.*
- *Integrate walking trails and bicycle routes where it is practical so that multi-use is encouraged.*
- *Continue to develop a transit system, so that the community has inexpensive, accessible transit options as necessary to continue vitality of certain of the community's transit-dependent constituencies. Transit development can include coordination with Henry County, private sector sponsors and financial supporters, Virginia Department of Rail and Public Transportation, Virginia Department of Transportation, human services and other public agencies.*
- *Develop approach to placing bicycle racks on transit vehicles to aid in advancing multimodal integration.*
- *Pursue recommendations of the bicycle plan.*
- *Extend the Uptown Rail Trail to connect to the central business district.*
- *Identify spot locations on recommended bicycle routes for opportunities to provide bike lanes to cyclists.*
- *Develop a plan and construct facilities to include bicycle route access and bicycle racks to make the downtown central business district (Church Street) bicycle "friendly."*

Land Use Recommendations:

- *Maintain an up to date inventory of all vacant land and buildings for possible infill development.*
- *Encourage compact, mixed-use development that will make efficient use of the infrastructure while maintaining the character of the area.*
- *Pedestrian and bicycle oriented development should be encouraged.*
- *Appropriate transitions, linkages and buffers between different land uses need to be developed and strongly encouraged.*
- *Connections between commercial and residential land uses, through the use of conveniently located roadways, bikeways and pedestrian pathways should be strongly encouraged.*
- *New development should be in keeping with the character of the neighborhood in which it occurs.*
- *Enhanced landscape buffers and screening should be strongly encouraged on all new development projects.*
- *Examine parking requirements for new development projects as well as lot location. Rear parking should be strongly encouraged where feasible.*
- *Continue to support and encourage civic beautification projects by Gateway Streetscape.*
- *Promote development of City parks, green spaces, trails and other recreational opportunities.*
- *Study the development of a Corridor Overlay district to enhance the appearance of the gateways and major corridors in the City.*
- *Continue to promote the development of local historic district designations for Uptown Martinsville as well as the East Church Street/Starling Avenue district.*
- *Support revitalization efforts for Uptown Martinsville. Residential development*

should be strongly encouraged for upper floors.

- *Encourage development of an Arts and Cultural district along Starling Avenue.*

(Martinsville Comprehensive Plan, Chapter 10)

It is clear that the City's Comprehensive Plan paves the way for land use practices that embrace contemporary planning approaches to urban development: Traditional Neighborhood Development, New Urbanism and Smart Growth.

Emerging from these adopted goals and policies, the UDA Comprehensive Plan Amendment is intended to narrow the focus on how best to apply the TND principles as outlined in the preceding chapter. Each new TND goal and supporting objective and policy statement should be compatible with the City's vision for the future as cited in the goals and policy statements above. In doing so, a series of questions were asked of each:

a. *Can the TND goal contribute to the City's ability to fulfill its stated vision for the revitalization of Uptown Martinsville?*

b. *Can the realization of the TND goal lead to zoning and subdivision regulations that promote the concept of a "creative economy" while better protecting the City's sensitive environmental areas?*

c. *Can the TND goal promote a vision for high quality, responsible economic development within areas where the County is committed to provide infrastructure and services?*

d. *Can the TND goal provide adequate guidance for the implementation of the UDA legislation, in general, and the City's adopted strategies for progressive development, redevelopment, and growth management within the designated Urban Development Areas, in particular?*

e. *Can the TND goal lead to better forms of land development that reduce economic impacts on the City?, and*

f. *Can the TND goal fortify the existing Comprehensive Plan's land use goals for the City and the entire region?*

The specific TND goals are intended to supplement the existing goals and recommendations of the City's 2009 Comprehensive Plan and the Uptown Revitalization Plan. In concert with these, they are to be applied to the specific locations selected for the two UDA locations pursuant to Section 15.2.-2223.1 of the Code of Virginia. Consistent with the intent of the legislation, the TND goals statements are to be incorporated as a separate section into the City's Comprehensive Plan. With their application to be uniquely focused on the selected UDA locations, it is understood that the TND goals in the following section (as well as the balance of the UDA study) are structured to complement and, where appropriate, expand upon, but not restate, recommendations contained in the Comprehensive Plan.

In pursuit of the County's overall planning goals, and in recognition of Traditional Neighborhood Design principles stated in the UDA legislation, the following goals should be considered when weighing the approval of any proposed development within Martinsville's designated Urban Development Areas:

1. Establish appropriate locations in the Martinsville Uptown UDAs for residential and commercial land uses with development densities that promote TND growth.

2. Establish a blended mix of residential and non-residential land uses that reflect TND planning objectives.

3. Create a variety of housing types, including affordable and workforce housing, to meet the range of anticipated family income distributions of future residential growth.

4. Encourage better spatial organization through the reduction of building setbacks, lot widths, and front and side yards, and the incorporation of smaller lot sizes.

5. Incorporate pedestrian-friendly road and street designs.

6. Reduce subdivision street widths and turning radii at streets intersections, and provide standards for enhanced street landscaping, pedestrian improvements, and pavement design.

7. Establish connectivity between internal road and pedestrian networks within TND projects, providing a grid rather than cul-de-sac street pattern.

8. Promote the interconnection of new TND streets with existing streets and roads.

9. Ensure the preservation of natural areas and open space in conjunction with the TND master planning process.

10. Plan for the phasing of new TND development within the City's designated development and redevelopment areas consistent with anticipated population and employment growth.

11. Explore strategies and initiatives to concentrate financial and other incentives that encourage development within the UDAs rather than scattered throughout the City.

12. Evaluate the potential for the UDAs to serve as receiving areas for any future TDR program established by the City.

13. Prioritize funding for housing, economic development, public transportation, and infrastructure projects within the UDAs.

V.

Martinsville
A CITY WITHOUT LIMITS

- TND Planning Principles -

V.

TND Planning Principles

A positive response to the ill effects caused by suburban sprawl over the past 50 years has been the efforts of some architects, engineers, and planners to design new real estate developments that draw on the features of successful cities and towns of the past. Alternately called Traditional Neighborhood Development, New Urbanism, or Neo-traditional Neighborhood Design, this form of development attempts to build mixed-use communities that function within cities rather than as disparate parts, to place uses close enough to each other to allow walking or bicycling in addition to automobile travel, and to build all of this at a convenient, attractive, and functional human scale.

TND PRINCIPLES

The following is a list of TND Neighborhood features drafted by Andres Duany, an internationally known architect and urban planner who has been instrumental in establishing TND as a modern community planning movement. Mr. Duany's list of TND neighborhood features provides a good base for understanding TND development. The neighborhoods that this list talks about are the basic building blocks of traditional neighborhoods, towns and cities. Each neighborhood is a well-defined place with its own uses, look, and feel. Any number of residential neighborhoods, transitional neighborhoods, or core neighborhoods, where commercial uses are located, can combine to make up a larger city or TND community.

Future development in Uptown, whether new development, infill, or redevelopment, should strive to achieve these characteristics. While it may not be possible for a given neighborhood to exhibit all of these features, each of the items in this list builds upon the others to create a meaningful place that is viewed more as a village and community than simply as a housing or commercial development. It is no coincidence that these features are also those exhibited by the most successful and desirable historic cities and towns in Virginia.

1. The Neighborhood has a discernible center. This is often a square or green, and sometimes a busy or memorable street intersection. A transit stop would be located at this center.

2. Most of the dwellings are within a five-minute walk of the center. This distance averages one-quarter of a mile.

3. There is a variety of dwelling types within the Neighborhood. These usually take the form of houses, rowhouses, and apartments, such that younger and older people, singles and families, the poor and the wealthy, may find places to live.

4. There are shops and offices at the edge of the Neighborhood. The shops should be sufficiently varied to supply the weekly needs of a household. A convenience store is the most important among them.

5. A small ancillary building is permitted within the backyard of each house. It may be used as one rental unit, or as a place to work.

6. There is an elementary school close enough so that most children can walk from their dwelling. This distance should not be more than one mile.

7. There are small playgrounds quite near every dwelling. This distance should not be more than one-eighth of a mile.

8. The streets within the Neighborhood are a connected network. This provides a variety of itineraries and disperses traffic congestion.

9. The streets are relatively narrow and shaded by rows of trees. This slows down the traffic, creating an environment for the pedestrian and the bicycle.

10. Buildings at the Neighborhood center are placed close to the street. This creates a strong sense of place.

11. Parking lots and garage doors rarely front the streets. Parking is relegated to the rear of the buildings, usually accessed by alleys.

12. Certain prominent sites are reserved for civic buildings. Buildings for meeting, education, religion, or culture are located at the termination of the street vistas or at the Neighborhood center.

TRANSECTS: A Comprehensive Planning Approach

Transects are an attempt to describe built and natural environments within a regional context. Born out of the New Urbanism movement of the 1980s, transects describe a geographical gradient of development areas, uses, and densities based on their proximity to the jurisdiction's core area. As a planning doctrine, transects mimic the concentric ring plan seen in many city plans. Transects organize all development along a scale centered on the existing core area; the farther out one gets from the core, the less density is allowed. From a comprehensive planning standpoint, transect areas are typically defined by and organized into six distinct planning sub-areas, ranging from sparse rural farm houses to dense urban buildings. Each transect has specific rules and regulations governing building types, development form, densities, setbacks, and lot types. These zones are generally classified, as follows:

- *Natural areas and preservation areas (little or no development),*
- *Rural areas (very low residential densities associated with agricultural activities),*
- *Neighborhood edge areas (transitional, suburban densities on the edge of town),*
- *General neighborhood areas (medium residential densities within traditional subdivisions),*
- *Neighborhood centers (high density residential areas within walking distance to core areas), and*
- *Urban core areas (highest residential densities coupled with town center commercial development).*

In the case of Martinsville, the full spectrum of transects would encompass areas of Henry County that are devoted to agricultural and very low density residential uses in addition to the General Neighborhood, Neighborhood Center, and Urban Core areas found in Martinsville and the Uptown area. It is important to note that this UDA planning study deals only with the more dense, urban end of the transect spectrum, while other elements of the City comprehensive plan will continue to treat other areas of the spectrum, including Martinsville's more outlying residential zones. While not intended to conflict with other components of the comprehensive plan, the UDA planning priority is to establish locations and guiding principles for the governance of higher density, mixed-use TND projects. This should certainly not diminish the importance and viability of transect planning as a bona fide regional growth management process for the entire region.

TND Design Vision for Uptown

With the UDA emphasis on traditional neighborhood design, it is important to establish a vision around which new and redevelopment projects should be evaluated. As with any design exercise, there are certain major component parts in the creative process that can be assessed and configured to achieve the desired results. For the designated Uptown UDAs, the two dominant categories of design components are transportation and land use. Within these two design components, there are opportunities for new development, infill development, and redevelopment of existing public and private properties, with existing city streets serving as the backbone for infrastructure support.

The extent to which quality development will be realized will be a function of the desired level of commitment to planning, growth management, public/private coordination, capital improvements planning, and political priorities. Nevertheless, successful TND development, particularly in already-dense locations, must combine both private and public initiatives to achieve success in the marketplace. As a short-term catalyst, the City can engage in public right of way improvements that can be accomplished via the introduction of landscaping, pedestrian and bicycle facilities, street furniture, streetscape upgrades, storm drainage improvements, and innovative signage. However, over the long haul, the ultimate success of any city can be achieved only through the application of more provocative comprehensive planning, quality urban design, innovative transportation strategies, and, most importantly, significant levels of private investment in the community.

As a part of this UDA study, the consultant has undertaken a series of urban design studies to explore public and private property improvements that can contribute to the overall success of UDA areas. These improvements are shown by digitally manipulating photographs of individual locations in a series of improvement phases. The public improvements shown include pedestrian, landscaping, and street furniture improvements. Building and other property improvements are also shown that may result from provate sector investment under UDA guidelines.

TND Design Concept #1: Adaptive Re-use

This study shows a hypothetical redevelopment of the existing industrial facilities on the Sara Lee site. By adding streetscape improvements and dividing a large industrial space in to smaller retail, service, or residential units, a traditional and vital urban streetscape could be created. The graphics were prepared employing base condition photography and computer design imaging processes. They are intended for only for the purpose of demonstrating how TND forms of land use could be organized and implemented at various locations in the UDA

Existing Land Use: Abandoned industrial facility, with no streetscape or use available to the public adds nothing to the nearby Uptown.

Phase 1: Enhanced internal streetscape creates an attractive place for residential and commercial uses. Improvements include new paving, streetlights, and landscaping.

Phase 2: TND Adaptive reuse of the industrial buildings can add vitality to the street, as well as to the nearby Uptown core through retail and residential uses.

Phase 3: Further Traditional Neighborhood Development can establish the UDA site as a distinct neighborhood center of Uptown Martinsville.

TND Design Concept #2: Compatible Corridor Redevelopment

This general design example from the Hampton Roads area examines how existing automobile oriented uses can be retrofitted over time to fit within a a more pedestrian-oriented urban development pattern and streetscape. These examples were created as three hypothetical land use scenarios that could be developed over three successive phases, thereby providing property owners with greater market flexibility. They are intended for only for the purpose of demonstrating how TND forms of land use could be organized and implemented at various locations in the designated UDA.

Existing Condition: Urban Corridor Street Section; VDOT-designed Infrastructure; No Sidewalks, Unorganized Streetscape Pattern and No Landscape.

Phase 1: Enhanced Public Right of Way Improvements, to include Sidewalks, Street Lights, Pavers, and Landscaping; Maintain Existing Commercial Use

Phase 2: TND Adaptive Reuse for Restaurant; Reconfigure Commercial Entrance for Access to Future Parcels and Coordinate Infrastructure Services, Introduce On-Site Hardscape and Landscape Improvements

Phase 3: New TND Development for Bistro and Additional Shops on Infill Property; Shared Parking and Access with Prior Phase development

VI.

Martinsville
A CITY WITHOUT LIMITS

- UDA Land Use Plan -

VI.

UDA Land Use Areas

The Uptown UDA plan has been constructed around an analysis of its land use areas and neighborhoods. The plan's TND principles and guidelines for the Uptown Urban Development Areas mapped in Section III attempt to shape new development in ways that are compatible with the existing Uptown, and with general provisions for in-town, rather than suburban, planning. Traditional Neighborhood Development is set apart from typical suburban construction by its focus on compactness, its mix of land uses, and other features aimed at building meaningful neighborhoods and places rather than monotonous, use-separated development. While it is a common suburban development practice to organize land uses into areas for commercial use, residential use, etc., TND development is organized into areas based on intensity of use and activity instead. The land use components of the TND can generally be divided into three main categories of intensity:

- *Core Area*
- *Transitional Area*
- *Residential Area*

The Core Area contains most of the community's commercial uses, including shopping, dining, and offices, in multi-story buildings along walkable streets. The upper floors of these buildings might also include condominiums or apartments. The Core is modeled after Main Street areas of older Virginia towns and cities. Nearby the core area is a Transitional Area where dense residential uses like condominiums and town homes are found, along with some small commercial uses that serve these residences, such as corner stores and coffee shops. Even farther out from the core are Residential Areas that are mainly made up of single-family homes, but also with some town homes or condos mixed in. There are no commercial uses in the residential areas, but these areas are still within walking distance of the core.

Outside of the Core, Transitional, and Residential areas of the UDA, other planning areas of the City, and of Henry County, will continue to focus on lower density residential, environmental conservation, agriculture, and other uses. These other uses will be governed by other sections of appropriate comprehensive plans, as well as by other planning documents and growth management efforts.

The Core Area: The Town Center

The Town Center is the geographical and functional heart of the community. Neighborhood gathering, recreation, shopping, and transportation are all focused on this core area. Traffic patterns for automobiles and pedestrians also radiate from this central location. The Town Center should be seen as the heart of the City in much the same way as a Main Street, important crossroads, or set of downtown blocks forms the heart of many old Virginia towns and cities. The existing density and street pattern of Uptown exemplify the Core ideal. Streets are relatively narrow, with ample sidewalks, buildings are built close to the street, and parking is supplied on the street or in small lots behind or to the side of buildings. Martinsville should seek to expand and revitalize this area with additional commercial, residential, and institutional uses. The community as a whole should have a concentric relationship to the town center, with the densest development located within the core, condos and other attached units located nearby, and detached homes farther from the center.

Core standards should be used in the Baldwin UDA, and in keeping with the overall goals for TND development, should incorporate a mix of uses, while organizing these uses into a compact and walkable plan with ample public spaces.

Mixed Use

The principles of Traditional Neighborhood Design place commercial, civic, and residential uses in close, walkable proximity to each other, rather than separated into distant locations only within driving distance. The town center is the primary location where commercial uses can be mixed into the community, alongside, or collocated with other land uses. The town center should allow and encourage small retail, service, and office uses, located along walkable streets within the TND core. Commercial and civic uses should be designed to serve the needs of the immediate neighborhood, including dining, as well as serve customers traveling to the village center from other communities. The typical layout of such uses places retail and service uses at the street level, with office or residential uses above.

Yards and Setbacks

As with TND residential uses, commercial uses should be located close to or immediately at the edge of the sidewalk. Because the town center is designed with pedestrians in mind, shallow setbacks allow users to access the commercial uses quickly and safely, without crossing large parking lots. This arrangement also creates a sense of enclosure on core streets that adds to the appearance and vitality of the town center.

Within this arrangement, larger setbacks are possible, but should be reserved for certain cases. One such case is for important buildings such as museums, libraries, or other civic spaces where a plaza or other appropriate open space can add importance and interest to the building and surrounding streetscape. In another case, dining establishments can use a deeper setback to include outdoor dining space that will add vitality to the street. In both cases, these deeper setbacks should be used carefully and sparingly, with the overall pattern of the town center in mind.

Civic spaces
In addition to commercial and residential uses, the city core should include at least one civic space as a community gathering space for residents, or for community events. This civic space may take the form of a landscaped park, hardscaped plaza, or civic building such as a library, church, or government center. Such a civic space can provide an important relief from the density of the town center, and should be placed near the center of the city, or in a place of importance, such as at the termination of a street.

Parking
The village center is intended as a commercial area that caters more to pedestrians than do shopping centers in outlying areas. For this reason, parking in the town center should be carefully planned to allow access to core uses without harming the look or function of the area.

All streets within the town center, and within the city in general, should include on-street parallel parking. When off-street parking is necessary, parking lots should be implemented behind buildings. When street-front parking can not be avoided, parking lots should be screened from view with walls, fences, or landscaping. To facilitate these parking arrangements, shared parking strategies, public parking areas, and structured parking should be considered.

Transitional Area

The Transitional Area is meant to divide the active and highly commercial Core Area from quieter Residential neighborhoods, and should be used in the Baldwin and Sara Lee UDAs. Its primary function is as a bridge between the activity and high density of the core, and quieter, less dense TND residential areas. The Transitional Area will be primarily residential, but made up of more intensive residential uses such as apartments, condominiums, and town homes. The Transitional Area will also include a mix of commercial uses, but at a lower commercial density than in the Core Area. This area is the ideal location for small shops, restaurants, or offices that primarily serve the residences around them.

Development parameters for the Transitional area should seek to bridge those used in Core and Residential areas, including minimums and maximums established for building height, front and side yards, and other parameters.

Live-Work Units
The Transitional Area is a good place to allow live-work units, a type of commercial and residential use in one, designed to have a ground floor shop, with an apartment or townhouse on floors above for the shop owner or operator. These units are typically associated with small startup businesses that are ideal for the TND scale and transitional area.

Residential Area

These guiding principles for TND residential neighborhoods are intended to promote the positive qualities of older Martinsville neighborhoods, and in-town neighborhoods in other Virginia towns and cities. These principles should be used in areas of both the Baldwin and Sara Lee UDAs, and can be incorporated into the City's Comprehensive Plan or a separate TND Design Guidelines Manual. Implementation regulations and standards may be introduced into a new zoning district consistent with the purpose and intent of Section 15.2-2223.1 of the Code of Virginia.

Lot Size

TND residential lots are necessarily smaller than lots in many typical suburban developments. Smaller TND lots put houses closer to each other, and closer to the city center, in order to preserve walkability in a more compact community. The result is a given number of residential lots occupying less total acreage than with typical suburban construction. The TND community should include a wide variety of lot and house types at a variety of sizes, from small town house lots near the city center, to small single family detached lots farther from the core.

Final lot sizes should be based on careful master planning, as well as market demand for TND residential uses. The examples shown here serve as a guide to a variety of potential lot sizes. These lots vary from 18' wide townhouse lots to 80' wide single family residential lots.

Yards and Setbacks

In order to achieve TND density and walkability goals, houses in a TND community are built closer to the street, and closer to each other. Within the narrow, pedestrian oriented streets of a TND, an appropriate residential front yard may be as little as 10 or 15 feet. TND communities also often have a maximum building setback (for example, 20 feet) in order to allow variation, while also maintaining a regular and ordered appearance within the neighborhood. In the lot examples below, the minimum setback is 10 feet, and the maximum is 20 feet.

Relegated garages and parking areas

As with parking in the core area, residential parking areas and garages should be established in a way that make vehicle access convenient, but without harming pedestrian access. In most cases, TND communities are designed with mid-block alleys, allowing access to garages at the rear of residential lots, as illustrated in the lot types below. Also shown below are options for front access lots that attempt to maintain TND principles, including driveways shared between two houses, and side yard driveways to access rear lot garages.

Lot mix

In order to recreate the type of successful neighborhoods found in many established towns and cities, Traditional Neighborhood Development projects must maintain a careful balance between housing types and sizes. In typical suburban neighborhoods where only a few (or only one) home type or design is allowed, the result is the overwhelming sameness seen in many tract housing developments. While this mix will necessarily be influenced by market demand, various house types (single family, town home, and condo) and sizes should be mixed together generously to give the TND neighborhood a feeling of originality and variety.

Economic Development Area

Just as the mathematical model establishing and projecting UDA size encourages the City to recognize non-TND land uses that may still be important to the overall function on a community, TND land use planning should not completely rule out certain economic development activities that are not traditionally included in Traditional Neighborhood Design. These uses might include light manufacturing uses, service uses, or larger commercial development. While these uses are not traditionally compatible with TND planning, or with strict UDA definitions, they may be incorporated into a larger city plan as a thoughtfully planned exception, and should not be excluded outright without careful consideration.

VII.

Martinsville
A CITY WITHOUT LIMITS

- TND Design Guidelines -

VII.

TND Design Guidelines

This section of Design Guidelines is intended to provide guidance on the physical elements of Traditional Neighborhood Design. Because development within Uptown Martinsville will involve a great deal of infill, redevelopment, and adaptive reuse, these guidelines, as well as the form of existing development in Uptown should guide future growth. Other lot, street, or utility designs can work just as well, but should strive to match the existing character of Uptown.

Residential Lots

The model lot types included here prescribe sizes and setbacks much like the City's existing zoning ordinance, but tailored for TND residential neighborhoods. These lots, in general, are similar to those found in residential neighborhoods close to Uptown. They are, however, much smaller than those found in outlying neighborhoods and typical suburban developments, have smaller setbacks from the street, and also include maximum setbacks to create a consistent street wall. This section includes the following six lot types:

- *Cottage Lot*
- *Village Lot*
- *Neighborhood Lot*
- *Suburban Lot*
- *Townhouse Lot*
- *Live-Work Lot*

Streets

The more compact forms of development found in Uptown, and generally in TND and UDA planning rely on more compact street designs. These street designs also strive to be complete streets, that is, streets that work for cars, pedestrians, and bicycles alike. In their overall layout, TND streets should aim for a grid pattern with many connections to facilitate pedestrian movement.

- *Thoroughfare*
- *Village Street*
- *Residential Street*
- *One Way Street*
- *Ally*

Finally, this section includes basic guides for other TND elements, including street furniture, fences, stormwater, and utilities. As with all TND elements, these features should be specifically designed for the compact nature of TND communities.

TND RESIDENTIAL LOTS

The following examples show potential TND lot sizes and layouts. The lot sizes vary from town home lots to larger single family lots, and include the reduced setbacks and pedestrian orientation that are typical of TND communities. TND projects should include a mix of lot types and sizes within the development, within neighborhoods, and even within individual blocks.

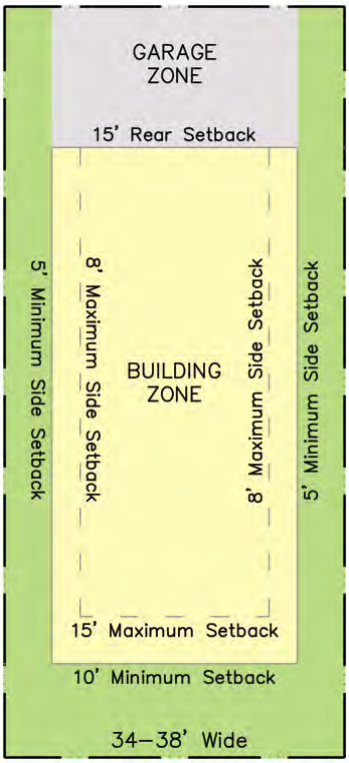
Final lot types and requirements and designs should be sensitive to existing and projected housing demands and be based on existing neighborhoods, and an appropriate TND plan each project.

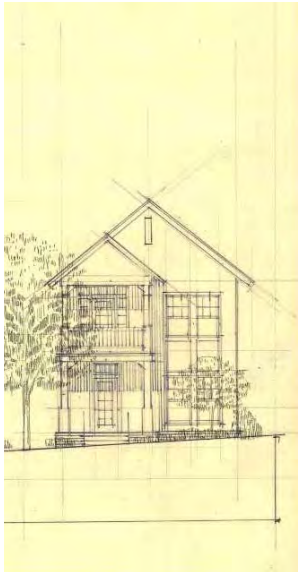
TND Lots

A prevalent theme in successful American TND models is the use of rear loading for residential lots. Of course, this theme among TND developments is drawn from the prevalence of alleys within successful residential neighborhoods in some of the city's most well-liked old cities. The use of alley access has the advantage of allowing an unbroken streetscape, including eliminating conflicts between pedestrians and cars pulling into and out of driveways. In addition, the alley provides a convenient utility or service access, including a more attractive way to deal with trash pickup.

Most TND communities are designed to include mid-block rear alleys like the ones shown here. These alleys allow access to garages at the rear of residential lots. Additional parking within lots, trash collection, and other needs can also use these alleys. These lot examples show a minimum front setback of 10 feet, and a maximum front setback of 20 feet. Establishing a minimum and maximum setback allows design flexibility and variation, while also maintaining an organized and cohesive look within the neighborhood. Side setbacks shown here are 6 feet for each lot, for a minimum of 12 feet of separation between houses.

Cottage Lot:

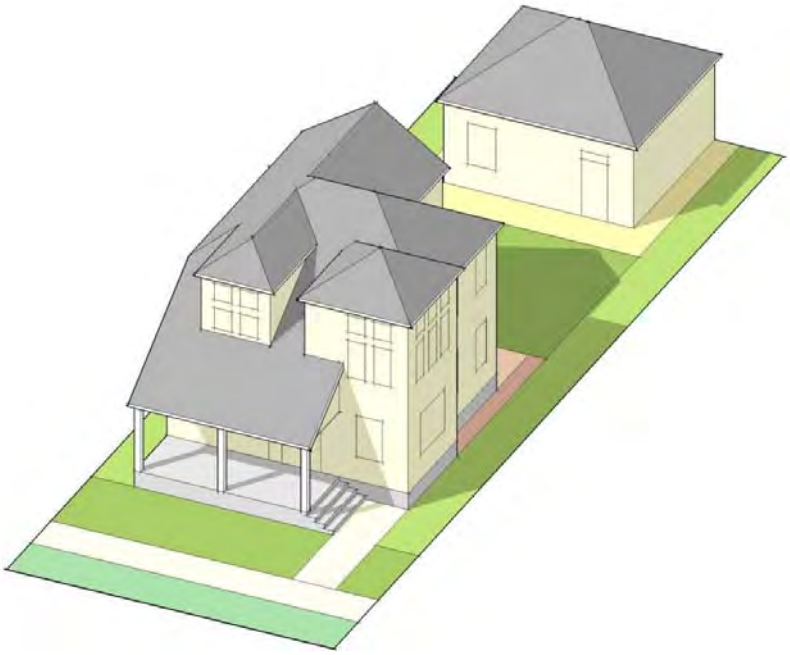


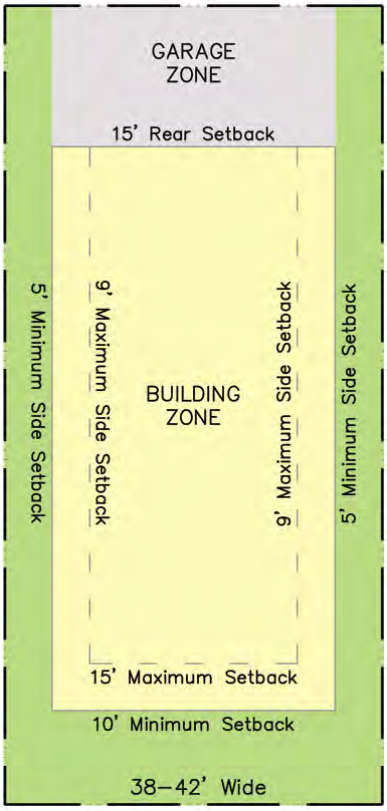


Cottage Lot Dimensions:

Lot Width:	34 - 38'
Lot Depth (min.):	80'
Front Yard Setback (min.):	10'
Front Yard Setback (max.):	15'
Side Yard Setbacks (min.):	5'
Side Yard Setbacks (max.):	8'
Rear Yard Setback:	15'

Village Lot:

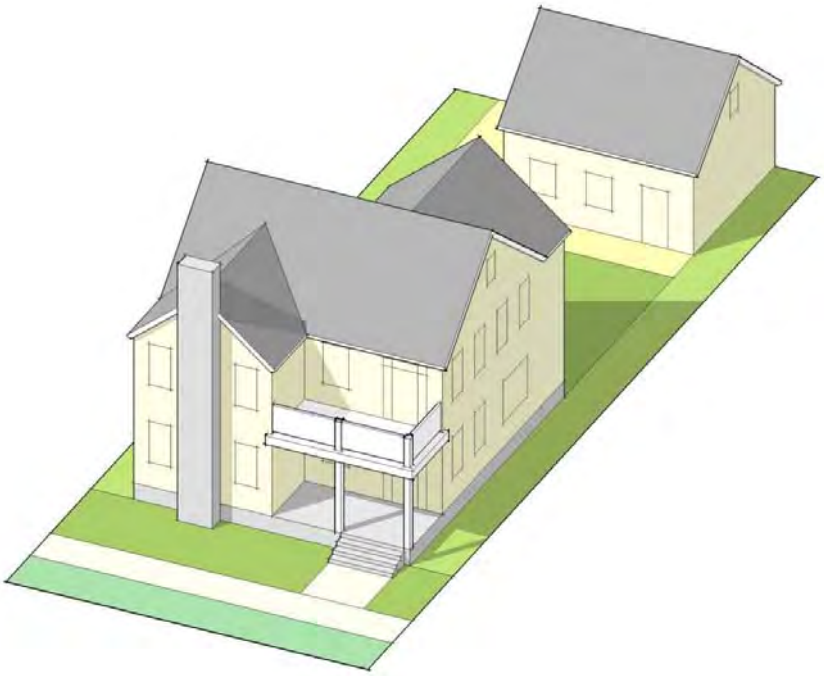


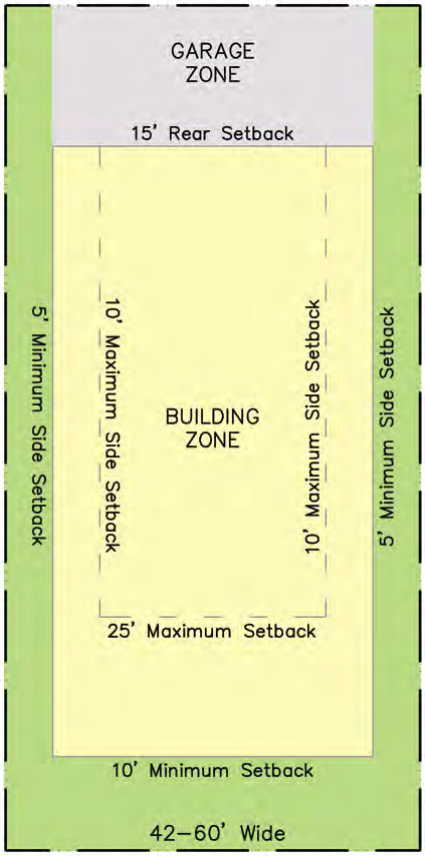


Village Lot Dimensions:

Lot Width:	38 - 42'
Lot Depth (min.):	85'
Front Yard Setback (min.):	10'
Front Yard Setback (max.):	15'
Side Yard Setbacks (min.):	5'
Side Yard Setbacks (max.):	9'
Rear Yard Setback:	15'

Neighborhood Lot:

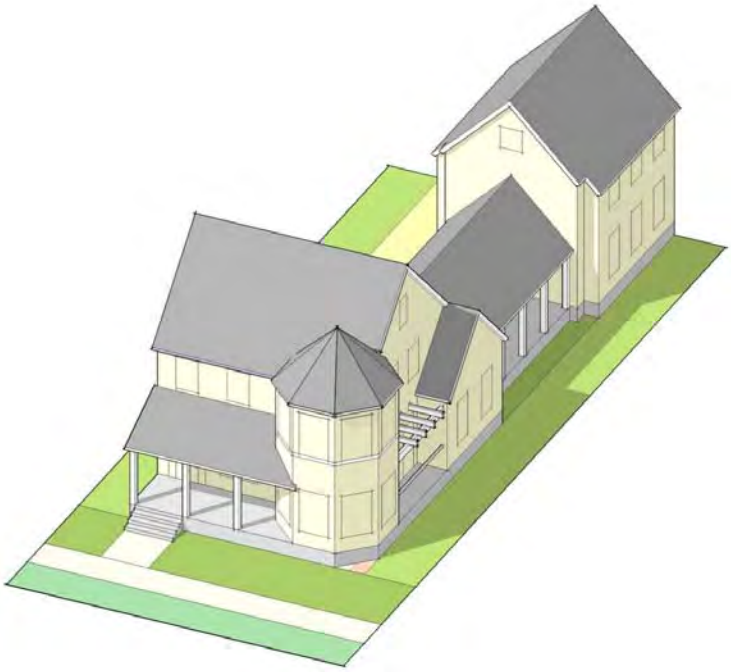




Neighborhood Lot Dimensions:

Lot Width:	42 - 60'
Lot Depth (min.):	90'
Front Yard Setback (min.):	10'
Front Yard Setback (max.):	25'
Side Yard Setbacks (min.):	5'
Side Yard Setbacks (max.):	12'
Rear Yard Setback:	15'

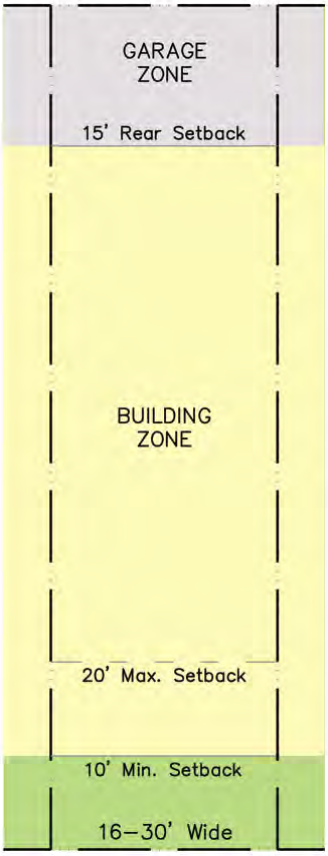
Suburban Lot:



Suburban Lot Dimensions:

Lot Width:	*60 - 100'*
Lot Depth (min.):	*100'*
Front Yard Setback (min.):	*15'*
Front Yard Setback (max.):	*30'*
Side Yard Setbacks (min.):	*10'*
Side Yard Setbacks (max.):	*15'*
Rear Yard Setback:	*15'*

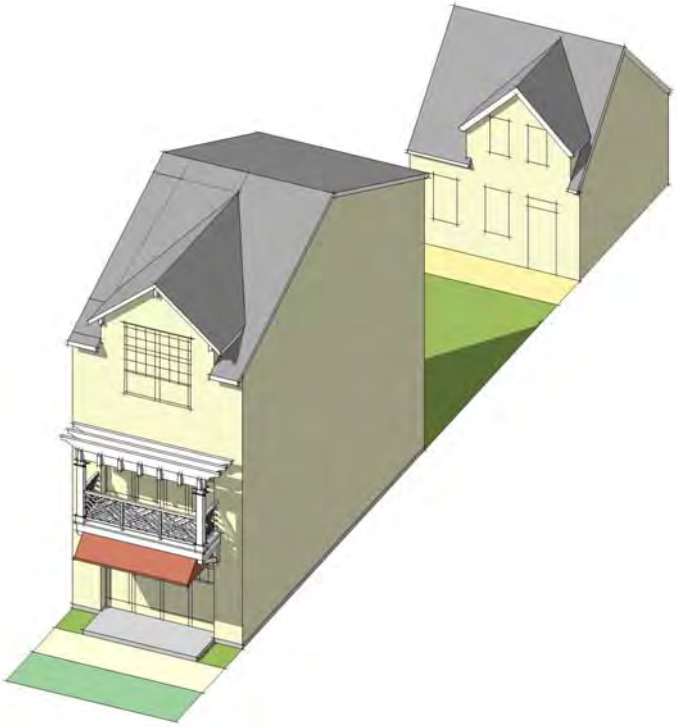
Townhouse Lot:

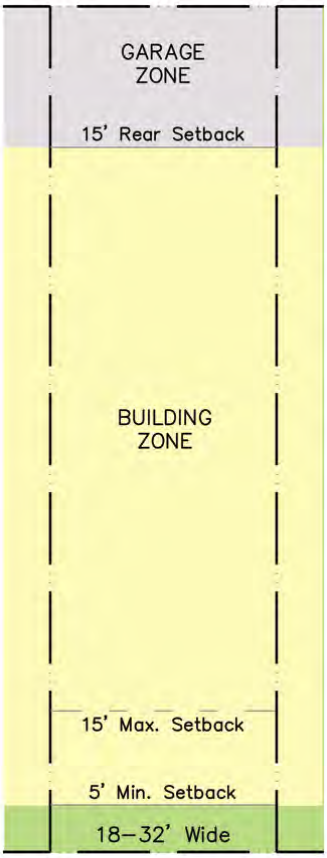


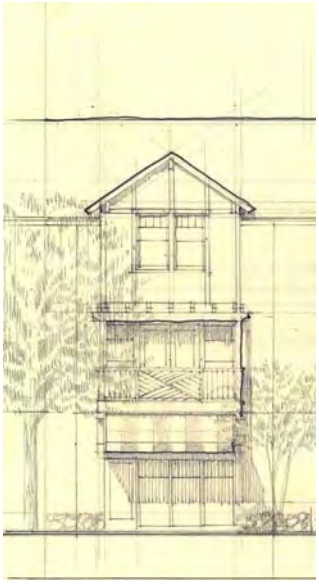
Townhouse Lot Dimensions:

Lot Width:	16 - 30'
Lot Depth (min.):	90'
Front Yard Setback (min.):	10'
Front Yard Setback (max.):	20'
Side Yard Setbacks (end unit - min.):	5'
Side Yard Setbacks (end unit - max.):	12'
Rear Yard Setback:	15'

Live-Work Lot:







Live-Work Lot Dimensions:

Lot Width:	18 - 32'
Lot Depth (min.):	85'
Front Yard Setback (min.):	5'
Front Yard Setback (max.):	15'
Side Yard Setbacks (end unit - min.):	5'
Side Yard Setbacks (end unit - max.):	12'
Rear Yard Setback:	15'

Front Access Lots

While residential lots served by alleys are predominant in well-planned neighborhoods, lots with vehicle access from main residential streets are still possible within TND principles, and may be necessary based on market demand, or on physical site features like topography. Even in cases where vehicle access must come from a street rather than an alley, steps should be taken to preserve the walkability and density of the neighborhood by sharing driveways, using side yard driveways to access garages behind the home, or for corner lots, accessing parking or a garage from the more minor of the two fronting streets.

TND STREET FEATURES

The streets of Traditional Neighborhood Developments are necessarily different from the streets in conventional suburban developments. Because the density of the TND encourages walking, biking, and general community activity, the streets of the TND are designed more completely than those of the conventional suburb. The concept of "complete streets" should focus on the following major objectives:

- Continuity of street design throughout the community.
- A hierarchy of street scale to emphasize important connections or areas
- Connectivity of pedestrian and vehicular infrastructure
- Standardized landscaping as an aesthetic and functional element of the street
- Building frontage guidelines to create an ordered and uniform street wall.

Over the past several generations, new streets and roads have featured abnormally wide pavements and broad, clear shoulders, a condition that promotes high speeds. In order to make TND streets safe for pedestrians and cyclists, the speed of cars is slowed somewhat. Additional features are also added to the street to increase the safety and comfort of pedestrians, as, well as to make for a more visually interesting environment.

Narrow lanes and streets

By narrowing driving lanes, the TND street slows drivers to speeds that are safer for cars, pedestrians, and cyclists alike. Due to the increased density of TND communities, slower speeds do not necessarily mean longer trips, as destinations are much closer. In many suburban areas, lane widths are a minimum of 16 feet, while TND and city streets typically specify lanes of 12 feet or less. The grid, or network, street pattern typical of TNDs also divides traffic between multiple small roads, rather than combining traffic onto multilane collector roads as in suburban locations, meaning fewer lanes for pedestrians to cross and generally safer conditions. Traffic calming techniques, including speed bumps or bulb-outs at intersections, can further slow traffic and protect pedestrians and cyclists.

Sidewalks and crosswalks

The key feature of TND streets is that they should be designed for multiple users, not solely for drivers. The streets within a TND community should all have sidewalks, almost always on both side of the street. Sidewalks are often four to five feet wide in residential areas, and separated from the street by a planting zone. This separation gives the sidewalks a safer feel, removed from moving cars. Given their importance in supplementing the civic spaces in the community, commercial street sidewalks must be much wider to accommodate busier uses, and may also provide for café space. Crosswalks must be clearly marked within the street. The use of contrasting materials, or hardscaping, such as brick or stone can make crosswalks stand out, as well as signal to drivers to slow for pedestrians.

Street trees

The presence of evenly spaced trees along a street creates a sense of enclosure that slows traffic, while also providing shade to pedestrians in warm climates, and making for a generally more attractive street environment. On residential streets, trees are commonly planted in a four to eight foot planting zone between the street curb and sidewalk. For commercial streets, trees may be planted in planting beds, or may be installed in tree grates to create additional sidewalk space.

On street parking

In contrast to typical suburban construction that includes both roads and large parking lots on individual commercial parcels, TND streets are designed to include on-street parking. This parking arrangement works toward the TND community's land use goals, as well as its goals for multi-use streets. By parking within the street rather than on individual parcels, the TND can reach much higher densities. In addition, a row of parked cars forms a buffer between moving traffic and pedestrians to give sidewalks a safer and more pleasant feel.

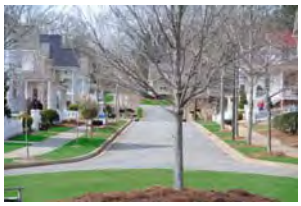
Buildings close to the street

Instead of the minimum setback lines established by traditional zoning codes to ensure that buildings aren't built too close to the street, TND communities are often governed by build-to lines to ensure that structures aren't built too far back from the street. Shallow front setbacks help TNDs achieve their goals of higher density, as well as their street design goals. While in a car-only suburb, buildings near the street might block sight lines and slow traffic, TNDs desire slower traffic, as well as convenience for pedestrians. With closely set buildings and on-street parking, pedestrians do not have to cross parking lots to reach the fronts of buildings as they would in suburban settings.

Street furniture

An additional enhancement of TND streets over traditional suburban streets is the provision of street furniture. Street furniture includes benches, bicycle racks, bollards, planters, and other accessories placed on or near TND streets and sidewalks for the convenience of non-automobile travelers. At the same time, features not friendly to pedestrians and cyclists, such as trash pickup are often handled in alleys or other off-street locations.

TND STREETS



Because of their narrower pavement width, on-street parking, and other pedestrian amenities, Traditional Neighborhood streets are necessarily different in section and overall design from typical suburban feeder or collector streets.

The following examples show five types of TND streets, for use within appropriate areas of master planned TND communities. These examples illustrate potential street sections that include travel lanes, landscape areas, and sidewalks within a public right of way.

TND "complete street", with room for driving, parking, and walking, as well as landscaping.

Unlike suburban streets with deep driveways and garages fronting the street, TND accommodates garages along rear alleys.

Thoroughfare

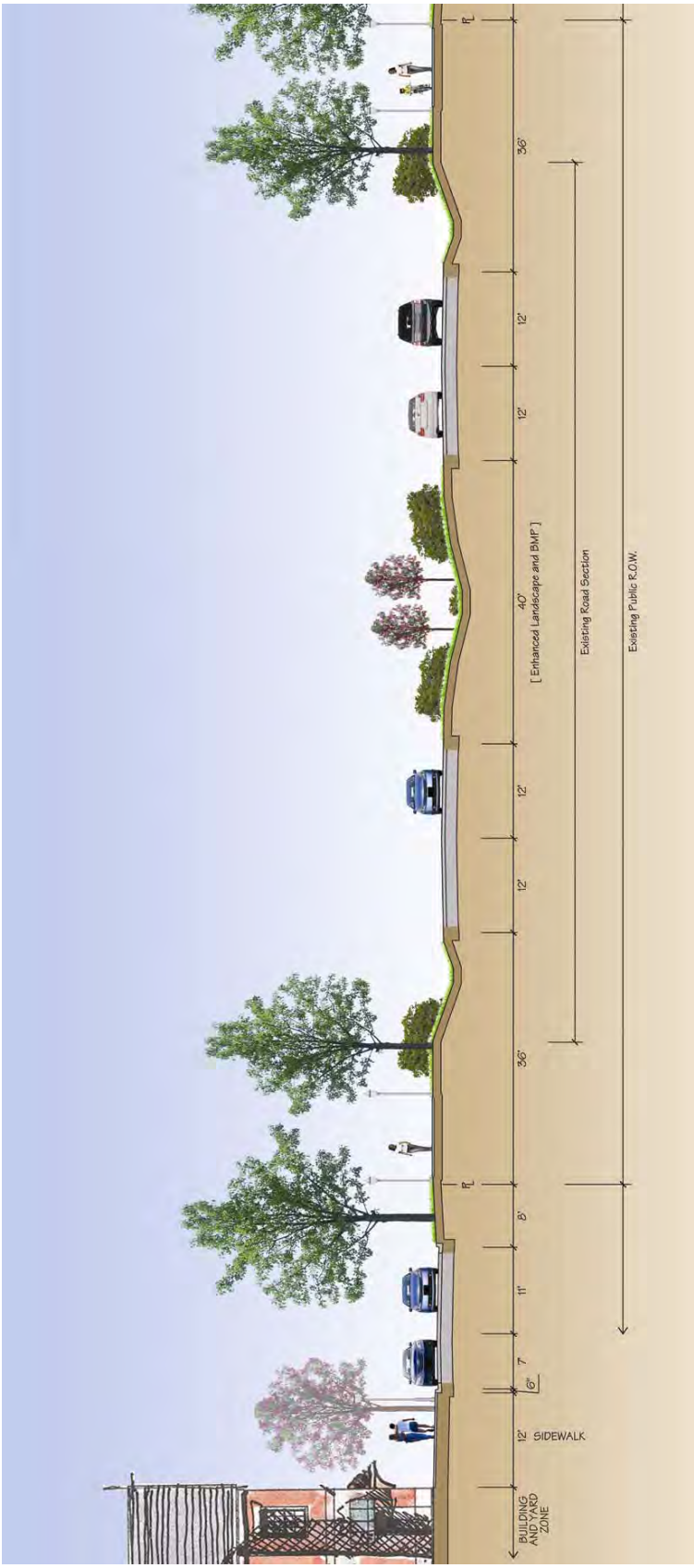
A constant question when if comes to TND development is how to address major, existing transportation corridors like Market Street or Commonwealth Boulevard near Uptown. The same traffic calming measures that are applied to new TND streets often can't be applied to these roads due to highway requirements or to the importance of these routes to the larger community and region.

However, improvements can be made to major roads to make them more functional within TND zones, including pedestrian and landscape upgrades, to turn a collector road into a proper boulevard. Pedestrian access can still be provided along major routes by implementing sidewalks or walking and biking trails sufficiently removed from the roadway. These paths should be wider than neighborhood sidewalks, and allow for short walking trips, as well as longer bicycle trips, including commuting. Landscaping can be added to major routes in the form of uniformly spaced street trees, as well as screening plants along pedestrian paths and right of way edges.

Over time, some major routes can be transformed from high-volume arteries to community thoroughfares in order to compliment new, mixed use development in the UDA.

Movement:	High-volume, two way traffic, divided highway
Intersections:	Signalized intersections
Location:	Existing major collectors and regional transportation routes connecting towns and significant developments
Speed:	35 - 45 mph
Lanes:	Multiple lanes in each direction, variable widths, often 12'+
Right of Way:	Existing, variable
Parking:	No on-street parking
Sidewalks:	Sidewalks or multi-use trails, variable width
Paved Edge:	Ditch section (rural and suburban areas) Curb and gutter (urban areas and new construction)
Landscaping:	Street trees and screening
Hardscaping:	Delineated crosswalks, street lights

Model Thoroughfare Street



Village Center (Uptown) Street

One of the most important features of Traditional Neighborhood Design is a clearly defined center like Uptown. This center is often made up of a mixed use street or crossroads with retail, office, and residential uses in multi-story buildings, not unlike Main and Church Streets, or Main Street development in traditional Virginia towns. This street design provides a framework for such a mixed-use arrangement by being as much a street for pedestrians as for cars. The wide, shaded walks shown here support retail shopping and an active pedestrian environment. Street furnishings should be provided, in the form of benches, streetlights, and other amenities, and buildings should be built at the sidewalk's edge, with setbacks granted for café seating or civic gathering spaces. Ample parking is provided at the curb, and may be supplemented by additional off-street parking.

Movement:	Two way traffic
Intersections:	Signalized major intersections Unsignalized minor intersections
Location:	TND core areas with commercial and mixed uses
Speed:	25 mph max
Lanes:	One lane in each direction, 11' lanes
Right of Way:	61' (variable per conditions: 58'-70')
Parking:	On street parallel parking, both sides of street
Sidewalks:	12', both sides of street
Paved Edge:	Curb, or curb and gutter; underground drainage
Landscaping:	Street trees in grates, appox. every 40'
Hardscaping:	Delineated crosswalks, street lights, bollards

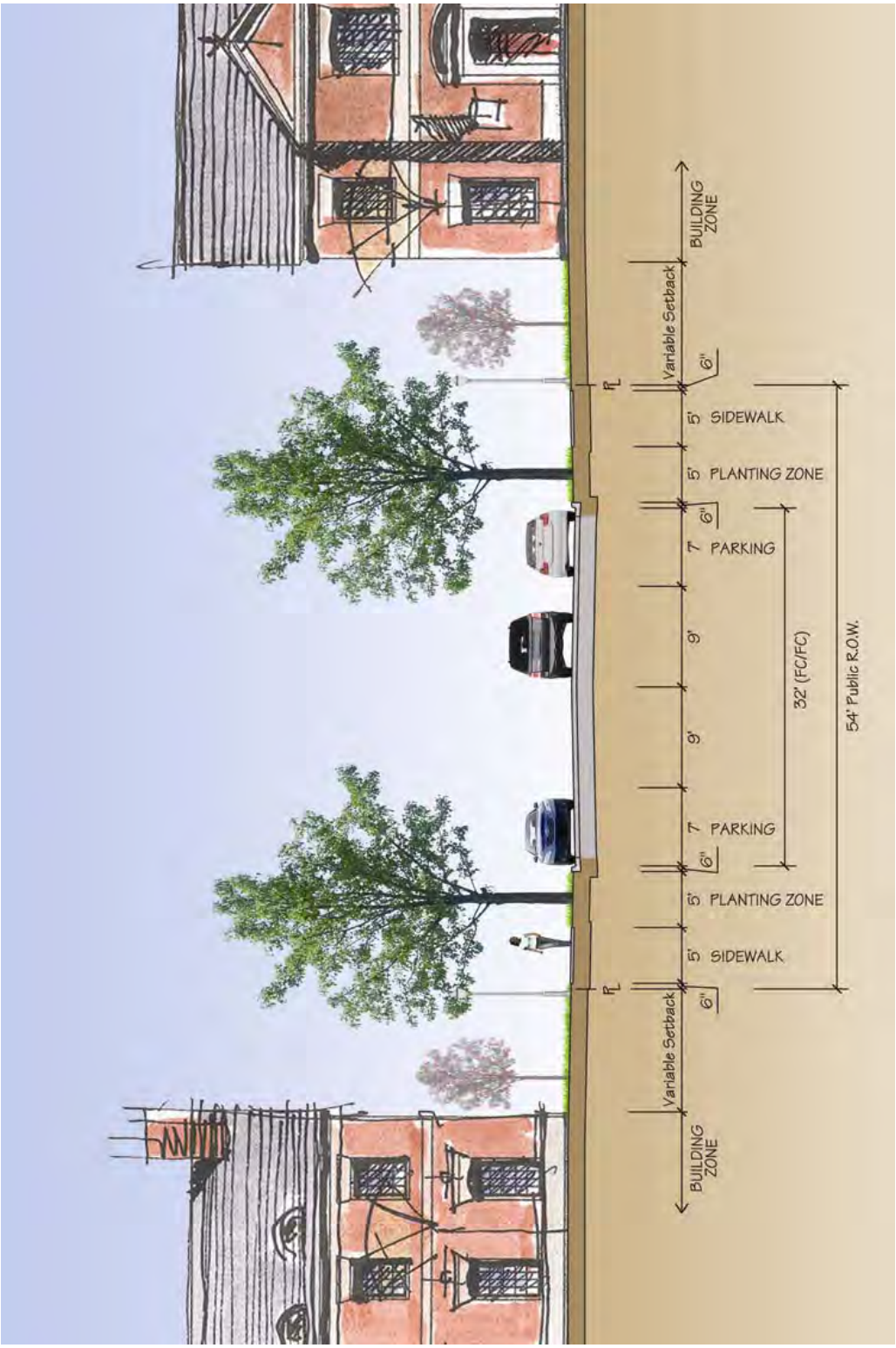
Model Village Center (Uptown) Street

Residential Street

Residential streets within Traditional Neighborhood Developments must provide convenient vehicle access to neighborhoods, but must also be conducive to a quiet and safe neighborhood character. This street design can be used as the primary public street within TND residential neighborhoods. It serves as the neighborhood's spine, providing access to residential blocks and connections to the mixed-use core and external roads. The section design is compact, with narrow lanes that slow vehicle speeds to create a quieter neighborhood environment that is safer for pedestrians. This street section design includes sidewalks on both sides, separated from on-street parking and travel lanes by landscape and tree planting zones.

Movement:	Two way traffic
Intersections:	Unsignalized intersections
Location:	TND residential and transitional areas with residential uses
Speed:	25 mph max
Lanes:	One lane in each direction, 9' lanes
Right of Way:	54'
Parking:	On-street parallel parking, both sides of street
Sidewalks:	5', both sides of street
Paved Edge:	Curb, or curb and gutter; underground drainage
Landscaping:	5' planting strip behind curb Street trees appox. every 40'
Hardscaping:	Delineated crosswalks

Model Residential Street



One Way Street

Within the TND, a one way street is sometimes desirable, whether it is necessary to save space, improve traffic organization, or increase pedestrian safety. It is best though, that one way streets be used sparingly, and only for short distances, as they make it harder for vehicles to navigate, especially for those unfamiliar with the area. When a one way street is used, landscape quality and pedestrian amenities should not be sacrificed, even though the street might be of minor importance to cars.

Movement:	One way traffic
Intersections:	Unsignalized intersections
Location:	TND residential, commercial, and transitional areas with short blocks length, and low expected traffic volumes
Speed:	25 mph max
Lanes:	One lane only, 13' lane width
Right of Way:	42'
Parking:	On-street parallel parking, one side of street
Sidewalks:	5', both sides of street
Paved Edge:	Curb and gutter (urban areas and new construction)
Landscaping:	Street trees and screening
Hardscaping:	Delineated crosswalks

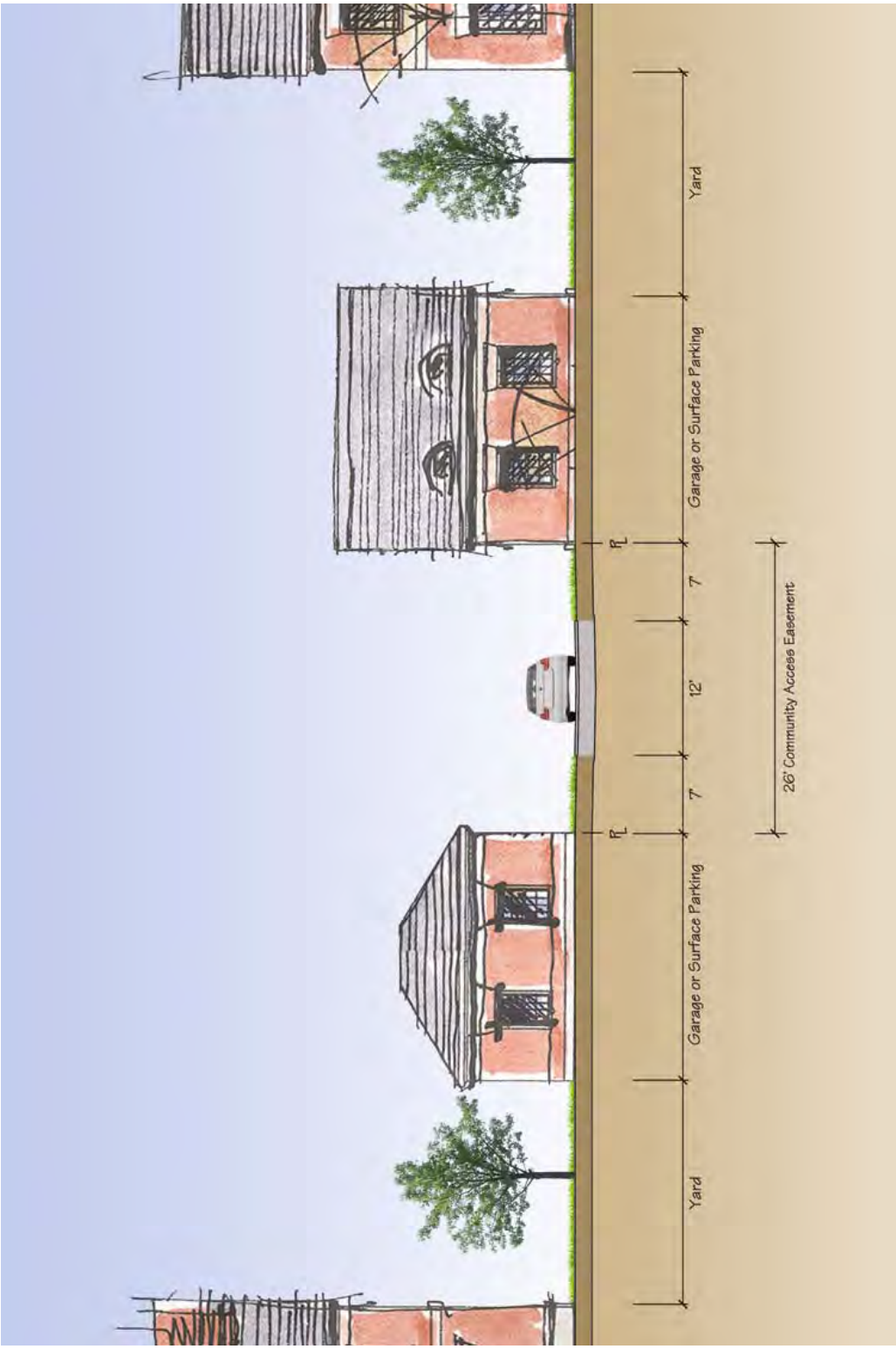
Model One Way Street

Alley

The goal of the TND street is to add amenities that increase the street's usefulness to all street users while removing certain street elements that obstruct non-car street users. The use of alleys helps to relocate some street elements that obstruct pedestrians, yet are necessary to the function of the neighborhood. Alleys are narrow, very low volume vehicular paths located mid-block to provide access to the rear of TND homes or businesses. In TND construction, garages are located on the alley, as is any off-street residential parking. Alleys may also be used for trash pickup, utility service corridors, or occasional loading zones. The alley may be maintained as a private street under the authority of a home owners association, or in some circumstances, dedicated as public access. With utilitarian functions moved off of the main street, the usefulness and attractiveness of the neighborhood street is enhanced.

Movement:	Very low volume, two way traffic
Intersections:	Unsignalized
Location:	Limited, mid-block for rear garage or service access
Speed:	5 mph optimal
Lanes:	Single, unmarked 12' travel way
Right of Way:	Private access easement, variable width
Parking:	No on-street parking
Sidewalks:	No sidewalks required
Paved Edge:	No curb
Landscaping:	None required
Hardscaping:	None required

Model Alley Street



Other TND Features

Pedestrian Improvements
Any development within an Urban Development Area should function as a pedestrian-friendly environment favoring Traditional Neighborhood Design precepts in which residents have convenient walking access within the development, as well as access to amenities, goods, and services in other parts of the community. Any TND development proposal should include standards for the location and design of all sidewalks and trails necessary for complete pedestrian accessibility throughout the community.

Sidewalks should be provided along all public streets within the UDAs. Sidewalk locations, as well as design and construction details, should meet all state and local requirements for adoption into the public street system, and should also meet ADA requirements where applicable. Sidewalks should generally be at least 3 feet in width, with wider sidewalks necessary in the most dense and active areas of TNDs. Crosswalks should also be included, and should be well marked.

Pedestrian trails can be provided within public spaces and common areas, forming a more passive off-street circulation system connected to the traditional sidewalks located in the public street rights-of-way. Whereas sidewalks follow the streets and are built of durable materials, paths might curve throughout parks and open space and be built of gravel or other natural materials.

Fences and Walls
In general, Traditional Neighborhood Development rules should approach fencing with broad flexibility. The design of fences for residential neighborhoods should be coordinated to the extent possible to maintain an ordered look to neighborhoods. Fences should also be built of quality, durable materials. Walls, whether for privacy or as a landscape retaining wall, should be built of quality, attractive materials, and designed with the overall look and feel of the neighborhood in mind.

Benches and Other Hardscape Improvements
Benches, tables and other outdoor furnishings are an amenity to pedestrians in any TND, and should be provided in public parks and civic spaces. The style of these should complement the overall look of the neighborhood. Trash receptacles should be provided in parks and other places where people are expected to gather.

Building Form and Massing

The objective of architectural design for a TND project should be to ensure a continuity and compatibility amongst all architectural elements and to maintain a high level of quality and design excellence. While it is not the intent to legislate taste, building forms in a TND community should achieve compatibility in scale, visual order, rhythm, and proportion. The scale of building elements (roofs, doors, windows, porches, columns) should be chosen with the pedestrian in mind and should be proportioned to building's height and volume. Visual order is achieved through a consistent use of these elements in individual buildings. The coordinated repetition and massing of building forms and architectural elements achieves a proper rhythm of neighborhood buildings.

Landscape Design

One of the distinguishing features of Traditional Neighborhood Development is the coordination of streets, buildings, and landscape into a cohesive whole, rather than a group of disparate parts as in typical suburban development. The coordination of these elements is essential to the livability and vitality of Virginia's most attractive towns and cities, and is sorely missing from others. Landscape forms associated with streetscapes, buffer areas, and other landscape zones will be important ingredients in the success of UDAs as ordered village areas, rather than merely intensive subdivisions.

This section establishes landscape expectations for projects within Urban Development Areas, including design concepts, types of plants, and maintenance standards.

Grading and Building Sites

The compactness of Traditional Neighborhood Design, including its emphasis on pedestrian activity and buildings sited closer to streets, means that relationships between buildings and landscape are much more obvious than in other types of development. Landscape improvements within the UDA's major development categories; Village Core areas, Transitional areas, and Residential areas, should focus on complementary landscape forms, patterns, and materials to create an ordered appearance.

In general, it is desirable for residential dwellings to be slightly elevated above public streets to improve aesthetics, visibility, and site drainage. Where buildings are lower than street level, special landscape and hardscape attention should be given to the street's edge with private lawns, creative sidewalk placements, or civic spaces.

While not possible in every case, buildings within the same neighborhood grouping or cluster should have coordinated finished floor elevations and/or massing and details which relate the individual buildings to each other. Berms, when they are used, should be gently curved and rolling at an appropriate scale. Artificial-looking earth mounds are not recommended.

To reduce potential environmental impacts, site designs should minimize the extent of mass grading within the community. All site grading should be done in a way that preserves existing trees and vegetation when possible. A maximum slope of 3:1 around exterior building walls should be maintained, provided that retaining walls may also be necessary in some instances to preserve existing vegetation and to create an attractive landscape.

Existing natural areas, passive open spaces, and pocket parks situated outside building zones should be treated as parts of a community-wide system of open spaces to enhance the visual character of the community.

Plant Materials

The following standards should apply to plants, trees, and other landscape materials in order to create the desired visual harmony among the individual development areas within UDAs. All plant material should be selected from varieties that are native to Virginia whenever possible.

All streets within TNDs should have a regular pattern of street trees for aesthetic value, and to shade sidewalks. Street trees should generally be placed 40 to 60 feet apart, and planted in a landscape zone provided as part of the street section design, or in large, permanent planters or tree grates as necessary.

Ornamental trees should be provided in residential yards, parks, and in landscaped areas of the Village Core for accent and visual emphasis.

Evergreen trees should be used at strategic locations for screening and buffering due to their dense foliage, but also incorporated into landscaping in parks and civic spaces to enhance aesthetics during winter.

Deciduous shrubs should be used as accents on private residential lots, as well as in parks, commercial areas, and other community spaces. Shrubs can be used for visual interest, as well as for screening of items like utility meters and HVAC equipment.

Areas of grass and ground cover can be used in a variety of applications, including hillsides, as a way to control erosion and runoff, and park spaces for recreational use. Care should be taken to use grasses that require as little maintenance as possible.

Landscape Maintenance

Property Owners' Associations or Business Associations should be used to maintain streetscape and ornamental landscaping within condominium-type residential and business districts. Where parks or other open space are dedicated to public use, these spaces should be publicly maintained. Landscaping within other residential areas will be maintained by individual lot owners. In all cases, proper maintenance should be encouraged, with neighborhood covenants as necessary, to maintain an attractive and vibrant community life. By carefully choosing plant materials, including native species, at the outset, some maintenance effort can be saved.

Parks and Open Space

The TND master plan should establish the type and quality of an Open Space and Recreation System for civic space, parks, passive open space, recreation areas, buffer areas, and protected natural areas. In general, the open space and recreation area system in and around a TND should be located and designed to provide a range of opportunities for outdoor activities. TND projects should provide usable open space features that are within the TND pedestrian system. These open space and recreation areas should be interspersed throughout new development, and connections to existing parks, trails, or recreation sites should be made whenever possible. Centrally located and appropriately scaled neighborhood parks should be included in new TND projects. Streams, creeks, wetlands and other natural corridors located in or near UDAs or other in-town development should be preserved as Greenways or Stream Valley Parks. Park and open space areas should be permanently reserved for community use, and should not be occupied by residential or commercial buildings, parking lots, private residential yards, easements, setbacks, and streets except in support of recreation activities. A variety of open space types should be pursued throughout the community, including Parks, Greenways (or Stream Valley Parks), Squares, Plazas, Playgrounds, Community Centers, Trail Systems, Pocket Parks and Community Gardens.

1. *Stream Valley Park or Greenway: A natural preserve available for unstructured recreation. A park may be independent of surround building frontages. Its landscape shall consist of bicycle and/or pedestrian paths and trails, meadows, woodland and open shelters. Parks may be lineal, following the geographic form of natural corridors.*

2. *Green: An open space, available for unstructured recreation. A green may be spatially defined by landscaping rather than building frontages. Its landscape shall consist of lawn and greens, naturalistically disposed.*

3. *Square: An open space surrounded by public streets lined by buildings with entries and windows. It has trees at its edge to define the space and to provide shade and it is open at its center. It has both paved areas and grassy areas.*

4. *Plaza: An open space, available for civic purposes and commercial activities, that is spatially defined by building frontages. Its landscape shall consist primarily of pavement with street trees and such features as statues or fountains. Plazas shall be located at the intersection of important streets.*

5. *Playground: An open space designed and equipped for the children's recreation. Playgrounds shall be interspersed within residential areas. Playgrounds may be included within parks and greens, but generally should not be in Squares or Plazas.*

6. *Community Center: A combination of built and natural recreational features concentrated in one area or parcel including, club house building, restrooms, pools, tennis courts, picnic areas, and accessory facilities.*

7. *Trail System: A network of multi-modal (walking/bicycling) paths designed to provide distinct areas for recreational travel and use separate from traditional sidewalks. Trails can be constructed of a variety of material including, but not limited to concrete, brick, masonry paver, gravel, and mulch.*

8. *Pocket Park: A small park/open space centrally located amongst residential components for any project, whose main purpose is the provision of passive recreational opportunities. Though the space is required to be accessible from public infrastructure networks, no amenities are required or desired for such areas.*

Stormwater Management and Best Management Practices

A TND rezoning application should contain documentation satisfactory to the City that a system of best management practices (BMPs) and stormwater management (SWM) improvements can be implemented. Rather than constructing SWM/BMP facilities on a lot-by-lot basis, a more regional, comprehensive approach should be developed to address the stormwater runoff of the TND and its watershed. The environmental goal should be to make downstream runoff conditions better than current conditions. The use of contemporary Low Impact Development improvements is highly recommended.

In conjunction with a rezoning application, the applicant should be required to prepare a comprehensive Stormwater Management Master Plan in coordination with the City addressing the contributing drainage sheds intersecting the property. The study would include preparation of preliminary hydraulic and hydrologic engineering designs for an integrated system of on-site stormwater management facilities to further establish the feasibility of the stormwater or floodplain improvements as depicted on the master plan.

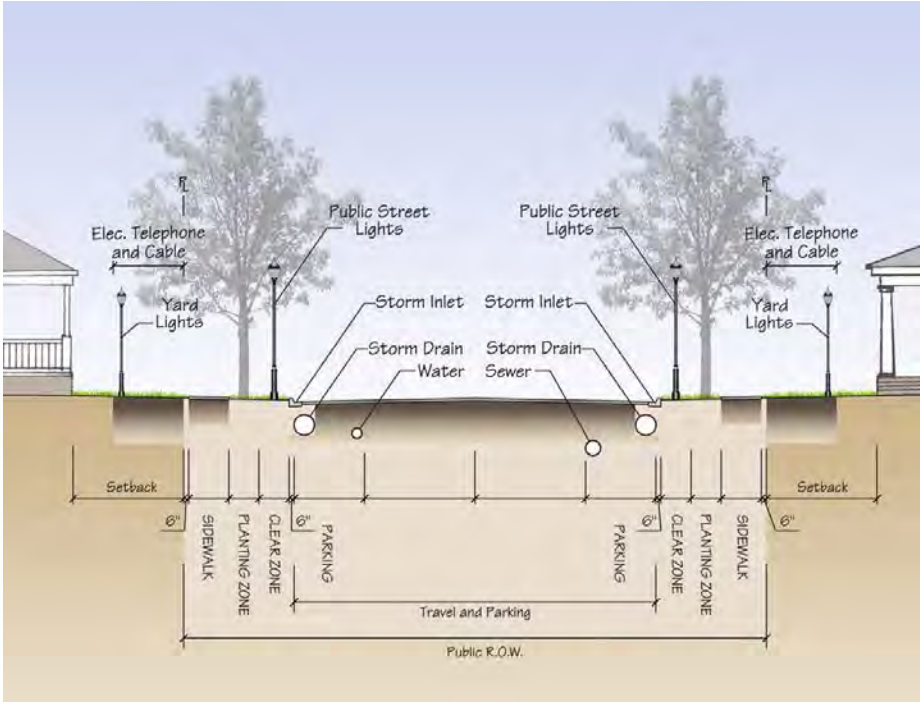
Where TND projects incorporate floodplains and stream valleys, the master plan should integrate the design for the stormwater management facilities into a comprehensive stream valley open space, parks, and trails system that benefits the entire community. In addition, the applicant should be required to develop a program for the perpetual maintenance of on-site stormwater management facilities, floodplain areas, and related improvements that is acceptable to the City.

From an environmental management standpoint, SWM and BMP facilities should be protected and maintained during the construction process, and, upon completion, they should be maintained by either a property owners' association or the City. It should be the responsibility of individual lot developers to provide this protection during construction and to ensure that both SWM and BMP capacity is maintained throughout. Where LID and BMP facilities are to be constructed on private lots (and which are not otherwise publicly maintained), the maintenance should be the responsibility of the individual lot owner.

Utilities

The goals for compact development set by the Urban Development Area legislation cannot be reached without the provision of similarly compact public water, sewer, drainage and other essential utilities. Highly coordinated designs for public utility systems require less space than would otherwise be consumed by conventional easements. Further, they allow homes to be placed on much smaller lots than would be necessary if they were to be served by only on-site well and septic systems. Traditional Neighborhood Design densities and street section configurations also mean that stormwater runoff will often be handled by a curb and gutter setup with underground piping to convey collected surface runoff, rather than by ditches. In addition to water, sewer, and stormwater, other infrastructure such as gas, electrical, communications, and television cable are typically provided in TND construction.

Utilities should primarily be located within public street rights of way in order to allow full use of buildable areas, facilitating the desired shallow setbacks typical of TND construction. In addition to these rights of way, utility easements may also be established within the rear alleys that will serve many TND neighborhoods. To achieve this goal, easements of reduced width as well as shared easements are appropriate for this type of neighborhood. In certain cases, common, shared, or overlapping easements for water, sewer, and drainage improvements will be needed to achieve the desired street sections and building lot placements. City officials will likely need to lead in the coordination effort, given the suburban mentality of many local utility agencies to protect their own easement territory.



VIII.

- Transportation Benefits of TND -

VIII.

TND Transportation: Benefits and Opportunities

Transportation Efficient Land Use

With its grid street pattern, streets designed for pedestrians and bikes as well as cars, and emphasis on placing commercial and residential uses in close proximity to each other, Traditional Neighborhood Development within the Uptown UDA has the potential to add to the area's already beneficial transportation framework. As it now stands, Uptown has the compact grid of streets typical of TND planning. The area has ample pedestrian facilities, but lacks the vitality and mix of uses to encourage pedestrian activity.

Encouraging Traditional Neighborhood Development patterns in Uptown can offer certain transportation benefits as this area of the City grows, including generating fewer, and shorter, car trips than the more suburban system seen along Commonwealth Boulevard and in other suburban areas. The rise of Traditional Neighborhood Development as a planning and land use trend over the past 20 to 30 years is due in part to its many advantages and benefits when compared to conventional suburban planning and development patterns.

The benefits of strengthened transportation planning in the Uptown UDA can extend to everyone who lives and works there, and also to local government and citizens of the larger region. Many of the benefits of TND streets can be measured in terms of increases in system capacity, greater choices to satisfy travel demands, shorter travel times, construction cost savings, and reduced maintenance. On the other hand, other (equally important) attributes are linked to less scientific quality of life, esthetic, and safety factors.

Reduced trip generation and internal capture

A well planned TND street network for Uptown has a distinct advantage over outlying transportation patterns in that it can reduce the overall traffic burden on a locality's regional traffic system as well as the number of vehicle trips that are generated by a given amount of new development. A main focus of TND communities is their mix of uses that combines residential, civic, institutional, and commercial uses into one area, as opposed to creating enclaves or isolated development modules each serving a different use. A resident of Uptown should be able to complete certain daily tasks, like grocery shopping, dropping a child off at school, or going out for a meal, without leaving the area. With tighter knit neighborhoods, the vehicle does not need to be used to satisfy each and every trip purpose.

In contrast, these same tasks in a single use suburban community would require leaving a residential development and driving on an arterial highway or major collector road to a commercial development. Trips by TND residents that are made without leaving the TND are called internal capture. These are trips that are shorter, more accessible, safer, and, in some cases, can be substituted by pedestrian trips.

When analyzing traffic impacts for new developments, the Virginia Department of Transportation allows for the possibility that up to 15% of all trips by TND residents will be internally captured. This means 15% less traffic placed on existing external roads, which can lead to savings in road widening, turn lanes, and signalization. However, actual case studies comparing TND to conventional suburban projects in Virginia and other states have realized even better rates of internal capture, with 20%-25% of trips staying within the TND.

In this way, a well planned mix of uses, with residences in closer proximity to employment and shopping needs, has the potential to reduce overall traffic on Uptown's major connectors by significant rates.

Increased transportation system capacity

The key difference between TND street patterns and those found in conventional suburban developments is TND's use of an interconnected grid of streets, while most sprawl subdivisions use a disconnected pattern of streets with many cul-de-sacs and several high-volume collector roads. The overall effect of the TND grid pattern is to divide neighborhood traffic between many small streets rather than concentrate it on a few large collector roads.

Traffic analyses employing commonly accepted Highway Capacity Manual calculation methods for these two types of street networks clearly reveal that a compact network of small interconnected streets has more traffic capacity than the same street area combined into large collector streets. Intersections, not travel lanes, control the capacity of a street system, and left hand turning movements represent the critical factor that impacts capacity reduction. The typical TND network reduces the loading of left hand turning movements by distributing traffic to and through a larger number of intersections, allowing the entire system to carry a greater load. The net benefit is fewer travel lanes, fewer traffic signals, and fewer traffic accidents while increasing overall system effectiveness.

Reduced traffic times and Less signal wait

While TND streets have many small, relatively quiet intersections, a locality's major collector and arterial roads typically have very large, complex intersections. All internal TND streets should be considered "local" with the express purpose of providing direct access to community land uses via narrow travel lanes with on-street parking. More complex collector intersections require multiple lanes, a variety of turning lanes, and traffic signal cycles for a variety of movements, all leading to longer waits at traffic lights and reduced system capacity. The transportation network goal should be to plan for sufficient intersections within the community in order to stay below the traffic warrant thresholds for signalization. When the TND pattern spreads traffic over several smaller roads, traffic at these intersections may fall below rates at which signalization is warranted, or, if a signal is necessary, its cycles will be less complex and less time consuming.

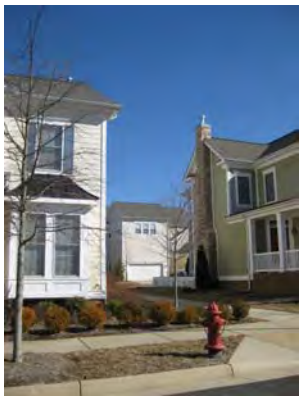
Relationship to regional traffic network

An additional feature of TND street patterns is the interconnections of adjacent TND developments. Sprawl subdivisions are typically self-contained, having a single entrance from a major collector road. This is common to many rapidly growing Virginia localities that have experienced increased frontage development pressure on their arterial highways but little in the way of contiguous collector and local street improvements. This means that to visit an adjacent development, a resident would have to drive onto a major collector road and then enter the adjacent development.

While traffic engineers ascribe high capacity ratings to arterial and major collector roads, in reality their functional capacity and operating speeds are often much less than predicted. Arterials located in locales that lack interconnectivity attract dense commercial growth along their frontage. In effect, traffic is funneled to commercial centers from a wide catchment area, creating traffic characteristics that are unbecoming to the original purpose of the arterial.

Regional arterial systems are not designed to function well with high levels of frontage access, but commercial traffic cannot be restricted unless local zoning laws become extremely onerous. The latter is fraught with political obstacles. The result is increased travel time and trip distance while further diminishing the capacity and function of the existing system. Over time, as arterial traffic increases, the trend is to add lanes to the existing system rather than building another way to access the developed commercial areas, such as recent improvements to widen the southern-most stretch of Route 17 in Uptown, and this rarely fixes the problem.

With TNDs, connections to adjacent developments are encouraged as part of an overall grid street system. In this system, a TND resident can access adjacent developments using internal streets built by the TND developers instead of using the external collector road that must be improved at public expense. An interconnected TND system also benefits by accommodating reasonable levels of diverted traffic movements when other peak-hour routes are operating at full capacity. In a region that grows by building multiple TNDs, regional traffic can be shared over many roads rather than crowding a single collector. In Uptown, TND growth might contain local traffic, preventing some car trips from ever needing to use outlying roads like Commonwealth Boulevard. The Virginia secondary street acceptance requirements (SSAR) provide effective guidelines for VDOT and localities to coordinate and promote interconnectivity between future developments.



Pedestrian and Non-car trips

The density, mix of uses, and connected streets that are key features of all TNDs make it possible to navigate new development, and possibly nearby areas, without a car at times. TNDs should ideally place new residential development within a walkable distance of new and existing commercial development. While this doesn't mean that cars aren't necessary in TND communities, it does mean that certain trips, for shopping, dining out, or visiting neighbors, might be short enough to consider walking or bicycling. The narrower TND street with a more compact intersection design and smaller curb radii better accommodates pedestrians and cyclists in a safe and comfortable way to make non-car trips more desirable. TND transportation guidelines encourage reduced lateral clearance between the street lanes and street

trees and other forms of landscaping, thereby creating a natural, more attractive form of traffic calming. Further, with a well planned, interconnected street system, pedestrians and cyclists have the option to select safer and quicker routes based on their knowledge of real-time traffic conditions in their neighborhoods.

The number of trips made without a car will vary widely depending on the features of the town cetner, as well as factors like weather. However, case studies of TNDs reveal high levels of internal traffic capture, showing that among people shopping and dining in TND commercial areas, as many as 18% had traveled there on foot. This represents an 18% reduction in traffic over single-use suburbs where no walking trips are possible due to long distances and unfavorable conditions between residential and commercial areas.

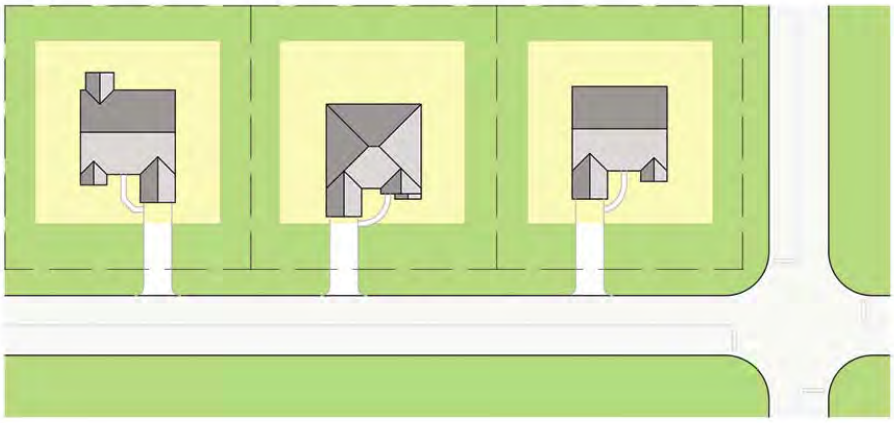
The challenge for future improvements in the Uptown UDAs will be to add to an already excellent pattern of city streets, while encouraging land uses that take full advantage of new and existing pedestrian facilities. Significant development proposals within the designated UDAs should plan for transportation facilities as they apply to (a) interconnectivity, (b) intersectional capacity enhancements, (c) upgrade of existing streets, and (d) integration of new street systems with existing streets.

TRANSPORTATION & INFRASTRUCTURE SAVINGS

Shorter streets

Due to TND densities of four or more units per acre, a TND with a given number of units is much more compact than a conventional suburb containing the same number of homes. This means more homes on a given length of street. Individual house lots in this dense configuration have a much narrower street frontage than do conventional lots, and the grid orientation neighborhood streets reduces the sometimes meandering interconnections between suburban subdivisions.

The examples below show a hypothetical 420-foot street frontage in both a Traditional Neighborhood Development, and in a more typical suburb development. In the suburban model, wide streets lead to long driveways that access homes set well back from the street. Existing residential in Uptown tend to fit this model, with relatively large, underutilized and undermaintained lots. With lots at ½ acre each, in the below example this 420-foot section of street serves only 3 houses. The TND street has narrower lanes, but provides parking on the street. Houses are close to the street, with garages on an alley in the rear. With lots from 20 to 70-feet wide, the same 420' length of street accommodates 10 houses.



Narrower streets

Traditional Neighborhood Developments are typically designed around much narrower street cross sections than those found in conventional suburban subdivisions. These narrow streets serve to slow traffic, increase safety for pedestrians, help meet the community's goals of higher density, and also to lower infrastructure costs. These narrow streets of course require less surface pavement, but also save on foundation materials, pavement depth, turns lane length, and other factors due to their lower design speed. Existing narrow streets in Uptown, with ditch drainage and no sidewalks, could easily be upgraded to better meet the street section guidelines presented earlier.

On-street parking

Parking within the well-designed TND is primarily found along streets and not in large surface lots at the front of buildings as in many sprawling suburbs. This means less pavement overall dedicated to parking as parking lots provide spaces and aisles, while on-street parking uses the travel lane to serve the aisle function. Many conventional residential suburbs actually are planned for on-street parking, but with ample private driveway access in front of each home, the on-street spaces are very inefficient and rarely used. Outside of cost alone, this on-street parking solution is more attractive, brings buildings closer to the street, and serves pedestrians better than suburban methods.

More Efficient Utility Systems

Another result of TND density is the ability to serve larger numbers of homes with shorter lengths of utility infrastructure. As with roads, more homes are served by a given length of service for sewer, water, electric, and other public services. Storm drainage needs can be incrementally reduced by virtue of less pavement and impervious surface. While increased density may mean a more complex infrastructure within the TND, the greatly reduced length can greatly reduce capital and maintenance costs for these services.

In addition, narrower streets allow for shorter lateral stub-outs to individual lots for public water, sewer, electricity, gas and the like. For TNDs to achieve the desired intent, it will be necessary in many jurisdictions for VDOT, quasi-public utility agencies and local governments to rethink and revise suburban engineering standards for compact infrastructure, alignments, shared easements and rights of way, and reduced geometric requirements.

The combined effect of the instances of infrastructure savings mentioned here is to reduce the cost of building TND developments as compared to conventional suburban sprawl developments. This effect has been measured in a 2009 study for the EPA to be an infrastructure savings of between 32% and 47%. Also, while these benefits to transportation and other infrastructure and directly measurable, TND communities present additional aesthetic and quality of life benefits that, while difficult to measure, are no less important.

OTHER BENEFITS

Safer Streets

The inherently slower speed of TND streets, such as those presented earlier in this document, when compared to highways and suburban collector roads means greater safety for drivers and pedestrians alike. With cars slowed to reasonable in-town speeds, pedestrians are more easily seen by drivers and have more time to cross streets to reach their destinations. Slower automotive speeds also increase safety for drivers, with damage and injury reduced when collisions do occur. A study by Swift and Associates determined that the safest streets were those built 24 feet wide. Despite this, many suburban zoning codes require streets to be built at a minimum of 36 feet wide.

Transit Compatibility

The benefits of public transit are well established, including reductions in traffic and parking demand, as well as cost savings to the individual transit commuter. However, transit cannot deliver these benefits when combined with the low densities of outlying suburbs. A transit stop must be located within a short walk of a substantial number of homes or businesses in order to make the transit system useful. The compactness of TND and in-city neighborhoods like Uptown makes public transit a viable option.

Improved emergency response

Another safety issue presented by sprawling and disconnected suburban streets is their effect on emergency response by fire and rescue services. Sprawling suburbs mean longer distances to travel between fire and rescue facilities and some homes, while the disconnected nature of cul-de-sac streets means traveling indirect routes to answer calls. The proximity and connectivity of TND communities has the potential to shorten emergency response times.

Less time spent traveling

Density and mix of uses puts daily shopping, employment, and entertainment needs within much closer proximity to residential areas. This proximity reduces time spent commuting and adds to residents' free time.

Quality of life

Quality of life in TND communities is difficult to measure but is apparent in more ways than one. The goal is to create roads and neighborhoods that have a human scale and functionality. TND communities might be described as healthy for two principal reasons. First, these places tend to have much greater levels of neighborhood social interaction, with residents experiencing a sense of belonging to a community. In effect, they are more "livable". This community vitality promotes the development and serves to attract new residents and businesses, as well as to further promote the TND pattern for future developments. Second, the individual residents of a TND may see health benefits from walking or bicycling within the community in ways that aren't seen in conventional suburbs due to the safety concerns of walking or cycling where appropriate facilities are not present, or where greater travel distances and high speed traffic discourage anything but automobile travel. Right of way landscaping, civic spaces, street lighting, clearly identified crosswalks, and coordinated streetscape elements also attribute to the quality of life in a TND.

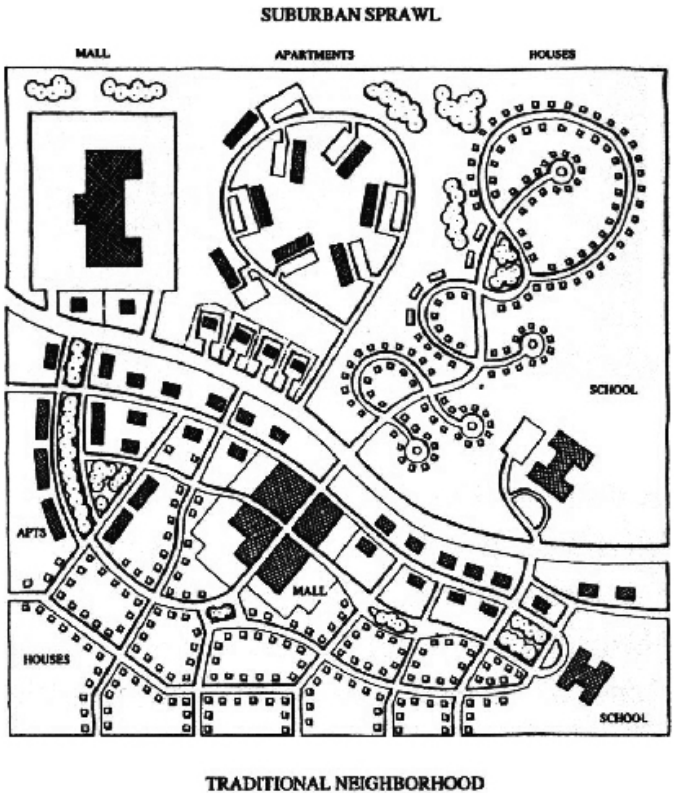
Sources:

Smart Growth and Conventional Suburban Development: Which Costs More?
Traditional Neighborhood Development: Will the Traffic Work?
Emergency Response and Street Design
Defining and Measuring the Sustainable Transportation Network
VDOT TIA Guidelines
UNC TND Trip Generation Study

Traffic Impacts: TND vs. Conventional Development

The major transportation goal for the two locations selected for the Martinsville UDAs should be to promote scaled, interconnected streets that supplement a coordinated urban street network within the City. This will require both new transportation improvements with the UDAs as well as coordinated traffic engineering strategies to reduce traffic volumes. This section addresses the latter: *traffic reduction*. The overall aim is to reinforce a transportation network for the designated UDAs – incorporating both on-site and off-site improvements – in order to (1) reduce pressure on the existing City street system in and around the Uptown planning area, (2) reduce gross traffic volumes on the City's external street network, and (3) expand both vehicular and pedestrian options for the distribution of Uptown.

This study reveals that traffic patterns influenced by well planned, pedestrian-friendly mixed-use projects in the Uptown area could significantly reduce external traffic impacts on local when compared to traffic created by the "destination" patterns of land development in Martinsville over the past generation. Destination land use patterns are represented by residential subdivisions and isolated commercial and employment centers that have no means of interconnectivity other than via the City's arterials and collector roads. While Uptown Martinsville's historic grid pattern functions well, recent decades have evidenced more scattered forms of land development and strip commercial uses that do not interconnect in an effective and efficient manner.



TND/UDA Development w/Arterial Frontage

Neighborhood street interconnectivity
Commercial access from internal streets
Maximize internal capture and bypass movements
Maximize pedestrian and bike opportunities
Promote neighborhood schools and facilities
System attracts diverted trips

In addition to TND vehicular trip reductions are the potential long-range benefits that will result from *(1) development of compatible alignments for new streets and parking facilities within the designated UDAs, (2) selected ROW improvements to existing City streets, and (3) continued pursuit of more attractive, future alternative modes of transportation (pedestrian, bike, commuter parking, bus service, etc.)*

Employing TND traffic planning principles is crucial to the long-term growth and sustainability of the designated Uptown UDAs. It is clear that (a) limited rights of way exist for major improvements to existing City streets, and (b) available opportunities need to be preserved to secure rights of way and create new streets and pedestrian facilities within the UDAs. In response, it is important that the UDA land use and transportation planning efforts be focused and coordinated to upgrade the character, quality, quantity, and capacity of Uptown vehicular and pedestrian patterns.

TND Trip Analysis Objectives

The preceding sections of "Transportation Benefits" chapter have examined the qualitative transportation benefits and opportunities inuring to the implementation of TND forms of land use in the City, in general, and the UDAs, in particular. While it is not the purpose of this section to present a detailed quantitative traffic impact assessment, it is helpful for comparative purposes to evaluate the daily and peak traffic volumes that will be generated by future demographic and employment demands in Martinsville.

The key traffic planning question to be addressed is: *"Will TND development in the Uptown result in greater or diminished traffic demands and corresponding impacts on the City's existing road network when compared to the "status quo" forms of development in the City over the past several generations?"*

TND Traffic Demand Projections

This section employs the *"simple method"* for comparative traffic projections, revealing only a comparative, macro-level traffic assessment based on the two options for future land use patterns. While this method is an imperfect technique for use in project-specific TIAs (such as VDOT 527 studies), it works well at a macro-level to assess comparative impacts of varying forms of land development.

The technique compares and contrasts traffic volumes that would be generated by:

(1) conventional approaches for land development of future UDA-defined land uses, assuming that were spread throughout the City that would absorb predicted levels of UDA population and employment growth, and

(2) the same amount of UDA-defined growth absorbed by the TND form of development.

The focus of this analysis is to assess the impact on the existing City transportation system, recognizing that it has little room for substantial enhancement and expansion. Thus, the comparative analysis examines only the impacts of future UDA-defined residential and commercial land uses. It does not generate estimates of existing and background traffic created by non-UDA defined uses (manufacturing, warehousing, government, and education).

While there are many factors that can influence the future traffic volumes, it is noteworthy that the "*simple method*" provides a reliable technique to analyze the potential to realize reductions in TND transportation impacts attributable to future growth on its existing transportation system. Since TNDs, by virtue of their compact density, distribute internally generated traffic within a more narrowly defined geographical region, the localized traffic benefit is realized through the distributed patterns for this traffic via interconnected street patterns. This also reduces the concentration of net traffic demands on the external street system at single points of intersection. In contrast, the model reveals that the same development density scattered throughout a much larger geographical area does not benefit from reductions resulting from shared land use patterns.

As previously indicated in this report, the City's population and employment projections have been translated into land use demands for the 2010-2020 and 2010-2030 growth horizons. Regardless of whether these demands are satisfied by the "status quo" land use patterns of prior decades or by compact TND forms of mixed-use within the designated UDAs, the demand-based land use projections represent the independent variable in calculating future increases in traffic volumes. The accompanying chart summarizes the predicted population distribution by housing type as well as the projected employment demands in terms of spatial requirements for new or redeveloped facilities.

TND Traffic Modeling Limitations

There is no consensus amongst state transportation agencies and private sector traffic consultants on the techniques and factors that are used to calculate the traffic a TND project contributes to the surrounding local and regional road net. This is, and will continue to be, the subject of debate between traffic planning experts that extends beyond the scope of this study. In spite of the research, real world experience has shown that this is not an exact science. However, for the purposes of demonstrating the transportation benefits of TND projects, the qualitative and quantitative factors and other assumptions employed by the *"simple method"* allow for an adequate *"big picture"* comparison between (1) compact, mixed-use TND forms of development *and* (2) suburban-styled development patterns characterized by conventional subdivisions and destination uses.

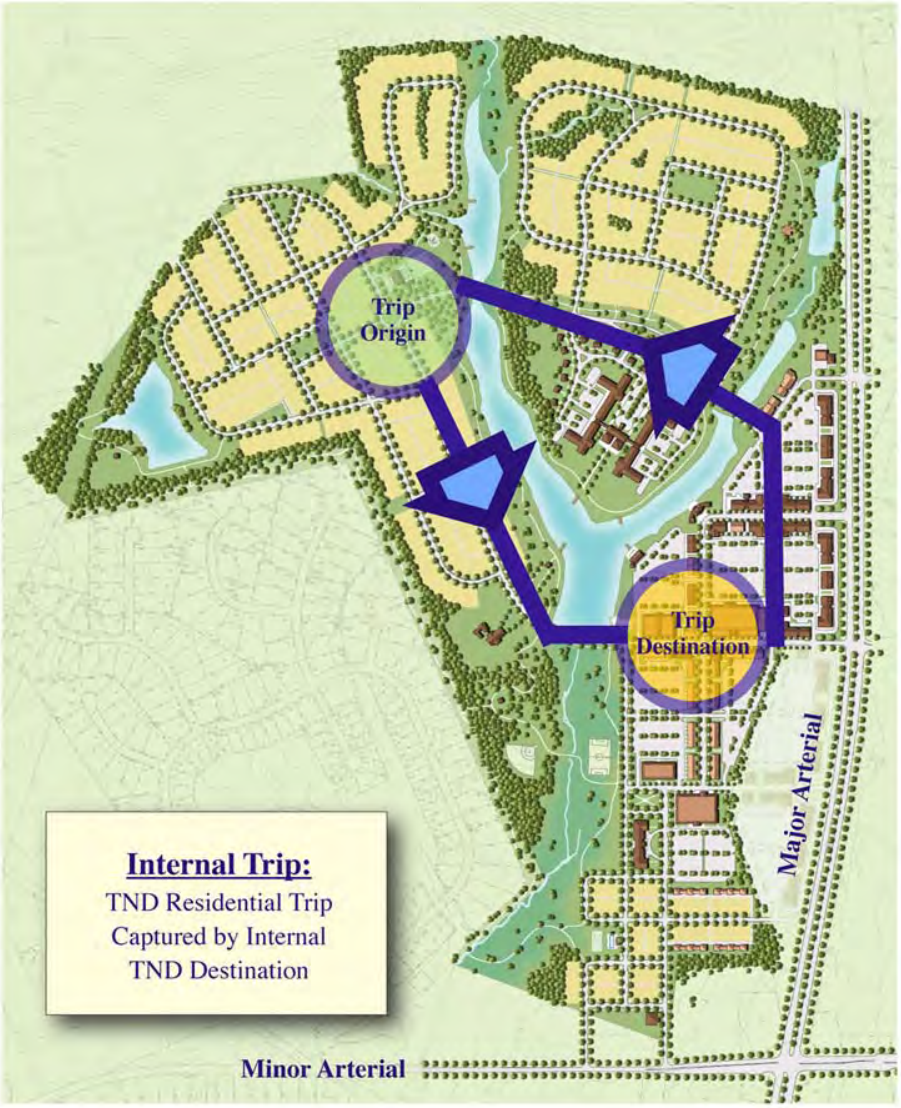
The primary resource supporting the comparative trip estimates in the accompanying *"simple method"* model is derived from the most recent research: "National Cooperative Highway Research Program, Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Development" published by the Transportation Research Board in 2011. The objective of this extensive $250,000 study was to produce a methodology for enhancing internal trip capture estimates that included (1) a classification system of mixed-use developments that identifies the site characteristics, features, and context that are likely to influence internally captured trips and (2) a data-collection framework for quantifying the magnitude of internal travel to and around mixed-use developments to determine the appropriate reduction rates. It determined that the ITE methodology employed by many DOTs throughout the United States have consistently overestimated traffic while it rarely underestimated traffic.

The TRB's research team proceeded to collect and conduct new studies of TNDs in an effort to (1) rethink the efficacy of continued use of certain institutional "rules of thumb" for capture rates, and (2) present an improved methodology for traffic assessments of this form of development. Given that this study presents the most up-to-date, state of the art approach for developing TIA models, it is highly commended to those professionals in the traffic planning field. While the report recognizes the contribution of the methodologies presented in the ITE Trip Generation Handbook, it cites that the framework for mixed-use development traffic analysis is based on a limited set of data and advises professions in both the public and private sector to *"collect additional data if possible."*

Internal Trip Capture for TNDs

The dominant variables in such an analysis are (a) internal trip capture, (b) pass-by trip reductions, and, in special cases, (c) trip diversions.

"Internal trip" capture is one of the unique transportation characteristics of TND projects that distinguish them from conventional (or "status quo") forms of development. Within TNDs, there is a greater opportunity for trips to have both origins and destinations within the project itself. These trips, which are known as "internal" trips, do not typically impact the external street network. As a result, the portion of travel demands that are internal to the City's designated UDAs (as well as the Uptown planning area) results in an external trip generation estimate that is substantially lower than if the on-site land uses are located as stand-alone sites, scattered throughout the City. Thus, the "internal capture rate" provides an essential tool for calculating the TND benefits that are realized from combining pedestrian, bicycle, and other forms of travel mode with residential, employment, shopping, recreation, and educational opportunities that are within immediate proximity to each other.

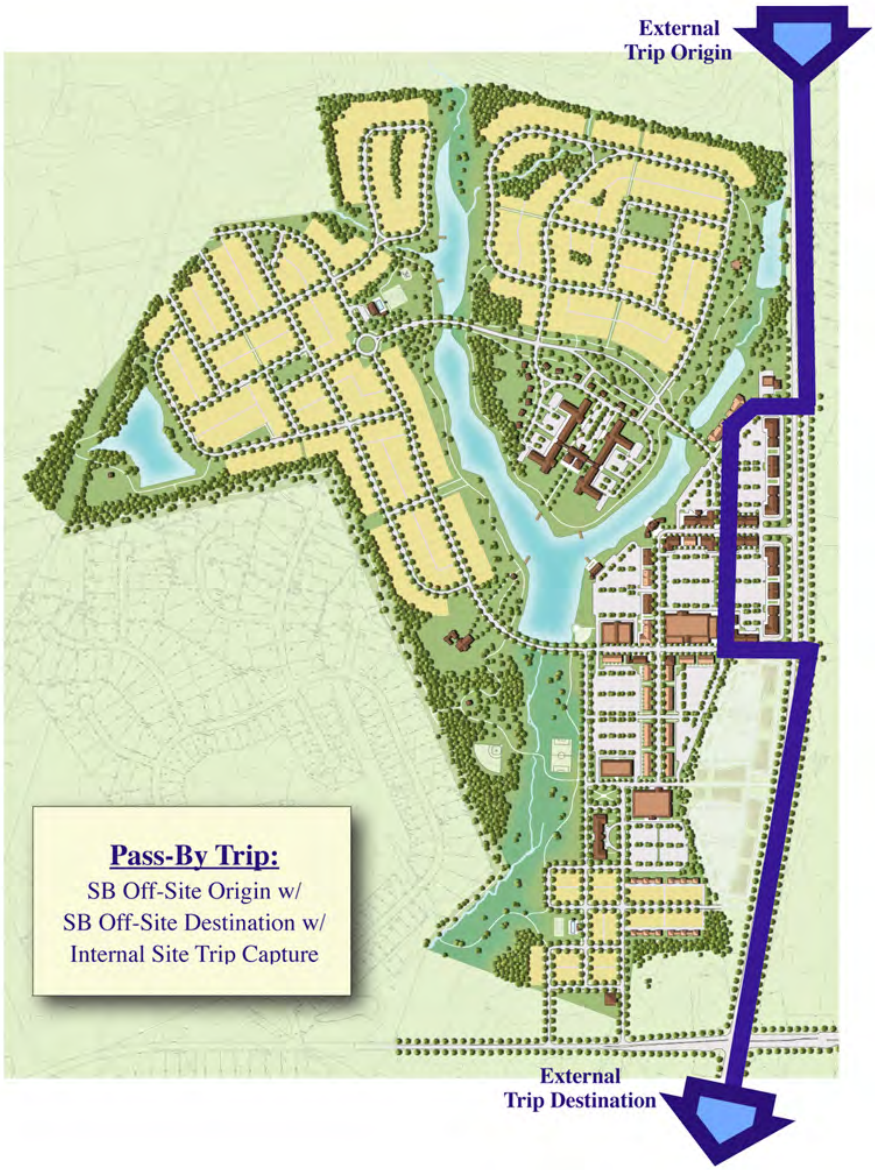


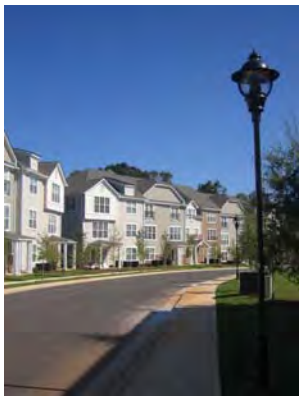
The accurate estimation of internal trip capture for TNDs is an essential element of the transportation planning process. Overestimating internal trip capture could result in the traffic infrastructure around the site being inadequate for the real levels of traffic demand. This would result in breakdowns in level of service and costly future upgrades and right of way acquisition. Underestimating internal trip capture, on the other hand, could lead to excess street improvements and capacity, with the City or developer paying more than necessary to mitigate the traffic impacts of the proposed project.

At present, Martinsville has a relatively healthy, well functioning physical network of grid streets in and around the Uptown planning area. This is coupled with excess capacity within its development infrastructure. However, it is important to consider the long-term impacts of growth, inasmuch as the City will be an attractive location for residential and business opportunities in the years to come.

Pass-By Trip Capture for TNDs

"Pass-by" trips are vehicular trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trip reductions consider trips, typically non-residential, drawn from existing traffic on an adjacent street, recognizing that trips drawn to a site would otherwise already traverse the adjacent street regardless of existence of the site. Pass-by trip reductions allow a reduction in the forecast of trips otherwise added to the adjacent street from the proposed development. For a mixed-use project, pass-by trip rates for retail land uses translate into a modest reduction in retail trip generation for a given use, allowing for total retail trips to be discounted. The traditional method of pass-by trip estimation is regression modeling based on methods described in the Institute of Transportation Engineers (ITE) Trip Generation manual. However, pass-by trips for TND and mixed-use developments are typically larger, due to the overall mix and quality of non-residential development, than those experienced in conventional, scattered development.

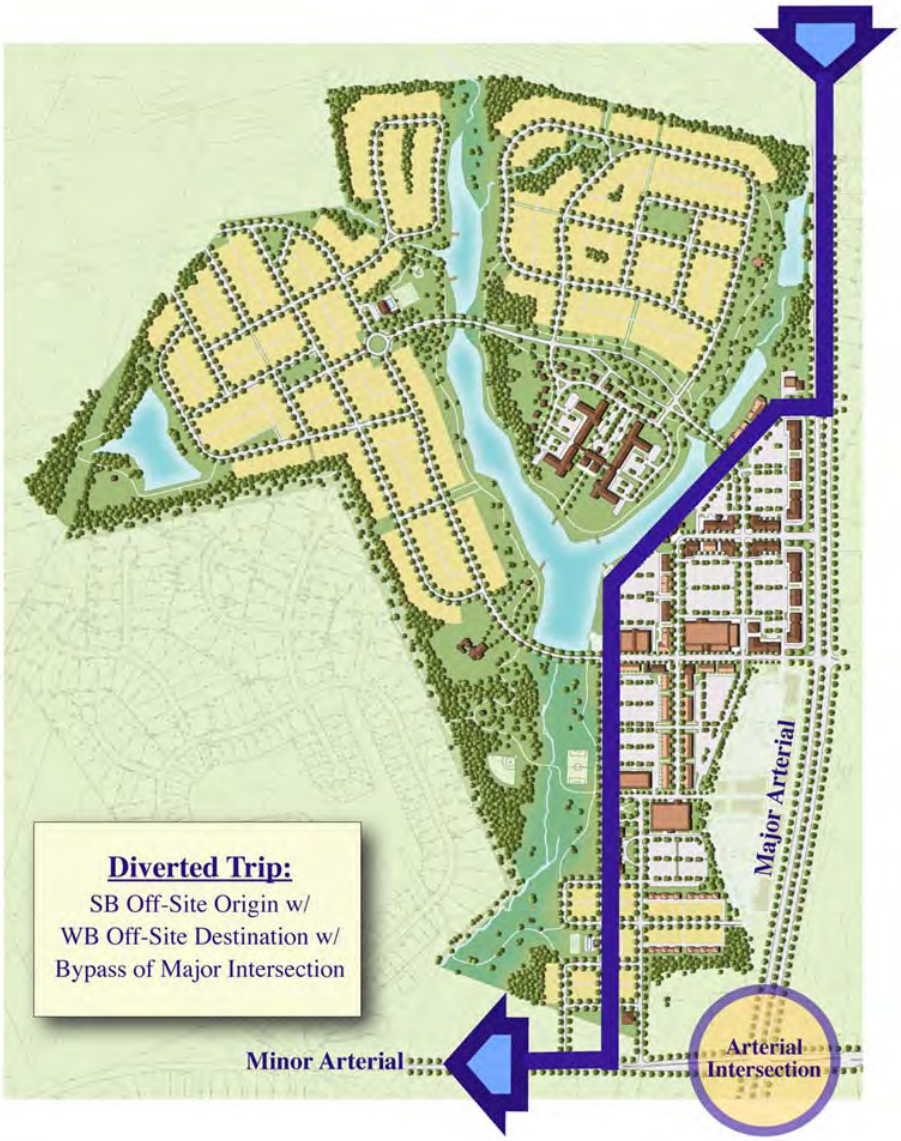




Trip Diversion for TNDs

"Trip diversion" represents a generally unrecognized benefit of enhanced TND connectivity under certain conditions. This benefit is typically realized with TND projects located adjacent to or in close proximity to an arterial or major urban collector intersection where new internal street alignments could capture, transfer and divert TND-generated traffic that would otherwise be distributed through the existing intersection.

This capture component is not typically included in standard "internal capture" ratios. However, it demonstrates the added traffic benefit of well-located projects that provide an enhanced level of interconnectivity benefiting locations contiguous to major intersections. Thus, employing a "diversion rate" is location-sensitive and not appropriate in areas where the project's location and interior street system are not capable of providing "bypass" relief to the minor artery at the intersection under observation.



TRB Study Recommendations

The 2011 TRB Report 684 documents internal trip capture rates that were analyzed at a number of fully developed, TND-styled projects throughout the country. AM and PM peak capture as well as average daily capture were included in the studies. The range in internal trip capture rates was 38% to 41%. Daily pass-by rates ranged from 14% to 40%, with an average of 28%. The report also documents daily by-pass rates observed in six TND communities. The range was 14% to 40% with an average of 28%.

A noteworthy study is from the Brandermill planned development, an established mixed-use community in Chesterfield County. It employs a seldom used (and time consuming) survey technique to evaluate transportation benefits to quantify the characteristics of home-based trips within a community. This requires a commitment to interviewing community residents about their travel habits. Brandermill presents an exceptional case study that reveals the benefits of a bona fide TND project that fulfills the UDA transportation and land use goals. It has a relatively high ratio of residents employed within the Brandermill study area (46%).

The daily average for home-based trips with destinations within Brandermill averaged 35% while home-based trip ends with origins within Brandermill averaged 39%. In other words, approximately 4 out of 10 trips ends to Brandermill residences began within the Brandermill community. When retail shopping center trips within Brandermill were evaluated, it revealed that approximately two-thirds of the retail destination trips originated with the Brandermill community during the midday and evening peak hours. Internal trip capture was determined to be 51% on a daily basis, with 45% and 55% internal capture during the AM and PM peak periods.

The factors employed for this study have been applied in a qualitative fashion, with due respect to techniques and protocols commonly accepted in Virginia. They are reasonably debatable, but appropriate for comparative planning purposes. For the Uptown UDA model, the assumed net internal capture rate is 30%. The matrix employed a 5% rate (residential) and 30% (retail) attributable to a more loosely defined "diversion and pass-by". For the "Status Quo" model, a 6% internal capture rate for residential dwellings and a 25% retail pass-by rate were assumed. Given the UDA land use configuration in the City's Uptown planning area, substantial TND diversion trips may not be realized.

Based on statistically valid field research, TND proponents can and should make a valid argument for somewhat higher rates, given that current VDOT and ITE factors would not necessarily agree. However, it is recommended that 527 Pre-Scope of Work agreements for specific TND projects require that any approved reduction to current VDOT permissible rates be fully documented by a professional traffic consultant.

Comparative Analysis Process for Martinsville Uptown UDA

The *"simple method"* spreadsheets provide a macro-level evaluation technique that demonstrates the potential reduction in traffic impacts of TND/UDA development forms in comparison to status-quo, highway-oriented "destination" location patterns in the subject locality. Four major assumptions underlie and qualify the traffic projections contained herein:

1. The analysis examines only additional traffic for UDA-defined uses that will be generated by new development during the 2010-2020 and 2010-2030 projection periods. Existing and projected background traffic is <u>not included</u> in the generation tables.

2. The density of development is applied to <u>only</u> the principal land uses defined by the UDA legislation: retail, commercial office and services, single family residential, townhouses, and multifamily residences. Manufacturing establishments, warehousing, government facilities and education uses are not included in the comparisons.

3. The TND traffic generation model assumes a representative and sustainable mix of land uses within the designated UDA area for each of the projection periods. In other words, it represents an "ideal case" for the UDA with similar internal capture benefits that have been documented in successful TND projects.

4. The "Status Quo" traffic estimates assume that designation-oriented land uses (shopping centers, schools, employment establishments) and scattered residential development on large lots and dispersed subdivisions will be the typical development pattern in future years. In other words, it presents a "worst case" from the standpoint of traffic impacts on the existing City road network.

While not to be mistaken for a formal impact assessment, the steps outlined below lead to a hypothetical view of the relative traffic reduction benefits from mixed-use, interconnected projects that apply the UDA planning process.

1. *Determine UDA "developable acreage" and UDA land use yields for the City prepared for this study based on VEC projections. The accompanying models employ City's growth projections for 2010-2020 and 2010-2030. Projected residential demands are compared for both TND and "Status Quo" housing (single family detached, townhouses, and multifamily residences.)*

2. *Determine appropriate Institute of Transportation Engineers (ITE) land use code and trip generation rates for each UDA land use category.*

3. *Prepare traffic generation estimates employing ADT and PM PHV factors for both the 2010-2020 and 2010-2030 projection periods. As indicated in the accompanying tables, the City population is projected to increase by almost 290 residents between 2010 and 2020 and an additional 590 residents between 2020 and 2030.*

4. *Calculate gross traffic generation for each use and combined mix of uses. For the traffic models, it is assumed that the future residential population growth increments cited in (2) above will be distributed per UDA Land Use Scenario #3 among the three UDA housing types: single family detached (33% population capture), townhouses (33% population capture), and multifamily residences (33% population capture). Similarly, UDA commercial and office spatial allocations have been pro-rated based on predicted demand levels. The Status Quo model assumes 60% single family detached and 20% townhouses and 20% multifamily units.*

5. *The gross traffic generation establishes the traffic impact of the conventional, "status quo" form of land use. This is based on the assumption that future City growth will be distributed on a similar widespread basis at densities similar to those of the past generation. No internal capture factor is introduced for the conventional community since a net factor is employed for the TND internal capture.*

6. *Estimate a blended internal capture rate and diversion rate, and calculate the capture volumes for the individual and combined land use mix for the locale's TND/UDA land use model. Keep in mind that the "diversion rate" is an additional "benefit factor" that is not typically recognized by VDOT but is often helpful in evaluating the potential benefits of a "best case" TND.*

7. *Introduce location-specific approximations for a blended external pass-by rate and diversion rate; calculate the pass-by volumes absorbed by the regional background traffic.*

8. *Apply the calculated capture and pass-by volumes, with the net generation figures providing an approximate estimate of the traffic impacts of the TND land use model on the surrounding highway network. Do the same for the Conventional model but eliminate internal capture and diversion volumes.*

9. *Calculate the TND traffic reduction ratio = (Status Quo Volume - TND Volume) / TND Volume.*

10. *Determine level of background Average Daily Trips (ADT) and Peak Hour Volume (PHV) traffic on adjacent arterial or collector networks.*

11. *Prepare a qualitative assessment of TND vs. the Conventional (Status Quo) scenarios on the contiguous network, including estimate of diverted regional background traffic potentially absorbed via parallel access system.*

Technical Analysis Summary

The *"simple method"* was used to evaluate both the 2010-2020 and 2010-2030 projection periods. (See Tables 1-6 at the end of this section.) A net internal capture rate of 30% was employed for both residential and non-residential uses in the TND option, and blended pass-by/diversion rates of 25% for retail and 5% for residential uses were used.

During the 2010-2020 timeframe, new traffic generation based on conventional traffic patterns was predicted to add approximately 3165 vehicles per day. Of this amount, 479 VPD represents pass-by trips and 64 VPD internal capture trips, creating a net external trip count of 2621 VPD added to the local street system.

When applying the TND model to the same timeframe, the external impact was an estimated 1713 VPD, or approximately 65% of the predicted conventional levels. Peak hour generation for the TND model was 162 vehicles per hour, compared to 250 VPH for the conventional, resulting in a reduction of 35% when compared to the predicted TND levels. As noted in the tables, similar percentage reduction results are forecast for the 2010-2030 projection period.

In conclusion, the TND form of land use in the designated Martinsville Uptown UDA coupled with local street improvements can be expected to produce measurable benefits for the City's transportation system.

The City of Martinsville

Demographic and Population Growth Projections

"Scenario 3" TND Land Use vs. "Status Quo" Land Use

	% Distribution	UDA Projection Period		
		2010-2020	2020-2030	2010-2030
Population Growth Increment *		288	587	875
UDA Growth Distribution Scenario #3 *(TND land use pattern)*				
Residential Dwelling Demand		*du*	*du*	*du*
Single Family Detached	33%	33	75	108
Townhouses/Attached	33%	59	145	204
Multifamily Residences	33%	68	185	253
Total Residential Unit Demand	100%	160	405	565
"Status Quo" Growth Distribution Scenario *(conventional land use patterns)*				
Residential Dwelling Demand		*du*	*du*	*du*
Single Family Detached	60%	60	121	181
Townhouse/Attached	20%	36	73	109
Multifamily Residences	20%	41	84	125
Total Residential Unit Demand	100%	137	278	415
Retail and Employment Scenario *(same for both UDA and Status Quo Scenarios)*				
Non-Residential Space Demand		*sfgfa*	*sfgfa*	*sfgfa*
UDA Commercial		63,557	164,473	228,030
Non-UDA Commercial		24,515	77,399	101,914
Government/Education		8,087	22,983	31,070

Note: ***du:*** *residential dwellings units;* ***sfgfa:*** *square feet gross commercial floor area;* * *Projection source: Cox Company*

The City of Martinsville UDA Transportation Study

TND Land Use: Comparative Traffic Impact Model

Population and Employment Growth Levels: 2010 - 2020 (10-year growth horizon)

Martinsville
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	UDA Land Use Classifications					
Traffic Assigments and Distributions	**Single Family**	**Townhouses**	**Multifamily**	**Retail**	**Office**	**Totals**
UDA Population Distribution	**33%**	**33%**	**33%**			
Planned UDA Yield *(dwelling units or FAR)*	**33** *du*	**59** *du*	**68** *du*	**43,600** *du*	**20,000** *sfgfa*	
ITE Land Use Code	210	230	220	820	710	
ITE Generation Rate (ADT)	9.57 *vtpd*	5.86 *vtpd*	6.72 *vtpd*	0.04294 *vtpd*	0.01101 *vtpd*	*vtpd*
Gross Traffic Generation (ADT)	316 *adt*	346 *adt*	457 *adt*	1872 *adt*	220 *adt*	3,211 *adt*
ITE Generation Rate (PM PHV)	1.01 *vtph*	0.52 *vtph*	0.62 *vtph*	0.00375 *vtph*	0.00149 *vtph*	*vtph*
Gross Traffic Generation (PM PHV)	33	31	42	164	30	299
TND Reduction: TND Enhanced Internal Capture Rate	30%	30%	30%	30%	30%	
TND Reduction: TND Enhanced Internal Capture Volume (ADT)	95 *adt*	104 *adt*	137 *adt*	562 *adt*	66 *adt*	963 *adt*
TND Internal Capture Volume (PM PHV)	10 *phv*	9 *phv*	13 *phv*	49 *phv*	9 *phv*	90 *phv*
TND Reduction: Diversion and Passby Capture Rate *(optimal)*	5%	5%	5%	25%	5%	
TND Reduction: Diversion and Passby Capture Volume (ADT)	16 *adt*	17 *adt*	23 *adt*	468 *adt*	11 *adt*	535 *adt*
TND Reduction: Diversion and Passby Capture Volume (PM PHV)	2 *phv*	2 *phv*	2 *phv*	41 *phv*	1 *phv*	48 *phv*
Sub-total: TND Volume Reduction Adjustment (ADT)	111 *adt*	121 *adt*	160 *adt*	1030 *adt*	77 *adt*	1,498 *adt*
Sub-total: TND Volume Reduction Adjustment (PM PHV)	12 *phv*	11 *phv*	15 *phv*	90 *phv*	10 *phv*	138 *phv*
SUMMARY: TND TRANSPORTATION MODEL IMPACTS						
Total: Net TND Traffic Volume (ADT)	205 *adt*	225 *adt*	297 *adt*	842 *adt*	143 *adt*	**1,713** *adt*
Total: Net TND Traffic Volume (PM PHV)	22 *phv*	20 *phv*	27 *phv*	74 *phv*	19 *phv*	**162** *phv*

The City of Martinsville UDA Transportation Study

"Status Quo" Land Use: Comparative Traffic Impact Model

Population and Employment Growth Levels: 2010 - 2020 (10-year growth horizon)

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	Conventional Land Use Classifications					
Traffic Assigments and Distributions	**Single Family**	**Townhouses**	**Multifamily**	**Retail**	**Office**	**Totals**
Population Distribution per "Status Quo" Land Use	**60%**	**20%**	**20%**			
Projected Development Yield *(dwelling units or FAR)*	**60** *du*	**38** *du*	**41** *du*	**43,600** *du*	**20,000** *sfgfa*	
ITE Land Use Code	210	230	220	820	710	
ITE Generation Rate (ADT)	9.57 *vtpd*	5.86 *vtpd*	6.72 *vtpd*	0.04294 *vtpd*	0.01101 *vtpd*	*vtpd*
Gross Traffic Generation (ADT)	574 *adt*	223 *adt*	276 *adt*	1872 *adt*	220 *adt*	3,165 *adt*
ITE Generation Rate (PM PHV)	1.01 *vtph*	0.52 *vtph*	0.62 *vtph*	0.00375 *vtph*	0.00149 *vtph*	*vtph*
Gross Traffic Generation (PM PHV)	60.6	19.76	25.42	163.5	29.8	299
Conventional Reduction: Internal Capture Rate	6%	6%	6%	0%	0%	
Conventional Reduction: Internal Capture Volume (ADT)	34 *adt*	13 *adt*	17 *adt*	0 *adt*	0 *adt*	64 *adt*
Conventional Internal Capture Volume (PM PHV)	4 *phv*	1 *phv*	2 *phv*	- *phv*	- *phv*	6 *phv*
Conventional Reduction: Passby Capture Rate *(optimal)*	0%	0%	0%	25%	5%	
Conventional Reduction: Passby Capture Volume (ADT)	0 *adt*	0 *adt*	0 *adt*	468 *adt*	11 *adt*	479 *adt*
Conventional Reduction: Passby Capture Volume (PM PHV)	0 *phv*	0 *phv*	0 *phv*	41 *phv*	1 *phv*	42 *phv*
Sub-total: Volume Reduction Adjustment (ADT)	34 *adt*	13 *adt*	17 *adt*	468 *adt*	11 *adt*	543 *adt*
Sub-total: Volume Reduction Adjustment (PM PHV)	4 *phv*	1 *phv*	2 *phv*	41 *phv*	1 *phv*	49 *phv*
SUMMARY: CONVENTIONAL LAND USE MODEL TRANSPORTATION MODEL IMPACTS						
Total: Net Traffic Volume (ADT)	540 *adt*	209 *adt*	259 *adt*	1404 *adt*	209 *adt*	**2,621** *adt*
Total: Net Traffic Volume (PM PHV)	57 *phv*	19 *phv*	24 *phv*	123 *phv*	28 *phv*	**250** *phv*

The City of Martinsville UDA Transportation Study

Comparison of TND and "Status Quo" Land Use Models

Population and Employment Growth Levels: 2010 - 2020 (10-year growth horizon)

Comparison of TND and "Status Quo" Trip Generation by Projected Land Use

Comparative Summary	Single Family	Townhouses	Multifamily	Retail	Office	Totals
TND TRANSPORTATION MODEL IMPACTS						
Total: Net TND Traffic Volume (ADT)	205 adt	225 adt	297 adt	842 adt	143 adt	**1,713** adt
Total: Net TND Traffic Volume (PM PHV)	22 phv	20 phv	27 phv	74 phv	19 phv	**162** phv
"STATUS QUO" LAND USE MODEL TRANSPORTATION MODEL IMPACTS						
Total: Net Traffic Volume (ADT)	540 adt	209 adt	259 adt	1404 adt	209 adt	**2,621** adt
Total: Net Traffic Volume (PM PHV)	57 phv	19 phv	24 phv	123 phv	28 phv	**250** phv
COMPARATIVE TRAFFIC IMPACTS: TND LAND USE VS. "STATUS QUO" COUNTY LAND USE PATTERNS						
Total Estimated ADT Trip Reduction: TND Land Use Model vs. Status Quo						909 adt
Total Estimated PHV Trip Reduction: TND Land Use Model vs. Status Quo						88 phv
Comparative Reduction Ratio #1: % = (TND Land Use Model ADT) / (Status Quo Model ADT)						65.3%
Comparative Reduction Ratio #2: % ADT Reduction = (TND Land Use Model ADT) - (Status Quo Model ADT) / (Status Quo Model ADT)						34.7%
Comparative Reduction Ratio #2: % ADT Reduction = (TND Land Use Model ADT) - (Status Quo Model ADT) / (TND Model ADT)						53.1%

The City of Martinsville UDA Transportation Study

TND Land Use: Comparative Traffic Impact Model

Population and Employment Growth Levels: 2010 - 2030 (20-year growth horizon)

Martinsville
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	UDA Land Use Classifications					
Traffic Assigments and Distributions	**Single Family**	**Townhouses**	**Multifamily**	**Retail**	**Office**	**Totals**
UDA Population Distribution	**33%**	**33%**	**33%**			
Planned UDA Yield *(dwelling units or FAR)*	**108** *du*	**204** *du*	**253** *du*	**160,000** *du*	**70,000** *sfgfa*	
ITE Land Use Code	210	230	220	820	710	
ITE Generation Rate (ADT)	9.57 *vtpd*	5.86 *vtpd*	6.72 *vtpd*	0.04294 *vtpd*	0.01101 *vtpd*	*vtpd*
Gross Traffic Generation (ADT)	1034 *adt*	1195 *adt*	1700 *adt*	6870 *adt*	771 *adt*	11,570 *adt*
ITE Generation Rate (PM PHV)	1.01 *vtph*	0.52 *vtph*	0.62 *vtph*	0.00375 *vtph*	0.00149 *vtph*	*vtph*
Gross Traffic Generation (PM PHV)	109	106	157	600	104	1,076
TND Reduction: TND Enhanced Internal Capture Rate	30%	30%	30%	30%	30%	
TND Reduction: TND Enhanced Internal Capture Volume (ADT)	310 *adt*	359 *adt*	510 *adt*	2061 *adt*	231 *adt*	3471 *adt*
TND Internal Capture Volume (PM PHV)	33 *phv*	32 *phv*	47 *phv*	180 *phv*	31 *phv*	323 *phv*
TND Reduction: Diversion and Passby Capture Rate *(optimal)*	5%	5%	5%	25%	5%	
TND Reduction: Diversion and Passby Capture Volume (ADT)	52 *adt*	60 *adt*	85 *adt*	1718 *adt*	39 *adt*	1,953 *adt*
TND Reduction: Diversion and Passby Capture Volume (PM PHV)	5 *phv*	5 *phv*	8 *phv*	150 *phv*	5 *phv*	174 *phv*
Sub-total: TND Volume Reduction Adjustment (ADT)	362 *adt*	418 *adt*	595 *adt*	3779 *adt*	270 *adt*	5,424 *adt*
Sub-total: TND Volume Reduction Adjustment (PM PHV)	38 *phv*	37 *phv*	55 *phv*	330 *phv*	37 *phv*	497 *phv*
SUMMARY: TND TRANSPORTATION MODEL IMPACTS						
Total: Net TND Traffic Volume (ADT)	672 *adt*	777 *adt*	1105 *adt*	3092 *adt*	501 *adt*	**6,147** *adt*
Total: Net TND Traffic Volume (PM PHV)	71 *phv*	69 *phv*	102 *phv*	270 *phv*	68 *phv*	**580** *phv*

The City of Martinsville UDA Transportation Study

"Status Quo" Land Use: Comparative Traffic Impact Model

Population and Employment Growth Levels: 2010 - 2030 (20-year growth horizon)

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	Conventional Land Use Classifications					
Traffic Assigments and Distributions	**Single Family**	**Townhouses**	**Multifamily**	**Retail**	**Office**	**Totals**
Population Distribution per "Status Quo" Land Use	**60%**	**20%**	**20%**			
Projected Development Yield *(dwelling units or FAR)*	**181** *du*	**109** *du*	**125** *du*	**160,000** *du*	**70,000** *sfgfa*	
ITE Land Use Code	210	230	220	820	710	
ITE Generation Rate (ADT)	9.57 *vtpd*	5.86 *vtpd*	6.72 *vtpd*	0.04294 *vtpd*	0.01101 *vtpd*	*vtpd*
Gross Traffic Generation (ADT)	1732 *adt*	639 *adt*	840 *adt*	6870 *adt*	771 *adt*	10,852 *adt*
ITE Generation Rate (PM PHV)	1.01 *vtph*	0.52 *vtph*	0.62 *vtph*	0.00375 *vtph*	0.00149 *vtph*	*vtph*
Gross Traffic Generation (PM PHV)	182.81	56.68	77.5	600	104.3	1,021
Conventional Reduction: Internal Capture Rate	6%	6%	6%	0%	0%	
Conventional Reduction: Internal Capture Volume (ADT)	104 *adt*	38 *adt*	50 *adt*	0 *adt*	0 *adt*	193 *adt*
Conventional Internal Capture Volume (PM PHV)	11 *phv*	3 *phv*	5 *phv*	- *phv*	- *phv*	19 *phv*
Conventional Reduction: Passby Capture Rate *(optimal)*	0%	0%	0%	25%	5%	
Conventional Reduction: Passby Capture Volume (ADT)	0 *adt*	0 *adt*	0 *adt*	1718 *adt*	39 *adt*	1,756 *adt*
Conventional Reduction: Passby Capture Volume (PM PHV)	0 *phv*	0 *phv*	0 *phv*	150 *phv*	5 *phv*	155 *phv*
Sub-total: Volume Reduction Adjustment (ADT)	104 *adt*	38 *adt*	50 *adt*	1718 *adt*	39 *adt*	1,949 *adt*
Sub-total: Volume Reduction Adjustment (PM PHV)	11 *phv*	3 *phv*	5 *phv*	150 *phv*	5 *phv*	174 *phv*
SUMMARY: CONVENTIONAL LAND USE MODEL TRANSPORTATION MODEL IMPACTS						
Total: Net Traffic Volume (ADT)	1628 *adt*	600 *adt*	790 *adt*	5153 *adt*	732 *adt*	**8,903** *adt*
Total: Net Traffic Volume (PM PHV)	172 *phv*	53 *phv*	73 *phv*	450 *phv*	99 *phv*	**847** *phv*

The City of Martinsville UDA Transportation Study

Comparison of TND and "Status Quo" Land Use Models

Population and Employment Growth Levels: 2010 - 2030 (20-year growth horizon)

Comparison of TND and "Status Quo" Trip Generation by Projected Land Use

Comparative Summary	Single Family	Townhouses	Multifamily	Retail	Office	Totals
TND TRANSPORTATION MODEL IMPACTS						
Total: Net TND Traffic Volume (ADT)	672 *adt*	777 *adt*	1105 *adt*	3092 *adt*	501 *adt*	**6,147** *adt*
Total: Net TND Traffic Volume (PM PHV)	71 *phv*	69 *phv*	102 *phv*	270 *phv*	68 *phv*	**580** *phv*
"STATUS QUO" LAND USE MODEL TRANSPORTATION MODEL IMPACTS						
Total: Net Traffic Volume (ADT)	1628 *adt*	600 *adt*	790 *adt*	5153 *adt*	732 *adt*	**8,903** *adt*
Total: Net Traffic Volume (PM PHV)	172 *phv*	53 *phv*	73 *phv*	450 *phv*	99 *phv*	**847** *phv*
COMPARATIVE TRAFFIC IMPACTS: TND LAND USE VS. "STATUS QUO" COUNTY LAND USE PATTERNS						
Total Estimated ADT Trip Reduction: TND Land Use Model vs. Status Quo						**2,757** *adt*
Total Estimated PHV Trip Reduction: TND Land Use Model vs. Status Quo						**267** *phv*
Comparative Reduction Ratio #1: % = (TND Land Use Model ADT) / (Status Quo Model ADT)						**69.0%**
Comparative Reduction Ratio #2: % ADT Reduction = (TND Land Use Model ADT) - (Status Quo Model ADT) / (Status Quo Model ADT)						**31.0%**
Comparative Reduction Ratio #2: % ADT Reduction = (TND Land Use Model ADT) - (Status Quo Model ADT) / (TND Model ADT)						**44.8%**

TND Traffic Impact Studies

Traffic impact studies are fundamental to any land development activity that impacts the City's street and highway system. In conjunction with rezoning applications for TND projects, the City and property owner shall determine whether or not the project shall require a traffic impact statement to be prepared consistent with VDOT 527 regulations. Upon input from VDOT, if a 527 traffic impact analysis is required, the landowner shall prepare and submit a Pre-Scope of Work Meeting Form to the City on or before the date of formal submission of the zoning district amendment application. The Pre-Scope form shall be processed, reviewed by and between the City, VDOT, and the landowner in accord with adopted regulations and procedures.

In rezoning cases where the City believes that an independent TIA should be prepared but that the 527 regulatory thresholds have not been met, the City shall determine whether or not an independent TIA must be submitted. In those instances, the landowner shall meet with the Planning Director to determine the required scope for a traffic analysis for the TND project The Planning Director shall approve the elements to be addressed in the study scope. The traffic analysis shall be submitted with the zoning amendment application. Minimum requirements may include the following:

(1) Existing traffic counts (AM and PM peak hour) at key intersections.

(2) Trip generation estimates for the planned land uses within the TND.

(3) Trip distribution and assignments to the existing road network of traffic projected for the development at full-buildout.

(4) Estimates of background traffic growth on impacted streets and highways.

(5) Analysis of future conditions, to include HCM level-of-service analysis.

(6) Signal warrants analysis.

(7) Recommended transportation improvements to provide adequate levels of service for the traffic generated by the proposed project.

Transportation Planning and the Official Map

Given the fiscal demands increasingly placed on VDOT and local governments for road improvements, the majority of future new major and minor collector streets will be funded and constructed by the private enterprise. Over the next decade, Virginia transportation funding will be focused on major highway improvements and maintenance. Transportation deficiencies in the future will not be solved by historical approaches. Unless new legislation creates other approaches to implementation, these new streets will obviously have to be constructed in conjunction with private sector land development efforts.

In recognition of this, it should be the City's goal to ensure that a transportation network and strategic plan for road improvements in and around the City's UDAs can be implemented to:

(1) maximize public benefits,
(2) upgrade existing street system inadequacies,
(3) provide for adequate long-term capacity,
(4) minimize, if not eliminate, economic impacts on state and local fiscal structures,
(5) constructed in conjunction with and by new development, and, most importantly
(6) be located where they need to be.

Virginia's statutes for local comprehensive planning and zoning — particularly the VDOT 527 requirements — as well as the VDOT 6-Year Improvement Program are a (slow) step in the right direction. However, a valuable, but virtually neglected, section of the Code of Virginia has been long overlooked by both local and state planners. As a companion to the UDA planning for the Uptown planning area, there is one essential "tool" that will need to be employed to successfully address both the existing and anticipated transportation demands that will impact the UDAs. It is the Official Map *(reference: Section 15.2-2233 of the Code.)*In concert with the City's ongoing comprehensive planning efforts, it will be important to advance its level of traffic and transportation planning to include the preparation of an Official Map. While past City planning efforts have typically focused on generalized transportation objectives, the comprehensive plan, in and of itself, cannot ensure the ultimate establishment and provide the footing for the potential acquisition of rights of way such alignments. However, the City has the opportunity to utilize the Official Map in a way that facilitates the establishment and acquisition of planned street and road alignments.

In Martinsville, as in all Virginia locales, the opportunities for effective government influence in shaping the public transportation elements of privately initiated real estate projects is typically limited to individual rezoning reviews and approvals. It is usually "too late" to influence "big picture" transportation goals by the time a property owner applies for site plan or subdivision plat approvals. Unfortunately, most local comprehensive plans give too little attention to intermediate and long-range transportation alignments and right of way requirements. In cases where alignments are depicted on a comprehensive plan, they typically don't account for the fact that future road alignments will impact multiple parcels and property owners, some with sufficient by-right zoning and some with competing real estate interests. If "smart road" alignments are absent from the comprehensive planning process, new streets in private real estate developments will be dictated by project-specific objectives and will not necessarily be in the public interest. Thus, left to one's own devices, the individual developer will locate roads where they optimally benefit one's specific project while the public sector planner will often overlook the "trees for the forest." From a comprehensive viewpoint, the VDOT 527 process doesn't address this concern, given that it really doesn't come into play until the individual developer has already defined one's project and the strategic approach for getting approvals.

To ensure continuity in the planning and implementation process, alignments for new roads should be contemplated, tested, established, and adopted well in advance of discrete zoning, subdivision, and site plan applications. It is at the end of the local comprehensive plan update process where the real value of the Official Map legislation can be recognized. Without an Official Transportation Map for inter-parcel, interconnecting street systems, the governing body has no real legal mechanism to preserve the preferred alignments in conjunction with the processing of future subdivision plats and site plans. Simply having "desire lines" for new streets loosely drawn on a comprehensive plan is not sufficient to define, preserve, and secure required rights of way for essential roads. One misplaced subdivision lot can effectively block the best laid plans for an otherwise well conceived and integrated access system. The negative results of this are evidenced in the Richmond region and elsewhere in the state.

Under the Code of Virginia, the Official Map is the only formal mechanism by which the alignment for proposed roads and infrastructure can be established in advance by local government, allowing for the proposed rights-of-way to be reserved for future public acquisition or proffered dedication. The Official Map process benefits both the private and the public sector in that landowners can proceed with development plans with the full knowledge and precision of where transportation improvements are to be located. On the other hand, without the ability to pin down inter-parcel access alignments, the locality is virtually impotent in its ability to secure right of way reservation. A coordinated approach results in a "win/win" for both the public and private sector.

To move forward with (1) a transportation plan that complements the Comprehensive Plan, (2) addresses the SSAR and 527-defined traffic planning objectives of VDOT, and (3) the Official Map, Martinsville would need to undertake a relatively straight forward preliminary design and alignment study as a part of the overall planning process. This would take the form of a neighborhood-specific "Transportation Plan and Official Map" study task, and the key tasks should include the following:

1. *Preparation and adoption of thorough Comprehensive Plans that include specific area studies and impact evaluations of existing and proposed future land uses. These plans should document both deficiencies in the existing road network and opportunities for new and expanded transportation systems that complement the communities "vision for the future."*

2. *Compilation of topographic mapping and property boundaries of the area impacted by the candidate alignments for the transportation system as identified by the Comprehensive Plan. Most urban GIS systems, with supplemental control, are sufficient for this purpose.*

3. *Schematic transportation plans and traffic analysis to establish the most feasible alignment options and right of way requirements for the needed streets to successfully implement the UDA Comprehensive Plan's transportation priorities.*

4. *Follow-up to the Comprehensive Plan adoption to address ongoing coordination with affected property owners in selecting the preferred option for horizontal alignments and system requirements for each future street.*

5. *Preparation of preliminary engineering plans and profiles to establish the vertical and horizontal alignment for the preferred options (using GIS mapping if available and accurate.)*

6. *Preparation of metes and bounds for the rights of way for the preferred alignments (again, using existing GIS mapping and supplemental ground survey controls): this represents the Official Map "product" for the rights of way to be reserved.*

7. *Review of the Official Map by the Planning Commission and VDOT.*

8. *Adoption of the Official Map for the transportation system by City Council.*

The Official Map process is neither new nor untried. Many rapidly growing jurisdictions throughout the State have expended tremendous resources to obtain regional GIS mapping. While most GIS systems are underutilized and undermanned, they provide an efficient and cost effective tool for transportation planning. In most GIS systems, land use and topographic mapping is of sufficient detail to be readily (and inexpensively) deployed by engineers and planners to establish relatively accurate transportation alignments in response to anticipated future land uses as adopted by the locale. Often, the expense of GIS systems can be subject to rezoning proffers or, alternately, can be recaptured by zoning and subdivision application and review fees.

Another reason that the Official Map has not been in vogue as a growth management tool is that most rural and suburban locales have not had to worry, for the most part, whether or not adequate land would be available for sub-arterial and inter-neighborhood transportation improvements: Land was ample, density was generally low, sprawl was prototypical (and accepted), and existing highway corridors could be widened to accommodate traffic movement resulting from scattered, strip-styled growth. In effect, the interconnection of suburban (minor arterial and collector) street systems was neither desired nor required to make traffic flow. That day is over. Many of these communities have now run out of ROW expansion space along existing commercial corridors. The result is that far too few inter-neighborhood collectors have been achieved via the traditional local planning efforts.

What should Martinsville do at this point in time? Foremost is the need to structure a growth management process that enables the City to reserve and acquire the rights-of-way for essential street improvements. The Official Transportation Map is the only proper and unique growth management "tool" that fits this purpose. Relative to the City's ongoing planning efforts as infill development and redevelopment pose threats to obtaining additional rights of way, its inclusion should be a major priority. The cost/benefit of such planning to local government should be readily apparent upon close scrutiny.

City Employment Patterns and Travel Reduction

Economic development in the City over the next 20 years is projected to create 685 new jobs. Approximately 65% to 70% of new employment will be in the UDA-defined retail and office sector with the balance in industry, government, and education. Future employment could be distributed over a range of occupations, the locations for which will be subject to City planning and zoning oversight. The potential for travel reduction attributable to TND projects has been well documented in technical studies. High quality and well located mixed-use projects have been shown to provide employment for over half of their resident workers.

A 2005 transportation study of TND and conventional subdivisions performed by the University of North Carolina revealed that the average household TND trip distance was approximately 25% less than that created by the average suburban subdivision, with an average comparative trip length reduction of 12+ miles. The TND household made 9% fewer vehicular trips than the conventional residential household and owned 25% fewer automobiles per household.

In Martinsville, approximately 56% of employed residents work outside of the City (based on the US Census 2000). In-commuters to business establishments in Martinsville held 7 out of every 10 local jobs. The majority of the in-commuter population resides in Henry County along with in-commuter residents of the counties of Franklin, Patrick, and Pittsylvania. The City also offers employment for residents of communities in North Carolina.

While the Census provides no statistical data for travel length for Martinsville in-commuters, the TND trip reduction factor of 12 miles observed in the North Carolina study provides a very conservative benchmark that can be employed to assess the travel benefits of TND development in the City. However, based on regional employment distribution, 20+ miles for the average one-way commute would be a better estimate. The following table presents mileage estimates for *place of residence-to-place of employment* trip reductions for a prototypical TND project compared to a conventional subdivision that lacks both proximity and connectivity to places of work. Estimates are provided for only employment trips and do not include potential trip savings to the City from outlying areas for shopping, education, recreation, and other purposes.

Two scenarios are evaluated for both average daily and annual residence-to-work reductions. Scenario 1 assumes that (a) 25% of the growth in the employment sector during the UDA 2010-2030 projection period (new 171 employees) will be both working and residing within the Uptown planning area, (b) the TND resident portion of the employment sector will displace an equivalent number of commuter employees, (c) the net mileage reduction for the average displaced commuter trip will be 12 miles (one-way), and (d) the average work week is 5 days consuming an average annual 48 week employment period. Scenario 2 assumes that (a) 40% of the City employment workforce growth (274 new jobs) that is added between 2010 and 2030 (1822 employees) will be absorbed by TND resident/workers located in the two designated UDAs, and (b) a 20-mile one-way commuter trip/employee will be displaced. With the region lacking commuter-targeted transit service and organized carpooling opportunities, all commuter trips are assumed to be via private vehicle.

As indicated in the table below, the more conservative Scenario 1 estimates that the trip reductions resulting for the TND *place of residence-to-place of employment* trips will yield approximately one million fewer miles travelled per year for the TND-based workforce, while Scenario 2 estimates a savings of 2.6 million miles. The economic benefit to the TND resident produces noteworthy forecasts on energy consumption: In Scenario 1, the average TND resident/employee would travel approximately 5800 fewer miles than one's commuter counterpart. With gasoline prices at $3.60/gallon and 20 mpg fuel efficiency, the resident worker would save over $1000/year in work-related fuel expenditures. The results for Scenario 2 would yield a savings of 9600 miles travelled and $1700+ in fuel expenditures.

From an economic viewpoint, the total TND fuel savings for Scenario 2 would be roughly $470,000/year. The realization of Scenario 2 would yield a total annual fuel reduction for TND resident/workers of 130,000 gallons, which further translates into more subjective benefits, such as quality of life, highway safety, natural resource conservation, and reduced emissions.

The City of Martinsville

TND/Resident Employment Trip Reduction Estimates

TND Employment vs. "Status Quo" Employment Patterns

	% Distribution	UDA Projection Period		
		2010-2020	2020-2030	2010-2030
City Employment Growth Increment *		**216**	**469**	**685**

Scenario 1: **TND Resident Average Daily Employment Trip Mileage Reduction**

TND Residential/City Employment Capture = 25%; assumed one-way mileage reduction = 12 miles.

		miles	*miles*	*miles*
TND Commercial and Office	*70%*	907	1970	2877
Non-TND Commercial	*18%*	233	507	740
Government and Education	*12%*	156	338	493
Average Daily Reduction		**1296**	**2814**	**4110**
Average Annual Reduction		**311,040**	**675,360**	**986,400**

Scenario 2: **TND Resident Average Daily Employment Trip Mileage Reduction**

TND Residential/City Employment Capture = 40%; assumed one-way mileage reduction = 20 miles.

		miles	*miles*	*miles*
TND Commercial and Office	*70%*	2419	5253	7672
Non-TND Commercial	*18%*	622	1351	1973
Government and Education	*12%*	415	900	1315
Average Daily Reduction		**3456**	**7504**	**10960**
Average Annual Reduction		**829,440**	**1,800,960**	**2,630,400**

* *Employment estimates by the Cox Company per UDA population projections (see Appendix)*

IX.

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- TND Implementation -

IX.

TND Implementation

The Urban Development Areas are separate and distinct planning areas recognized by the City on the Future Land Use Map for Traditional Neighborhood Development forms of land use, and are an essential component of the Comprehensive Plan. In essence, the Comprehensive Plan articulates the land use vision and design principles while the Future Land Use Map establishes the geographical boundaries of the UDA. The implementation process for individual TND projects should afford an applicant the opportunity to create a TND plan and development proposal for a specific project at a specific location within the UDA.

From an implementation standpoint, the TNDs are somewhat different from other zoning practices. The TND promotes compact, mixed-use development with a village scale, density and infrastructure configuration that requires enhanced zoning techniques. However, there is no single, existing zoning district in the Martinsville City zoning ordinance that fulfills the range of TND principles cited in the UDA Comprehensive Plan Amendment.

Many TND zoning district structures have been promoted and tested throughout the United States over the past generation, each having their own assets and liabilities to controlling growth within the designated UDA. In arriving at the best type of TND district for the City, a range of alternative TND ordinance formats were considered. For the City, the most effective governing document in the implementation system will be a new, freestanding TND zoning district.

The recommended TND zoning application structure will be one triggered by a private sector zoning amendment application. It provides the platform on which the City and the development community interface to create new projects. In creating this district, the underlying strategy is to create and employ a regulatory device that promotes:

(1) creativity and flexibility for the applicant in establishing the TND master plan, mix of uses, and densities that best serve the land use and marketplace objectives for the project,

(2) essential and sufficient regulatory controls by the City to translate the TND master plan into a unifying zoning code that ensures the agreed mix of uses, neighborhood organization, lot and building types, density, development phasing, and community infrastructure, and

(3) the most efficient and cost effective allocation of City management and administration resources.

The ideal TND district is one that is tailored to the particular needs of the City. For Martinsville, the TND district should be one that can best translate the Comprehensive Plan's TND planning policies into a manageable regulation that recognizes:

1. the character of the key regional location of the Uptown development area within the City,

2. the existing demographic composition of the City,

3. the Uptown UDA's potential to accommodate the projected level of population and residential growth,

4. its compatibility with the UDA land use designation,

5. the physical development potential and limitations of individual properties where TND rezonings may be appropriate,

6. the extent to which the City is committed to employing a transect-based comprehensive planning ethos to the entire city, and

7. the technical and administrative resources of the City.

PHYSICAL FRAMEWORK FOR THE TND DISTRICT

In order to recognize the unique physical requirements for residential, cultural and the shopping components of any city, the TND District is made up of several Sub-Districts. Sub-Districts are geographical planning areas internal to the TND that are unique in their physical character, intensity of development, and land use composition.

Three primary TND Sub-Districts--**Core (Village Center), Transitional, and Residential**--are structured to differentiate the geographical location of internal land uses, mix of uses, densities and other design parameters of land use groupings. A fourth Sub-District, reserved for Commercial Corridors, allows for specialized and conditional accommodation of certain large scale commercial, manufacturing, warehousing, and other employment uses that are not commonly located within traditional neighborhood developments, but that may be included for economic and convenience reasons. Given geographical and marketplace conditions, every TND application may not require that all sub-districts be included. During the TND application process, the Applicant and the City will determine the optimal mix and match of sub-districts.

The Core (or Village Center) Sub-District is intended to replicate and add to existing Uptown business and residential uses, providing neighborhood-scaled retail shops, restaurants, service, and civic uses. The Transitional Sub-District is intended to accommodate a transitional mix and lower intensity of uses in areas that separate the Core Sub-District from the lower density Residential Sub-District. The Residential Sub-District provides the structure for neighborhoods with lower density residential uses than those found in the Core and Transitional areas. Mixed housing types, sizes, and lot types are recommended, with guidelines for the mix established with each TND District application. The Economic Development Sub-District recognizes that certain uses of a higher density and community impact may be appropriate for inclusion in a TND District zoning application but, due to type, scale and intensity of use, are inappropriate for the other sub-districts.

TND Implementation System

There are two essential components that comprise an effective and comprehensive TND implementation program. A TND zoning district coupled with enhanced subdivision amendments should be drafted along with a clear administrative process that defines the desired level of plan review and oversight by the City. However, this process should be efficient and not force unnecessary road blocks and time delays on private sector applicants. A properly structured TND District can provide the platform on which the City and the development community interface to create new projects. Private and public sector project objectives are often competing. While comprehensive planning is conducted in a public venue, project master planning for private development is often originated outside the public's view. The TND zoning district and its companion administrative process should bring these two together.

The Applicant begins the zoning process with the submission of a Code of Development. The Code of Development is essentially a "mini-zoning ordinance" that is written to meet the specific needs of the property, its location, the marketplace, and the City's ability to provide adequate public infrastructure. Fundamentally, the Code must demonstrate the feasibility and appropriateness of the planned TND project. The rezoning application process allows the Applicant to present the plans, zoning regulations, and agreements that translate one's purpose and intent for the project into a set of efficient regulatory contrls . The use of the Code of Development is intended to better define the mix, scale, character, form and intensity of any given development proposal than that which could be otherwise governed by the City's conventional zoning districts. The TND District should incorporate the following application requirements:

A. TND application Plan: The application plan establishes the physical and geometric organization of the community. It includes a graphic representation of the existing site conditions, the proposed physical layout of the project, the location of proposed TND Sub-Districts, and planned open space.

B. **Development Code:** The code provides the regulating criteria and guidelines for the Sub-Districts within the community. Similar to conventional zoning districts, it provides documentation for permitted and special permit land uses, building minimum and maximum density, lot types and yard dimensions, building heights, mix of uses, and parking requirements for each of the TND Sub-Districts.

C. **Street Classification Plan:** The street classification plan (often referred to as a "regulating plan") provides planning for any new streets proposed within the project. It describes the location and category of streets to be developed within the project, establishing recommended street widths, utility and landscape placements, street lighting, on-street parking, and right of way designations.

D. **Building Form and Landscape Guidelines:** Building and landscape guidelines establish the desired level of cohesiveness and harmony in the community's overall design scale and theme. These guidelines provide the documentation and graphics to describe the proposed characteristics of building design and landscape architectural improvements for each TND Sub-District.

E. **Schematic Infrastructure Plans:** The compact nature of TND projects requires close design and construction coordination for public infrastructure. The infrastructure schematics provide the recommended layouts and easement requirements for site grading, sanitary sewer, domestic water, and other utilities and facilities. Recognizing the critical importance of environmental controls, this section provides the opportunity for the Applicant and City to work jointly in developing a comprehensive approach to storm drainage systems, stormwater management facilities, and best management practices.

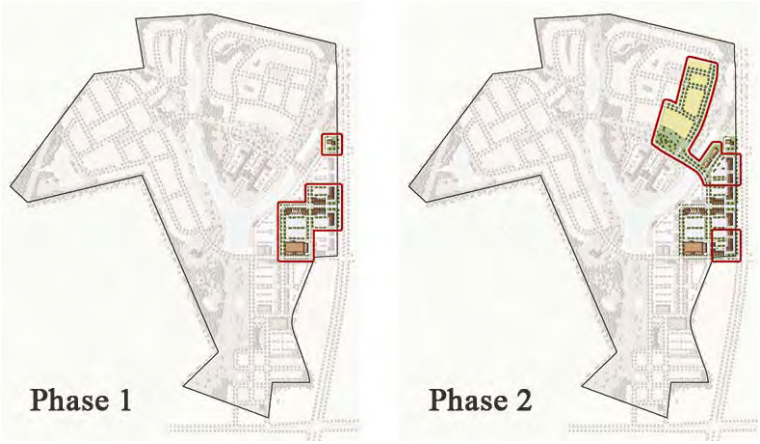
F. **Traffic Impact Analysis (TIA):** The TIA demonstrates the overall impact of the existing transportation system as well as future traffic generated by the proposed community. The typical TIA study analyzes the need for both on-site and off-site transportation improvements. Where the master plan generates minimum traffic demand thresholds, the study is prepared in compliance with VDOT 527 and SSAR standards.

G. **Zoning Conditions and Proffer Agreements:** A TND project provides wide flexibility to a property owner to plan a fully integrated mixed-use project. Once the master plan and code of development is established, other details related to the implementation framework are documented by proffer agreements and special conditions.

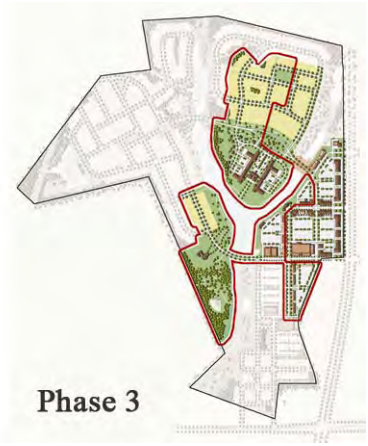
Phasing

In the few remaining areas of Uptown where larger, master planned development is still possible, specific attention should be given to project phasing. Large TND developments are often built in a series of phases, primarily for market and economic reasons, but also due to infrastructure capacity and extensions related to adequate public facilities. From the developer's perspective, commercial and residential units can only be built at the pace at which business owners or residents are willing to buy them. From the local government's perspective, new commercial and residential units cannot be allowed to outstrip the locality's ability to serve them with public utilities, police, fire, and rescue services, and schools, among other concerns.

The City should carefully consider the optimal number of new residential and commercial units that can be served by City facilities over time. If facilities are limited, the phasing of a project should be linked to the adequacy and availability of public facilities. By entering into proffer agreements with potential TND land developers, the City can, and should, restrict large TND developments to a phased development schedule that limits new building to a reasonable rate based on building permits or utility connections.



Early TND development phases should concentrate on areas of a larger property with direct and visible access to transportation, such as a major arterial road. A mix of land uses is desirable at all phases of the development, but cannot always be guaranteed if market support does not exist. Commercial development may be more predominant when there is substantial existing residential development nearby. When there is little existing residential development, residential will need to come first in order to support later commercial growth.



A development in multiple phases should build from a central point, not begin development of a remote pocket of development that does not relate to earlier phases. New development should extend the community's grid of streets, and strive to complete the vision for the TND. Care should be taken in all new phases to avoid disruptions to existing homes and businesses.

Conclusion

By establishing the Urban Development Areas outlined in this document, and by embracing new development on the scale of the existing Uptown, rather than in suburban patterns, Martinsville has an opportunity to strengthen and revitalize its core area, and to put itself in the best possible position for future infrastructure investment. City-scaled development patterns are what makes Martinsville a unique place within its region, and should be further encouraged as a way to maintain or improve the quality of life of its citizens.

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City Council Agenda Summary

Meeting Date: November 8, 2011
Item No: 8.
Department: Community Development

Issue: Consider setting a public hearing on amendments to the Zoning Ordinance related to pawnshops.

Summary: At present, the City of Martinsville allows pawnshops as a use permitted by right in the C-1A, C-2, C-3, M-1 and M-2 Districts. Planning Commission submitted a recommendation in July to remove pawnshops as a use permitted by right, which would have banned them from operating in the City. City Council reviewed the amendment and sent it back to the Planning Commission with a suggestion to look at regulating pawnshops through a special use permit. Planning Commission took that suggestion and began to work on conditions for a special use permit. After several work sessions, the Planning Commission has finalized their recommendation on this issue. The new recommendation would remove pawnshops as a use permitted by right in the C-1A, C-2, C-3, M-1, and M-2 Districts and would add pawnshops as a use permitted by special use permit in the C-1, C-1A, C-2, C-3, M-1, and M-2 Districts. It should be noted that the C-1 Commercial District currently does not allow pawnshops as a use permitted by right. However, to establish uniformity in the commercial districts; it is included in the recommendation to add pawnshops as a use permitted by special use permit.

Planning Commission held a duly advertised public hearing on October 4, 2011. No one spoke for or against the issue during the public hearing. Planning Commission voted unanimously (4-0) to send this amendment to City Council for their consideration.

City staff recommends amending the Zoning Ordinance to remove pawnshops as a use permitted by right and to include it as a use permitted by special use permit.

Attachments: Planning Commission Letter
Proposed Amendment to the Zoning Ordinance

Recommendations: Therefore, staff recommends that City Council consider setting a public hearing for either Nov. 22 or Dec. 13, 2011 on the proposed amendment to the Zoning Ordinance.

Martinsville
A CITY WITHOUT LIMITS

October 27, 2011

Mayor Kim Adkins
Members of City Council
City of Martinsville
P. O. Box 1112
Martinsville, VA 24114

RE: Amendment to the Zoning Ordinance (Pawnshops)

Dear Mayor and City Council Members:

The Planning Commission, at its meeting on October 4, 2011, conducted a duly advertised Public Hearing on a request by the City of Martinsville, for a proposed amendment to the Martinsville Zoning Ordinance related to pawnshops.

At the public hearing, it was noted that this request would remove pawnshops as a use permitted by right in the C-1A, C-2, C-3, M-1, and M-2 Districts and would add pawnshops as a use permitted by special use permit in the C-1, C-1A, C-2, C-3, M-1, and M-2 Districts. There were no public comments voiced at the public hearing.

Following evidence heard at the public hearing, the Planning Commission voted unanimously (4-0) to recommend the proposed amendment to City Council. The Planning Commission respectfully submits the recommendation for reconsideration.

Yours Truly,

Barbara Cousin, Secretary

Wayne D. P. Knox

Wayne D. P. Knox

Director of Community Development

WDPK

Cc: Timothy D. Martin, Chairperson
Barbara Cousin, Secretary

PROPOSED AMENDMENTS – ZONING ORDINANCE

(~~Strikethrough~~ indicates deletion; ***italicized bold*** indicates addition)

SECTION XII: COMMERCIAL DISTRICTS

A. C-1 Neighborhood Commercial District

C. Uses permitted by special use permit in the C-1 District.

7. Pawnshops, subject to the following conditions:

a. Establishment must maintain and file a daily report, as specified by the Code of Virginia Sec. 54.1-4009, electronically with local law enforcement;
b. All of the items collected must be contained within the confines of the actual pawnshop;
c. An approved anti-crime security system must be installed to safeguard the premises;
d. Establishment shall not be located within 1000 feet of a similar establishment;
e. Establishment must be located at least 1000 feet from churches, schools, playgrounds;
f. Establishment cannot open for business prior to 10:00 a.m. and must close by 9:00 p.m.

E. C-1A Intermediate Commercial District.

F. Uses permitted by right in the C-1A District.

61. ~~Pawnshops or~~ second hand stores

G. Uses permitted by special use permit in the C-1A District.

7. Pawnshops, subject to the following conditions:

a. Establishment must maintain and file a daily report, as specified by the Code of Virginia Sec. 54.1-4009, electronically with local law enforcement;
b. All of the items collected must be contained within the confines of the actual pawnshop;
c. An approved anti-crime security system must be installed to safeguard the premises;
d. Establishment shall not be located within 1000 feet of a similar establishment;
e. Establishment must be located at least 1000 feet from churches, schools, playgrounds;
f. Establishment cannot open for business prior to 10:00 a.m. and must close by 9:00 p.m.

I. C-2 Central Business District.

J. Uses permitted by right in the C-2 District.

61. ~~Pawnshops or~~ second hand stores

K. Uses permitted by special use permit in the C-2 District.

7. Pawnshops, subject to the following conditions:

a. Establishment must maintain and file a daily report, as specified by the Code of Virginia Sec. 54.1-4009, electronically with local law enforcement;

b. All of the items collected must be contained within the confines of the actual pawnshop;

c. An approved anti-crime security system must be installed to safeguard the premises;

d. Establishment shall not be located within 1000 feet of a similar establishment;

e. Establishment must be located at least 1000 feet from churches, schools, playgrounds;

f. Establishment cannot open for business prior to 10:00 a.m. and must close by 9:00 p.m.

M. C-3 General Commercial District.

N. Uses permitted by right in the C-3 District**.**

58. ~~Pawnshops or~~ second hand stores

O. Uses permitted by special use permit in the C-3 District.

7. Pawnshops, subject to the following conditions:

a. Establishment must maintain and file a daily report, as specified by the Code of Virginia Sec. 54.1-4009, electronically with local law enforcement;

b. All of the items collected must be contained within the confines of the actual pawnshop;

c. An approved anti-crime security system must be installed to safeguard the premises;

d. Establishment shall not be located within 1000 feet of a similar establishment;

e. Establishment must be located at least 1000 feet from churches, schools, playgrounds;

f. Establishment cannot open for business prior to 10:00 a.m. and must close by 9:00 p.m.

SECTION XIII: BUSINESS AND MANUFACTURING DISTRICTS

E. M-1 Light Manufacturing District.

F. Uses permitted by right in the M-1 Light Manufacturing District.

57. ~~Pawnshops or~~ second hand stores***.***

G. Uses permitted by special use permit in the M-1 District.

7. Pawnshops, subject to the following conditions:

a. Establishment must maintain and file a daily report, as specified by the Code of Virginia Sec. 54.1-4009, electronically with local law enforcement;

b. All of the items collected must be contained within the confines of the actual pawnshop;

c. An approved anti-crime security system must be installed to safeguard the premises;

d. Establishment shall not be located within 1000 feet of a similar establishment;

e. Establishment must be located at least 1000 feet from churches, schools, playgrounds;

f. Establishment cannot open for business prior to 10:00 a.m. and must close by 9:00 p.m.

I. M-2 Heavy Manufacturing District.

J. Uses permitted by right in the M-2 Heavy Manufacturing District.

All uses are allowed in the M-2 District with exception of the following:

25. Pawnshops

K. Uses permitted by special use permit in the M-2 District.

4. Pawnshops, subject to the following conditions:

a. Establishment must maintain and file a daily report, as specified by the Code of Virginia Sec. 54.1-4009, electronically with local law enforcement;

b. All of the items collected must be contained within the confines of the actual pawnshop;

c. An approved anti-crime security system must be installed to safeguard the premises;

d. Establishment shall not be located within 1000 feet of a similar establishment;

e. Establishment must be located at least 1000 feet from churches, schools, playgrounds;

f. Establishment cannot open for business prior to 10:00 a.m. and must close by 9:00 p.m.

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011
Item No: 9.

Department: Finance

Issue: Consider approval of Preliminary Ordinance, on first reading, for the Building Energy Efficiency Project

Summary: At the October 25 Council meeting, Council approved a Resolution authorizing a Public Hearing and directing necessary actions related to potential bond issuance.

The next step in this process is to consider an Ordinance on first reading that serves the following purposes:

1. Reciting the expediency of the issuance of up to $1,250,000 of General Obligation Bonds (expediency does not mean that the Council declares this as a matter of emergency). Instead, expediency means that the most efficient, effective, and expedient way to provide for such acquisition is by the issuance of General Obligation Bonds.
2. The intended use of the Bonds is for municipal purposes, specifically for energy saving improvements to City buildings and facilities.
3. Issuance of the Bonds is within the power of the City.
4. The issuance of the bonds is in the best interest of the City and its citizens.

Second reading of the same Ordinance will occur on November 22, if adopted on first reading.

Tentative project timeline:

November 8, 2011 – Preliminary Ordinance, 1st reading.

November 22, 2011 – Preliminary Ordinance, 2nd reading.

December 13, 2011 – Financing Ordinance, 1st reading

January 10, 2012 – Public Hearing and 2nd reading of Financing Ordinance

January TBD – Closing

Attachments: Ordinance

Recommendations: Staff recommends adoption of the Ordinance

CITY OF MARTINSVILLE, VIRGINIA

AN ORDINANCE RECITING THE EXPEDIENCY OF THE ISSUANCE OF UP TO $1,250,000 PRINCIPAL AMOUNT OF GENERAL OBLIGATION BONDS OF THE CITY OF MARTINSVILLE, VIRGINIA, AND SETTING FORTH THE PURPOSE, IN GENERAL TERMS, FOR WHICH THE BONDS ARE TO BE ISSUED, THE MAXIMUM AMOUNT OF THE BONDS TO BE ISSUED AND THE MAXIMUM LENGTH OF TIME SUCH BONDS WILL BE OUTSTANDING

Adopted on November 8, 2011

Be it Ordained by the Council of the City of Martinsville, Virginia:

Section 1 - Findings and Determinations

The City Council **("City Council")** of the City of Martinsville, Virginia **(the "City")** proposes to issue bonds for the purpose of assisting in the acquisition, construction, expansion, renovation and equipping of energy saving improvements to City buildings and facilities, all for municipal purposes **(together, the "Project")** and hereby finds and determines that: (i) the City is in need of funds to be used by the City for such construction and equipment needs brought to the attention of the City Council by the Martinsville City Manager, specifically for the Project, for costs of issuance of the Bonds (defined below) and for payment of interest on the Bonds; (ii) the obtaining of such funds will be for municipal purposes of the City, for the welfare of citizens of the City for purposes which will serve the City and its citizens pursuant to the authority of the City to provide funds for the City's buildings and facilities used for municipal purposes; (iii) the most effective, efficient and expedient manner in which to provide such funds to the City is through the issuance of general obligation bonds in an original principal amount not to exceed $1,250,000 to be issued by the City as further described herein **(the "Bonds")** to be used for the acquisition, construction and equipping of the Project and for certain costs of issuance of the Bonds; (iv) the issuance of the Bonds is within the power of the City to contract debts, borrow money and make and issue evidence of indebtedness; and, (iv) the issuance of the Bonds is in the best interests of the City and its citizens.

Section 2 - Description of the Bonds

The City Council finds that it is expedient for the City to borrow money and issue the Bonds for the Project in a maximum amount not to exceed ONE MILLION TWO HUNDRED FIFTY THOUSAND DOLLARS ($1,250,000). The maximum length of time that the Bonds will be outstanding is twenty years from the date of issuance of the Bonds. The form and details of the Bonds which are proposed to be issued will be more specifically set forth in a City Ordinance to be entitled "AN ORDINANCE AUTHORIZING THE ISSUANCE OF UP TO $1,250,000 MAXIMUM PRINCIPAL AMOUNT OF GENERAL OBLIGATION BONDS OF THE CITY OF MARTINSVILLE, VIRGINIA AND PROVIDING FOR THE FORM, DETAILS AND PAYMENT THEREOF, which will be introduced before the Council and considered for final passage following a public hearing on the issuance of the Bonds, as required by law.

Section 3 - Further Actions Authorized

The City Manager, Clerk of the Council, City Treasurer, City Attorney, Sands Anderson PC as bond counsel, Davenport & Company LLC as financial advisor to the City and all other

officers, employees and agents of the City are hereby authorized and directed to take any and all such further action as shall be deemed necessary or desirable to facilitate consideration of the issuance of the Bonds. All actions of the City Manager, Clerk of the Council, City Treasurer, City Attorney, bond counsel, the City's financial advisor and all other officers, employees and agents of the City in furtherance of the issuance of the Bonds and the financing of the Project are hereby approved and ratified.

Section 4 - Invalidity of Sections

If any section, paragraph, clause or provision of this Ordinance shall be held invalid or unenforceable for any reason, the invalidity or unenforceability of such section, paragraph, clause or provision shall not affect any of the remaining portions of this Ordinance.

Section 5 - Headings of Sections

The headings of the sections of this Ordinance shall be solely for convenience of reference and shall not affect the meaning, construction, interpretation or effect of such sections of this Ordinance.

Section 6 - Effective Date and Filing of Ordinance

Council hereby declares in the public interest that this Ordinance shall become effective immediately upon its passage. A copy of this Ordinance, certified by the Clerk of the Council, shall be filed with the Clerk of the Circuit Court of the City of Martinsville, Virginia.

The Members of the Council voted as follows on the foregoing Ordinance:

Ayes	**Nays**

Absent	**Abstentions**

Adopted this 8th day of November, 2011 (first reading).

_____

The undersigned Clerk of the City Council of the City of Martinsville, Virginia hereby certifies that the foregoing constitutes a true and correct extract from the minutes of a meeting of the City Council held on November 8, 2011, and of the whole thereof so far as applicable to the matters referred to in such extract. I hereby further certify that such meeting was a regularly called meeting and that, during the consideration of the foregoing Ordinance, a quorum was present.

Dated this _____ day of _____, 2011.

_____
Clerk, City Council of
City of Martinsville, Virginia

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Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 11.

Department: Finance

Issue: Consider approval of consent agenda.

Summary:

The attachments amend the FY12 Budgets with appropriations in the following funds:

FY12:
General Fund: $3,670 – reimbursement for Liberty St-Phase II; recovered costs-Senior Services; donations-Fire Department

Electric Fund: $115,096 – Reimbursement for Liberty St-Phase II

Attachments: Spreadsheet

Recommendations: Motion to approve

BUDGET ADDITIONS FOR 11/08/11

ORG	OBJECT	DESCRIPTION	DEBIT	CREDIT
FY12				
GENERAL FUND				
01100908	480410	Miscellaneous - Donations/Fire Department		300
01321102	505500	Fire Dept - Travel & Training	300	
		designated donation through United Way		
01100909	490801	Recovered Costs - Senior Citizens		1,050
01714212	501300	Senior Services - Part-Time & Temporary Wages	571	
01714212	502100	Senior Services - Social Security	35	
01714212	502110	Senior Services - Medicare	9	
01714212	506049	Senior Services - Vehicle Fuel	435	
		in support of Senior services		
01101917	442810	Categorical Other State -Highway Projects		2,320
01413151	508234	Thoroughfare Construction - Utility Relocation	2,320	
		DOT Reimbursement/Liberty St-Phase II		
Total General Fund:			3,670	3,670
ELECTRIC FUND				
14101917	442810	Categorical Other State - Liberty St Elec Utility Costs		115,096
14564339	503191	Electric Construction - Prof. Services-Contract Labor	115,096	
		DOT Reimbursement/Liberty St-Phase II		
Total Electric Fund:			115,096	115,096

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 10.

Department: City Council

Issue: Hear an overview of November 7, 2011 Council Neighborhood Meeting and tour of Southside area.

Summary: Mayor Kim Adkins will give an overview of citizen input received at the November 7, 2011 Southside area Neighborhood Meeting.

Attachments:

Recommendations:

Martinsville
A CITY WITHOUT LIMITS

City Council Agenda Summary

Meeting Date: November 8, 2011

Item No: 12.

Department: Finance

Issue: Consider approval of payroll deduction employee computer purchase program.

Summary:

The Martinsville City and School Administrations are taking preliminary steps in offering a payroll deduction employee computer purchase program. Under this program, the City and School will front-fund the cost and employees will have the opportunity to purchase an Apple iPad 2 or an HP ProBook with the cost, including applicable sales tax, recovered through six monthly payroll deductions from January through June 2012. The benefit to employees will be the cost savings realized through a bulk purchase program with six-month no-interest financing through payroll deduction payments. The City will not provide a warranty for any units purchased. Any warranty, software, or other issues will be strictly between the purchaser and Apple or HP.

Attachments: Purchase Agreement
Order Form

Recommendations: Motion to approve employee purchase program and appropriation of funds, said funds to be recovered through payroll deduction. The specific amount will be announced at the meeting.

Please check the computer option you wish to purchase:

☐ **Option 1 –** Apple iPad 2

- 16 GB, $499.00 + $24.95 tax, Total $523.95 (first month payment of $87.35; next five monthly payments of $87.32 each)

☐ **Option 2 –** Apple iPad 2

- 32 GB, $599.00 + $29.95 tax, Total $628.95 (first monthly payment of $104.85; next five monthly payments of $104.82 each)

☐ **Option 3 –** Apple iPad 2

- 64 GB, $699.00 + $34.95 tax, Total $733.95 (first monthly payment of $122.35; next five monthly payments of $122.32 each)

☐ **Option 4 –** HP ProBook 4530s ($512.34) w/Microsoft Office Home and Business 2010 ($174.24)

- $686.58 + $34.33 tax, Total $720.91 (first monthly payment of $120.16; next five monthly payments of $120.15 each)
- Core i3 2310M/2.1GHz – RAM 4GB – HDD 320GB – DVD+/-RW/DVD-RAM – HD Graphics 3000 – Gigabit Ethernet – WLAN; 802.11b/g/n, Bluetooth 2.1, Bluetooth 3.0HS – fingerprint reader – Windows 7 Home Premium 64-bit – 15.6" Widescrren LED backlight HD

☐ **Option 5 –** HP ProBook 4535s ($594.15) w/Microsoft Office Home and Business 2010 ($174.24)

- $768.39 + $38.42 tax, Total $806.81 (first monthly payment of $134.51; next five monthly payments of $134.46 each)
- Fusion A4-3300M/1.9GHz – AMD Vision – RAM 4GB – HDD 500GB – DVD+/-RW/DVD-RAM-Radeon HD 6480G – Gigabit Ethernet – WLAN: 802.11b/g/n, Bluetooth 2.1 EDR, Bluetooth 3.0HS – fingerprint reader – Windows 7 Pro 64-bit – 15.6" Widescreen LED backlight

PLEASE PRINT

Name
Address
Email Address
Home Telephone Number ( )
Work Telephone Number ( )
Cell Telephone Number ( )
Department in which you work

MARTINSVILLE CITY EMPLOYEE COMPUTER PURCHASE AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 2011, between City of Martinsville, hereinafter referred to as “Employer” and _____, hereinafter referred to as “Employee”.

WHEREAS, both parties seek to enhance the education of students and employees of the City; and

WHEREAS, an essential element of this initiative is ensuring our teachers and employees have access to and are trained in the basic operation of microcomputers and software; and

WHEREAS, the Employer acts under the authority of Virginia Code §40.1-29(C); now therefore

WITNESSETH: _____ agrees to purchase computer equipment from the Employer upon the following terms and conditions:

1) The computer shall be _____

2) The sale price shall be $_____.

3) _____ agrees to pay to the Employer the full amount of the vendor invoice upon receipt of the merchandise. In the event the Employee does not pay the amount in full, the balance will be collected in accordance with item 4 and 5 below.

4) _____agrees to and authorizes the Employer to deduct from his/her wages one (1) monthly payment of $_____ and five (5) monthly payments of $_____ for a sum of $_____ for the purchase of the computer described herein, for a period of six (6) months, beginning January, 2012 and ending June, 2012 at no interest.

5) In the event of the death of Employee or termination of employment for any reason or other default in payment due the Employer by the Employee, the Employer shall deduct the remaining unpaid balance from any sums due the Employee. Any remaining balance shall be considered a charge owed to the City of Martinsville and the City Treasurer may proceed to collect said balance using the statutory powers of collection authorized by the Code of Virginia.

6) Employee acknowledges that Employer may, in its sole and exclusive discretion, limit the number of computer purchased, and may therefore unilaterally void this agreement prior to any purchase being made.

This _____ day of _____, 2011.

MARTINSVILLE CITY PUBLIC SCHOOLS

By _____
Pam Heath, Superintendent

CITY OF MARTINSVILLE

By _____
Clarence Monday, City Manager

_____
Employee

This contract is approved as to form in accordance with Virginia Code §15.2-1237.