

*November 13, 2007*

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November 13, 2007 Board of Supervisors Resolution Adopting Route 220 Corridor Study

V

To: Tim Beard

From: Ramona P. Kerr, Crime Analyst

Date: July 18, 2007

Subject: Franklin Rd/Yellow Mountain Rd Accidents

Listed below is the data you requested for accidents occurring on Franklin Rd (at or near Yellow Mountain Rd) and Yellow Mountain Rd (at or near Franklin Rd) for the time period January 1, 2004 - December 31, 2006. Please note that this data covers 2 computers systems and information from the previous system is limited. However, I was able to extract the data from previous work saved in Excel.

Please let me know if I can be of further assistance.

Case #	Date	Time	Injury	Location	Collision	Driver's Action
04-010964	02/05/2004	7:18	No Injury	FRANKLIN RD 750 F N YELLOW MOUNTAIN RD	Other Animal	No Improper Action
04-013986	02/15/2004	15:22	No Injury	FRANKLIN RD @ YELLOW MOUNTAIN RD	Angle	Do Not Have Right-of-Way
04-025810	03/25/2004	13:15	Injury	FRANKLIN RD @ YELLOW MOUNTAIN RD	Angle	Do Not Have Right-of-Way
04-030774	04/11/2004	14:20	Injury	FRANKLIN RD 900 F N YELLOW MOUNTAIN RD	Fixed Object-off road	Other Violations
04-031265	04/14/2004	15:14	No Injury	FRANKLIN RD 25 F N YELLOW MOUNTAIN RD	Sideswipe-same direction	Other Improper Passing
04-037786	05/04/2004	6:13	No Injury	FRANKLIN RD 1,320 F S YELLOW MOUNTAIN RD	Deer	No Improper Action
04-051098	06/14/2004	13:12	No Injury	FRANKLIN RD 0.20 M S YELLOW MOUNTAIN RD	Rear End	Following too Close
04-087098	10/10/2004	23:45	No Injury	FRANKLIN RD 1,584 F N YELLOW MOUNTAIN RD	Deer	No Improper Action
04-009929	02/01/2004	13:46	No Injury	YELLOW MOUNTAIN RD @ FRANKLIN RD	Rear End	Following too Close
05-067157	8/30/2005	16:21	Injury	FRANKLIN RD 400 F N YELLOW MOUNTAIN RD	Fixed Object-off road	Fail to maintain Prop Control
05-083324	10/28/2005	0:23	No Injury	FRANKLIN RD 75 F N YELLOW MOUNTAIN RD	Deer	Exceed Speed Limit
2006010248	2/9/2006	22:39	No Injury	FRANKLIN RD	Angle	Improper Lane Change
2006018691	3/17/2006	18:49	Injury	FRANKLIN RD 1056 F S YELLOW MOUNTAIN RD	Angle	Fail to Maintain Proper Control
2006014161	2/27/2006	10:42	Injury	FRANKLIN RD	Fixed Object - Off Road	No Improper Action
2006077528	11/23/2006	23:00	No Injury	FRANKLIN RD 200 F S YELLOW MOUNTAIN RD	Deer	No Improper Action
2006078519	11/28/2006	0:01	No Injury	FRANKLIN RD 528 F S YELLOW MOUNTAIN RD	Deer	No Improper Action
2006050205	8/3/2006	23:10	Injury	FRANKLIN RD .1 M N YELLOW MOUNTAIN RD	Fixed Object - Off Road	Fail to Maintain Proper Control
2006085963	12/28/2006	18:00	No Injury	FRANKLIN RD	Angle	Fail to Maintain Proper Control

Aerial Imagery © 2002 Commonwealth of Virginia

**ROUTE 220 SAFETY IMPROVEMENTS**  
 PROJ. 0220-962-102, N501  
 SHEET 1 OF 10

SCALE  
 0 200' 400'

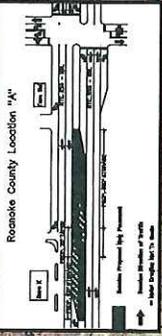
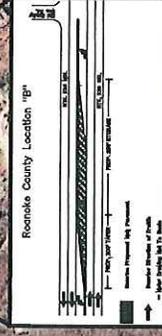
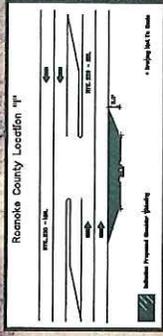
**LEGEND**

- ⊕ Existing Crossover to be Closed
- ⊖ Existing Left Turn Lane at Crossover
- Existing Crossover to Remain Open

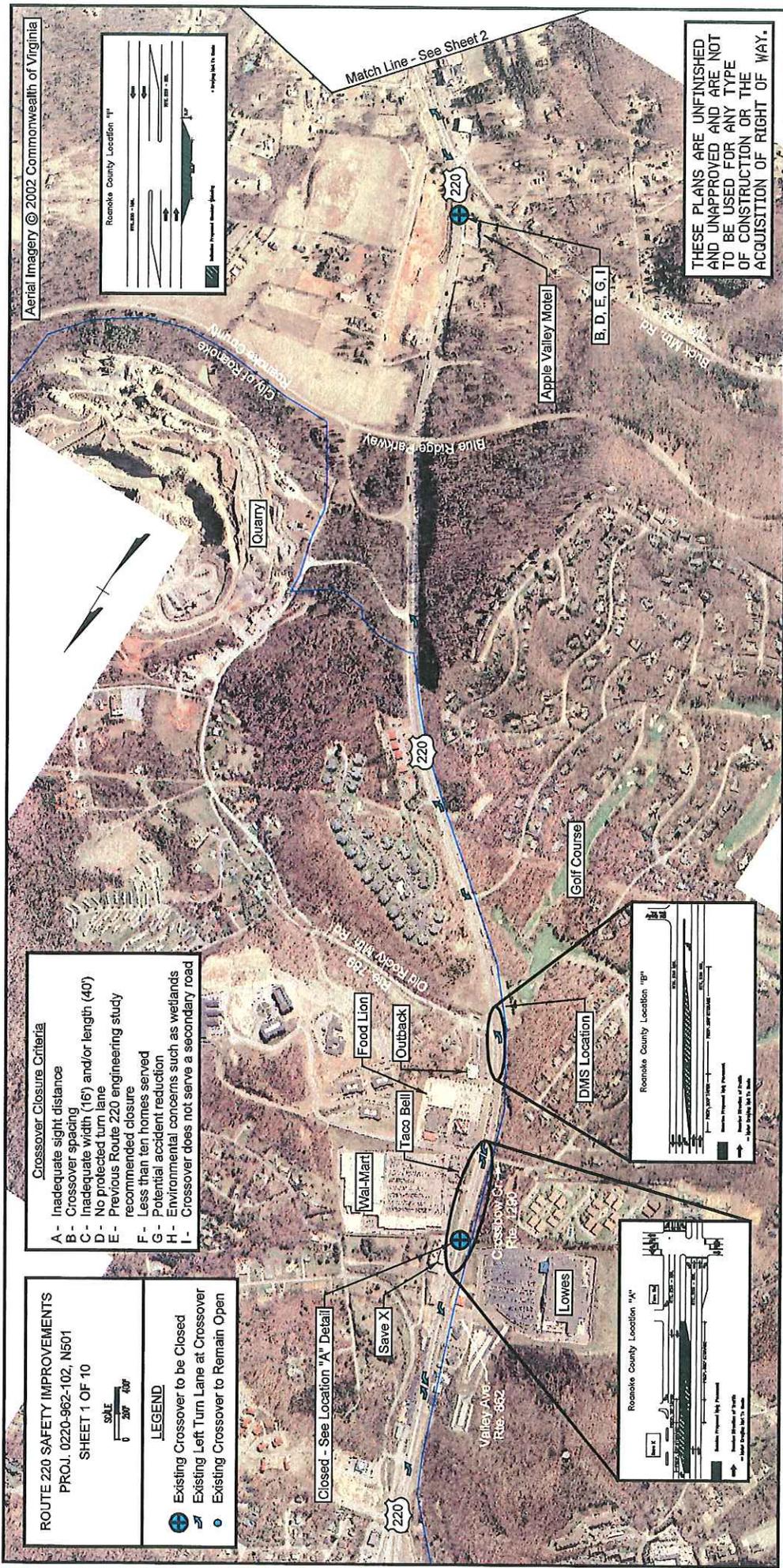
Closed - See Location "A" Detail

**Crossover Closure Criteria**

- A- Inadequate sight distance
- B- Crossover spacing
- C- Inadequate width (16') and/or length (40')
- D- No protected turn lane
- E- Previous Route 220 engineering study recommended closure
- F- Less than ten homes served
- G- Potential accident reduction
- H- Environmental concerns such as wetlands
- I- Crossover does not serve a secondary road



THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



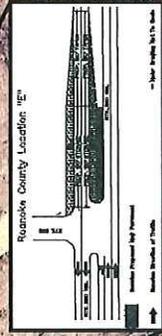
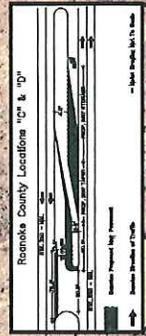
Aerial Imagery © 2002 Commonwealth of Virginia

**LEGEND**

- ⊕ Existing Crossover to be Closed
- ⊖ Existing Left Turn Lane at Crossover
- Existing Crossover to Remain Open

**ROUTE 220 SAFETY IMPROVEMENTS**  
 PROJ. 0220-962-102, N501  
 SHEET 2 OF 10

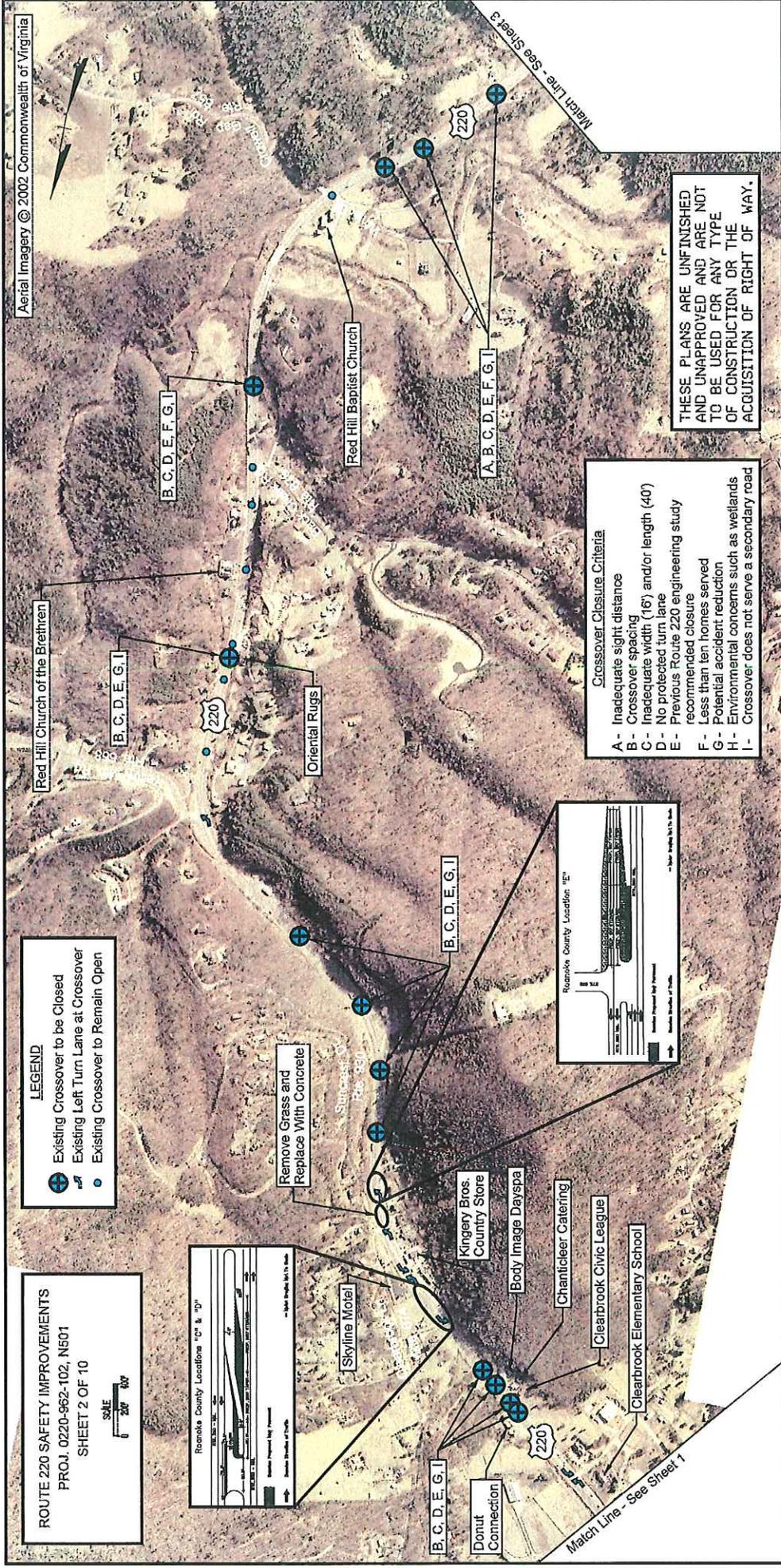
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**Crossover Closure Criteria**

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Match Line - See Sheet 3

Match Line - See Sheet 1

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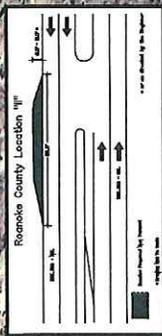
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

**LEGEND**

-  Existing Crossover to be Closed
-  Existing Left Turn Lane at Crossover
-  Existing Crossover to Remain Open

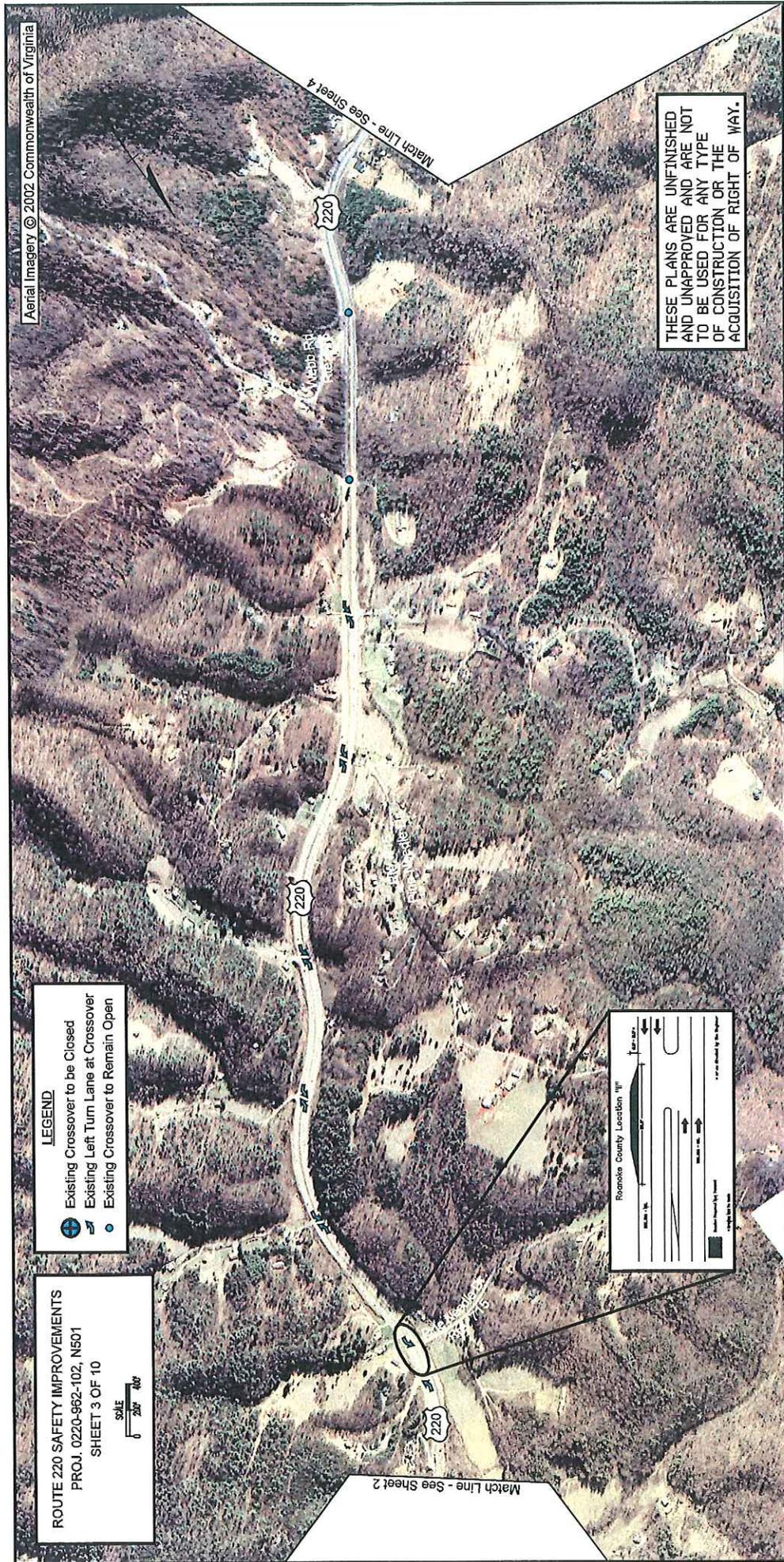
**ROUTE 220 SAFETY IMPROVEMENTS**  
 PROJ. 0220-962-102, N501  
 SHEET 3 OF 10

SCALE  
 0 200 400



Match Line - See Sheet 4

Match Line - See Sheet 2



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**ROUTE 220 SAFETY IMPROVEMENTS**  
 PROJ. 0220-962-102, N501  
 SHEET 4 OF 10

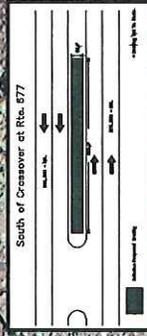
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**LEGEND**

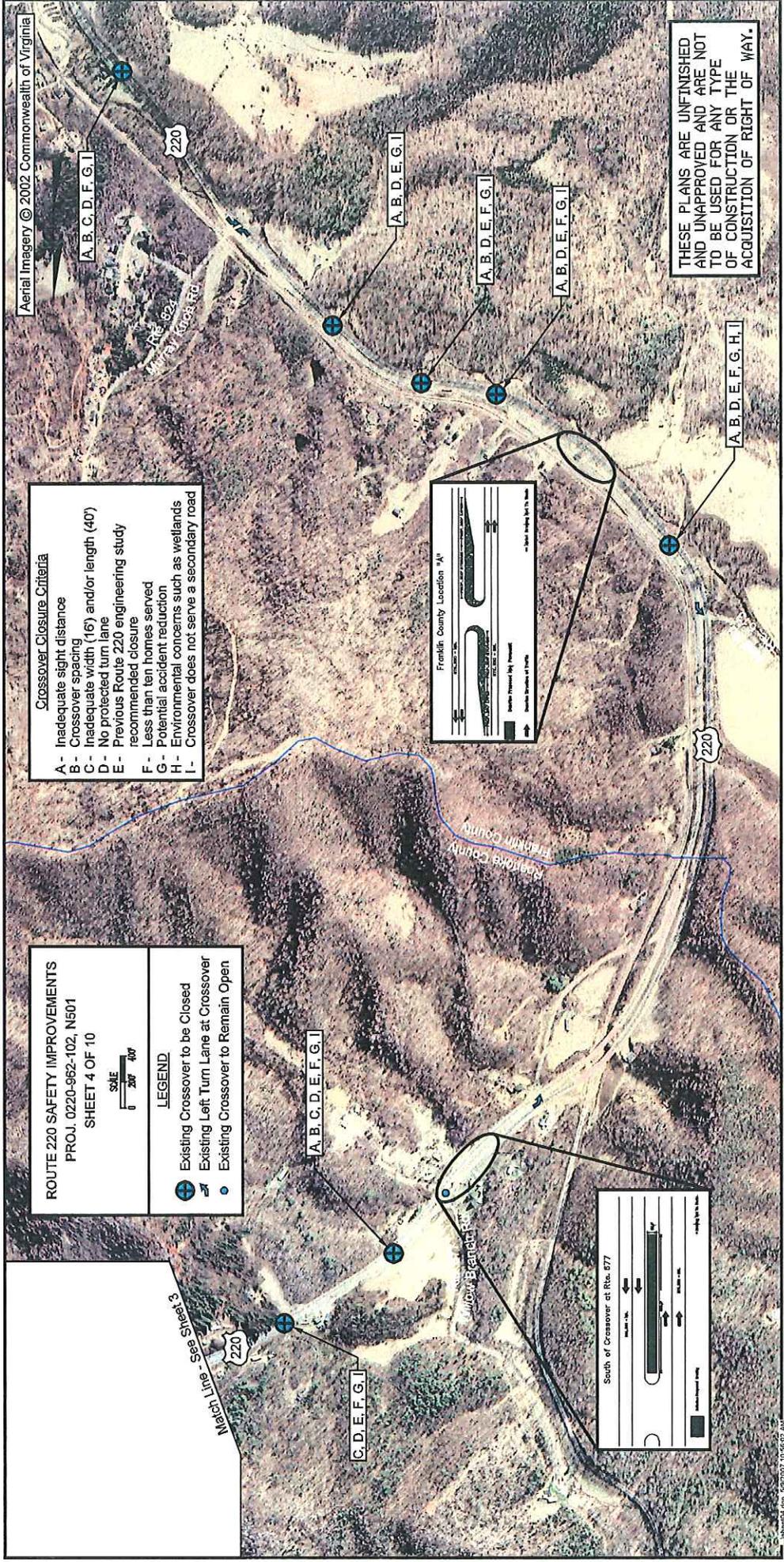
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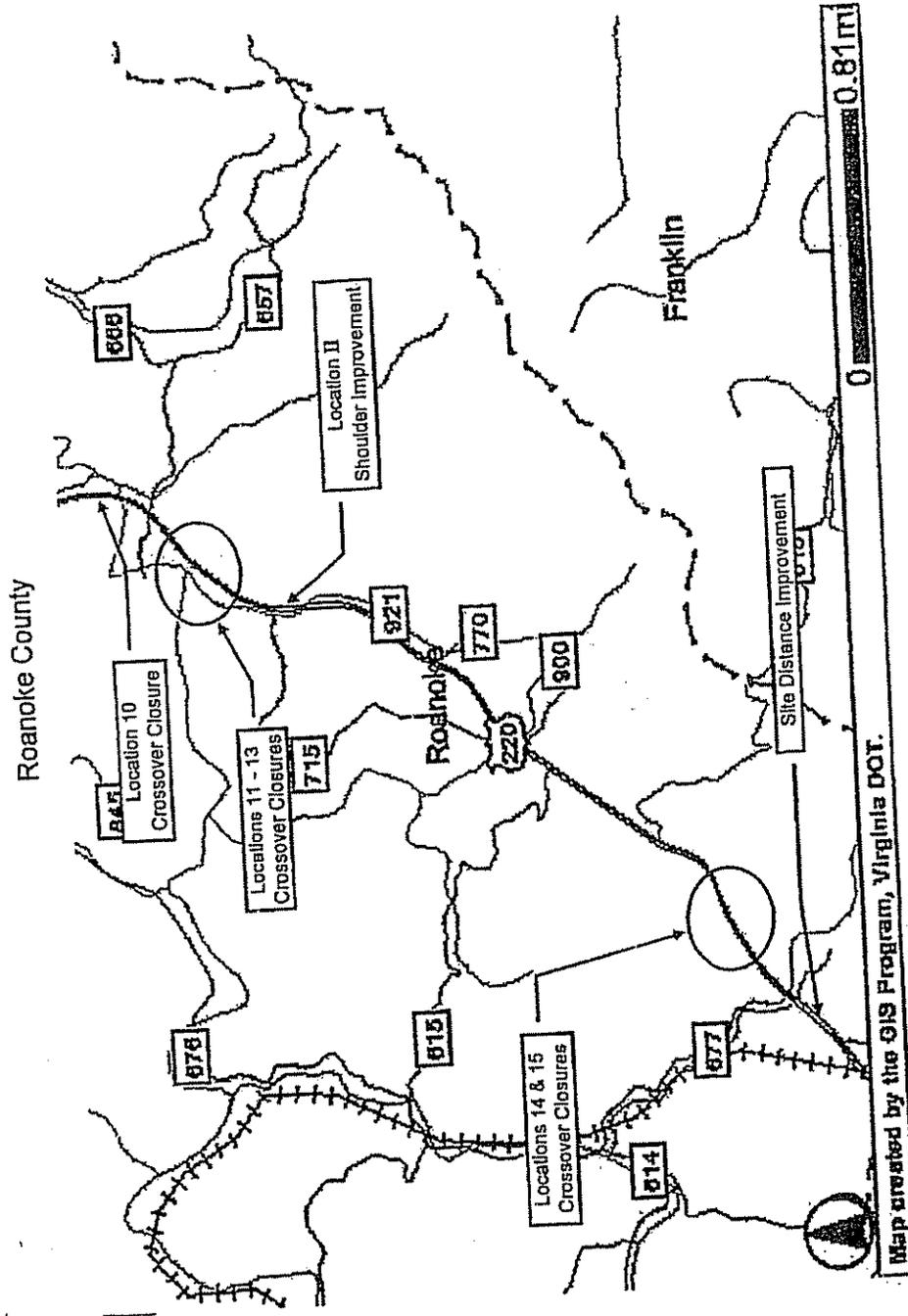
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CONTRACT ID. NO.: C00073723N01B

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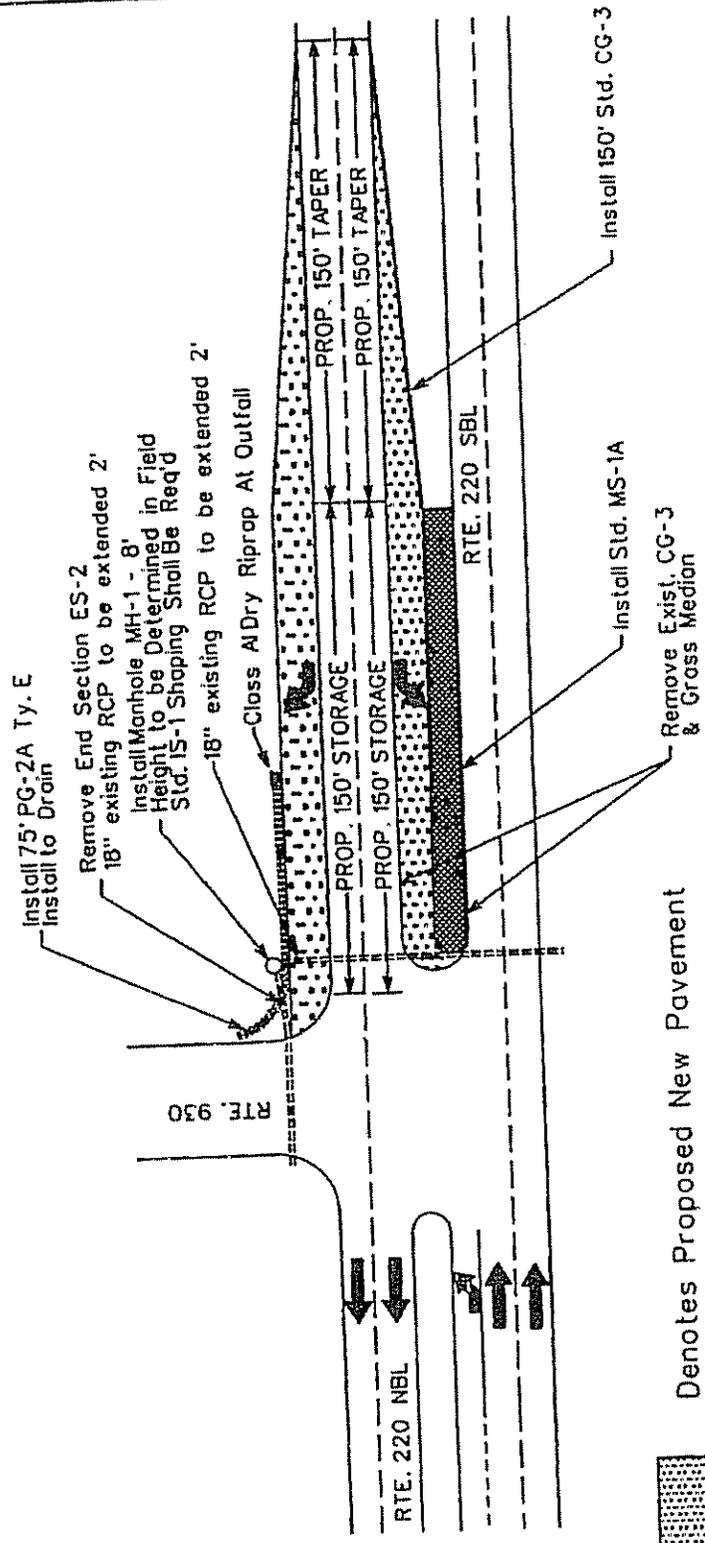
### **PROJECT NARRATIVE**

The purpose of this project is to close dangerous non-critical crossovers, provide turning lanes where needed at crossover locations and to lengthen existing turning lanes at various locations on Route 220 between Roanoke and Boones Mill. All of this work will be performed within the existing right of way. Traffic is to be maintained at all times during construction.





Rte. 220 NBL  
 Int. Rte. 930  
 Roanoke County Location "E"  
 Construct Right & Left Turn Lanes

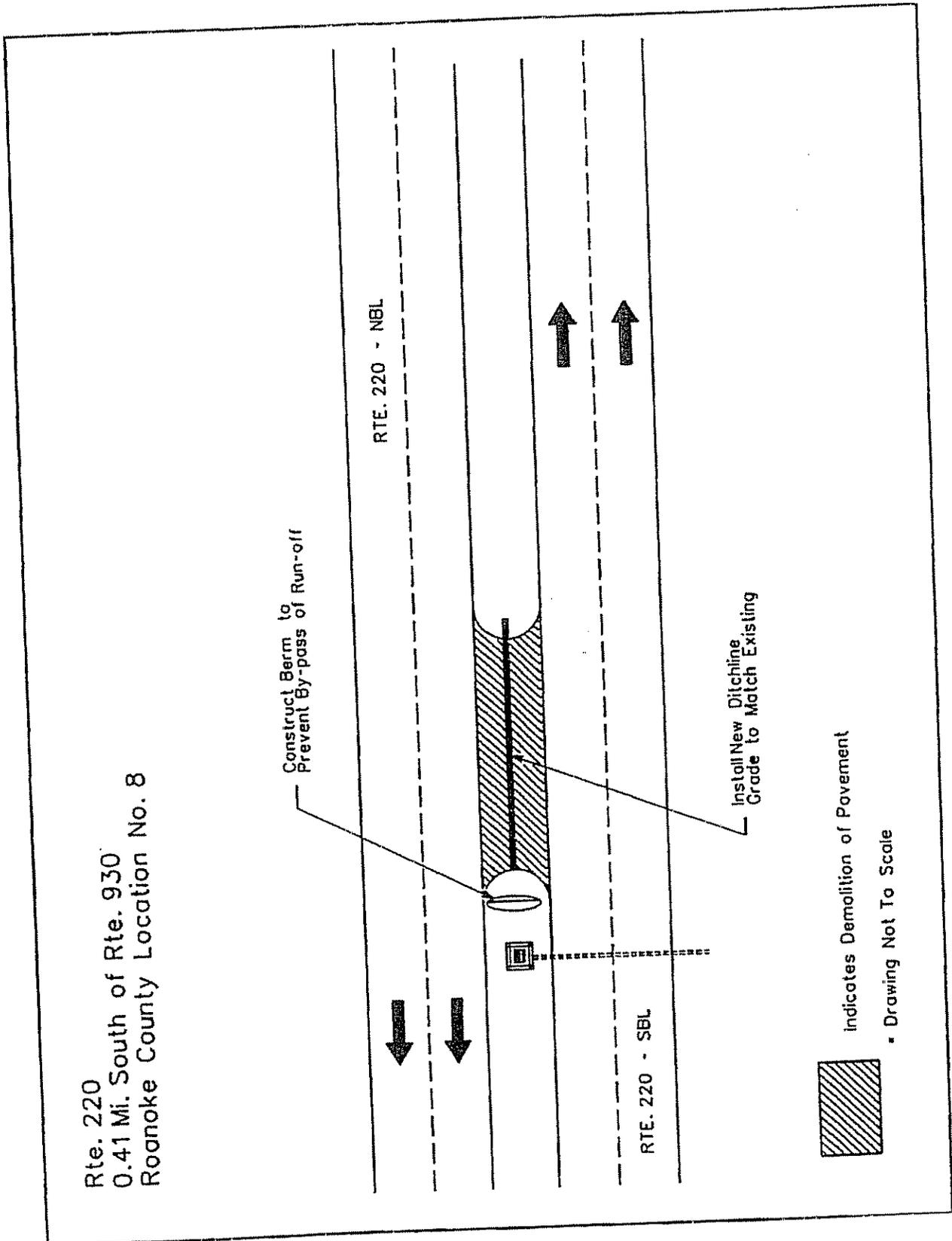


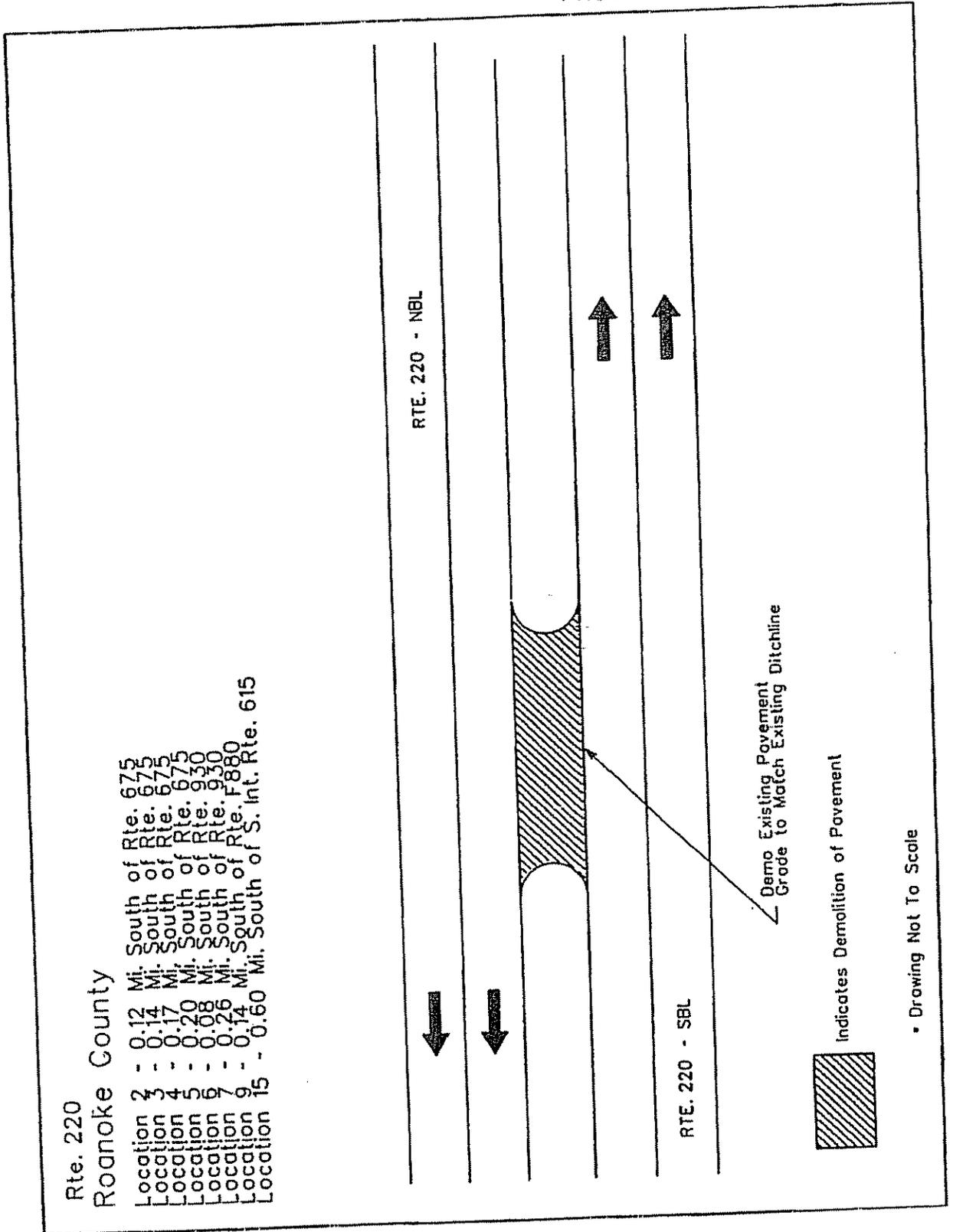
Denotes Proposed New Pavement



Denotes Direction of Traffic

\*\* Note: Drawing Not To Scale





Rte. 220  
 Roanoke County

Location 2	- 0.12 Mi. South of Rte. 675
Location 3	- 0.14 Mi. South of Rte. 675
Location 4	- 0.17 Mi. South of Rte. 675
Location 5	- 0.20 Mi. South of Rte. 930
Location 6	- 0.28 Mi. South of Rte. 930
Location 7	- 0.26 Mi. South of Rte. F880
Location 8	- 0.14 Mi. South of S. Int. Rte. 615
Location 9	- 0.14 Mi. South of S. Int. Rte. 615
Location 15	- 0.60 Mi. South of S. Int. Rte. 615

Rte. 220  
0.11 Mi. South of Rte. 676  
Roanoke County Location No. 10

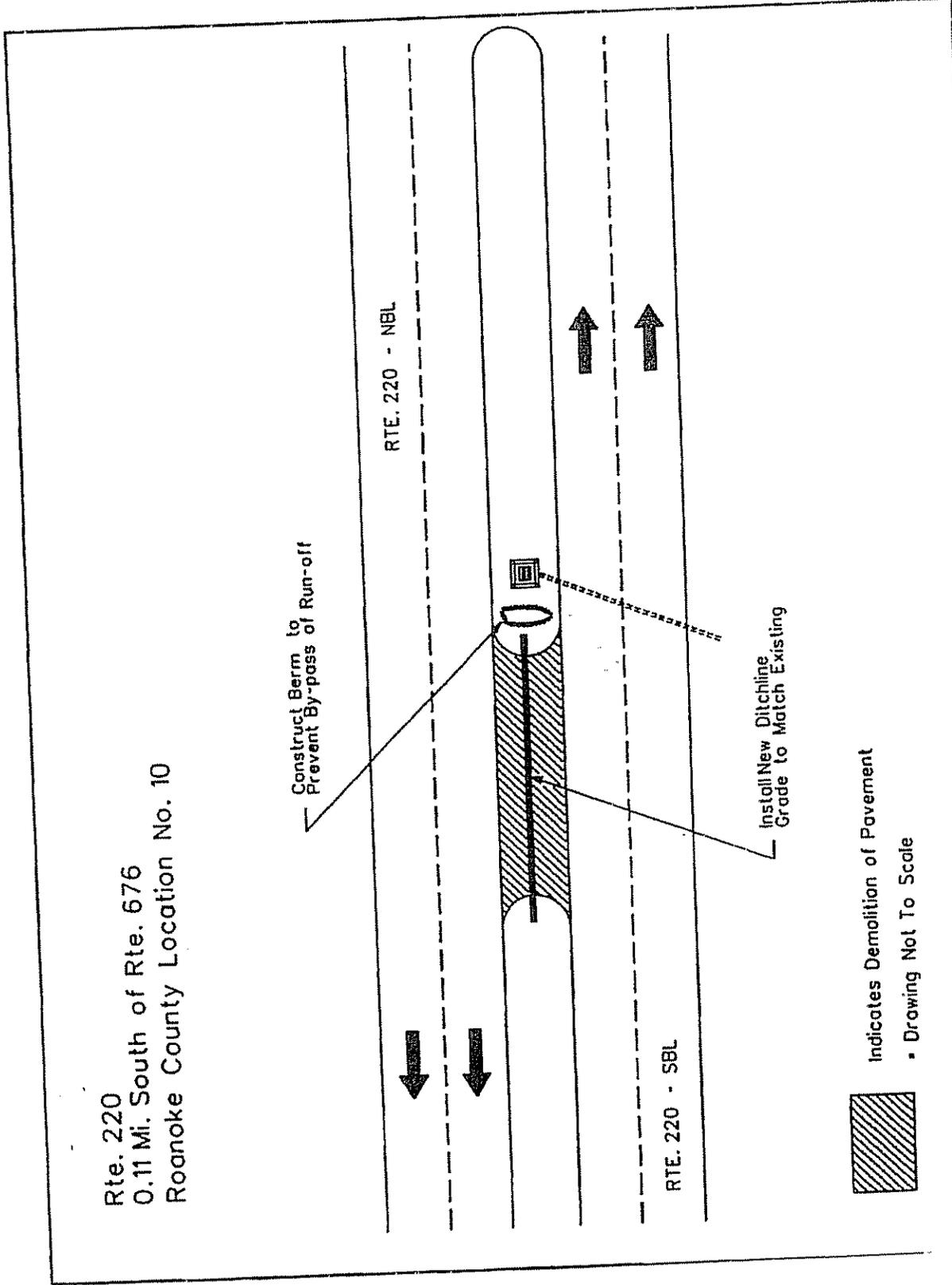
Construct Berm to  
Prevent By-pass of Run-off

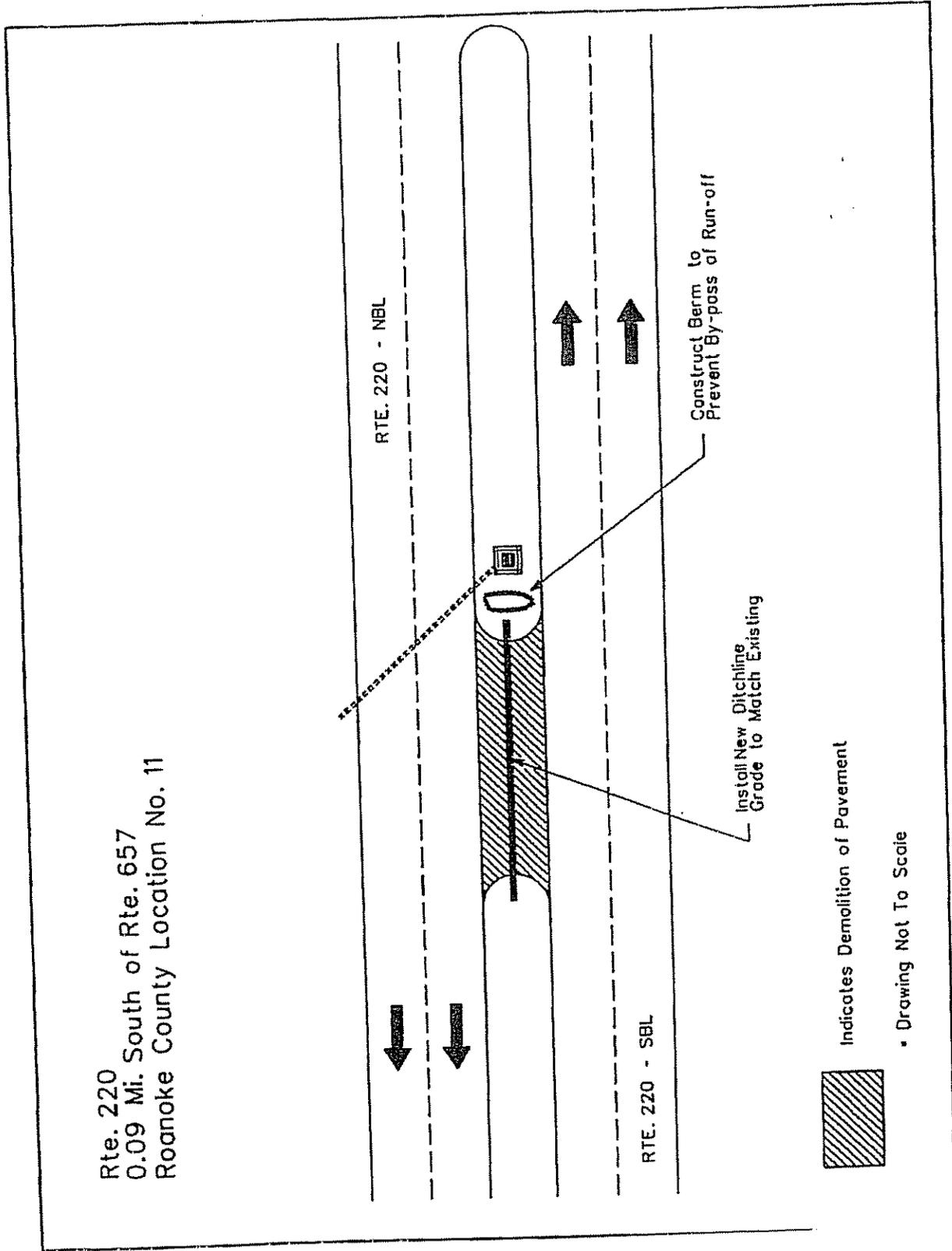
RTE. 220 - NBL

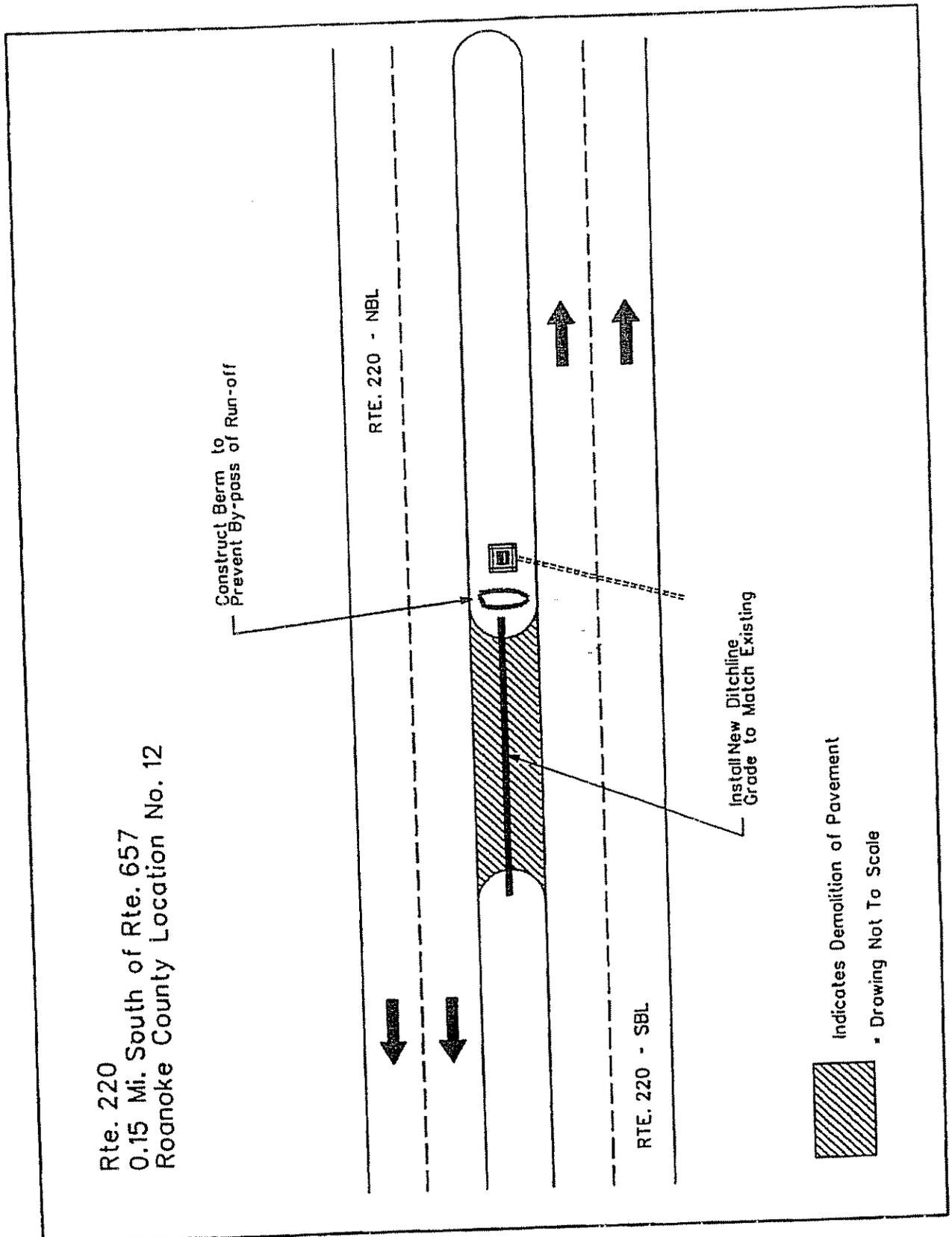
Install New Ditchline  
Grade to Match Existing

RTE. 220 - SBL

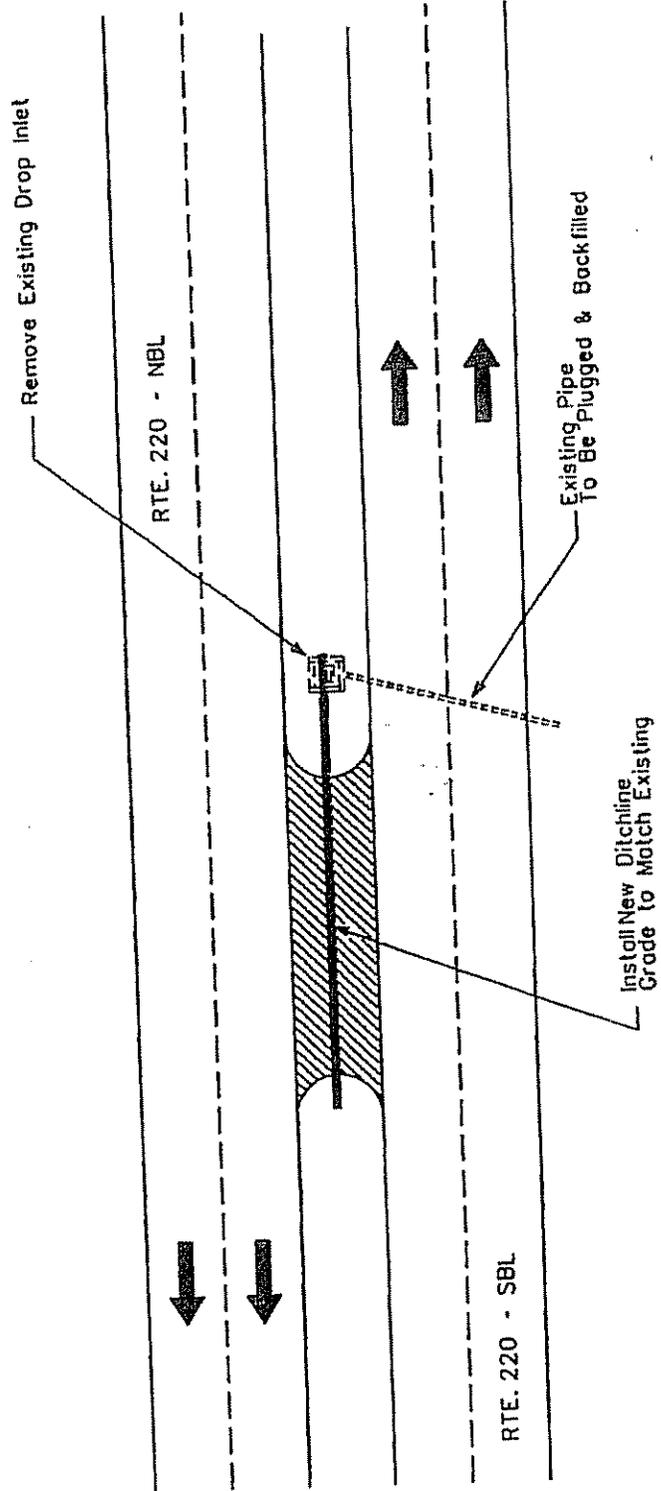
Indicates Demolition of Pavement  
• Drawing Not To Scale

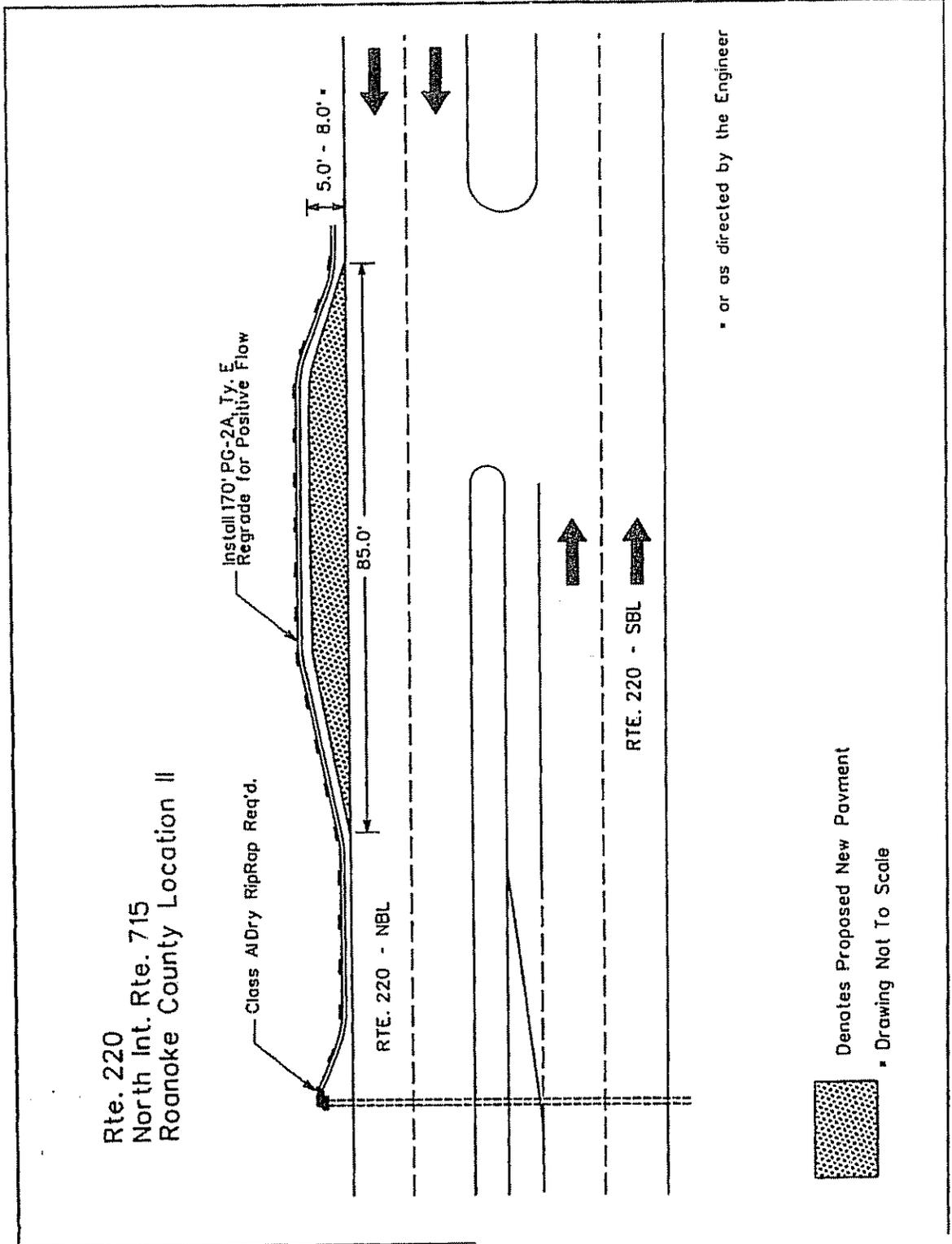


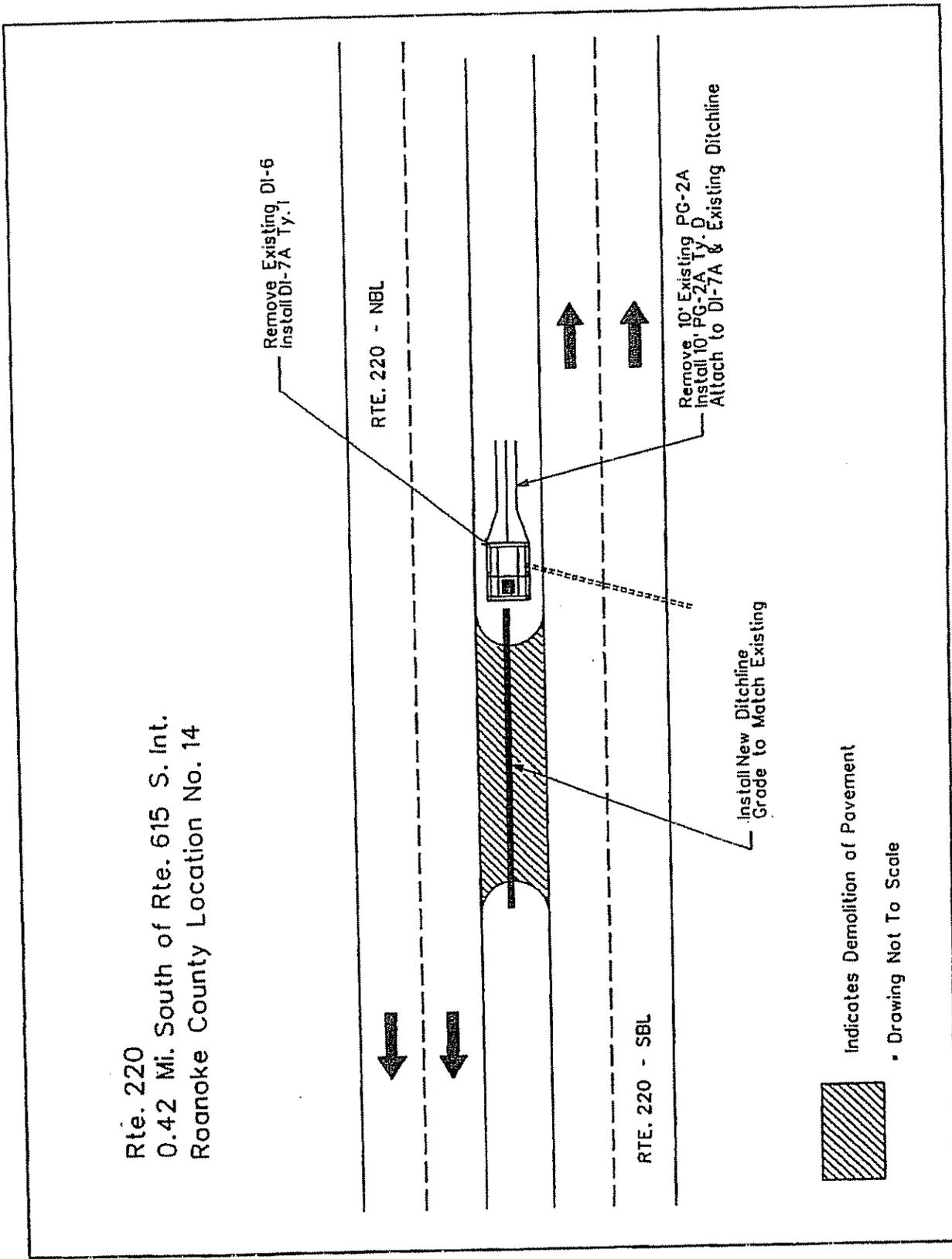




Rte. 220  
0.28 Mi. South of Rte. 657  
Roanoke County Location No. 13

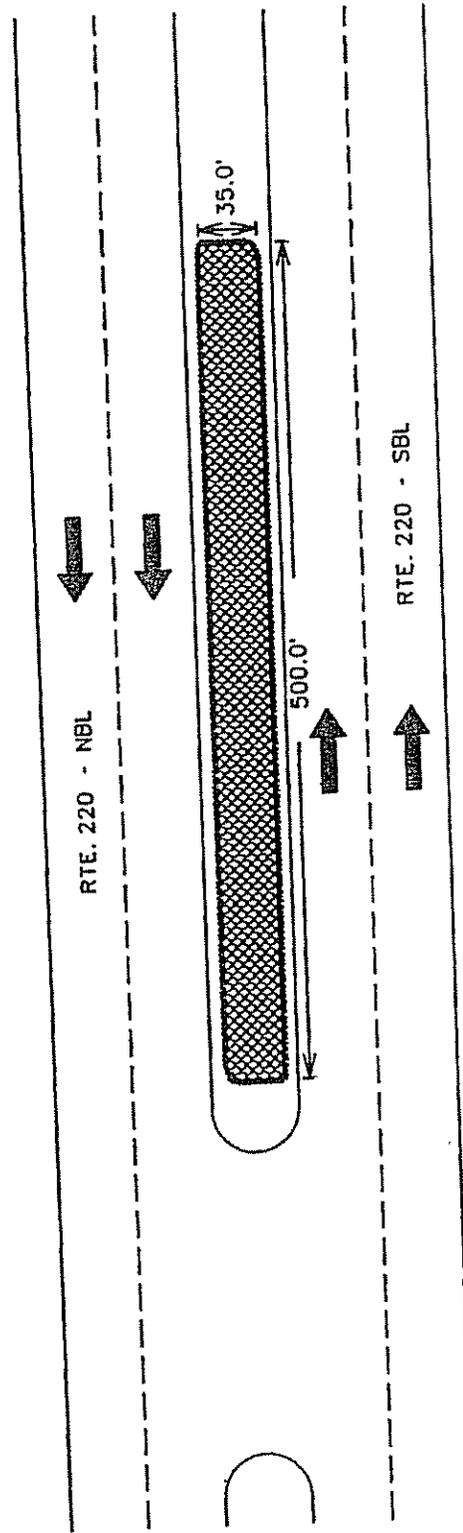






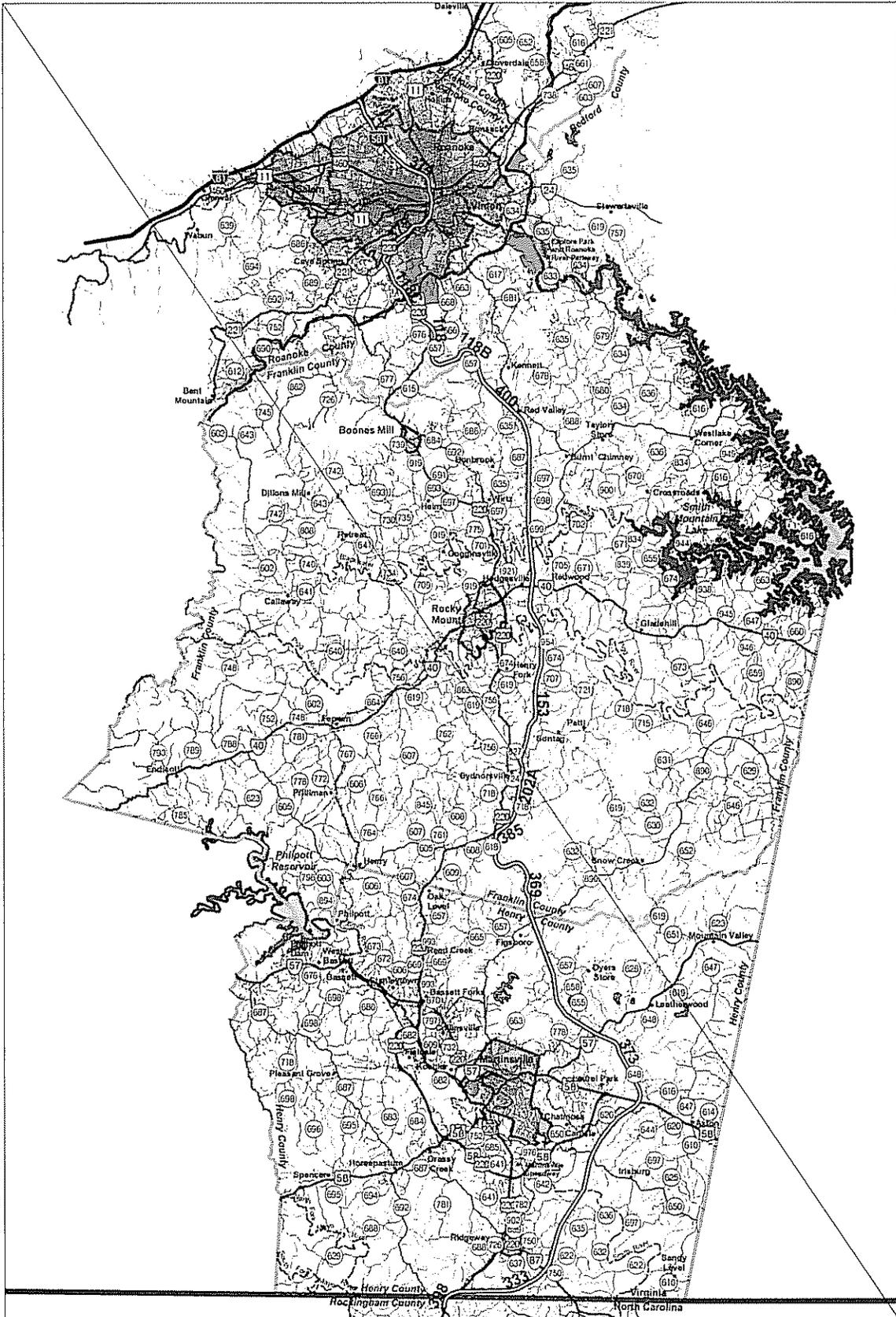
Rte. 220  
0.42 Mi. South of Rte. 615 S. Int.  
Roanoke County Location No. 14

Rte. 220  
South of Crossover at Rte. 677  
Roanoke County - Site Distance Improvement



Indicates Proposed Grading

• Drawing Not To Scale



**FUTURE 73** I-73 Location Study

**FIGURE 2.6-6**  
ADOPTED LOCATION CORRIDOR  
JULY 15, 2004



**Preliminary Engineering Report**

**Extension of Public Water  
Suncrest Heights Subdivision Area of Roanoke County to  
Plateau Plaza/Wirtz Area of Franklin County**

This Preliminary Engineering Report has been prepared for Franklin County Board of Supervisors, Roanoke County Board of Supervisors, & Western Virginia Water Authority. This report documents investigation by Earth Environmental Consultants, Inc. regarding the extension of a public water supply to the Plateau Plaza/Wirtz area of Franklin County. This report is based upon the data currently available, as described in the report, and is believed to be as accurate as the available data permits.

Prepared for:

Franklin County Board of Supervisors  
Roanoke County Board of Supervisors  
Western Virginia Water Authority

Prepared by:

Earth Environmental Consultants, Inc.

James N. Lovell, Jr. P.E.  
Principal

Reviewed by:

Marty E. Prillaman, P.E.  
Senior Project Engineer

Project #FCPP1004  
Date: July 12, 2007

Engineers • Geologists • Scientists • Planners  
375 Franklin Street, Rocky Mount, VA 24151  
540-483-5975 • Toll Free 888-663-9719 • Fax 540-483-2221  
[www.earthenv.com](http://www.earthenv.com)

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**APPENDICES**

<b>Appendix 1</b>	<b>Preliminary Engineering Report Proposed Waterline maps Page 1 thru 3</b>
<b>Appendix 2</b>	<b>Water Agreement Resolution between Franklin County, Roanoke County &amp; WVWA</b>
<b>Appendix 3</b>	<b>WVWA Water Rates</b>
<b>Appendix 4</b>	<b>Franklin County Water Rates</b>

# **PRELIMINARY ENGINEERING REPORT**

## **Extension of Public Water Suncrest Heights Subdivision Area of Roanoke County to Plateau Plaza/ Wirtz Area of Franklin County**

### **1. INTRODUCTION**

Earth Environmental Consultants, Inc. (EEC) has been contracted by Franklin County Board of Supervisors to prepare a Preliminary Engineering Report (PER) outlining Franklin County's options for providing public water along the Route U.S. 220 corridor to the Plateau Plaza/Wirtz area of Franklin County. The purpose of the PER is to identify the most desirable solution to meet the future needs of Franklin County and this service area. Consideration will also be given to providing adequate fire protection and the capability to supply other residential areas and commercial establishments along the Route U.S. 220 corridor. This corridor is subject to low yield wells or areas with minimal groundwater development potential.

### **2. BACKGROUND**

#### **2.1. PETROLEUM CONTAMINATION:**

A petroleum release in the Plateau Plaza/Wirtz area on the east side of Route U.S. 220 corridor has resulted in the contamination of four (4) residential drinking water wells. The Virginia Department of Environmental Quality (VDEQ) has assigned Pollution Complaint

#2000-2043 to the petroleum release from the underground storage tank system at Plateau Plaza. The resulting investigation revealed that three (3) residential supply wells, one (1) residential use spring and two (2) business non-potable use wells have been impacted with petroleum compounds. Based on subsurface investigations performed through the VDEQ, the plume created by the release is migrating in a Northeast direction and may impact a trailer park containing approximately 40 units. The VDEQ wishes to place the existing residences with contaminated wells and other potentially impacted residence on a safe drinking water supply.

## **2.2. PROPOSED COMMERCIAL DEVELOPMENT:**

Preliminary design of a new business/commercial development in the Plateau Plaza/Wirtz area was submitted to and approved by the Franklin County Board of Supervisors in 2007. The development consists of approximately 373,598 square feet of commercial/business space. The developer is currently designing a package sewage treatment plant to meet Virginia Department of Health (VDH) design standard of 62,740 gallons per day (gpd). The actual use volume is estimated to be 39,000 gpd. A detailed outline of the make-up of the proposed development along with Plateau Plaza has been included in the following Table "Virginia Market Place Commerce Center".

**VIRGINIA MARKET PLACE COMMERCIAL CENTER**

Bldg. No.	Size	Stories	Area (Sq. Ft.)	Proposed Use	VDH Design Sewer	Est. GPD	Office Emp.	VDH Design Sewer	Est. GPD	Est. Total (GPD)
1	60' X 210'	3	37,800	75 Room Motel	130 Gal./Room	9,750	10	35 Gal/Emp.	350	10,100
2	60' X 150'	2	18,000	Bank/Office	35 Gal/1000 SQ. FT.	630	20	35 Gal/Emp.	700	1,330
3	60' X 210'	1	12,600	100 Seat Food Rest	50 Gal/Seat	5,000	20	35 Gal/Emp.	700	5,700
4	60' X 110'	1	6,600	Convenience w/Gas	100 Gal/1000 SQ. FT.	6,600	10	35 Gal/Emp.	350	6,950
				50 Seat Restaurant	50 Gal/Seat	2,500	10	35 Gal/Emp.	350	2,850
5	50' X 100'	1	5,000	2500 Office & 2500 Retail	200 Gal/1000 SQ. FT.	500	10	35 Gal/Emp.	350	850
6	50' X 100'	1	5,000	2500 Office & 2500 Retail	200 Gal/1000 SQ. FT.	500	10	35 Gal/Emp.	350	850
7	200' X 200'	1	40,000	Groc./Pharm./Retail	200 Gal/1000 SQ. FT.	8,000	20	35 Gal/Emp.	700	8,700
8	50' X 100'	1	5,000	2500 Office & 2500 Retail	200 Gal/1000 SQ. FT.	500	10	35 Gal/Emp.	350	850
9	40' X 60'	2	4,800	2400 Office & 2400 Retail	200 Gal/1000 SQ. FT.	480	10	35 Gal/Emp.	350	830
10	40' X 60'	2	4,800	2400 Office & 2400 Retail	200 Gal/1000 SQ. FT.	480	10	35 Gal/Emp.	350	830
11	40' X 60'	2	4,800	2400 Office & 2400 Retail	200 Gal/1000 SQ. FT.	480	10	35 Gal/Emp.	350	830
12	100' X 350'	1	35,000	35,000 Office/Retail	200 Gal/1000 SQ. FT.	7,000	20	35 Gal/Emp.	700	7,700
13A	60' X 90'			Open Courtyard		n/a	n/a	n/a	n/a	0
13B		1	176,300	Furniture Wrhs./Retail			40	35 Gal/Emp.	1,400	1,400
13C	30' x 60'	1	1,800	Office/Retail	200 Gal/1000 SQ. FT.	500	6	35 Gal/Emp.	210	710
13D	30' x 60'	1	1,800	Office/Retail	200 Gal/1000 SQ. FT.	500	6	35 Gal/Emp.	210	710
13E	30' x 60'	1	1,800	Office/Retail	200 Gal/1000 SQ. FT.	500	6	35 Gal/Emp.	210	710
13F	30' x 60'	1	1,800	Office/Retail	200 Gal/1000 SQ. FT.	500	6	35 Gal/Emp.	210	710
13G	30' x 60'	1	1,800	Office/Retail	200 Gal/1000 SQ. FT.	500	6	35 Gal/Emp.	210	710
13H	30' x 60'	1	1,800	Office/Retail	200 Gal/1000 SQ. FT.	500	6	35 Gal/Emp.	210	710
		TOTAL.								

**PLATEAU PLAZA**

150 Seat Fast Food Restaurant	50 Gal/Seat	7,500	20	35 Gal/Emp.	700	8,200
3000 SQ. FT. Convenience Store w/Gas	100 Gal/1000 SQ. FT.	300	6	35 Gal/Emp.	210	510
VDH DESIGN SEWER ESTIMATED PROJECT TOTAL						62,740
ACTUAL USE ESTIMATED PROJECT TOTAL						39,000

### **3. SCOPE**

Based on meetings with engineering consultants, local leaders, and a meeting with the VDH on March 7, 2005, five (5) options were identified and evaluated as part of this PER. These options are presented below and involve five (5) separate entities including the Town of Rocky Mount, the Town of Boones Mill, Western Virginia Water Authority, Roanoke County, and Franklin County.

#### **3.1. ROCKY MOUNT SERVICE EXTENSION ALONG U.S. 220 NORTH:**

The Town of Rocky Mount water treatment plant is located on the west side of Route U.S. 220 north of Rocky Mount approximately 1.5 miles south of Plateau Plaza/Wirtz area. Low and high pressure tie-in points are available based on selected line routing.

#### **3.2. WATER EXTENSION FROM WESTLAKE TO PLATEAU PLAZA/WIRTZ AREA:**

Franklin County currently provides public water to commercial and residential customers in the Hales Ford Bridge to Westlake area of Franklin County. This service is made possible through a water source agreement between Franklin County and the Bedford County Public Service Authority.

#### **3.3. TOWN OF BOONES MILL SERVICE EXTENSION ALONG U.S. 220:**

The VDH has mandated that the Town of Boones Mill develop a Preliminary Engineering Report and plan improvements to their well supply and distribution system. Franklin County, by contributing to source development and distribution improvements in the Town

of Boones Mill, may be able to develop adequate service capability to meet the immediate water supply needs along the Route U.S. 220 corridor to Plateau Plaza/Wirtz area.

**3.4. WELL DEVELOPMENT IN THE PLATEAU PLAZA/WIRTZ AREA:**

Franklin County develop a well supply in the Plateau Plaza/Wirtz area to replace the wells impacted by petroleum contamination and provide for existing and future residential and commercial needs. The actual service area would directly depend on the yield of the wells.

**3.5. EXTENSION FROM WESTERN VIRGINIA WATER AUTHORITY:**

Western Virginia Water Authority currently provides water service to the Suncrest Heights subdivision area of Roanoke County along U.S. 220. Suncrest Heights subdivision is approximately 13 miles from the Plateau Plaza/Wirtz area.

**4. DESCRIPTION OF STUDY AREA**

**4.1. POPULATION PROJECTIONS:**

Population growth in Franklin County began with industrialization in the 1950's and diversified the agriculture base through integration of commercial and industrial centers. This growth continued to diversify with the development of Smith Mountain Lake and urbanization of the northern and northeastern portions of the County. The following table outlines the population growth in Roanoke and Franklin Counties since the 1950 census.

<b>Historical Population Trend</b>							
<b>Description</b>	<b>1950</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2006</b>
<b>Franklin County</b>	24,560	25,925	28,163	35,740	39,549	47,286	51,370
<b>Rocky Mount</b>	1,432	1,412	4,002	4,198	4,098	4,565	
<b>Boones Mill</b>	335	371	363	337	239	285	
<b>Roanoke County</b>	41,486	61,693	67,339	72,945	79,332	85,778	90,135

Sources: 1950-2000 Population, U.S. Census Bureau; \*2006 Population Estimates provided by Weldon Cooper Center for Public Service, University of Virginia.

The following Table “Study Area Population Demographic” provides an estimated population growth for both Franklin County and Roanoke County based on the information provided in the Weldon Cooper Center for Public Service, University of Virginia.

<b>Study Area Population Demographic</b>					
<b>Description</b>	<b>Roanoke</b>		<b>Franklin</b>		<b>Estimated</b>
	<b>Population</b>	<b>Estimated Pop. Change</b>	<b>Population</b>	<b>Estimated Pop. Change</b>	
<b>Est. Approx. Annual Growth Rate</b>	0.829%		1.390%		
2000	85,778		47,286		
2001	86,489	711	47,943	657	
2002	87,206	1,428	48,610	1,324	
2003	87,929	2,151	49,286	2,000	
2004	88,658	2,880	49,971	2,685	
2005	89,393	3,615	50,666	3,380	
2006	90,135	4,357	51,370	4,084	
2007	90,882	5,104	52,085	4,799	
2008	91,635	5,857	52,809	5,523	
2009	92,395	6,617	53,543	6,257	
2010	93,161	7,383	54,288	7,002	

Based on the current census data, Franklin County has grown in population by a minimum of 10% for each decade since 1970, with a 32.2% growth rate from 1980 to 2000. According to the *Estimate of Population for Virginia and its Localities* annual report provided by the University of Virginia’s Weldon Cooper Center for Public Service Franklin County’s population has grown approximately 8.6% or 4,084 people between 2000 and 2006.

Roanoke County's population growth from 1980 to 2000 was 17.6%, according to the U.S. Census. Roanoke County experienced a growth of 4.83% or 4,357 people from 2000 to 2006, according to the Weldon Cooper Center for Public Service. The population growth rate between 1990 and 2000 in Franklin County and Roanoke County was approximately 19.6% and 8.1%, respectively. During the same period (1990 to 2000), the counties surrounding Franklin County had the following approximate population growth rate: Floyd (15.6%), Henry (1.7%), Pittsylvania (10.9%), Bedford (32.2%), and Patrick (11.1%).

#### **4.2. POPULATION DEMOGRAPHICS IN THE STUDY AREA**

Demographics for the project area were prepared based on the following:

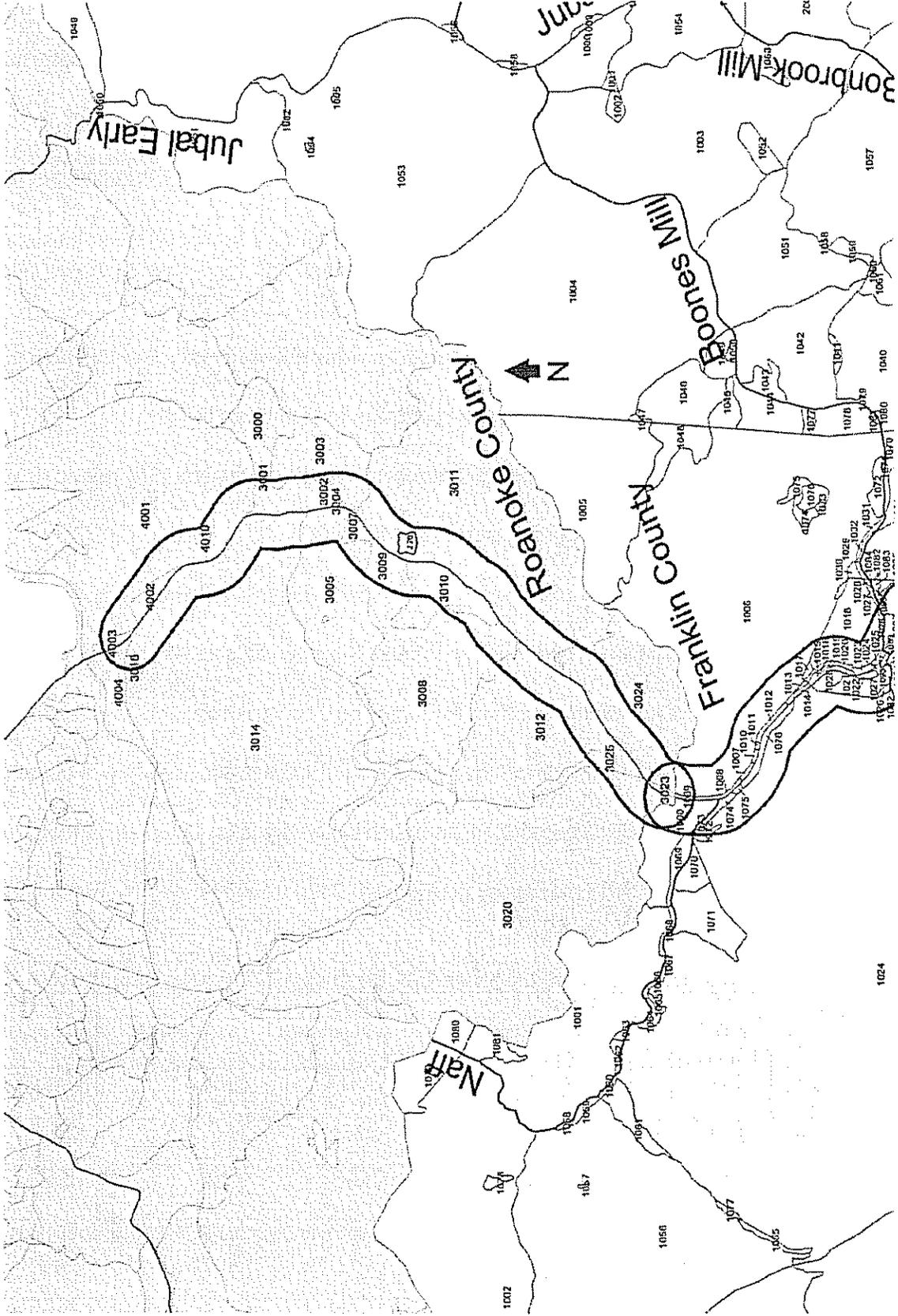
- Source Data from the 2000 Census of Population and Housing, SF-1, U.S. Census Bureau.
- 2006 Population Estimates were provided by the Weldon Cooper Center for Public Service, University of Virginia.
- Project area consists of a ¼ mile wide corridor (1/2 mile total width) measured from the center of the roadway in each direction. Census tract map depicting the project area shall be included as part of this PER.
- The study corridor began at Suncrest Heights subdivision in Roanoke County.
- Commonwealth of Virginia 2003 Aerial Photographic mapping courtesy of VGIN was utilized in estimating the number of households within the ½ mile corridor.
- Assumed that the population growth along the corridor in both Franklin and Roanoke County is consistent with the average growth rate for each County.

- The population for the study corridor employed census block totals when fully located within the corridor; when a census block was partially located inside the corridor (i.e., a split census block), aerial photography maps were utilized to estimate the number of households inside the area; the estimated households were then multiplied by the census block's person per household number to arrive at the population estimate for the split census block located inside the corridor.
- The population Census block within the study area was calculated utilizing the average population per household for that block.
- The total number of houses within the study area (1/2 mile corridor) were counted utilizing aerial photography.
- Churches and businesses were excluded in number of households estimated.
- The study ended in the Plateau Plaza/Wirtz area of Franklin County.
- Projected population for Roanoke County is based on an annual growth rate of 0.829% during the period from 2000 to 2006 based on Weldon Cooper.
- Projected population for Franklin County is based on an annual growth rate of 1.39% during the period from 2000 to 2006 based on Weldon Cooper.

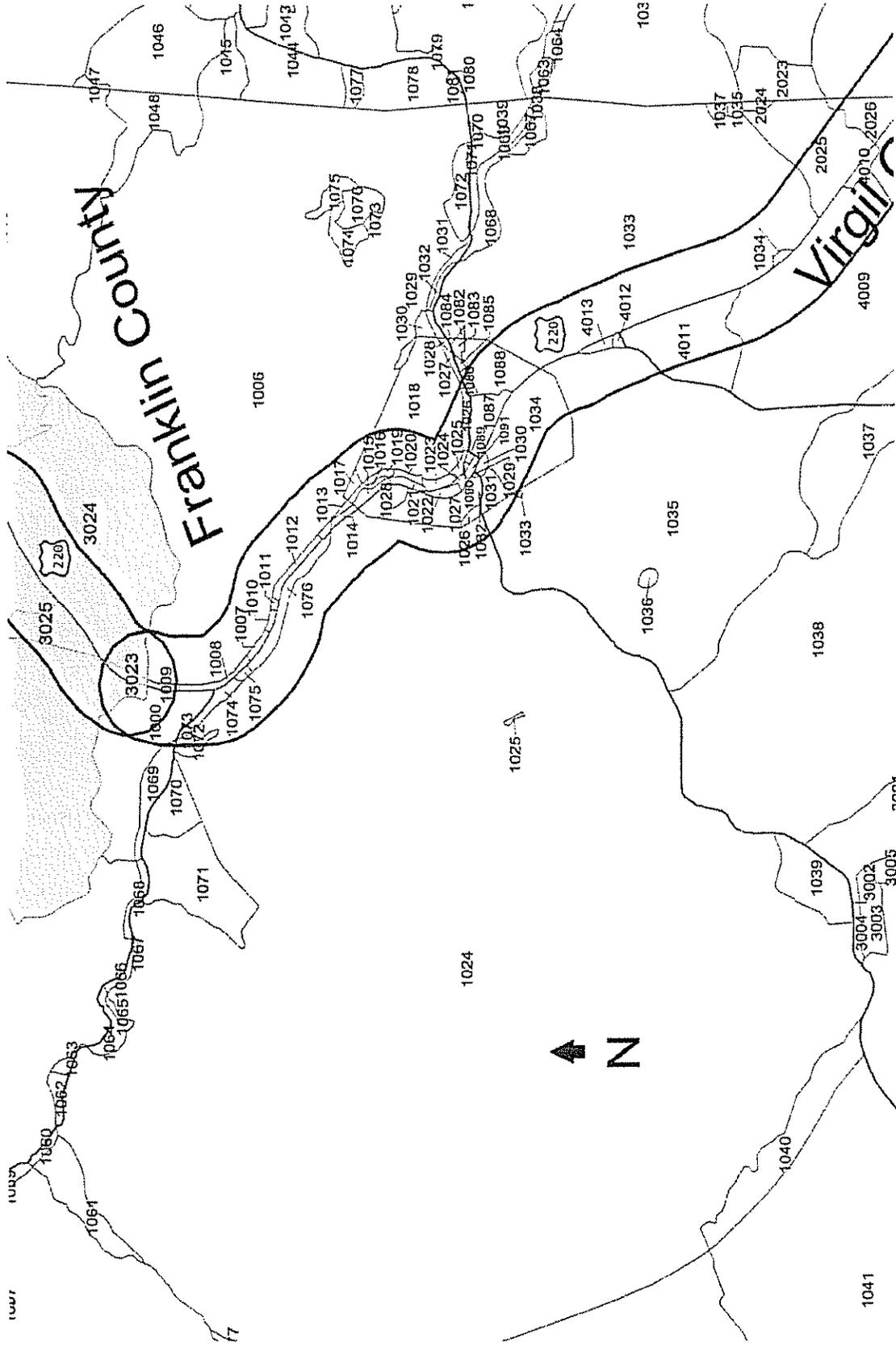
<b>2000 DEMOGRAPHICS For U.S. Highway 220 Water Line Project Area</b>						
<b>Description</b>	<b>Total</b>		<b>Study Area Allocation</b>		<b>2006 Projections</b>	
	<b>2000 Population</b>	<b>Households/Average Population</b>	<b>Population</b>	<b>Households</b>	<b>Population</b>	<b>Households</b>
<b>Franklin Co.</b>	3,146	1,350/2.33	1,158	497	1258	540
<b>Roanoke Co.</b>	2,010	837/2.40	627	261	658	274
<b>Total</b>	5,156	2,187/2.36	1,789	758	1921	814

Note: 1) Estimated Population prepared by Earth Environmental Consultants, Inc. in consultation with West Piedmont Planning Commission 5/30/07.

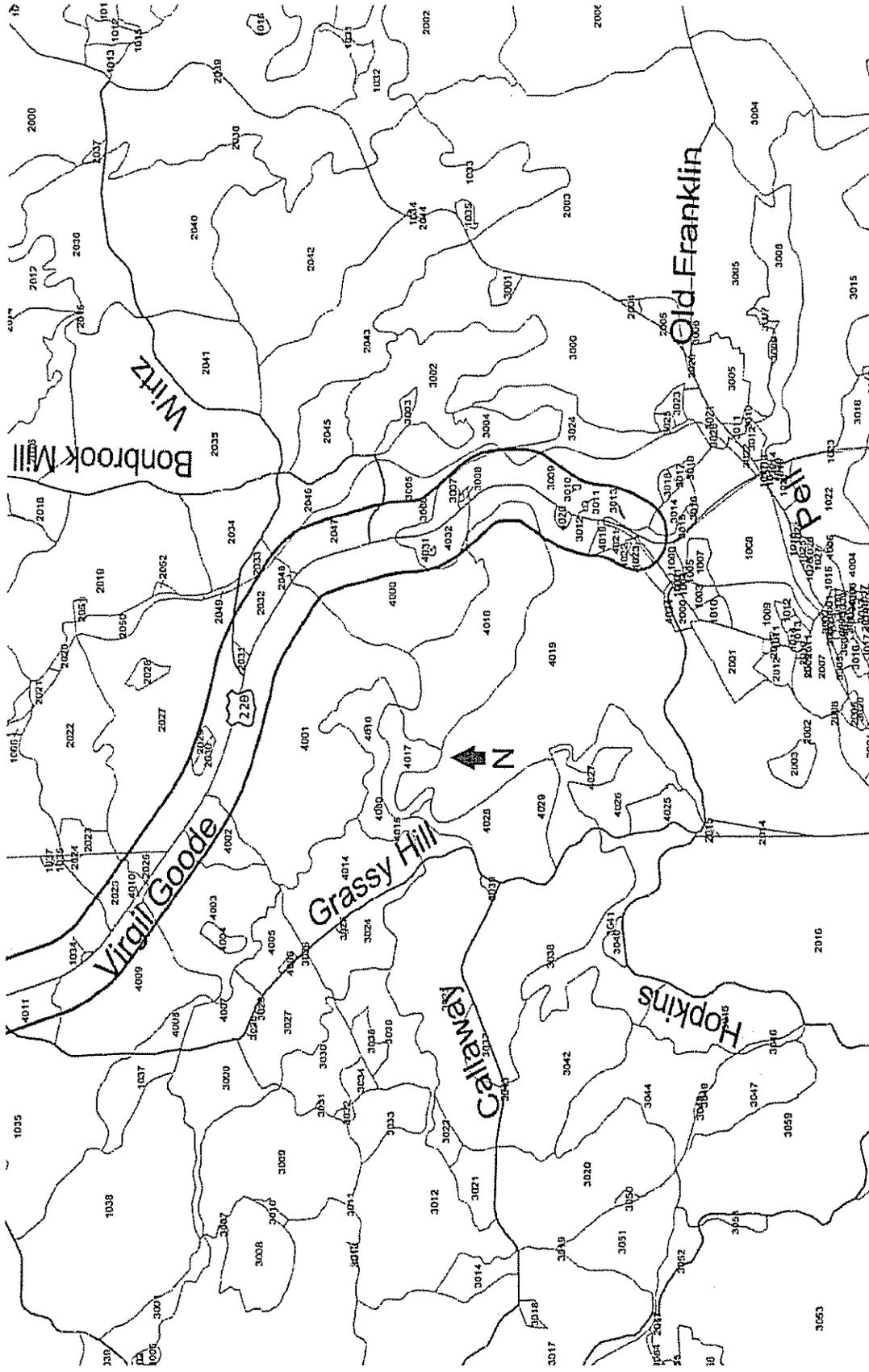
**Census Block Track Map Depicting 1/2 Mile Corridor**



**Census Block Track Map Depicting 1/2 Mile Corridor**



Census Block Track Map Depicting 1/2 Mile Corridor



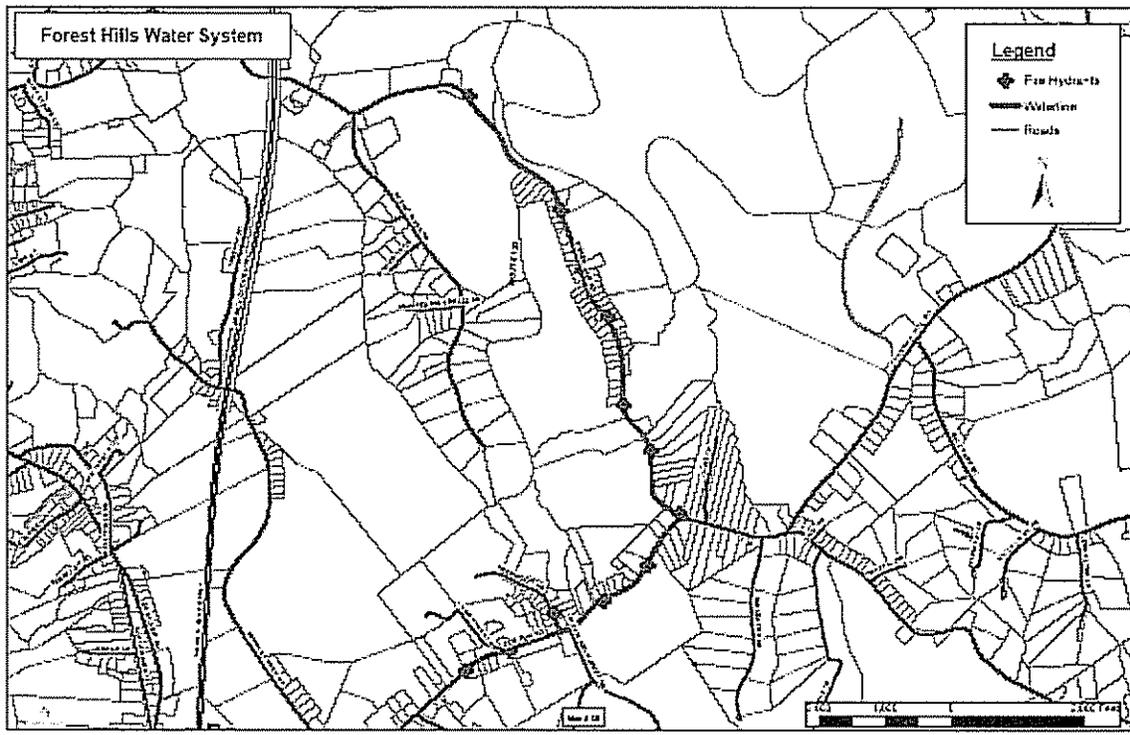
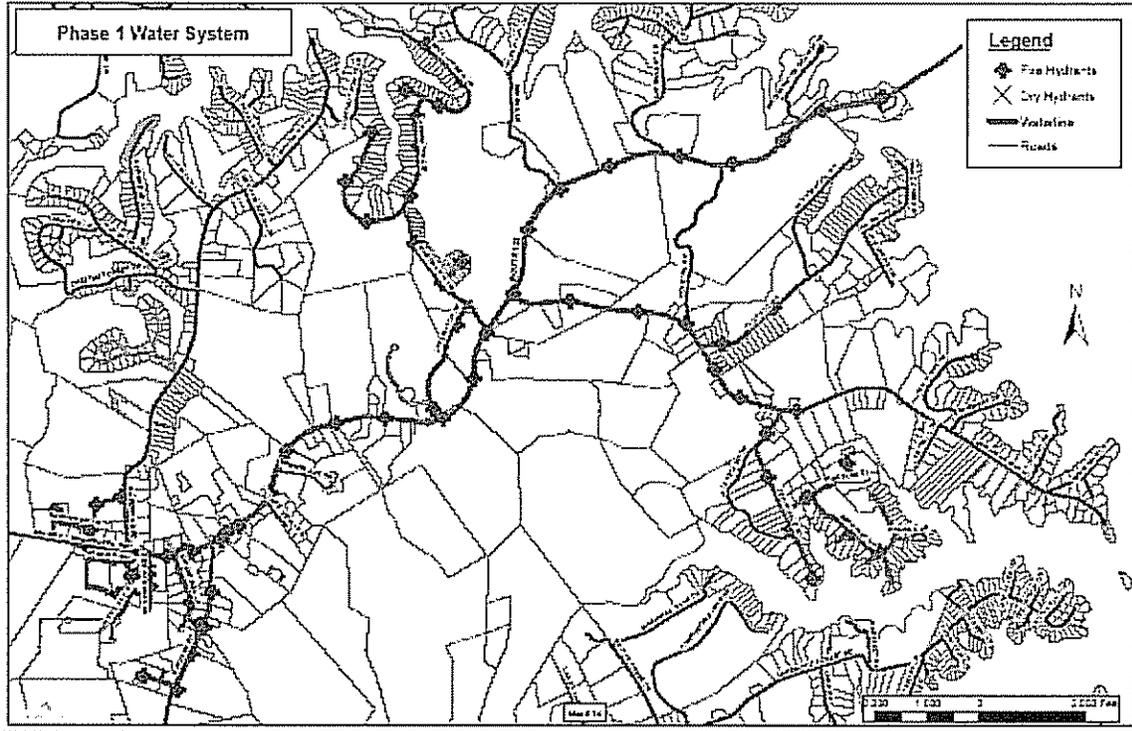
2000 DEMOGRAPHICS						
For U.S. Highway 220 Water Line Project Area						
COUNTY	TRACT	BLOCK	Total 2000 Population	Total Number of Households	Allocated Population	Allocated Households
FC	020400	1006	285	118	48	20
FC	020400	1007	0	0	0	0
FC	020400	1008	0	0	0	0
FC	020400	1009	0	0	0	0
FC	020400	1010	0	0	0	0
FC	020400	1011	0	0	0	0
FC	020400	1012	0	0	0	0
FC	020400	1013	0	0	0	0
FC	020400	1014	0	0	0	0
FC	020400	1015	0	0	0	0
FC	020400	1016	0	0	0	0
FC	020400	1017	0	0	0	0
FC	020400	1018	38	19	30	15
FC	020400	1019	0	0	0	0
FC	020400	1020	2	1	2	1
FC	020400	1021	5	2	5	2
FC	020400	1022	1	1	1	1
FC	020400	1023	15	8	15	8
FC	020400	1024	1	1	1	1
FC	020400	1025	0	0	0	0
FC	020400	1026	2	1	2	1
FC	020400	1027	12	6	12	6
FC	020400	1033	49	18	22	8
FC	020400	1034	1	1	1	1
FC	020400	1086	0	0	0	0
FC	020400	1087	6	3	6	3
FC	020400	1088	41	16	41	16
FC	020400	1089	0	0	0	0
FC	020400	1090	0	0	0	0
FC	020400	1091	1	1	1	1
FC	020400	2025	13	6	4	2
FC	020400	2026	23	7	23	7
FC	020400	2027	147	53	25	9
FC	020400	2029	20	6	20	6
FC	020400	2030	35	14	35	14
FC	020400	2031	7	4	7	4
FC	020400	2032	62	37	62	37
FC	020400	2033	7	2	0	0
FC	020400	2046	112	51	112	51
FC	020400	2047	11	4	11	4
FC	020400	2048	2	1	2	1

2000 DEMOGRAPHICS						
For U.S. Highway 220 Water Line Project Area						
COUNTY	TRACT	BLOCK	Total 2000 Population	Total Number of Households	Allocated Population	Allocated Households
FC	020400	3005	50	17	50	17
FC	020400	3006	0	0	0	0
FC	020400	3007	12	6	12	6
FC	020400	3008	16	9	16	9
FC	020400	3009	367	173	42	20
FC	020400	3010	11	4	11	4
FC	020400	3011	4	2	4	2
FC	020400	3012	3	2	3	2
FC	020400	3013	0	0	0	0
FC	020400	3014	51	27	0	0
FC	020400	3015	58	23	0	0
FC	020400	3024	43	19	43	19
FC	020500	1000	14	5	0	0
FC	020500	1024	251	113	27	12
FC	020500	1026	0	0	0	0
FC	020500	1027	19	10	19	10
FC	020500	1028	1	1	1	1
FC	020500	1029	0	0	0	0
FC	020500	1030	8	2	8	2
FC	020500	1031	8	5	8	5
FC	020500	1032	0	0	0	0
FC	020500	1033	0	0	0	0
FC	020500	1034	123	53	116	50
FC	020500	1035	156	80	0	0
FC	020500	1069	2	1	0	0
FC	020500	1072	0	0	0	0
FC	020500	1073	0	0	0	0
FC	020500	1074	0	0	0	0
FC	020500	1075	0	0	0	0
FC	020500	1076	0	0	0	0
FC	020500	4000	101	44	25	11
FC	020500	4001	255	100	64	25
FC	020500	4002	151	62	10	4
FC	020500	4003	112	41	14	5
FC	020500	4009	123	48	82	32
FC	020500	4010	15	6	15	6
FC	020500	4011	24	9	5	2
FC	020500	4012	0	0	0	0
FC	020500	4013	0	0	0	0
FC	020500	4018	58	22	0	0
FC	020500	4019	159	60	27	10

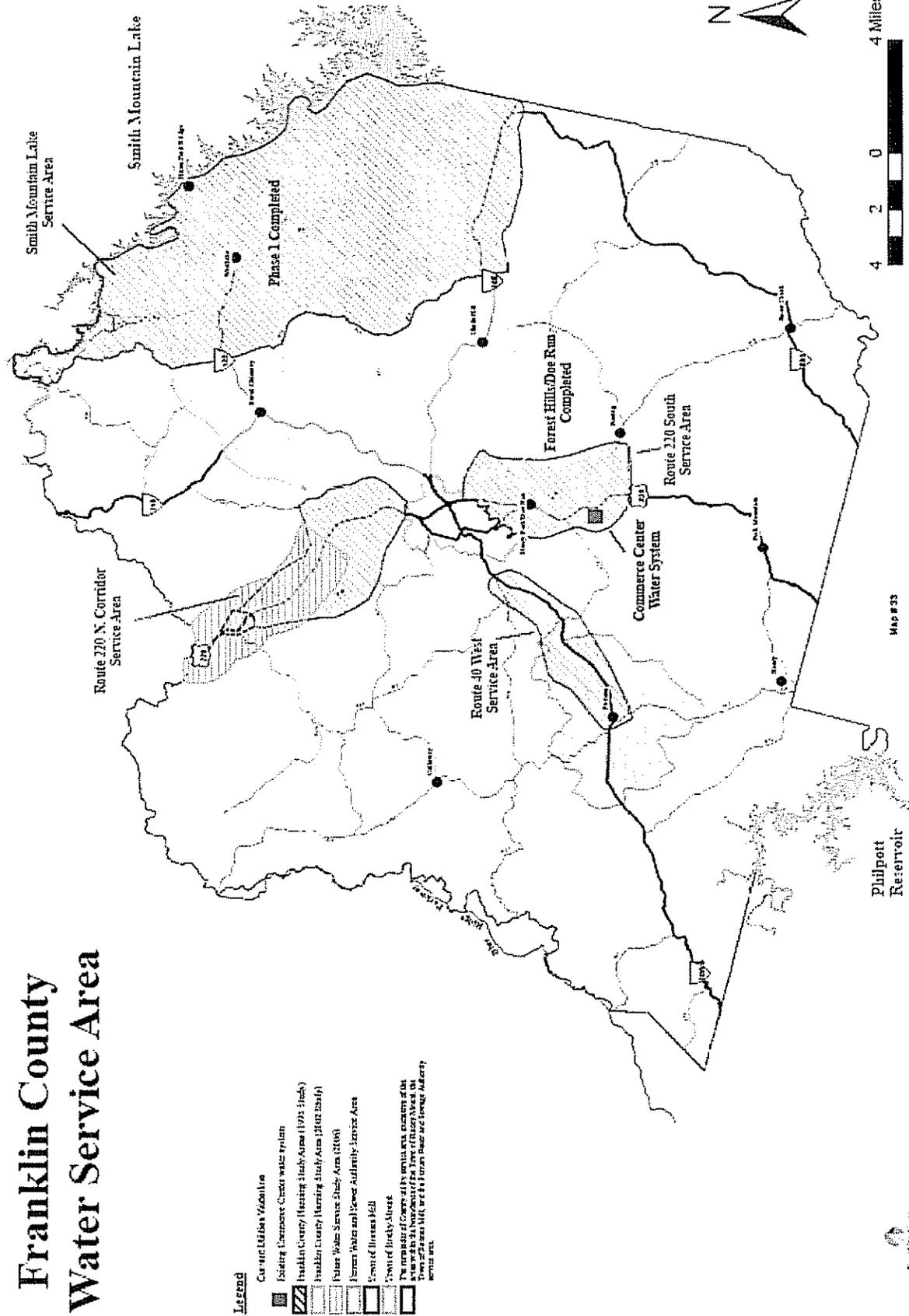
2000 DEMOGRAPHICS						
For U.S. Highway 220 Water Line Project Area						
COUNTY	TRACT	BLOCK	Total 2000 Population	Total Number of Households	Allocated Population	Allocated Households
FC	020500	4020	0	0	0	0
FC	020500	4021	0	0	0	0
FC	020500	4022	0	0	0	0
FC	020500	4023	0	0	0	0
FC	020500	4031	0	0	0	0
FC	020500	4032	49	24	49	24
FC	020800	1000	4	1	0	0
RC	030900	3000	58	22	24	9
RC	030900	3001	0	0	0	0
RC	030900	3002	0	0	0	0
RC	030900	3003	26	12	0	0
RC	030900	3004	1	1	1	1
RC	030900	3005	167	72	30	13
RC	030900	3007	10	2	10	2
RC	030900	3008	173	71	61	25
RC	030900	3009	0	0	0	0
RC	030900	3010	58	20	52	18
RC	030900	3011	187	77	165	68
RC	030900	3012	79	31	31	12
RC	030900	3014	359	140	38	15
RC	030900	3015	25	11	12	5
RC	030900	3020	201	75	5	2
RC	030900	3023	0	0	0	0
RC	030900	3024	49	23	38	18
RC	030900	3025	7	3	7	3
RC	030900	4001	551	250	110	50
RC	030900	4002	15	7	15	7
RC	030900	4003	4	3	4	3
RC	030900	4004	16	7	0	0
RC	030900	4010	24	10	24	10
<b>Franklin County Totals</b>			<b>3,146</b>	<b>1,350</b>	<b>1,139</b>	<b>497</b>
<b>Roanoke County Totals</b>			<b>2,010</b>	<b>837</b>	<b>627</b>	<b>261</b>
<b>Total Project Area</b>			<b>5,156</b>	<b>2,187</b>	<b>1,766</b>	<b>758</b>
<p>Source: 2000 Census of Population and Housing, SF-1, U S Census Bureau          Prepared by West Piedmont Planning District Commission. 5/23/07. Revised 5/30/07</p>						

## 5. WATER DEMAND PROJECTIONS:

According to the newly revised Franklin County 2025 Comprehensive Plan the County's future development will rely on the quantity and quality of available water. Private drinking water wells in Franklin County range from 250' to 500' in depth and average less than 10 gallons per minute and are considered moderate to low producers. The Franklin County Comprehensive Plan states "*This type of rock formation results in some of the poorest subsurface water production in the state, except where fracturing or weathering has occurred. Actually, water is only found in fracture zones in the upper levels of rock. Primarily, this is a result of faults or other subsurface structural movements and contact zones between the various rock strata. The openings that provide for groundwater storage in these rocks usually occur within a few hundred feet of the surface. Due to the extremely limited supply of water in the shattered rock formation, heavy pumping often results in dramatically fluctuating water levels.*" With this in mind the County began the implementation of a public water system in 2005 through a water source purchase agreement with the Bedford County Public Service Authority and construction of a public water line from Hales Ford Bridge along State Route 122 to the Westlake area. Since that time Franklin County has also been able, through acquisition of existing systems and construction of new lines, to extend service laterally from Route 122 (See Phase 1 Water System Map). Through a water source agreement with the Town of Rocky Mount, Franklin County has extended service to the Forest Hills area (See Forest Hills Water System Map). Franklin County has divided the county into service areas as depicted in the following "Franklin County Service Area" map.



# Franklin County Water Service Area



- Legend**
- Current Utilities Vicinity
  - Existing Commerce Center water system
  - Franklin County Hearing Study Area (1993 Study)
  - Franklin County Hearing Study Area (1993 Study)
  - Water Works Service Study Area (1996)
  - Water Works and Sewer Authority Service Area
  - Point of Interest Well
  - Point of Interest Street
  - The remainder of County with service area extension of the Area with the boundaries of the Town of Liberty/West of Town 2004/2005/06, and the Liberty Water and Sewer Authority service area.



Map #33



## **5.1. SERVICE AREA WATER DEMANDS**

Estimated water demands for the project area were prepared based on the following data and assumptions:

- Section 4.2 “Population Demographics in the Study Area” of this report.
- Water Demand based on 100 gallons per person per day.
- The commercial development in the Plateau Plaza areas package sewage treatment plant design to meet a Virginia Department of Health design standard of 62,740 gallons per day (gpd). The actual estimated volume based on VDH GMP #35 is expected to be 39,000 gpd. The 39,000 gpd was utilized for these water demand projections.
- Projected population for Roanoke County is based on an annual growth rate of 0.829% during the period from 2000 to 2006 based on Weldon Cooper.
- Projected population for Franklin County is based on an annual growth rate of 1.39% during the period from 2000 to 2006 based on Weldon Cooper.
- Town of Boones Mill was included in the water projections for Franklin County.
- 67% of potential connections will connect to the water system.

### Water Demand Projections

Description	2000 Census Block Ave.Pop. Household	Average Gal./Per/Day	Percent Connection	Approx. Annual Growth Rate	2000		2006	
					Number of Households	GPD Ave.	Number of Households	Estimated # of Possible Connections
Franklin Co.								
Residential	2.33	100	67.00%	1.390%	497	77,587	540	362
Proposed Commerical Plaza						39,000		
Roanoke Co.	2.4	100	67.00%	0.829%	261	41,969	274	184
<b>Total</b>	<b>2.36</b>	<b>100</b>			<b>758</b>	<b>158,555</b>	<b>814</b>	<b>546</b>

### Study Area Water Demand Demographic

Description	Roanoke Households	Franklin Households	Est. Change Households
Estimated Household			
Approx. Annual Growth Rate	0.829%	1.390%	
2000	261	497	
2001	263	504	7
2002	265	511	14
2003	268	518	21
2004	270	525	28
2005	272	533	36
2006	274	540	43
2007	277	547	50
2008	279	555	58
2009	281	563	66
2010	283	571	74

Note: 1) Growth Rate is approximate based on increase in population in Franklin County from 2000 to 2004 and Roanoke County 1990 to 2000.

2) Assumes 67% of the households with the study area become customers.

3) Average daily usage of 100 gallons per person.

## **5.2. COMPREHENSIVE PLANNING:**

### **5.2.1. Franklin County:**

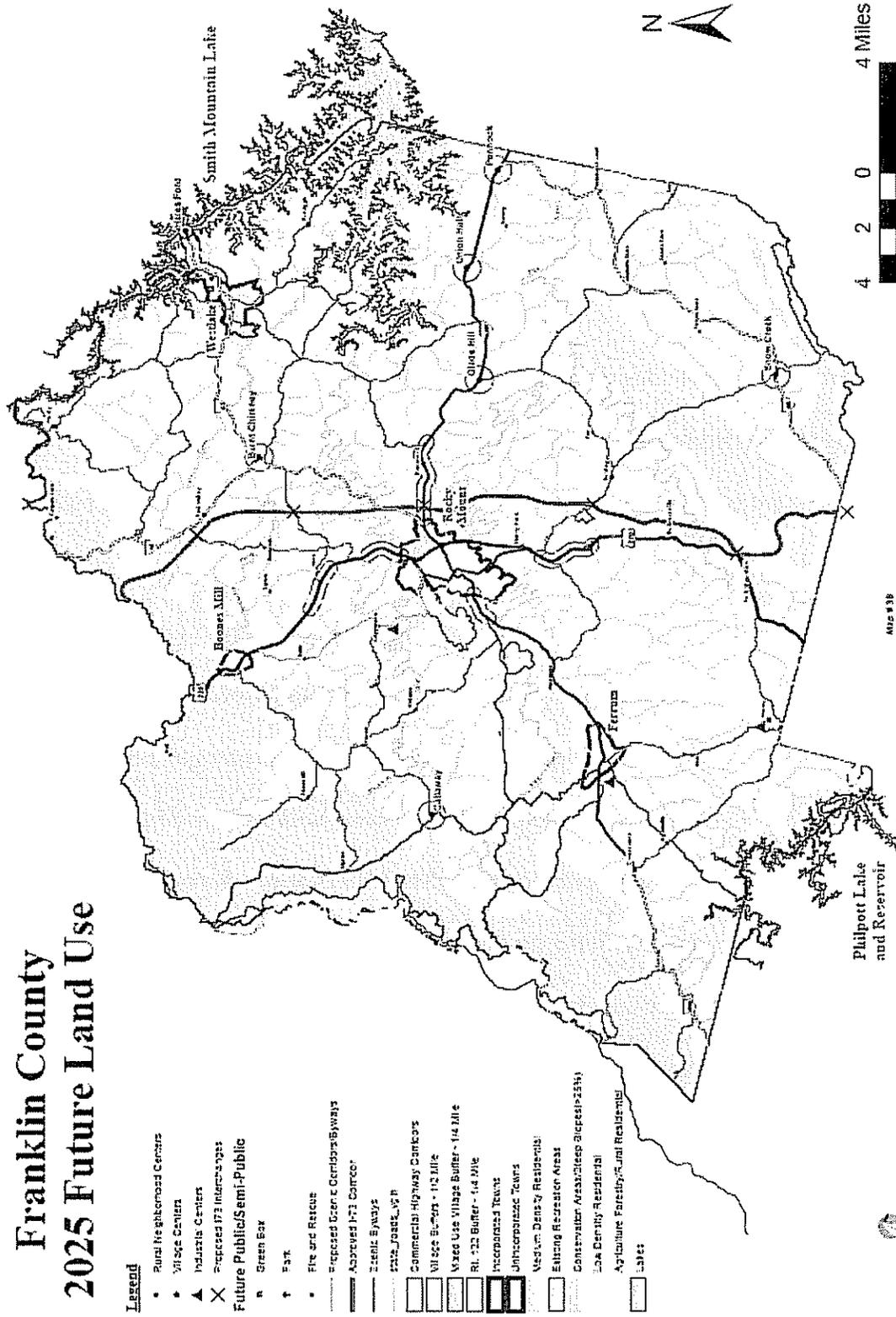
The Franklin County Comprehensive Plan was originally adopted in 1975 and has been updated four (4) times. The 2025 Comprehensive Plan update was approved on May 22, 2007. The 2025 “Future Land Use Map” has been provided in this report. Franklin County desires to maintain its rural character and scenic views while retaining existing and creating new employment opportunities. With this goal in mind the Board of Supervisors included the following vision statement in the newly adopted Comprehensive Plan:

*“Franklin County, Virginia—appreciating its rural, scenic Blue Ridge landscape and rich cultural and agricultural heritage is a uniquely balanced, highly educated, prosperous, and diverse land of families, businesses, and communities of faith who thrive amongst interconnected neighborhoods where personal responsibility and community interdependence are cherished.”*

One area of the county where the 2025 comprehensive plan addresses the Board of Supervisors vision is the U.S. 220 corridor from Rocky Mount to Boones Mill. The U.S. 220 corridor in Franklin County currently has the following designations:

# Franklin County 2025 Future Land Use

- Legend**
- Rural Neighborhood Centers
  - Village Centers
  - ▲ Industrial Centers
  - ✕ Proposed I-73 Interchanges
  - Future Public/Semi-Public
  - n Green Box
  - † Park
  - Fire and Rescue
  - Proposed Open Corridor/Byways
  - Approved I-73 Corridor
  - Trunk Ways
  - State Roads, US R
  - Commercial Highway Corridors
  - Village Buffers - 1/2 Mile
  - Mixed Use Village Buffer - 1/4 Mile
  - RI, 122 Buffer - 1/4 Mile
  - Incorporated Towns
  - Unincorporated Towns
  - Medium Density Residential
  - Existing Recreation Areas
  - Conservation Areas/Deep Allocations
  - Low Density Residential
  - Agriculture/Forest/Semi-Residential
  - Water



- **Commercial Highway Corridor:** The 1995 Comprehensive Plan designated the U.S. 220 corridor from Rocky Mount to Boones Mill as commercial/business development. The new Comprehensive Plan has reduced the commercial/business area along U.S. 220. The following areas along Route U.S. 220 north of Rocky Mount are designated as “Commercial Highway Corridors” for commercial/business development:
  - Area between Brick Church Road (Rt. 697) and Iron Ridge Road (Rt. 775)
  - Area between Shady Lane (Rt. 983) and Rocky Mount Town limits.

The 2025 Comprehensive Plan also denotes the Route U.S. 220 corridor inside the Town of Boones Mill primarily consists of commercial/business development. The County’s policy is to work with the Town in the area of transportation and growth planning.

- **Low Density Residential:** The 2025 Comprehensive Plan denotes low density residential beginning near Route 635 and ending in the vicinity of Route 919. The low density residential surrounds the commercial highway corridor in the Plateau Plaza/Wirtz area.

- **Agriculture Forestry/Rural Residential:** The new Comprehensive Plan denotes agriculture forestry/rural residential beginning near Route 919 and ending at the Boones Mill town limits. It also includes a small area on the north side of the Boones Mill town limits. Agriculture forestry/rural residential surrounds the western portion of the Boones Mill town limits.
- **Conservation Areas/Steep Slopes (>25%):** The new Comprehensive Plan denotes the following areas as conservation areas/steep slopes (>25%).
  - The approximate area between the Boones Mill town limits and the Roanoke County/Franklin County border.
  - The approximate area between the Commercial Highway Corridor near the Town of Rocky Mount and Route 635.

#### **5.2.1.1. Planned Comprehensive Plan Updates:**

In an effort to address the expected growth from the addition of public water along the U.S. 220 corridor, Franklin County will begin a comprehensive corridor study in 2007. The corridor study will address future land use along the corridor and the projected impact to: transportation, community facilities, cultural resources, utilities, and the economy. Recommendations/changes to the Comprehensive Plan will be addressed as deemed appropriate.

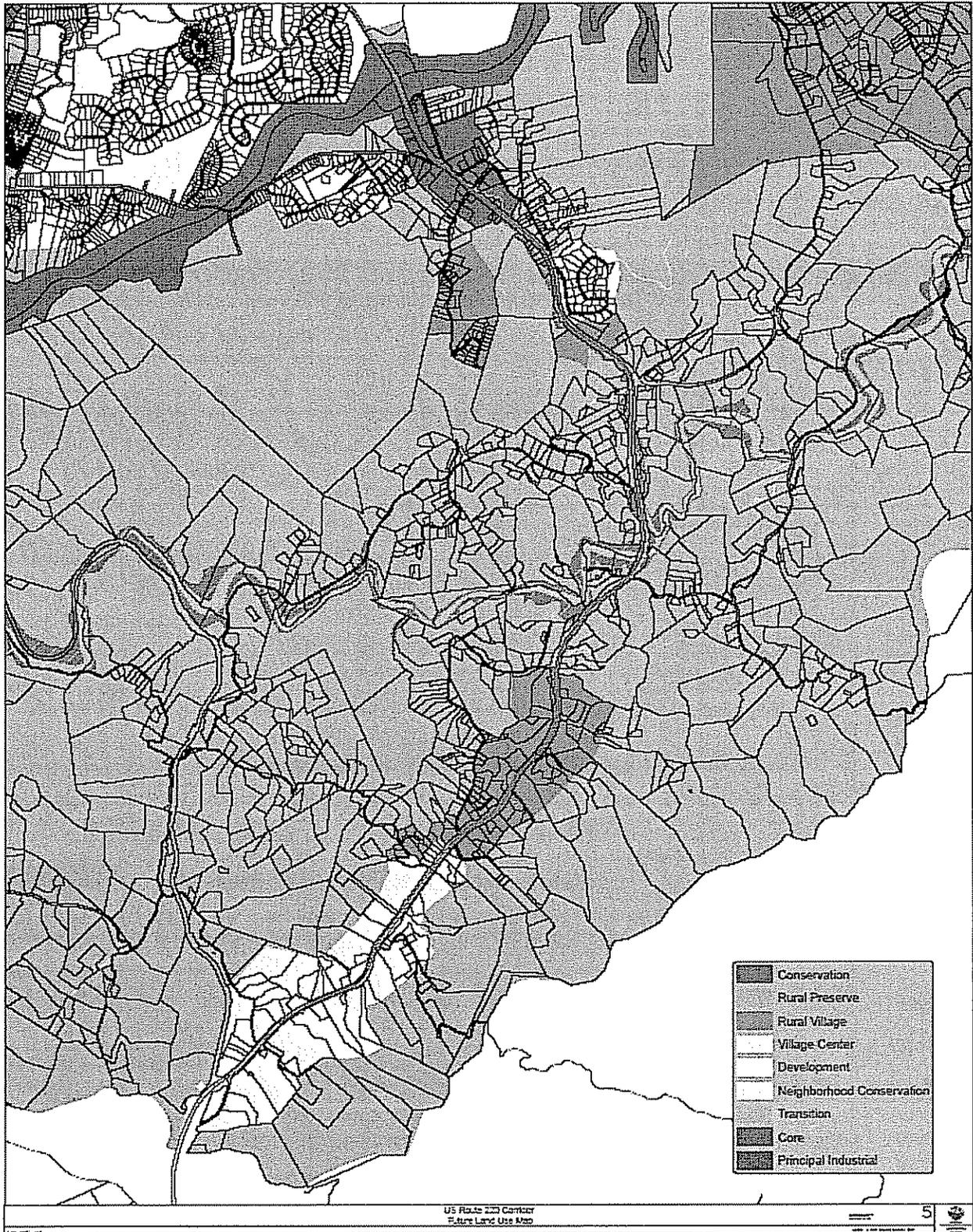
**5.2.2. Roanoke County:**

The Roanoke County Community Plan was originally adopted in 1941 and has been periodically updated. The most recent Community Plan update was approved in March of 2005. The new plan was based on a target date of 2020. Roanoke County established a Citizens Advisory Committee (CAC) 1996. The CAC appointed a neighborhood committee with the following objective:

*“To assure that the Community Plan reflects the desires of the majority of citizens for the future of Roanoke County and to expand the sphere of influence the Community Plan will have in guiding decisions in the future for our Roanoke County Community.”*

Based on the most recent Community Plan it is the intent to update the plan every five (5) years. A copy of the current Roanoke County Community Plan Land Use Guide Map of this area has been included. The U.S. 220 corridor in Roanoke County currently has the following designations:

- **Rural Preserve:** The new Community Plan denotes the area adjacent to the south bound lane of Route U.S. 220 just prior to the Franklin County line as rural preserve. Rural preserve consists of areas that are mostly undeveloped and protection is encouraged.



- **Village Center:** The new Community Plan denotes the following areas as village center:

- The area on both side of U.S. Route 220 from the Roanoke County/Franklin County line north to State Route 900. The exception is a portion of rural preserve on the south bound lane (west) side of U.S. Route 220.

Village centers consist of areas of commercial and institutional development surrounded by rural areas.

- **Rural Village:** The new Community Plan denotes the following areas as rural village:

- Area on both sides of U.S. 220 between State Route 900 and the northern intersection of State Route 715 with U.S. Route 220.
- Area on both sides of U.S. 220 north of the transition zone and south of Suncrest Heights.

Rural Villages consist of areas where limited development exists and future suburban and/or urban development is discouraged.

- **Transition:** The new Community Plan denotes the following areas as transition:

- Area on both sides of U.S. 220 between the northern intersection of State Route 715 with U.S. Route 220 and the Rural Village area south of Suncrest Heights subdivision.
- Area across from Suncrest Heights Subdivision on the south bound lane (west) side of U.S. 220.

Transition areas consist of areas along highways where orderly development is encouraged to buffer lower intensity development.

- **Neighborhood Conservation:** The new Community Plan denotes the following areas as neighborhood conservation:

- The Suncrest Heights subdivision area located on the north bound east side of U.S. 220.

Neighborhood conservation consists of areas where single family development exists and is encouraged.

#### **5.2.2.1. Planned Community Plan Updates:**

The Community Plan states *“The Roanoke County Community Plan is a general planning document that is subject to interpretation. It is intended to guide future land use development in the County but is not fixed in place. Therefore, proposed amendments to the Community Plan will be received and reviewed*

*twice annually in the months of January and July. Amendments to the Roanoke County Community Plan may be initiated by any citizen, the Board of Supervisors, the Planning Commission, any county landowner or the Secretary to the Planning Commission. Amendment applications must meet one or more of the following criteria:*

- *The subject property was misinterpreted or overlooked in the Community Plan.*
- *Significant changes have occurred in the condition of surrounding lands.*
- *The requested amendment will significantly enhance other goals of the Community Plan.”*

In an effort to address the expected growth from the addition of public water along the U.S. 220 corridor Roanoke County has begun a comprehensive corridor study along the corridor in 2007. The corridor study will address future land use along the corridor and the projected impact to: transportation, community facilities, cultural resources, utilities, and the economy. Recommendations/changes to the Community Plan will be addressed as deemed appropriate.

## **6. WATER SOURCE OPTIONS**

Based on meetings with engineering consultants, local leaders and a meeting with the VDH on March 7, 2005, five (5) options were identified and evaluated as part of this PER. These options are presented below and involve five (5) separate entities including the Town of

Rocky Mount, the Town of Boones Mill, Western Virginia Water Authority, Roanoke County and Franklin County (Plateau Plaza/Wirtz area).

#### **6.1. ROCKY MOUNT SERVICE EXTENSION ALONG U.S. 220 NORTH:**

The Town of Rocky Mount water treatment plant is located along the Blackwater River on the west side of Route U.S. 220 north of Rocky Mount and approximately 1.5 miles south of the Plateau Plaza/Wirtz area. The plant was designed to produce 2.0 million gallons of potable water each day. The 2006 estimated average daily production was 945,000 gallons or approximately 47.25% of capacity. The approximate number of connections is 2,506. Approximately 22% of the connections are located outside the Town limits. Based on the proximity of the Town's water treatment plant to the Plateau Plaza/Wirtz area, Franklin County began water source negotiations with the Town of Rocky Mount in 2005. The County originally requested an allocation of 150,000 gallons per day (gpd). However, based on current construction estimates for Phase I (line extension) and Phase II (elevated storage tank for fire flow) the County needed to sell approximately 250,000 gpd for the system to break even. In an effort to break even the County requested the ability to purchase approximately 250,000 (gpd) from the Town of Rocky Mount. Based on negotiations/discussions it is Franklin County's understanding that the Town of Rocky Mount desired to maintain their water reserve for future development and would not guarantee the County 250,000 gpd. Negotiations continued without success until the middle of 2006. At that point the Board of Supervisor began to seek other options. The following Table "U.S. 220 North – Rocky Mount Low Pressure to Plateau Plaza/Wirtz" provides a revised (original estimate provided by Dewberry & Davis ) preliminary cost estimate for this option:

<b><u>U.S 220 North -- Rocky Mt. Low Pressure To Plateau Plaza/Wirtz</u></b>				
Description	Est. Qty	Unit	Unit Price	Extended Total
Mobilization	1	LS	\$ 37,700	\$ 37,700
Clearing & Grubbing	1	LS	\$ 25,100	\$ 25,100
12" Water Line	12,000	LF	\$ 50	\$ 600,000
12" Road Crossing	360	LF	\$ 250	\$ 90,000
12" Stream Crossing	200	LF	\$ 450	\$ 90,000
12" Gate Valve	6	EA	\$ 2,600	\$ 15,600
Fire Hydrants	25	EA	\$ 3,400	\$ 85,408
Air Release Valves	6	EA	\$ 2,600	\$ 15,600
Blow Off	3	EA	\$ 2,700	\$ 8,100
Master Meter	1	EA	\$ 80,000	\$ 80,000
New Booster Station with Fire Pump	1	EA	\$ 250,000	\$ 250,000
Trench Stabilization (5% of trench, if needed)	200	TONS	\$ 18	\$ 3,600
Misc Concrete	100	CY	\$ 180	\$ 18,000
Bonds, Permits & Insurance	1	LS	\$ 26,000	\$ 26,000
Erosion & Sediment Control	1	LS	\$ 25,100	\$ 25,100
Site Restoration	1	LS	\$ 18,800	\$ 18,800
<b>SUBTOTAL</b>				<b>\$ 1,389,000</b>
<b>10% CONTINGENCIES</b>				<b>\$ 138,900</b>
<b>TOTAL CONSTRUCTION</b>				<b>\$ 1,527,900</b>
<b>10% ENGINEERING &amp; INSPECTION</b>				<b>\$ 152,800</b>
<b>ESTIMATED TOTAL PROJECT COST</b>				<b>\$ 1,680,700</b>

**6.2. WATER EXTENSION FROM WESTLAKE TO PLATEAU PLAZA/WIRTZ AREA:**

Franklin County currently provides public water to commercial and residential customers in Hales Ford Bridge to Westlake area of Franklin County. This service is made possible through a water source agreement between Franklin County and Bedford County. This option involves extending water from the County's new water system in the Westlake area to Burnt Chimney and then to the Plateau Plaza/Wirtz/ area. The proposed water line would follow Route 122 and Route 697 (Wirtz Road) to the Plateau Plaza/Wirtz area. Based on the preliminary studies by Franklin County it appears that this option would involve two booster stations, a storage tank, and approximately 14 miles of water main. The following Table outlines the preliminary cost estimate for this option.

<u>Westlake to Plateau Plaza/Wirtz</u>				
Description	Est. Qty	Unit	Unit Price	Extended Total
Mobilization	1	LS	\$ 137,600	\$ 137,600
Clearing & Grubbing	1	LS	\$ 91,700	\$ 91,700
Booster Station	2	LS	\$ 275,000	\$ 550,000
500,000 Gallon Storage Tank	1	LS	\$ 650,000	\$ 650,000
12" Water Line	73,920	LF	\$ 50	\$ 3,696,000
12" Road Crossing	480	LF	\$ 250	\$ 120,000
12" Stream Crossing	200	LF	\$ 450	\$ 90,000
12" Gate Valve	12	EA	\$ 2,300	\$ 27,600
Fire Hydrants	149	EA	\$ 3,300	\$ 492,360
Air Release Valves	15	EA	\$ 2,600	\$ 39,000
Blow Off	5	EA	\$ 2,700	\$ 13,500
Trench Stabilization (5% of trench, if needed)	1,000	TONS	\$ 18	\$ 18,000
Misc Concrete	500	CY	\$ 180	\$ 90,000
Bonds, Permits & Insurance	1	LS	\$ 30,000	\$ 30,000
Erosion & Sediment Control	1	LS	\$ 91,700	\$ 91,700
Site Restoration	1	LS	\$ 68,800	\$ 68,800
<b>SUBTOTAL</b>				<b>\$ 6,206,300</b>
<b>10% CONTINGENCIES</b>				<b>\$ 620,600</b>
<b>TOTAL CONSTRUCTION</b>				<b>\$ 6,826,900</b>
<b>10% ENGINEERING &amp; INSPECTION</b>				<b>\$ 682,700</b>
<b>3% LEGAL &amp; ADMIN</b>				<b>\$ 204,800</b>
<b>ESTIMATED TOTAL PROJECT COST</b>				<b>\$ 7,714,400</b>

**6.3. TOWN OF BOONES MILL SERVICE EXTENSION ALONG U.S. 220:**

Based on discussions with the Town of Boones Mill and the VDH, the Town is currently under VDH mandates. The Town of Boones Mill is currently developing a Preliminary Engineering Report to address improvements to their well supply and distribution system. Currently, the Town of Boones Mill serves approximately 268 connections with approximately 68 (25%) of those connections located outside the Town limits. The Town of Boone Mill's water system, including all sources, is estimated to be 160 gallons per minute (gpm) or 230,400 gallon per day (gpd). However, discussion with the VDH indicates that the system is currently approved for 36,800 gpd. The Town's system is composed of the following:

- Two (2) active wells (not currently utilized) rated at 100 gpm and 25 gpm respectively
- One (1) inactive well rated at 25 gpm
- One (1) spring rated at 10 gpm
- 250,000 gallon storage tank online
- 100,000 gallon storage tank offline

Based on discussions with the VDH, the Town of Boones Mill's water system is at the maximum number of connections without upgrades to their system. Based on a PER prepared by Thompson & Litton in October 2004, the estimated cost to upgrade the water treatment filtration system and develop the inactive wells was approximately \$772,647 and \$96,900, respectively. In addition to water production and treatment system improvements the PER discussed issues and steps necessary to enhance the existing water system's accountability. The PER estimated the current accountability to be approximately 61%.

Franklin County considered contributing to the proposed water system improvements and development of the additional well. However, at a production rate of 160 gpm for 18 hours (well(s) operating 75% of the time) the system could produce approximately 172,800 gpd. Utilizing 400 gpd per connection the improved system would be capable of serving a total of approximately 432 residential equivalent units (ERC) assuming that the water systems accountability was improved. Franklin County based on an estimated available volume of 65,600 gpd or 164 ERC's (432 total available connections - 268 existing connections) after improvements, made the decision to eliminate this option from consideration. The following Table "Boones Mill to Plateau Plaza/Wirtz" provides

a revised (original estimated provided by Dewberry & Davis ) preliminary cost estimate  
 for this option:

<b>Boones Mill to Plateau Plaza/Wirtz</b>				
Description	Est. Qty	Unit	Unit Price	Extended Total
Mobilization	1	LS	\$ 45,900	\$ 45,900
Clearing & Grubbing	1	LS	\$ 30,600	\$ 30,600
Share in water treatment (for 125 gpm reserve cap.)	1	LS	\$ 295,000	\$ 295,000
Develop 2- 25 gpm wells(wells # 4 & #5)	2	LS	\$ 37,000	\$ 74,000
Booster Station	1	LS	\$ 275,000	\$ 275,000
Master Meter	1	EA	\$ 80,000	\$ 80,000
12" Water Line	21,200	LF	\$ 50	\$ 1,060,000
12" Road Crossing	480	LF	\$ 250	\$ 120,000
12" Stream Crossing	200	LF	\$ 450	\$ 90,000
12" Gate Valve	12	EA	\$ 2,300	\$ 27,600
Fire Hydrants	44	EA	\$ 3,300	\$ 144,408
Air Release Valves	15	EA	\$ 2,600	\$ 39,000
Blow Off	5	EA	\$ 2,700	\$ 13,500
Trench Stabilization (5% of trench, if needed)	320	TONS	\$ 18	\$ 5,760
Misc Concrete	160	CY	\$ 180	\$ 28,800
Bonds, Permits & Insurance	1	LS	\$ 30,000	\$ 30,000
Erosion & Sediment Control	1	LS	\$ 30,600	\$ 30,600
Site Restoration	1	LS	\$ 22,900	\$ 22,900
<b>SUBTOTAL</b>				<b>\$ 2,413,100</b>
<b>10% CONTINGENCIES</b>				<b>\$ 241,300</b>
<b>TOTAL CONSTRUCTION</b>				<b>\$ 2,654,400</b>
<b>10% ENGINEERING &amp; INSPECTION</b>				<b>\$ 265,400</b>
<b>3% LEGAL &amp; ADMIN</b>				<b>\$ 79,600</b>
<b>ESTIMATED TOTAL PROJECT COST</b>				<b>\$ 2,999,400</b>

**6.4. WELL DEVELOPMENT IN THE PLATEAU PLAZA/WIRTZ AREA:**

Franklin County develop a well supply in the Plateau Plaza/Wirtz area to replace existing wells impacted by petroleum contamination and provide for both existing and future residential and commercial needs. The main factors to consider when locating drinking water wells include the following:

- **Water Quantity:** Based on the newly revised Franklin County Comprehensive Plan a subsurface water source is not favorable given the existing geology where

wells range from 250' to 500' deep and produce an average of less than 10 gpm. The Franklin County Comprehensive Plan states *“This type of rock formation results in some of the poorest subsurface water production in the state, except where fracturing or weathering has occurred. Actually, water is only found in fracture zones in the upper levels of rock. Primarily, this is a result of faults or other subsurface structural movements and contact zones between the various rock strata. The openings that provide for groundwater storage in these rocks usually occur within a few hundred feet of the surface. Due to the extremely limited supply of water in the shattered rock formation, heavy pumping often results in dramatically fluctuating water levels. ”*

- **Water Quality:** One of the reasons Franklin County is proposing the extension of potable water to the Plateau Plaza/Wirtz area was a petroleum release that occurred in that area along the Route 220 north corridor. The release has resulted in the contamination of four (4) drinking water wells. The VDEQ has assigned Pollution Complaint #2000-2043 to the petroleum release from the underground storage tanks at Plateau Plaza. The resulting investigation revealed that three (3) residential supply wells, one (1) residential use spring and two (2) business non-potable use wells have been impacted by petroleum compounds. Based on subsurface investigations performed through the VDEQ, the plume created by the release is migrating in a northeast direction and may impact a trailer park containing approximately 40 units.

- Based on subsurface water quantity and quality concerns, the Franklin County Board of Supervisors made the decision that new high production potable drinking water wells were not the long term solution to the area's water source needs. The following Table "Well & Treatment to Plateau Plaza/Wirtz " provides a revised (original estimated provided by Dewberry & Davis ) preliminary cost estimate for this option:

<b><u>Well &amp; Treatment to Plateau Plaza/Wirtz</u></b>				
Description	Est. Qty	Unit	Unit Price	Extended Total
Mobilization	1	LS	\$ 36,100	\$ 36,100
Clearing & Grubbing	1	LS	\$ 24,000	\$ 24,000
Well & Treatment Plant Site & Development	1	LS	\$ 225,000	\$ 225,000
Develop 2- 25 gpm wells	2	LS	\$ 65,000	\$ 130,000
Treatment & Pumping	1	LS	\$ 650,000	\$ 650,000
Elevated Storage Tank (300,000 gal)	1	LS	\$ 650,000	\$ 650,000
12" Water Line	18,500	LF	\$ 50	\$ 925,000
12" Road Crossing	300	LF	\$ 250	\$ 75,000
12" Gate Valve	11	EA	\$ 2,300	\$ 25,300
Fire Hydrants	38	EA	\$ 3,000	\$ 112,800
Air Release Valves	10	EA	\$ 2,600	\$ 26,000
Blow Off	3	EA	\$ 2,700	\$ 8,100
Trench Stabilization (5% of trench, if needed)	275	TONS	\$ 18	\$ 4,950
Misc Concrete	140	CY	\$ 180	\$ 25,200
Bonds, Permits & Insurance	1	LS	\$ 30,000	\$ 30,000
Erosion & Sediment Control	1	LS	\$ 24,000	\$ 24,000
Site Restoration	1	LS	\$ 18,000	\$ 18,000
<b>SUBTOTAL</b>				<b>\$ 2,989,500</b>
<b>10% CONTINGENCIES</b>				<b>\$ 299,000</b>
<b>TOTAL CONSTRUCTION</b>				<b>\$ 3,288,500</b>
<b>10% ENGINEERING &amp; INSPECTION</b>				<b>\$ 328,900</b>
<b>ESTIMTED TOTAL PROJECT COST</b>				<b>\$ 3,617,400</b>

## **6.5. EXTENSION FROM WESTERN VIRGINIA WATER AUTHORITY:**

Western Virginia Water Authority (WVWA) currently provides water service to the Suncrest Heights Subdivision area of Roanoke County along U.S. 220 approximately 13 miles north of the Plateau Plaza/Wirtz area. The extension of potable water from the Suncrest Heights Subdivision area of Roanoke County to the Plateau Plaza/Wirtz area of Franklin County would require the installation of approximately 12.5 miles of 12" water line. Approximately 5.25 miles (42%) of the line will be located in Roanoke County with the remaining 7.25 miles (58%) located in Franklin County. It is anticipated, based on preliminary investigations and discussions with the Virginia Department of Transportation (VDOT), that the line may be constructed within the existing VDOT right of way. Due to topography changes along the U.S. Route 220 corridor, static water pressure may vary between 30 and 100 pounds per square inch. WVWA owns and operates an existing water treatment, transmission and distribution system with sufficient capacity to serve potable water to their current customers and those proposed within Franklin County. WVWA estimates that their current water supply will meet their projected need until 2050. As demand increases a water storage facility will be required to provide adequate service and fire flow protection. The following Table "Roanoke County to Plateau Plaza/Wirtz" provides a revised (original estimate provided by Dewberry & Davis ) preliminary cost estimate for this option:

<b>Roanoke County to Plateau Plaza/Wirtz</b>				
				5/24/07
Description	Est. Qty	Unit	Unit Price	Extended Total
Mobilization	1	LS	35,000.00	\$ 35,000
Clearing & Grubbing	1	LS	55,000.00	\$ 55,000
Trench Stabilization (5% of trench, if needed)	700	TONS	18.00	\$ 12,600
Misc Concrete	300	CY	180.00	\$ 54,000
Bonds, Permits & Insurance	1	LS	40,000.00	\$ 40,000
Erosion & Sediment Control	1	LS	50,000.00	\$ 50,000
Site Restoration	1	LS	65,000.00	\$ 65,000
12" Water Line	64,442	LF	50.00	\$ 3,222,100
12" Bridge Crossing	700	LF	450.00	\$ 315,000
12" Road Crossing	480	LF	250.00	\$ 120,000
12" Gate Valve	29	EA	2,300.00	\$ 66,700
Fire Hydrants	131	EA	3,000.00	\$ 393,732
Air Release Valves	33	EA	2,600.00	\$ 85,800
Blow Off	13	EA	2,500.00	\$ 32,500
<b>SUBTOTAL</b>				<b>\$ 4,547,432</b>
<b>10% CONTINGENCIES</b>				<b>\$ 454,743</b>
<b>TOTAL CONSTRUCTION</b>				<b>\$ 5,002,175</b>
<b>10% ENGINEERING &amp; INSPECTION</b>				<b>\$ 500,218</b>
<b>ESTIMATED TOTAL PROJECT COST</b>				<b>\$ 5,502,393</b>
<b>Assumptions</b>				
1	A new line will run through the Town of Boones Mill.			
2	Fire hydrants will be installed approximately every 500'.			
3	Water storage tank will not initially be required.			



## **7. CONCLUSION & RECOMMENDATION**

Based on the information provided in the PER it is recommended that Franklin County sign a water source agreement with WVWA and Roanoke County to extend potable water to the Plateau Plaza/Wirtz area of Franklin County. A copy of the "Preliminary Engineering Report Proposed Waterline maps included in Appendix 1.

## **7.1. ENGINEERING/DESIGN:**

### **7.1.1. Hydraulic Design:**

Based on current development in the Plateau Plaza/Wirtz area of Franklin County, it is projected that the initial average water demand will be 35,000 gallons per day. This daily flow represents 152 equivalent residential connections (ERC's) based on 230 gallons per day per connection. The maximum hour domestic demand flow of 175 gallons per minute (gpm) was calculated utilizing the following formula from Section 12 VAC 5-590-690 C of the VA Waterworks Regulations:

$Q_{\text{peak}} = 11.4 \times N^{0.544}$  where:  $Q_{\text{peak}} = \text{Hourly peak flow in gpm}$

N = Number of Potential Connections

Assuming a fire flow demand of 500 gpm, the total peak hourly demand is 675 gpm.

The Western Virginia Water Authority's distribution system at the proposed point of connection below the Suncrest Heights subdivision is currently operating at a hydraulic grade line of 1423. This is maintained by a pressure reducing station located on Buck Mountain Road approximately 5,000 feet northwest of the point of connection. It should be noted that the hydraulic grade line on the upstream side of the pressure reducing station is 1630.

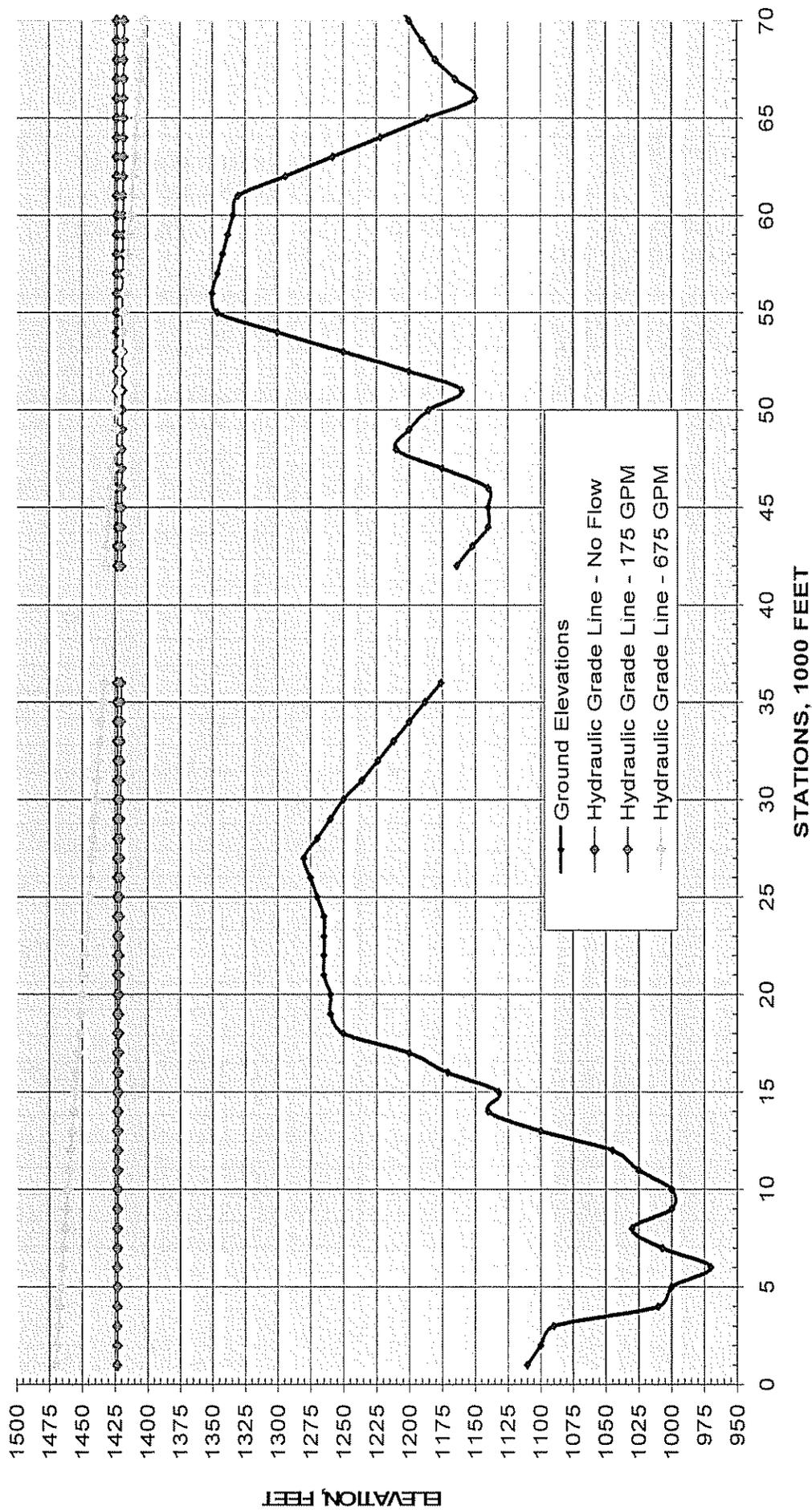
As indicated in the attached Table and shown on the related graph, water line pressures along the proposed water line extension range from a low of 29.7 PSI to a high of 196.1 PSI during the peak hour domestic demand of 175 GPM. For any service connections which would be subject to pressures greater than 120 PSI, a Type "C" meter connection shall be installed in conformance with the Western Virginia Water Authority "Design and Construction Standards". The Type "C" connection incorporates installation of water meter and individual

¾-inch pressure reducing valve in a standard double meter setter and box situated, just within the right-of-way/easement.

During those occasions when a fire flow of 500 GPM is added to the peak hour domestic demand, a parallel pressure reducing valve located at the Buck Mountain Road pressure reducing station will adjust the hydraulic grade line to 1470. This is required to maintain a residual pressure greater than 20 PSI at the high point in the system (Elev. = 1350 @ Sta. 50+000) during the peak demand condition. This is graphically illustrated on the attached graph.

At some time in the future, as domestic water demand increases, it is anticipated that a water storage tank will be constructed along the U.S. Route 220 corridor in the area south of Boones Mill.

### U. S. ROUTE 220 WATERLINE EXTENSION



Water Extension from Suncrest Heights Subdivision to Plateau Plaza/Wirtz Area		NO FLOW		PEAK HOUR DOMESTIC DEMAND, 175 GPM		PEAK HOUR DOMESTIC DEMAND w/ FIRE FLOW, 675 GPM	
STATIONS, 1,000 FEET	GROUND ELEVATION	HGL	PRESSURE, PSI	HGL	PRESSURE, PSI	HGL	PRESSURE, PSI
0	1110	1,423.0	135.6	1,423.0	135.6	1,470.0	156.0
1	1100	1,423.0	139.9	1,422.9	139.9	1,468.9	159.9
2	1090	1,423.0	144.3	1,422.8	144.2	1,467.9	163.7
3	1010	1,423.0	178.9	1,422.7	178.8	1,466.8	197.9
4	1000	1,423.0	183.3	1,422.7	183.1	1,465.7	201.8
5	970	1,423.0	196.3	1,422.6	196.1	1,464.7	214.3
6	1007	1,423.0	180.2	1,422.5	180.0	1,463.6	197.8
7	1030	1,423.0	170.3	1,422.4	170.0	1,462.5	187.4
8	1000	1,423.0	183.3	1,422.3	183.0	1,461.5	199.9
9	1000	1,423.0	183.3	1,422.2	182.9	1,460.4	199.5
10	1025	1,423.0	172.4	1,422.1	172.1	1,459.4	188.2
11	1045	1,423.0	163.8	1,422.0	163.4	1,458.3	179.1
12	1100	1,423.0	139.9	1,422.0	139.5	1,457.2	154.8
13	1140	1,423.0	122.6	1,421.9	122.1	1,456.2	137.0
14	1132	1,423.0	126.1	1,421.8	125.6	1,455.1	140.0
15	1171	1,423.0	109.2	1,421.7	108.6	1,454.0	122.6
16	1200	1,423.0	96.6	1,421.6	96.0	1,453.0	109.6
17	1250	1,423.0	75.0	1,421.5	74.3	1,451.9	87.5
18	1260	1,423.0	70.6	1,421.4	69.9	1,450.8	82.7
19	1260	1,423.0	70.6	1,421.3	69.9	1,449.8	82.2
20	1265	1,423.0	68.5	1,421.3	67.7	1,448.7	79.6
21	1265	1,423.0	68.5	1,421.2	67.7	1,447.6	79.1
22	1265	1,423.0	68.5	1,421.1	67.6	1,446.6	78.7
23	1265	1,423.0	68.5	1,421.0	67.6	1,445.5	78.2
24	1270	1,423.0	66.3	1,420.9	65.4	1,444.4	75.6
25	1275	1,423.0	64.1	1,420.8	63.2	1,443.4	73.0
26	1280	1,423.0	62.0	1,420.7	61.0	1,442.3	70.3
27	1270	1,423.0	66.3	1,420.6	65.3	1,441.2	74.2
28	1260	1,423.0	70.6	1,420.6	69.6	1,440.2	78.1
29	1250	1,423.0	75.0	1,420.5	73.9	1,439.1	81.9
30	1236	1,423.0	81.0	1,420.4	79.9	1,438.1	87.5
31	1224	1,423.0	86.2	1,420.3	85.0	1,437.0	92.3
32	1212	1,423.0	91.4	1,420.2	90.2	1,435.9	97.0
33	1200	1,423.0	96.6	1,420.1	95.4	1,434.9	101.8
34	1188	1,423.0	101.8	1,420.0	100.5	1,433.8	106.5
35	1176	1,423.0	107.0	1,419.9	105.7	1,432.7	111.2

Water Extension from Suncrest Heights Subdivision to Plateau Plaza/Wirtz Area		NO FLOW		PEAK HOUR DOMESTIC DEMAND, 175 GPM		PEAK HOUR DOMESTIC DEMAND w/ FIRE FLOW, 675 GPM	
STATIONS, 1,000 FEET	GROUND ELEVATION	HGL	PRESSURE, PSI	HGL	PRESSURE, PSI	HGL	PRESSURE, PSI
36	1164	1,423.0	112.2	1,419.9	110.9	1,431.7	116.0
37	1152	1,423.0	117.4	1,419.8	116.0	1,430.6	120.7
38	1140	1,423.0	122.6	1,419.7	121.2	1,429.5	125.4
39	1140	1,423.0	122.6	1,419.6	121.1	1,428.5	125.0
40	1140	1,423.0	122.6	1,419.5	121.1	1,427.4	124.5
41	1175	1,423.0	107.5	1,419.4	105.9	1,426.3	108.9
42	1210	1,423.0	92.3	1,419.3	90.7	1,425.3	93.3
43	1200	1,423.0	96.6	1,419.2	95.0	1,424.2	97.1
44	1185	1,423.0	103.1	1,419.2	101.5	1,423.1	103.2
45	1160	1,423.0	114.0	1,419.1	112.2	1,422.1	113.6
46	1200	1,423.0	96.6	1,419.0	94.9	1,421.0	95.8
47	1250	1,423.0	75.0	1,418.9	73.2	1,419.9	73.6
48	1300	1,423.0	53.3	1,418.8	51.5	1,418.9	51.5
49	1346	1,423.0	33.4	1,418.7	31.5	1,417.8	31.1
50	1350	1,423.0	31.6	1,418.6	29.7	1,416.8	28.9
51	1346	1,423.0	33.4	1,418.5	31.4	1,415.7	30.2
52	1342	1,423.0	35.1	1,418.5	33.1	1,414.6	31.5
53	1338	1,423.0	36.8	1,418.4	34.8	1,413.6	32.7
54	1334	1,423.0	38.6	1,418.3	36.5	1,412.5	34.0
55	1330	1,423.0	40.3	1,418.2	38.2	1,411.4	35.3
56	1294	1,423.0	55.9	1,418.1	53.8	1,410.4	50.4
57	1258	1,423.0	71.5	1,418.0	69.3	1,409.3	65.6
58	1222	1,423.0	87.1	1,417.9	84.9	1,408.2	80.7
59	1186	1,423.0	102.7	1,417.8	100.5	1,407.2	95.8
60	1150	1,423.0	118.3	1,417.8	116.0	1,406.1	111.0
61	1165	1,423.0	111.8	1,417.7	109.5	1,405.0	104.0
62	1180	1,423.0	105.3	1,417.6	102.9	1,404.0	97.0
63	1190	1,423.0	101.0	1,417.5	98.6	1,402.9	92.2
64	1200	1,423.0	96.6	1,417.4	94.2	1,401.8	87.5
65	1208	1,423.0	93.2	1,417.3	90.7	1,400.8	83.5
66	1208	1,423.0	93.2	1,417.2	90.7	1,399.7	83.1
67	1208	1,423.0	93.2	1,417.1	90.6	1,398.7	82.6
68	1208	1,423.0	93.2	1,417.1	90.6	1,397.6	82.1
69	1208	1,423.0	93.2	1,417.0	90.5	1,396.5	81.7
70	1208	1,423.0	93.2	1,416.9	90.5	1,395.5	81.2
PIPE DIAMETER =		12		Inches			
PIPE "C" FACTOR =		140					

**7.1.2. Environmental Review:**

An environmental review according to the criteria set forth by USDA Rural Development of the U.S. 220 corridor from the Plateau Plaza/Wirtz area of Franklin County to the Suncrest

Heights subdivision area of Roanoke County is under way and will be provided as a stand alone document. The environmental impact of the project is expected to be manageable based on the proposed location of the water line within the existing VDOT right of way.

## **7.2. FINANCING:**

The following funding options are available to the Counties:

### **7.2.1. Bonds:**

It is anticipated that the WVWA will issue bonds to finance the water line extension, and that the Counties will contribute to their respective portions of the annual debt service paid to the Authority annually over the term of the bond issue (“Capital Contributions in Aid of Construction”), and that the bond issue will be secured by the respective proportionate moral obligations of Franklin County and of Roanoke County, Virginia.

### **7.2.2. STAG Grant:**

Franklin County has received a State and Tribal Grant (STAG) in the amount of \$1,000,000 and shall retain ownership of the water line extension until construction is complete and all obligations regarding the STAG Program have been satisfied.

### **7.2.3. VDEQ:**

A petroleum release in the Plateau Plaza/Wirtz area on the Route 220 north corridor has resulted in the contamination of four (4) drinking water wells. The VDEQ has assigned Pollution Complaint #2000-2043 to the petroleum release from the underground storage tanks at Plateau Plaza. The resulting investigation revealed that three (3) residential supply wells, one (1) residential use spring and two (2) business non-potable use wells have been impacted with petroleum compounds. Based on subsurface investigations performed through the VDEQ,

the plume created by the release is migrating in a Northeast direction and may impact a trailer park containing approximately 40 units. The VDEQ desires to place the existing residences with contaminated wells and other potentially impacted residence on a safe drinking water supply. To assist in this effort VDEQ will consider a grant for the design and construction of distributions lines to serve the impacted area.

### 7.3. **WATER SOURCE AGREEMENT:**

A complete copy of the water source resolution signed by the Franklin County Board of Supervisors, Roanoke County Board of Supervisors, and WVWA is included in Appendix 2. The following provides an overview of the conditions found in the agreement:

- **Cost, Financing, and Capital Contributions in Aid of Construction:** The County's estimate that the cost of the Water Line Extension will be provided proportionately in accordance with the length of the water line extension in each County. The parties anticipate that WVWA will issue bonds to finance the water line extension, and that the Counties will contribute to their respective portions of the annual debt service paid to the Authority annually over the term of the bond issue ("Capital Contributions in Aid of Construction"), and that the bond issue will be secured by the respective proportionate moral obligations of Franklin County and of Roanoke County, Virginia.
  
- **Water Service Rates:** Customers in Roanoke County connecting to the water line extension and to other extensions in Roanoke County from the water line extension, shall be customers of WVWA and will pay the WVWA's connection, availability and other fees; and that the Roanoke County customers will pay the WVWA's published rates for water service (See Appendix 3 for the current WVWA Rate).

Customers in Franklin County connecting to the water line extension(s) shall be customers of WVWA and they will pay the WVWA's connection, availability and other fees. Franklin County customers will pay Franklin County's published rates for water service (See Appendix 4 for the current Franklin County Rate Schedules). WVWA will, from the water service revenues received from businesses and citizens in Franklin County, retain twenty five percent (25%) of the difference between the rate charged by WVWA and Franklin County. The remaining seventy five percent (75%) will be paid to Franklin County.

- **Availability Fees:** One-half (1/2) of the WVWA's availability fees received from customers connecting to the water line extension in both Franklin County and Roanoke County will be paid to the respective County by the WVWA to repay their Capital Contributions in Aid of Construction over a ten (10) year period, as and when they are collected, but no less frequently than monthly. Once the County's Capital Contributions in Aid of Construction has been repaid, or at the end of the ten (10) year period, whichever occurs first, the WVWA will retain all of its availability fees.

The parties agree and concur that for extensions greater than 500 feet the WVWA shall have the flexibility to enter into agreements with developers and other providers of line extensions as may be necessary or convenient to assist WVWA and the developers in the development and payment of such line extensions and WVWA shall have the ability to negotiate one half of the availability fees back to developers to help finance the development of line extensions. In such instances, the Authority shall share only the remainder of such availability fees with Roanoke County and with Franklin County as they are received.

- **STAG Grant Requirements:** Franklin County shall retain ownership of the water line extension until construction is complete and all obligations regarding the State and Tribal Grant (STAG) Program have been satisfied.
  
- **Term:** The term of this contract shall be ten (10) years, unless renewed, terminated or otherwise extended as provided herein. At the end of year eight, the WVWA and Franklin County shall mutually agree that Franklin County will continue to be a party to this contract for an additional term, or either can terminate Franklin County as a party to this contract as provided herein. WVWA and Franklin County shall notify each other of their intent to terminate or renew Franklin County's continuing to be a party. If neither WVWA or Franklin County notifies the other of its intent to terminate or renew this contract, it shall automatically and without further action on the part of either the WVWA or Franklin County be extended in two year increments, unless and until the WVWA or Franklin County shall notify the other parties hereto at least one year in advance of its intent to cease to be a party to this contract at the end of the two year term. Should Franklin County cease to be a party hereto, it shall have the option to acquire and operate the water line extension and all extensions made to the water line extension within Franklin County at such price and on such terms as shall be negotiated with the WVWA.
  
- **Approval of Extension:** Based on the Code of Virginia and both Franklin and Roanoke County Rules, Ordinances, Regulations and Comprehensive Plans, future extensions into Franklin County and into Roanoke County must be approved by the respective County's Board of Supervisors and incorporated as part of this Contract.

- **Water Restrictions:** If the Authority restricts water usages or withdrawals due to droughts, emergencies, or other conditions or circumstances, any reductions or restrictions placed on water sold to Franklin County shall be the same as placed on all other WVWA customers.
  
- **Quality:** The quality and pressure of the water delivered under this contract shall provide fire flow and be the same as furnished the WVWA's customers and shall meet the requirements of the Virginia Department of Health and other state or federal agencies which have jurisdiction over public water supplies.

## **Appendix 1**

### **Preliminary Engineering Report Proposed Waterline maps Page 1 thru 3**

## **Appendix 2**

### **Water Agreement Resolution between Franklin County, Roanoke County & WVWA**



A JOINT RESOLUTION OF THE BOARD OF SUPERVISORS OF FRANKLIN COUNTY,  
VIRGINIA, THE BOARD OF SUPERVISORS OF ROANOKE COUNTY, VIRGINIA AND  
THE BOARD OF DIRECTORS OF THE WESTERN VIRGINIA WATER AUTHORITY

The 16<sup>th</sup> day of April, 2007.

No. \_\_\_\_\_

A RESOLUTION authorizing representatives of Franklin County, Roanoke County and the Western Virginia Water Authority to continue their discussions as to the development of an extension of the water distribution system of the Authority (the "Water Line Extension") from the current termination point of the Authority's water distribution system at the entrance of Sun Crest Heights Subdivision on Route 220 south along the Virginia State Route 220 right of way across the Roanoke-Franklin County line to the Franklin County area of Wirtz Plateau

WHEREAS, the Board of Supervisors of Franklin County, Virginia ("Franklin County"), the Board of Supervisors of Roanoke County, Virginia ("Roanoke County") and the Board of Directors of the Western Virginia Water Authority (the "Authority") have determined concurrently that it is in the best interests of the citizens of Franklin County and of Roanoke County that the Authority extend its water distribution system from the current termination point of the Authority's water distribution system at the entrance of Sun Crest Heights Subdivision on Route 220 south along the Virginia State Route 220 right of way across the Roanoke-Franklin County line to the Franklin County area of Wirtz Plateau, pursuant to the provisions of the

Virginia Water and Waste Authorities Act, Chapter 51, Title 15.2 of the 1950 Code of Virginia, as amended ("the Act")

NOW, THEREFORE, BE IT JOINTLY RESOLVED by the Board of Supervisors of Franklin County, Virginia, the Board of Supervisors of Roanoke County, Virginia and the Board of Directors of the Western Virginia Water Authority, as follows:

1. Approval in Principle of the Water Line Extension. The Boards do each hereby jointly approve in principle the Water Line Extension with the following parameters:

A. The cost of the Water Line Extension shall be shared proportionately between the jurisdictions based on the length of the Water Line Extension in the respective jurisdictions. The parties anticipate that the Authority will issue bonds to finance the Water Line Extension, and that the Counties will contribute to their respective portions of the annual debt service paid to the Authority annually over the term of the bond issue, and that the bond issue will be secured by the respective proportionate moral obligations of Franklin County and of Roanoke County.

B. All customers connecting to the Water Line Extension shall be customers of the Authority and will be responsible for the Authority's connection, availability and other fees as well as the published rate for their particular jurisdiction, *i.e.* Roanoke County customers shall pay the Authority's published rates, Franklin County customers shall pay Franklin County's published rates for water service.

C. The Water Line Extension and any extensions thereto shall be owned and operated by the Authority except that Franklin County shall retain ownership of the water line extension until construction is complete and all obligations regarding the State and Tribal Grant (STAG) Program have been satisfied.

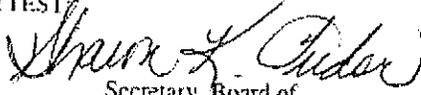
D. In the event of an emergency or usage restrictions imposed by the Authority, all customers of the Authority will be treated equally

E. The jurisdictions will mutually agree on the other terms and conditions of the construction, financing and operation of the Water Line Extension.

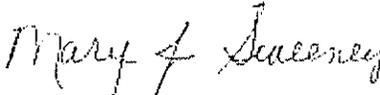
2. Action to Be Taken The appropriate officers of Franklin County, Roanoke County and the Authority shall take all action necessary or convenient to negotiate an agreement among the jurisdictions and otherwise plan the development, financing and construction of the Water Line Extension; provided however, that no jurisdiction shall be legally bound until it has explicitly approved the terms and conditions of the agreement to be developed by its officers.

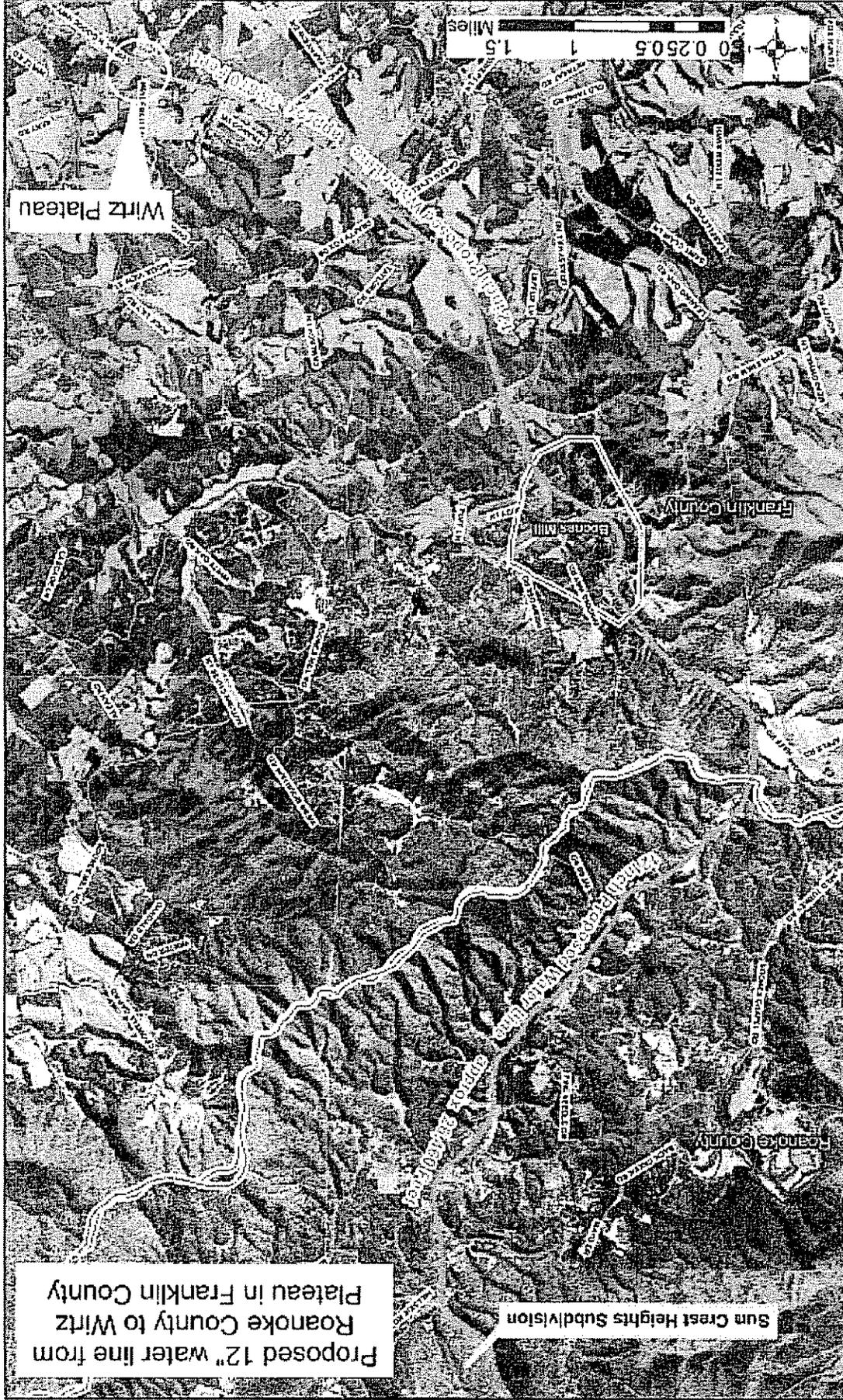
3. Effective immediately. This resolution shall take effect immediately upon its adoption.

ATTEST

  
Secretary, Board of  
Supervisors, Franklin County, Virginia

  
Secretary, Board of  
Supervisors, Roanoke County, Virginia

  
Secretary, Board of  
Directors, Western Virginia Water  
Authority



## **Appendix 3**

### **WWWA Water Rates**

**Western Virginia Water Authority  
 Water and Sewer Rates  
 Effective January 1, 2006**

**Water Rate Schedule**

Water Meter Size (Inch)	County Base Charge Monthly	City Base Charge Monthly
5/8"	\$5.70	\$3.50
3/4"	\$8.55	\$5.25
1"	\$14.25	\$8.75
1-1/2"	\$28.50	\$17.50
2"	\$45.60	\$28.00
3"	\$85.50	\$52.50
4"	\$171.00	\$105.00
6"	\$342.00	\$210.00
8"	\$513.00	\$315.00
10"	\$855.00	\$525.00
12"	\$1,140.00	\$700.00

Water Volume Charge Volume Rates In Thousand Gallons			
Customer Type		County Rate Per 1,000 gal.	City Rate Per 1,000 gal.
Residential	All consumption to 10,000 gallons	\$2.90	\$2.42
	Over 10,000 gallons per mo.	\$3.19	\$2.66
Commercial	All consumption to 75,000 gallons per mo.	\$2.90	\$2.42
	Over 75,000 gallons per mo.	\$3.19	\$2.66
Industrial	All consumption to 375,000 gallons per mo.	\$2.90	\$2.42
	Over 375,000 gallons per mo.	\$3.19	\$2.66
Irrigation	All Consumption	\$3.19	\$2.66

Western Virginia Water Authority

Sewer Rate Schedule

Water Meter Size (Inch)	County Base Charge Monthly	City Base Charge Monthly
5/8"	\$9.00	\$3.00
3/4"	\$13.50	\$4.50
1"	\$22.50	\$7.50
1-1/2"	\$45.00	\$15.00
2"	\$72.00	\$24.00
3"	\$135.00	\$45.00
4"	\$270.00	\$90.00
6"	\$540.00	\$180.00
8"	\$810.00	\$270.00
10"	\$1,350.00	\$450.00
12"	\$1,800.00	\$600.00
Volume Charge Per 1,000 Gal.	\$2.10	\$2.70

Monthly Flat Rate Sewer Charges \*

	County	City
Residential	\$21.60	\$19.20
Commercial	\$72.00	\$84.00

\* - Applies to customers without metered water service by permission of the Western Virginia Water Authority. Flat Rate Charge based upon Sewer Volume Charge at 6,000 gallons per month for residential and 30,000 gallons per month commercial plus 5/8" base charge by locality.

WVWA AVAILABILITY FEES

Meter Size	Availability Fee Water	Availability Fee Sewer
5/8"	\$2,400	\$2,000
3/4"	\$3,600	\$3,000
1"	\$6,000	\$5,000
1-1/2"	\$12,000	\$10,000
2"	\$19,200	\$16,000
3"	\$36,000	\$30,000
4"	\$72,000	\$60,000
6"	\$144,000	\$120,000
8"	\$216,000	\$180,000
10"	\$360,000	\$300,000
12"	\$480,000	\$400,000

WVWA - Water Basic Connection Fees

Meter Size	(Includes Meter)
5/8"	\$1,500
3/4"	\$1,515
1"	\$1,600
1-1/2"	\$2,300
2"	\$2,500
3"	\$3,960
4"	\$12,300
6"	\$14,010
8"	Actual Cost
10"	Actual Cost
12"	Actual Cost

WVWA - Sewer Basic Connection Fees

Lateral Size	
Up to 4-inch	\$1,500
6-inch	\$2,000
Laterals larger than 6-inch or crossing more than one lane of pavement would be charged at actual construction cost.	

For developments constructed utilizing publicly-owned sewer pumping stations, the sewer availability charge will increase by \$1,000.00 per equivalent residential connection. For water meter installations where the service was constructed by others, the meter charge will be \$250.00 up to 2-inch meters. Meters larger than 2-inch will be billed at cost. Taps for services to be installed by others will be billed at cost. Water or sewer basic connection fees will increase by \$1,000.00 per connection for services that require street pavement restoration.

Western Virginia Water Authority  
 Fire Service Rates

Monthly Minimum Charge			Basic Connection (Installation) Charge	
Fire Line Size	City	County	Fire Line Size**	
< 4-inch	\$11.67	\$11.67	4-inch	\$10,300.00
4-inch	\$76.67	\$16.67	6-inch	\$10,800.00
6-inch	\$166.67	\$33.33	8-inch	\$13,300.00
8-inch	\$266.67	\$50.00	10-inch	\$15,000.00
10-inch	\$450.00	\$83.33	12-inch	Actual Cost
12-inch	\$616.67	\$83.33	Fire Hydrant	\$3000.00

\*\* Fire service less than 4-inch is same charge as domestic water service connection

The Western Virginia Water Authority reserves the right to charge for excessive fire service water consumption at commercial water rates.

**Septage Disposal Fees:**

- \* Septage generated within the City of Roanoke, City of Salem, Town of Vinton, Counties of Roanoke and Botetourt - \$26.00 per 1,000 gallons discharged to the Authority water pollution control plant (WPCP) plus applicable decal fees.
- \*\* Septage generated in jurisdictions other than those listed above - \$45.00 per 1,000 gallons plus applicable decal fees.

**County Utility Tax:**

Residential – 12% of the first \$15 of the water charge per month  
 Not to exceed \$1.80 per month.

Commercial – 12% of the first \$5,000 of the water charge per month.  
 Not to exceed \$600 per month

**City Utility Consumer Tax:**

12% of the water charge.  
 May not exceed \$2,400 per month

(taxes set by the individual localities)

WESTERN VIRGINIA WATER AUTHORITY

BILLING FEES AND MISCELLANEOUS CHARGES

Initial Application	\$20.00
Each request for service beyond initial water service turn-on	\$25.00
Recheck reading of meter (no charge if misread)	\$20.00
Investigation of leak	\$25.00
Meter test for removable meters (no charge if defective meter)	\$50.00
Meter test for stationary meters (no charge if defective meter)	\$200.00
Additional overtime charge (for work other than 8am-5pm, Mon.-Fri.)	\$37.50
Each service trip for non-payment	\$35.00
Late Payment (whichever is greater)	10% or \$1.50
Non-Payment	\$35.00
Debt Set-off	\$25.00
Bad check charge	\$35.00
Temporary Water or Sewer Account Administrative Fee	\$50.00
Temporary Water (per 1000 gallons)	\$5.00
Temporary Wastewater (per day of service)	\$50.00
Industrial Pretreatment Penalty	Up to \$2,500 per violation per day
Administrative Compliance Fee	Up to \$500 per violation per month
Engineering Design Service Fee	\$5 per foot of main
Engineering Field Service Fee	\$50.00
Copy Fee (first 10 pages free / first half-hour labor free)	\$0.15 per page / \$15 per hour

## **Appendix 4**

### **Franklin County Water Rates**

(Adopted following public hearing held on Tuesday, March 16, 2004, at 6:00 p.m., Board Meeting Room, County Courthouse, Rocky Mount, VA)  
 Chapter 22  
 WATER AND SEWER SYSTEMS  
 ARTICLE X. RATES AND FEES FOR COUNTY SYSTEMS

Sec. 22-250.1 Phase I of the countywide public water system rates and fees.

It is hereby ordained by the Franklin County Board of Supervisors that the County of Franklin shall charge customers of the Phase I Countywide Public Water System according to the following schedule of water rates and fees:

- a) *Service Deposit* (Refundable): One month's minimum water use charge.
- b) *Hook-Up Fees:*

Meter Size	Availability Fee	Connection Fee	Hook-up Fee	Total
5/8" x 3/4"	\$ 1,976.00	\$ 750.00		\$ 2,726.00
1"	2,767.00	1,050.00		3,817.00
1 1/2"	3,557.00	1,350.00		4,907.00
2"	5,731.00	2,175.00		7,906.00
3"	21,739.00	8,250.00		29,989.00
4"	27,668.00	10,500.00		38,168.00
6"	41,501.00	15,750.00		57,251.00
8"	57,312.00	21,750.00		79,062.00

An **introductory discount** shall be offered for hook-up fees paid within one year of construction completion and acceptance of the Phase I water system, as follows:

- Total Hook-up Fee: Discount of 20%
- Availability Fee (Paid Alone): Discount of 15%
- Connection Fee (Paid Alone): Discount of 10%

Following the discount period, the total hook-up fee, availability fee and connection fees will be assessed at their adopted rates

- c) *Fire Protection Hook-Up and Appurtenances:* Provision of fire hydrants, detector checks for fire flow, compound meters, and such appurtenances related to on-site fire protection suppression systems shall be assessed a one-time charge at the County's cost (including materials, labor, contractor and consultant services, and administration) to install the appurtenance(s).
- d) *Water Use Rates:* Customer pays the monthly minimum plus the customer pays for the volume of water used during the month above the monthly minimum amount at the adopted rates based on volume of water purchased.

1. Monthly Minimum Rate

A. Community Systems: The monthly minimum shall be \$8.00/1,000 gallons applied to 75% of the monthly water usage anticipated for all connections (based on one ERC per connection or 4,000 gallons/month per residential connection). As an example, a community system having 30 homes has a monthly minimum of 30 homes x 4,000 gallons/month minimum water usage = 120,000 gallons/month x 75% = 90,000 gallons/month at the rate of \$8.00/1,000 gallons = \$720.00/monthly minimum charge. Should the number of connections within the community system increase or decrease, the monthly minimum shall be reconfigured.

An **introductory offer** shall be provided to community systems that execute a user agreement with the County by June 2004 or as approved by the County Administrator, such that the monthly minimum established shall be \$8.00/1,000 gallons applied to 65% of the monthly water usage anticipated for all connections (based on one ERC per connection or 4,000 gallons/month per residential connection). As an example, a community system having 30 homes shall have a monthly minimum of 30 homes x 4,000 gallons/month minimum water usage = 120,000 gallons/month x 65% = 78,000 gallons/month at the rate of \$8.00/1,000 gallons = \$624.00/monthly minimum charge. The introductory offer monthly minimum, if accepted in a timely manner, shall

set the monthly minimum terms to be applied to the community system during the entire period of its continuing water purchases as a community system. Should the number of connections within the community system increase or decrease, the monthly minimum shall be reconfigured according to the introductory offer.

After June 2004 or such date as approved by the County Administrator, where service is available to community systems located along the Phase I project, the monthly minimum shall be based on 75% of the monthly minimum water usage anticipated for connections, as opposed to the 65% introductory offer.

B. All Other Connections Not Listed in (A) Above: Meter size flow minimum x \$8.00/1,000 gallons, as follows:

<u>Meter Size</u>	<u>Monthly Minimum Charge</u>
5/8" x 3/4" = 1 ERC = 4,000 gallon minimum	\$ 32.00
1" = 10,000 gallon minimum	80.00
1 1/2" = 20,000 gallon minimum	160.00
2" = 32,000 gallon minimum	256.00
3" = 64,000 gallon minimum	512.00
4" = 100,000 gallon minimum	800.00
6" = 200,000 gallon minimum	1,600.00
Larger than 6" determined by Public Works Director	TBD

2. Monthly Water Purchase Rates

A. Monthly Water Purchase Rates: Customers shall be charged the monthly minimum, and the volume used each month above the monthly minimum amount shall be charged at the volume charges which are applicable, as follows:

<u>Volume Used/Month</u>	<u>Rate/1,000 Gallons Used</u>
Monthly minimum	As established above.
4,001-18,000 gallons	\$ 7.00
18,001-25,000 gallons	6.50
25,001-50,000 gallons	6.00
50,001-100,000 gallons	5.50
100,001 gallons and over	5.00

B. Bulk Water Purchase: \$8.00/1,000 gallons purchased/month plus one-time application fee of \$25.00. Bulk water purchases at locations other than the County's bulk meter station must receive prior approval from the Public Works Director.

- e) Late Payment Fee: 1.5%/month of the unpaid balance, cumulative.
- f) Disconnection Fee: \$20.00/disconnection up to two (2) disconnections/year per customer. If the customer wishes or is assessed three (3) or more disconnections/year, the fee shall be \$25.00/disconnection.
- g) Reconnection Fee: \$40.00/reconnection.
- h) Returned Check Fee: \$25.00/returned check.
- i) Customer Requested Meter Read: \$25.00/meter read.
- j) Meter Test Fee: If requested by the customer, \$35 if the test is conducted by County staff; or cost plus 10% if by contractor or factory tested. The meter test fee shall be assessed only if the meter is accurate according to the test.
- k) Utility Plan Review: A separate fee from fees assessed by the Planning and Community Development Department shall be assessed for plan review of systems which seek to be turned over to the County. This fee shall be paid to

the County Treasurer in care of the Public Works Department, as follows:

- A minimum of \$150 flat fee plus \$0.25/linear foot of water line for first-time review.
- If subsequent reviews are required by the County for the same water plans, an additional \$150 flat fee shall be assessed for each subsequent review.
- Waterline inspections by County staff or County consultants shall be billed to the applicant at actual cost.

l) *Lien Provision for Unpaid Charges and Fees and Termination of Service* The lien provisions and policies regarding termination/cutting off of the water supply to the customer which are set forth in Section 22-251 of the County Code for unpaid water charges and fees (including availability and connection fees, water rates, and other adopted rates and fees) shall be applicable to customers of the Phase I Countywide Public Water System .

**EXCERPT:**  
**RATES AND FEES FOR "FOREST HILLS" COUNTY PUBLIC**  
**WATER SYSTEM (VICINITY OF DOE RUN AND POWER DAM ROADS)**  
 Adopted by the Board of Supervisors, August 17, 2004; Revised September 21, 2004

- a) *Service Deposit* (Refundable): One month's minimum water use charge.
- b) *Hook-Up Fees:*

<u>Meter Size</u>	<u>Availability Fee</u>	<u>Connection Fee</u>	<u>Hook-up Fee</u>
5/8" x 3/4"	1,976.00	750.00	2,726.00
1"	2,767.00	1,050.00	3,817.00
1 1/2"	3,557.00	1,350.00	4,907.00
2"	5,731.00	2,175.00	7,906.00
3"	21,739.00	8,250.00	29,989.00
4"	27,668.00	10,500.00	38,168.00
6"	41,501.00	15,750.00	57,251.00
8"	57,312.00	21,750.00	79,062.00

An **introductory discount** shall be offered for hook-up fees paid within one year of construction completion and acceptance by the Franklin County of the "Forest Hills" County public water system, as follows:

Total Hook-up Fee:	Discount of 20%
Availability Fee (Paid Alone):	Discount of 15%
Connection Fee (Paid Alone):	Discount of 10%

Following the discount period, the total hook-up fee will be assessed at its adopted rate.

- c) *Water Use Rates:* Customer pays the monthly minimum plus the customer pays for the volume of water used during the month above the monthly minimum amount at the adopted rates based on volume of water purchased.

Monthly Minimum Rate: For most water customers, the minimum monthly use charge shall be \$21.50 for the first 3,000 gallons of usage.

<u>Volume Used/Month</u>	<u>Rate/1,000 Gallons Used</u>
Monthly minimum	As established by the Board of Supervisors.
3,001-10,000 gallons	\$ 6.50
10,001-50,000 gallons	6.30
50,001-100,000 gallons	6.10
100,001-250,000 gallons	5.90
250,001-500,000 gallons	5.60
500,001 or more gallons	5.00

- d) *Late Payment Fee:* 1.5%/month of the unpaid balance, cumulative.
- e) *Disconnection Fee:* \$20.00/disconnection up to two (2) disconnections/year per customer. If the customer wishes or is assessed three (3) or more disconnections/year, the fee shall be \$25.00/disconnection.
- f) *Reconnection Fee:* \$40.00/reconnection.
- g) *Returned Check Fee:* \$25.00/returned check.
- h) *Lien Provision for Unpaid Charges and Fees and Termination of Service:* The lien provisions and policies

regarding termination/cutting off of the water supply to the customer which are set forth in Section 22-251 of the County Code for unpaid water charges and fees (including availability and connection fees, water rates, and other adopted rates and fees) shall be applicable to customers of the "Forest Hills" County Public Water System .

*Note. Call the Public Works Department at 540-483-3030 for additional information.*

**APPENDIX 7:**  
**(Adopted following public hearing held on October 19, 1999, at 6:00 p.m., Board Meeting Room, County Courthouse,  
 Rocky Mount, VA)**  
**Chapter 22**  
**WATER AND SEWER SYSTEMS**  
**ARTICLE X. RATES AND FEES FOR COUNTY SYSTEMS**

**Sec. 22-250. Commerce Center water system rates and fees.**

It is hereby ordained by the Franklin County Board of Supervisors that the County of Franklin shall charge for water and connection fees at the Commerce Center according to the following schedule:

Minimum rate/month/3,000 gallons.....	\$ 6.00
Rate/1,000 gallons over 3,000/month/1,000 gallons.....	2.00
Connection fees:	
5/8" meter.....	\$ 500.00
1" meter.....	1,200.00
1 1/2" meter.....	1,500.00
2" meter.....	2,250.00
3" meter.....	3,500.00
Over 3" meter.....	Cost plus 10%
Availability fee.....	400.00
Disconnection fee.....	3.00
Reconnection fee.....	20.00
Late payment fee.....	20.00
Bulk water purchase rate/1,000 gallons.....	4.00

(Ord. of 10-19-99)

***RESOLUTION OF THE FRANKLIN COUNTY BOARD OF SUPERVISORS***  
***Conditions of Purchase of Bulk Water***  
***from the Commerce Center Water System***  
***(Resolution No. 21-09-99, September 1999)***

Be it hereby resolved by the Franklin County Board of Supervisors that bulk water purchases from the Commerce Center Water System are subject to the following conditions:

- 1) When sold as bulk purchase water, the water supply of the Commerce Center Water System shall be deemed raw water unless otherwise approved by the Board of Supervisors;
- 2) Approval of the County Administrator or his/her designee is required for any bulk rate sale;
- 3) The purchaser is responsible for collecting and transporting the bulk water and shall hold the County harmless and meet all requirements regarding collection established by the County Administrator or his/her designee;

- 4) The County Administrator shall ascertain that surplus water is available beyond the needs of monthly customers of the Commerce Center Water System prior to approval of any bulk purchase;
- 5) The County Administrator shall prioritize any sale of bulk rate water from the Commerce Center Water System, as deemed appropriate, to potential customers as follows:
  - A) Raw water for public drinking water supplies;
  - B) Raw water for livestock;
  - C) Raw water for other agricultural production;
  - D) Raw water for swimming pools and other uses.
- 6) At the recommendation of the County Administrator, the Board of Supervisors may consider a negotiated agreement for the sale of bulk water from the Commerce Center Water System at such rates as are included in the proposed agreement.

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(c) Roanoke County Board of Supervisors: Supervisor McNamara moved to adopt the resolution, authorize the County Administrator and staff to conduct a 2232 planning review of the Route 220 corridor area, authorize the County Administrator and staff to conduct a corridor study which will which address a number of items including traffic impact and areas for preservation, economic development and residential use, and authorize the County Attorney to begin work on a contract with the Western Virginia Water Authority and Franklin County. The motion carried by the following recorded vote:

AYES: Supervisors Church, Altizer, Flora, McNamara

NAYS: None

ABSTAIN: Supervisor Wray

Supervisor Wray advised that he owns property in this area, and therefore would abstain from voting.

**IN RE: ADJOURNMENT**

Western Virginia Water Authority: Member Don Davis moved to adjourn the Western Virginia Water Authority meeting at 4:23 p.m. The motion was seconded by Member Rupert Cutler and carried by the following recorded vote:

AYES: Members Cutler, Davis, Lawson, Hodge

NAYS: None

ABSENT: Members Burcham, Minnix

344

April 16, 2007

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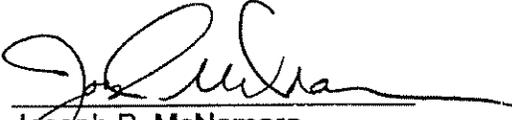
Franklin County Board of Supervisors: Chair Angell adjourned the Franklin County Board of Supervisors meeting at 4:23 p.m.

Roanoke County Board of Supervisors: Chairman McNamara adjourned the Roanoke County Board of Supervisors meeting at 4:24 p.m.

Submitted by:

Approved by:

  
Diane S. Childers, CMC  
Clerk to the Board

  
Joseph P. McNamara  
Chairman

**Route 220 Corridor Study  
Community Meeting  
Clearbrook Elementary School  
September 17, 2007**

**Agenda**

1. Corridor Study background
2. Potential Development Sites
3. Comprehensive Plan Future Land Use Maps, Alternative Amendment Scenarios
4. Draft Study Themes/Rezoning Guidelines
5. Reminder: Comment Sheet and temporary location for upcoming public hearings
6. Questions and Answers



## ROUTE 220 CORRIDOR STUDY

COMMUNITY MEETING

SEPTEMBER 17, 2007

### DRAFT STUDY THEMES/REZONING GUIDELINES

#### STUDY AREA

- Boundaries of study area follow existing breaks in the Comprehensive Plan future land use maps, or 1,000 feet from the highway center line, whichever is greater.
- Petitions for commercial development/ redevelopment are encouraged at the sites identified in the study. Residential development is discouraged, unless accessory to a commercial use within a mixed-use development.
- The limits of the future land use map commercial designations are intended to function as an Urban Development Area boundary, with the understanding that urban/suburban development is strongly discouraged beyond that area limit, until such time that further planning and land use studies are completed for those rural areas.

#### PUBLIC WATER AND SANITARY SEWER SERVICE

- New projects must connect to public water service.
- New projects must connect/extend sanitary sewer service if within X feet of existing sewer.
- New projects beyond existing sanitary sewer - petitioner must consider extension of sewer services, and/or justify not constructing the services.
- New projects using private septic systems are discouraged, but if proposed must have septic permit approval from the Virginia Department of Health submitted with rezoning application.

#### SLOPE DEVELOPMENT

- New projects must provide preliminary grading plan with rezoning application, delineating building pad area, driveway access grading, limits of disturbance and extent of proposed cut and fill.
- New projects exceeding 25 vertical feet of cut or fill slope must provide geotechnical report with rezoning application.
- Heights and details of all proposed retaining walls must be provided with rezoning application.
- Planning Commission may request geotechnical report at its discretion.

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## TRANSPORTATION NETWORK

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- Traffic Impact Analysis report shall be submitted with rezoning application, unless that requirement is waived by the Virginia Department of Transportation and Roanoke County.
- Priority sites have access from Route 220, and from existing public streets intersecting with Route 220.
- New public streets intersecting with Route 220, and new access driveways from Route 220 will require significant transportation planning and coordination with the Virginia Department of Transportation and Roanoke County prior to submission of rezoning application.
- Consideration must be given to the future Interstate Route 73 corridor and potential land use impacts of that highway construction.

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## SITE SELECTION

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- Development opportunities are prioritized in the study. Seven general areas are identified in the plan as development opportunities and should be given the highest priority in consideration of rezoning applications. Of these seven areas, some sites are more conducive for development due to proximity of sanitary sewer, existing highway intersections and turn lanes, topography issues and overall size of the potential development area.
- A second tier of potential development sites are listed in the plan as "Other Sites". These sites had some favorable topography, but are second in the priority list due to highway access difficulties, topography issues, or general separation from a cluster of other sites.
- The remaining lands not identified in the development opportunity map are third on the priority for development. These lands have the most significant challenges for development, and would require intensive study and design work to be included in a rezoning application.

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## ARCHITECTURE/SITE DESIGN

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- Building elevations shall be submitted with rezoning application.
- Landscaping and buffer yards shall be submitted with rezoning application.
- Refer to county design guidelines, as amended, for guidance with site design, signs, other amenities.



THANK YOU FOR ATTENDING THE ROUTE 220 CORRIDOR  
STUDY COMMUNITY MEETING.

WE WOULD APPRECIATE YOUR COMMENTS.

The Route 220 Corridor Study will become part of the Roanoke County Comprehensive Plan. The Comprehensive Plan is a general, long-range policy and implementation guide for decisions concerning the overall growth and development of the County. One important component of the Comprehensive Plan is the "Future Land Use Map." This map designates areas and types of land uses for future development of the County. The maps guide citizens and property owners who are evaluating alternative uses of their land and will be used by the Roanoke County Board of Supervisors and Planning Commission in the evaluation of requested land use and zoning amendments.

Two urban commercial designations are proposed for the 220 Corridor Study Area. The three scenarios presented show alternative designations of "Transition" and "Core" areas. The orange "Transition" designation encourages the orderly development of highway frontage parcels. Transition areas generally serve as developed buffers between highways and nearby or adjacent lower intensity development. Intense retail and highway oriented commercial uses are discouraged in Transition areas, which are more suitable for office, institutional and small-scale coordinated retail uses. The red "Core" designation encourages high intensity urban development. Land uses within Core areas may parallel the central business districts of Roanoke, Salem and Vinton. Core areas may also be appropriate for larger-scale highway-oriented retail uses and regionally based shopping facilities.

**PROPOSED FUTURE LAND USE MAP CHANGES**

1. Please comment on the three Future Land Use Map scenarios:

Future Land Use Scenario	Comments
1	
2	
3	

2. Please comment on the areas identified as Development Opportunities:

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3. Are there other areas that could be identified as Development Opportunity Areas? Why?

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4. Do you have additional comments or questions for County staff?

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5. If you would like staff to contact you regarding your questions or to send you further information on the 220 Corridor study, please provide us with your name, phone number, email and/or address below:

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*If you choose to take this questionnaire home to complete, please mail it to the following address:*

*Route 220 Corridor Study  
Roanoke County Community Development Department  
5204 Bernard Drive  
P.O. Box 29800  
Roanoke, Virginia 24018-0798*

THE DEADLINE FOR COMPLETED QUESTIONNAIRES IS FRIDAY, SEPTEMBER 28, 2007. THANK YOU.



ROUTE 220 CORRIDOR STUDY  
COMMUNITY MEETING SEPTEMBER 17, 2007  
CITIZEN QUESTIONS/COMMENTS

1. When will the waterline construction begin?
  - a. The Western Virginia Water Authority is currently in the planning and design phase of the waterline extension, which is estimated to take six months. Construction should take 18 months. The construction will be phased, with each segment taking three to four months to complete approximately 2-3 miles in length of waterline. The first phase of the waterline project should go out to bid in January 2008
2. Where will the water line be located?
  - a. The waterline will be constructed in VDOT right-of-way. The location of the line is approximate at this time.
3. Does staff expect that the waterline will attract large commercial development?
  - a. In order to have a successful community, there must be a range of uses. Some residential uses can coexist with some commercial uses. At this point, the opportunity to work within the VDOT right of way is tremendous because no land acquisition is necessary for this project. Therefore, the only cost to the county is construction costs. Revenues from commercial development help to cover these costs. Additionally, commercial development is more attractive along a major highway than residential uses because of safety concerns. Small lots with individual driveways pose a risk on Route 220, because, as the number of entrances directly off Route 220 increase, the potential for accidents increases. Commercial uses can be clustered and can share entrances.
4. Who will have access to the water?
  - a. If you have property fronting on Route 220 you will be able to connect to the waterline.
5. What is the cost of installing the waterline?
  - a. The total cost of installing 12 miles of waterline is \$5.5 million. The cost for Roanoke County is \$2.3 million, and \$3.2 million is Franklin County's share.
6. Traffic is already a problem on Route 220. Are there any planned improvements?
  - a. Staff is not aware of any plans by VDOT to improve the road at this time.

7. These scenarios appear to promote business growth. Why not concentrate the commercial development where the interstate will be rather than trying to place businesses on the side of cliffs?
  - a. Residential growth does not make sense on the frontage along Route 220. Over time, county staff expects residential growth beyond the frontage parcels but currently we want to encourage orderly and appropriate business development in the study area. In the future, we plan to analyze the areas outside of the study boundaries. We will need to look at the broader picture once the waterline is in place and growth develops in the corridor to see the impacts to the surrounding area.
  
8. Which scenario will staff recommend to the Planning Commission and why?
  - a. Staff will not be recommending any of the scenarios. The intention of creating three scenarios is to establish a dialogue and evaluate more than one option. Following the public hearing, the Planning Commission will make a recommendation to the Board of Supervisors.
  
9. Is there a chance that none of the scenarios will be accepted in favor of leaving the Future Land Use Map as it currently exists in the Community Plan?
  - a. In studies such as this one, there is always the choice of a no-action alternative, but it is unlikely that that option will be chosen, because the current designations are for rural areas without access to water and sewer.
  
10. Are you talking about a significant rezoning?
  - a. The county will not be doing a comprehensive rezoning. The purpose of the Future Land Use Map is to guide future growth. There are currently no changes in zoning planned by the County, but this plan will aid the Board of Supervisor's in making decisions on future rezoning applications
  
11. My biggest concern is that I'm afraid that my neighbor will sell their property and then before I know it, I'll be living next door to a big box development.
  - a. This is a way of thinking proactively about the future. We are asking, "what changes will there be in 10, 20, or 30 years?" We know that growth will develop between Roanoke County and Smith Mountain Lake, and between here and Virginia Tech, and along the I-73 corridor.
  - b. Change will happen and we need to identify areas that are best to develop and best to preserve. We need to preserve areas against residential uses where we need commercial uses and we need to preserve residential and agricultural uses where they best fit. We need a mix of uses to support a viable community.
  - c. This meeting is a way of working through the uncertainties and working with the people who live in the study area now. It is good planning to be prepared for growth.
  
12. Why is Roanoke County running a waterline to Franklin County?
  - a. Roanoke County is not running a waterline; the Western Virginia Water Authority (WVWA) is constructing the line. This is just an opportunity to get water in Roanoke County where we do not currently have it. One day in the future, residents

may very much need the waterline or want it. This way we are prepared to have it when we need it. This is an opportunity to extend water along the corridor at a cost we will never see again.

13. Will the capital costs for providing water (Spring Hollow) be charged to Franklin County?
  - a. Before Roanoke County joined the Western Virginia Water Authority, debt service was spread between fewer customers. Once the WVWA was formed, the average bill was reduced by approximately four dollars per month per household as the total number of customers increased to 60,000. The WVWA believes that with more customers, it can operate more efficiently. Once the current water supply is exhausted, the next supply point is Smith Mountain Lake. This extension will allow the WVWA to be prepared to run water from Smith Mountain Lake if it is needed.
  
14. When will people be notified? How can I get water if my property does not front on Route 220? Where will sewer service end?
  - a. People on Route 220 will be notified when the opportunity becomes available for hook-up.
  - b. People whose properties do not front directly on 220 may have the option of submitting a petition for services. This could apply if 50% of the residents of a neighborhood petition for services, and each would pay for their fair share of extending the water.
  - c. Sewer will be available to the top of the hill past Red Hill Baptist Church. This is the extent for gravity sewer.
  
15. Is the Core future land use designation is Scenario 3 in anyway correlated with the 45 mph speed zone?
  - a. No, it is tied to existing and future utilities and the break in topography that would be the extent of gravity sewer service to a new pump station at Back Creek and Route 220.
  
16. There is a difference between a nice office building and a shipping carrier terminal. How can we ensure that the latter will not end up on 220?
  - a. These future land use designations do not support industrial development. The rezoning guidelines pertain to commercial development, not residential or industrial development.
  
17. Where is the money for the waterline coming from?
  - a. The money will come from the General Fund until revenue comes in from development. It is already set aside; no future tax increase will result specifically from this project.
  
18. Other comments/concerns:
  - a. Traffic on 220,
  - b. Accidents in front of Clearbrook Elementary School
  - c. School bus stops on Route 220.

AT A REGULAR MEETING OF THE ROANOKE COUNTY PLANNING  
COMMISSION, HELD AT THE ROANOKE COUNTY ADMINISTRATION CENTER,  
TUESDAY, OCTOBER 16, 2007

RESOLUTION RECOMMENDING APPROVAL AND ADOPTION OF AN  
AMENDMENT TO THE COMPREHENSIVE PLAN INCORPORATING THE  
ROUTE 220 CORRIDOR STUDY

WHEREAS, on April 16, 2007 the Roanoke County Board of Supervisors directed the Planning Commission and County staff to conduct a Route 220 Corridor Study to address transportation and growth issues arising from the construction of a new waterline extension along Route 220 into Franklin County; and

WHEREAS, from June, 2007 through September, 2007, the Planning Commission held monthly work sessions to discuss the Route 220 Corridor Study, including the overall scope of the study, tours of potential development sites, consideration of alternative amendments to the Comprehensive Plan Future Land Use Maps, and guidelines for future zoning changes along the Route 220 corridor; and

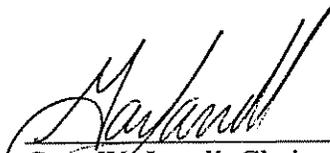
WHEREAS, on September 17, 2007, Roanoke County staff held a community meeting to present the Route 220 Corridor Study to property owners in and around the corridor study area; and

WHEREAS, on October 2, 2007, the Planning Commission held a public hearing on an amendment to the Comprehensive Plan incorporating the Route 220 Corridor Study, after advertisement and notice as required by Section 15.2-2204 of the Code of Virginia; and

WHEREAS, on October 16, 2007, the Planning Commission held a joint work session with the Board of Supervisors to review and discuss the Route 220 Corridor Study; and

THEREFORE, BE IT RESOLVED, that the Roanoke County Planning Commission recommends that the Roanoke County Board of Supervisors amend the Comprehensive Plan for Roanoke County to incorporate the Route 220 Corridor Study into the Plan.

A COPY TESTE:

  
\_\_\_\_\_  
Gary W. Jarrell, Chairman  
Roanoke County Planning Commission

  
\_\_\_\_\_  
Philip Thompson, Secretary  
Roanoke County Planning Commission

## CONTRACT

THIS CONTRACT dated as of November 16, 2007, by and between the Western Virginia Water Authority, a public service authority formed and existing in accordance with the provisions of Chapter 51 of Title 15.2 of the Code of Virginia, 1950, as amended, the Virginia Water and Waste Authorities Act §§ 15.2-5100-15.2-5158 (the "Act"), hereinafter referred to as the "Authority;" Franklin County, Virginia, a political subdivision of the Commonwealth of Virginia, hereinafter referred to as "Franklin County;" and Roanoke County, Virginia, a political subdivision of the Commonwealth of Virginia, hereinafter referred to as "Roanoke County" (Franklin County and Roanoke County, collectively, the "Counties").

### WITNESSETH:

WHEREAS, the Authority owns and operates an existing water treatment, transmission and distribution system with all complementary and appurtenant components to serve potable water approved by the Virginia Department of Health and has sufficient capacity to provide water, in addition to the citizens of Roanoke County, to the citizens in portions of Franklin County. The Authority and the Counties agree that this contract affords an opportunity to extend the Authority's water distribution system within Roanoke County and into Franklin County to deliver public water service to certain of the residents and businesses in the Counties. Initial service contemplated by this contract shall be generally extended from the current termination point of the Authority's water distribution system at the entrance of Sun Crest Heights

Subdivision on Route 220 and then south along the Virginia State Route 220 right of way across the Roanoke-Franklin County line to the Franklin County area of Wirtz Plaza. Based on current projections, the initial water use in Franklin County is expected to be in the approximately 30,000 gallons per day range and is expected to increase or decrease according to customer demand and development of the Authority's water distribution system in Franklin County; and,

**WHEREAS**, the Authority and the Counties have determined that it is in their best interests to construct a twelve inch (12") water line extending the Authority's water distribution system from the current termination point of the Authority's water distribution system at the entrance of Sun Crest Heights Subdivision on Route 220 down the Route 220 corridor into Franklin County, generally in accordance with engineering plans to be developed by the Authority along Virginia State Route 220 to the intersection of Virginia State Route 775, Iron Ridge Road in the area known as Wirtz Plaza (the "Water Line Extension"); and

**WHEREAS**, all parties agree that the long term interests of the citizens of the Counties will be best served by the operation of the Water Line Extension in the Counties through the Authority;

**NOW THEREFORE**, in consideration of the mutual benefits accruing to each party, the parties do hereby agree as follows:

1. Cost, Financing and Capital Contributions in Aid of Construction. The parties estimate for planning purposes that the cost of the Water Line Extension will be

provided proportionately in accordance with the length of the Water Line Extension in Roanoke County and the length of the Water Line Extension in Franklin County. The parties anticipate that the Authority will issue bonds to finance the Water Line Extension, and that the Counties will contribute to their respective portions of the annual debt service paid to the Authority annually over the term of the bond issue ("Capital Contributions in Aid of Construction"), and that the bond issue will be secured as a parity pledge of the water revenues of the Authority and by the respective proportionate moral obligations of Franklin County and of Roanoke County, Virginia.

2. Water Service Rates. The parties agree that all of the customers in Roanoke County connecting to the Water Line Extension and to other extensions in Roanoke County from the Water Line Extension, shall be customers of the Authority; they will pay the Authority's connection, availability and other fees; and that the Roanoke County customers will pay the Authority's published rates for water service.

The parties further agree that all of the customers in Franklin County connecting or required to be connected to the Water Line Extension and to other extensions in Franklin County from the Water Line Extension shall be customers of the Authority; that they will pay the Authority's connection, availability and other fees; and that the Franklin County customers will pay Franklin County's published rates for water service (the "Franklin County Rate"). The Authority and Franklin County agree that the Authority will, from the water service revenues received from businesses and citizens in Franklin County, retain 25 percent of the difference between the Franklin County

Rate and the published rate for businesses and citizens in Roanoke County (the "Rate Differential") and will pay Franklin County 75 percent of the Rate Differential. The 25 percent retainage by the Authority is to account for flushing, administrative and operational costs associated with the underutilization of the main 12" water line. Based on the current estimated flushing rates the Authority and Franklin County will review and renegotiate the percentage split when the line volume averages materially decrease the need for flushing or 200,000 gallons per day.

3. Availability Fees. One-half (1/2) of the Authority's availability fees received from customers connecting to the Water Line Extension in Roanoke County will be paid to Roanoke County by the Authority to repay Roanoke County's Capital Contributions in Aid of Construction over a twenty (20) year period, as and when they are collected, but no less frequently than monthly. Once Roanoke County's Capital Contributions in Aid of Construction are returned to Roanoke County, or at the end of the twenty (20) year period, whichever occurs sooner, the Authority will retain all of its availability fees. Roanoke County will use its best efforts to require developers and others to make voluntary contributions for development within 1000 feet of State Route 220 which will also be applied to the repayment of Roanoke County's Capital Contributions in Aid of Construction.

One-half (1/2) of the Authority's availability fees received from customers connecting to the Water Line Extension in Franklin County will be paid to Franklin County by the Authority to repay Franklin County's Capital Contributions in Aid of

Construction over a twenty (20) year period, as and when they are collected, but no less frequently than monthly. Once Franklin County's Contributions in Aid of Construction are returned to Franklin County, or at the end of a twenty (20) year period, whichever occurs sooner, the Authority will retain all of its availability fees. Franklin County will use its best efforts to require developers and others to make voluntary contributions for development within 1000 feet of State Route 220 which will also be applied to the repayment of Franklin County's Capital Contributions in Aid of Construction.

The parties agree and concur that for extensions greater than 1000 feet which are consistent with the applicable County's Comprehensive Plan and which have otherwise been approved by such County the Authority shall have the flexibility to enter into such agreements with developers and other providers of line extensions as may be necessary or convenient to assist the Authority and the developers in the development and payment of such line extensions and that for line extensions greater than 1000 feet the Authority shall have the ability to negotiate one half of the availability fees back to the developers to help finance the development of the line extensions. In such instances the Authority shall share only such availability fees with Roanoke County and with Franklin County as it actually receives from the water line extensions.

4. STAG Grant Requirements. Franklin County shall retain ownership of the water line extension until construction is complete and all obligations regarding the State and Tribal Grant (STAG) Program have been satisfied.

5. Term. The term of this contract shall be twenty (20) years beginning January 1, 2008, and ending December 31, 2028. If after December 31, 2028, neither the Authority or Franklin County notifies the other of its intent to terminate this contract, it shall automatically and without further action on the part of either the Authority or Franklin County be extended in two year increments, unless and until the Authority or Franklin County shall notify the other parties hereto at least one year in advance of its intent to cease to be a party to this contract at the end of the two year term. Should Franklin County cease to be a party hereto, it shall have the option to acquire and operate the Water Line Extension and all extensions made to the Water Line Extension within Franklin County (the "Franklin County Water System") at such price and on such terms as shall be negotiated with the Authority, but under no circumstances shall the payment to the Authority by Franklin County be less than the principal balance due on Franklin County's portion of the Authority's bond and any other indebtedness for the Franklin County Water System (the "Bonds") or any other capital improvement paid for by the Authority in Franklin County and the depreciated value of capital investments made by the Authority (less the face amount of the Bonds). The Franklin County Water System acquisition cost to Franklin County shall be based solely on the depreciated value of capital investments made by the Authority to improve the Franklin County Water System as shown on the Authority's books, as agreed upon by both the Authority and Franklin County. All system components, with the exception of water boosting stations and related mechanical components shall be depreciated over a 50

year period and based on actual construction cost. Booster stations and mechanical related components shall be depreciated over a 25 year period and based on actual construction costs. Upon termination, Franklin County may at its own expense install master meters as approved by the Authority and purchase bulk water from the Authority at a price to be negotiated by the Authority and Franklin County.

6. Approval of Extensions & Improvements to the Proposed System. Based on the Code of Virginia and Franklin and Roanoke County Rules, Ordinances, Regulations and Comprehensive Plans, future extensions into Franklin County and into Roanoke County must be approved by the respective County's Board of Supervisors and incorporated as part of this Contract as an addendum. Franklin County also agrees to cooperate with the Authority on such matters as regulation of the construction and operation of water systems, mandatory connections for new customers, and other legislative matters to provide the jurisdictional and legal basis for the development of the water line extensions and extensions from the water line extension consistent with the Authority's published rules and regulations. In no event shall the Authority approve any connections to the water line in Roanoke County until Roanoke County has completed a Route 220 Corridor Study and a review of the construction of these utility facilities for conformance with the County's Community Plan as required by Sec. 15.2-2232.

7. Water Restrictions. If the Authority decides to restrict water usages or withdrawals due to droughts, emergencies, or other conditions or circumstances, any

reductions or restrictions placed on water sold to Franklin County shall be the same as placed on all other Authority customers.

8. Quality. The quality and pressure of the water delivered under this contract shall provide fire flow and shall meet the requirements of the Virginia Department of Health and other state or federal agencies which have jurisdiction over public water supplies.

9. No Waiver. The failure of any party to insist upon strict performance of any of the terms or provisions of this Contract or to exercise any option, right or remedy contained in this Contract shall not be construed as a waiver or as a relinquishment for the future of such term, provision, option, right or remedy. No waiver by any party of any term or provision of this Contract shall be deemed to have been made unless expressed in writing and approved by all parties.

10. Integration of Provisions. If any clause or provision of this Contract is or becomes illegal, invalid or unenforceable because of present or future laws or any rule or regulation of any governmental body or entity, then the remaining parts of this Contract shall not be affected.

11. Governing Law. This Contract shall be construed under and shall be governed by the laws of the Commonwealth of Virginia.

12. Notices. All notices or other communications required or desired to be given with respect to this Contract shall be in writing and shall be delivered by hand or by courier service or sent by registered or certified mail, return receipt requested, bearing

adequate postage and properly addressed as provided below. Each notice given by mail shall be deemed to have been given and received when actually received by the party intended to receive such notice or when such party refuses to accept delivery of such notice. Upon a change of address by any party, such party shall give written notice of such change to the other parties in accordance with the foregoing. Inability to deliver because of changed address or status of which no notice was given shall be deemed to be receipt of the notice sent effective as of the date such notice would otherwise have been received.

To the Authority:

Western Virginia Water Authority  
601 S. Jefferson  
Roanoke, Virginia 24011  
Attention: Executive Director, Water Operations

With copy to:

Harwell M. Darby, Jr.  
Glenn, Feldmann, Darby & Goodlatte  
P. O. Box 2887 (24001)  
210 First Street, S.W., Suite 200  
Roanoke, Virginia 24011

To Franklin County:

Franklin County Board of Supervisors  
40 East Court Street  
Rocky Mount, Virginia 24151  
Attn: County Administrator

With copy to:

B. James Jefferson, Esquire  
5 East Court Street, Suite No. 101

Rocky Mount, Virginia 24151

To Roanoke County:

Roanoke County Board of Supervisors  
P. O. Box 29800  
Roanoke, VA 24018-0798  
Attn: County Administrator

With copy to:

Paul M. Mahoney  
Roanoke County Attorney  
P. O. Box 29800  
Roanoke, VA 24018

13. Binding on Successors. This Contract shall be binding upon and inure to the benefit of the Authority and both the Counties and their respective successors and assigns.

13. Subject to Future Appropriations. The obligations of the Counties under this Agreement shall be subject to and dependent upon appropriation being made from time to time by the Board of Supervisors of the Counties for such purpose. Any other provision to the contrary notwithstanding, this Agreement and the obligations herein shall not constitute a debt of the Counties within the meaning of any limitation on indebtedness of the Counties under any constitutional or statutory limitation and nothing in this Agreement shall constitute a pledge of the full faith and credit of the Counties under any provision of its Charter, as applicable, or the Constitution of Virginia. The failure of the governing body of the Counties to appropriate funds in any year for payment in full of the payments required by the Authority as herein provided or any other provision of this Agreement during such year shall ipso facto terminate

this Agreement without any further liability on the part of the Counties off any kind, thirty (30) days after the Board of Supervisors of the Counties makes a final determination not to appropriate funds for this Agreement for the current fiscal year.

14 Entire Agreement. This Contract constitutes the entire agreement between the parties with respect to the subject matter hereof, and supersedes all prior understandings and writings. This Contract may be amended or modified only by a writing signed by the Authority and both the Counties.

15 Force Majeure. No party shall be liable for any failure to perform its non-monetary obligations under this Contract due to any cause beyond its reasonable control such as wars, riots, civil commotion, strikes, labor disputes, embargoes, natural disasters, and Acts of God or any other cause or contingency similarly beyond its control.

16 Including. In this Contract, whenever general words or terms are followed by the word "including" (or other forms of the word "include") and words of particular and specific meaning, the word "including" (or other forms of the word "include") shall be deemed to mean "including without limitation," and the general words shall be construed in their widest extent and shall not be limited to persons or things of the same general kind or class as those specifically mentioned in the words of particular and specific meanings.

17 Counterparts. This Contract may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall comprise but a single document.

WESTERN VIRGINIA WATER AUTHORITY

Donald L. Davis

By: Donald L. Davis

Its: Chairman

STATE OF VIRGINIA )

CITY/COUNTY OF Roanoke )

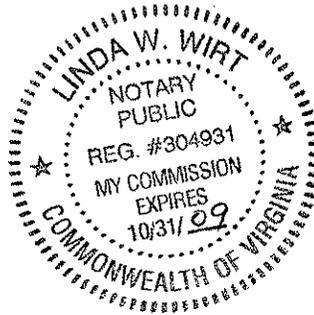
to - wit:

The foregoing instrument was acknowledged before me this 28<sup>th</sup> day of January, 2008, by Donald L. Davis, Chairman of the Western Virginia Water Authority.

Linda W. Wirt

Notary Public

My commission expires: 10/31/2009



ROANOKE COUNTY, VIRGINIA

*Joseph P. McNamara*  
By: Joseph P. McNamara,  
Chairman, Roanoke County  
Board of Supervisors

Approved as to form:

*Paul M. Mahoney*  
Paul M. Mahoney, County Attorney

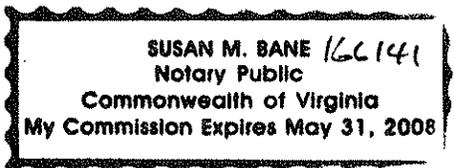
STATE OF VIRGINIA )  
CITY/COUNTY OF Roanoke )

to - wit:

The foregoing instrument was acknowledged before me this 16 day of November, 2007, by Joseph P. McNamara, Chairman of the Roanoke County Board of Supervisors.

*Susan M. Bane*  
Notary Public

My Commission expires: 05/31/08



FRANKLIN COUNTY, VIRGINIA

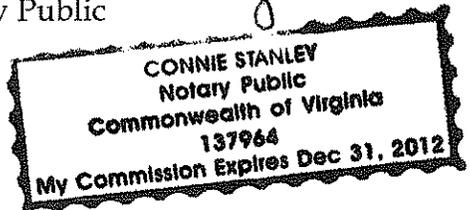
Charles Wagner  
By: Charles Wagner,  
Chairman, Franklin County  
Board of Supervisors

STATE OF VIRGINIA )  
 )  
CITY/COUNTY OF Franklin ) to - wit:

The foregoing instrument was acknowledged before me this 11 day of March, 2008, by Charles Wagner, Chairman of the Franklin County Board of Supervisors.

Connie Stanley  
Notary Public

My commission expires: 12-31-2012



AT A REGULAR MEETING OF THE BOARD OF SUPERVISORS OF ROANOKE COUNTY, VIRGINIA HELD AT THE FORMER ROANOKE COUNTY PUBLIC SAFETY CENTER, 3568 PETERS CREEK ROAD, ROANOKE, VIRGINIA, TUESDAY, NOVEMBER 13, 2007

**RESOLUTION 111307-8 APPROVING AND ADOPTING AN AMENDMENT TO THE COMPREHENSIVE PLAN FOR ROANOKE COUNTY, VIRGINIA, INCORPORATING THE ROUTE 220 CORRIDOR STUDY**

WHEREAS, on October 2, 2007, the Planning Commission held a public hearing on an amendment to the Comprehensive Plan incorporating the Route 200 Corridor Study, after advertisement and notice as required by Section 15.2-2204 of the Code of Virginia, and on October 16, 2007, adopted a resolution recommending that the Board of Supervisors review and adopt a revised Comprehensive Plan for Roanoke County; and

WHEREAS, on November 13, 2007, the Board of Supervisors held a public hearing on an amendment to the Comprehensive Plan incorporating the Route 220 Corridor Study, after advertisement and notice as required by Section 15.2-2204 of the Code of Virginia; and

WHEREAS, Roanoke County, Virginia, has a long and successful history of community planning that has emphasized citizen involvement and participation; and

WHEREAS, Section 15.2-2223 of the Code of Virginia requires that the Planning Commission of every jurisdiction shall prepare and recommend a comprehensive plan for the physical development of their jurisdiction; and

WHEREAS, Section 15.2-2229 of the Code of Virginia provides for amendments to the comprehensive plan by the Planning Commission if so directed by the Board of Supervisors; and

WHEREAS, on April 16, 2007, the Board of Supervisors of Roanoke County directed the Planning Commission and County staff to conduct a Route 220 corridor study to address transportation and growth issues arising from the construction of a 12 mile waterline extension along route 220 into Franklin County to determine if this public utility extension is substantially in accord with the Comprehensive Plan; and

WHEREAS, the Planning Commission has reviewed and recommended an amendment to the Comprehensive Plan for Roanoke County entitled "Route 220 Corridor Study", and said plan has been prepared in accordance with Sections 15.2-2223, 2224, and 2229 of the Code of Virginia; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Roanoke County, Virginia, as follows:

1. That the Comprehensive Plan is hereby amended by the adoption of the Route 220 Corridor Study, including future land use scenario #3, dated November 13, 2007, and incorporating this study into the Plan.
2. That this Resolution is effective from and after November 13, 2007.

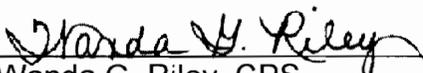
On motion of Supervisor McNamara to adopt the resolution, and carried by the following recorded vote:

AYES: Supervisors Church, Altizer, Flora, McNamara

NAYS: None

ABSENT: Supervisor Wray

A COPY TESTE:

  
\_\_\_\_\_  
Wanda G. Riley, CPS  
Clerk to the Board of Supervisors