

# CAROLINE COUNTY ECONOMIC DEVELOPMENT

## Data Center Site



# Location

Center of the Mid-Atlantic, East Coast

Labor Access Outstanding

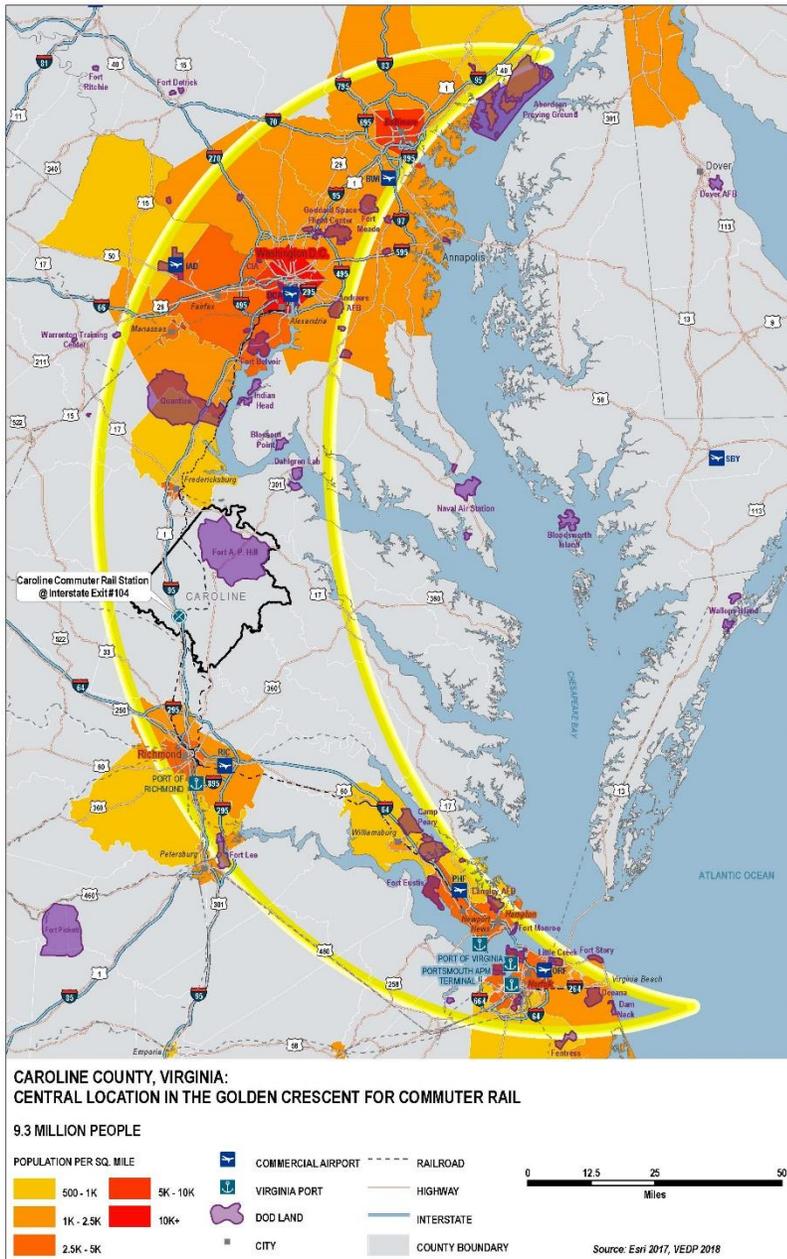
No Traffic Congestion

Interstate 95 Access & Rt. 1, Rt. 301, Rt. 17

RVA Airport, Dulles, National

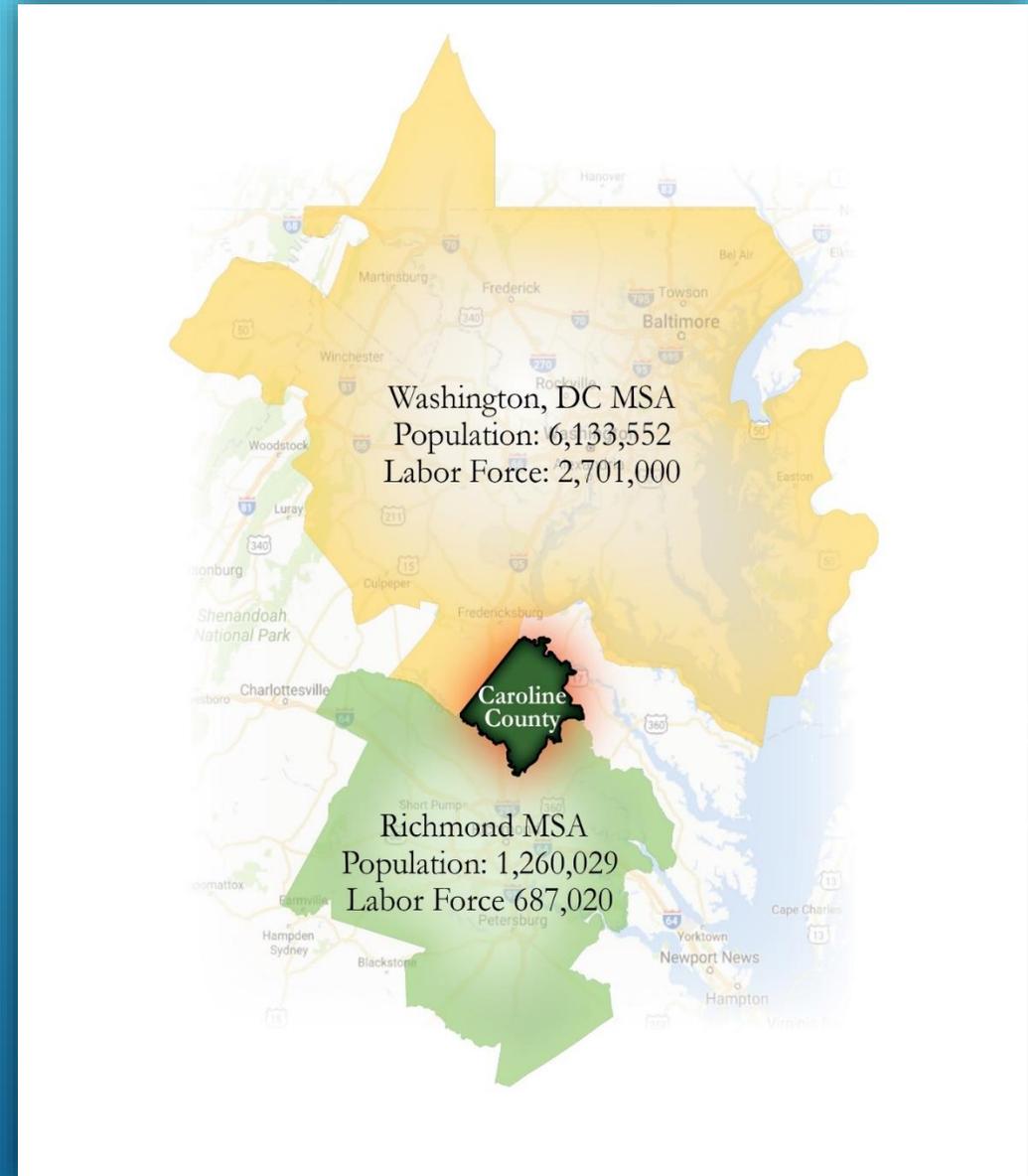
Land Prices Dramatically Lower Than NOVA

Location of Redundant Fiber



# Caroline Has An Excellent Strategic Position

- ▶ Outside the DC “Blast Zone”  
*Strategically Safe*
- ▶ Straddles Two Labor Markets:  
NoVa & RVA
- ▶ Lowest Taxes and Land Prices  
in the Corridor
- ▶ (Special Tax Rate for Data  
Centers)
- ▶ 220’ Above Sea Level



# Labor To Spare

Tech Labor Study Available



Industry Category	Washington/VA MSA	Richmond MSA
Information	62,670	14,036
Manufacturing	25,758	31,478
Professional, Scientific, Technical Services	258,576	40,440
Transportation / Warehousing	137,292	25,740
<b>Total Workforce</b>	<b>484,296</b>	<b>111,424</b>

Providers	Washington/VA MSA	Richmond MSA
4 yr. Colleges & Universities	20	13
2 yr. Community Colleges & Technical	12	10
Technical Schools & Private Business	12	5
<b>Total Providers</b>	<b>44</b>	<b>28</b>
<b>Total Degrees / Credentials Offered</b>	<b>134</b>	<b>91</b>

## Caroline County Data Center Labor Force—Deep MSA Labor Supply

Data Centers will have the pick of two Metropolitan Statistical Areas labor forces as Caroline County straddles both pools of talent.

The specific labor category of Software Engineer for the Washington DC MSA:  
Number 58,810 Earning \$56.39/Hr.

The specific labor category of Software Engineer for the Richmond MSA:  
Number 6,630 Earning \$47.44/Hr.

Total Software Engineers for the Two MSAs: 65,440 Virginia Economic Development Partnership

# Utilities: Got 'em

- ▶ Electricity
- ▶ Gas
- ▶ Water
- ▶ Reuse Water
- ▶ Sewer
- ▶ Redundant Fiber—Over Built for Distribution
- ▶ Companies Will Be Building In a Totally Supportive Network of Infrastructure

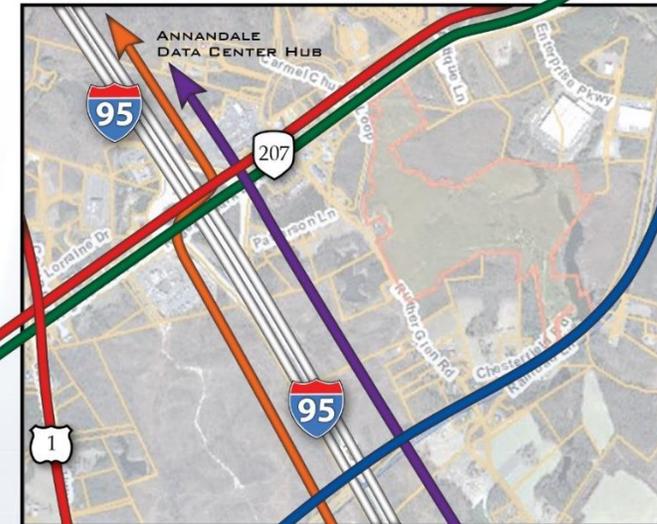
*Pictured here is the Caroline Commerce Center with five fiber options. Verizon is the provider in the industrial park. Summit IG and Lumos carry massive loads to Annandale.*

## CARMEL CHURCH IN CAROLINE COUNTY: DENSE FIBER REDUNDANCY FOR DATA CENTERS



### COMCAST:

10 GIG SERVICE; METRO E-SERVICE AVAILABLE  
DEDICATED ETHERNET CONNECTIONS  
WILL BUILD FULLY REDUNDANT  
FIBER PATH TO THIS LOCATION



### VERIZON:

TWO SEPARATE LINES  
ONE THAT IMMEDIATELY  
SERVES THE PROPERTY  
WITH 24 FIBER STRANDS  
ANOTHER ON US RT. 1  
WITH AN ADDITIONAL 24  
FIBER PIPE DS3 SERVICE, 100MBPS

### LEVEL 3: 10 GIG LINE

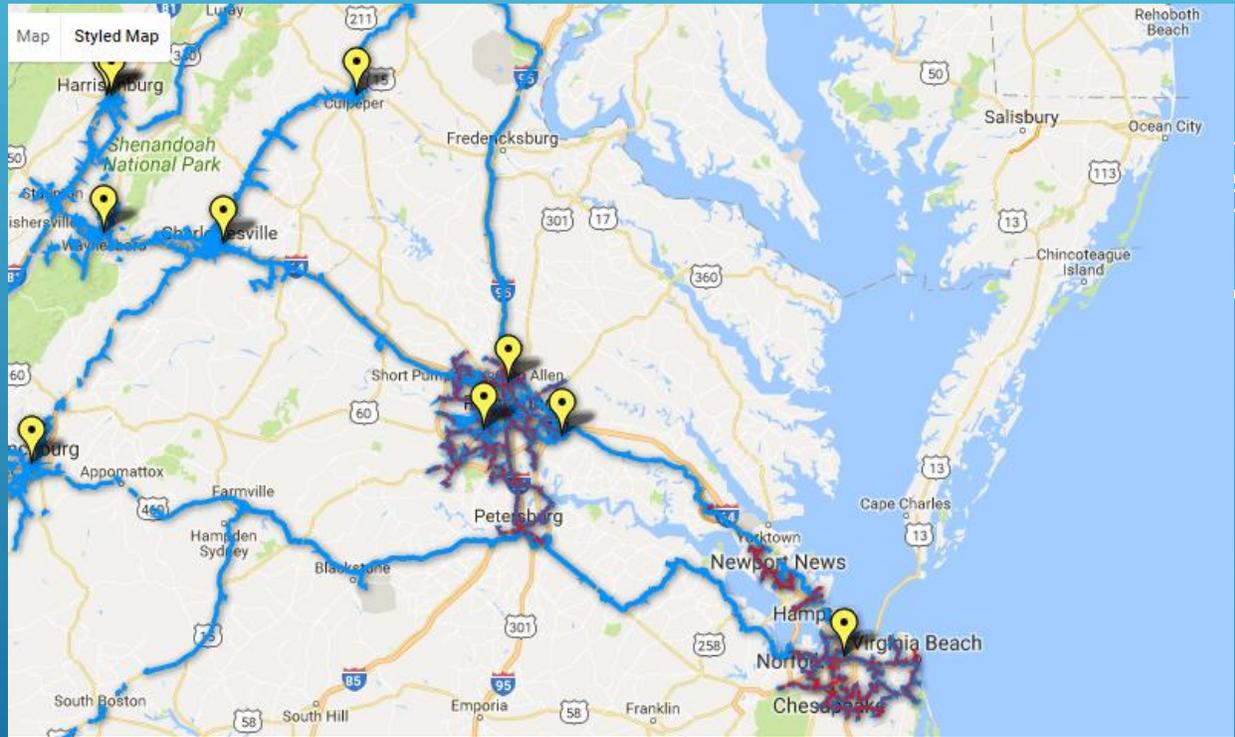
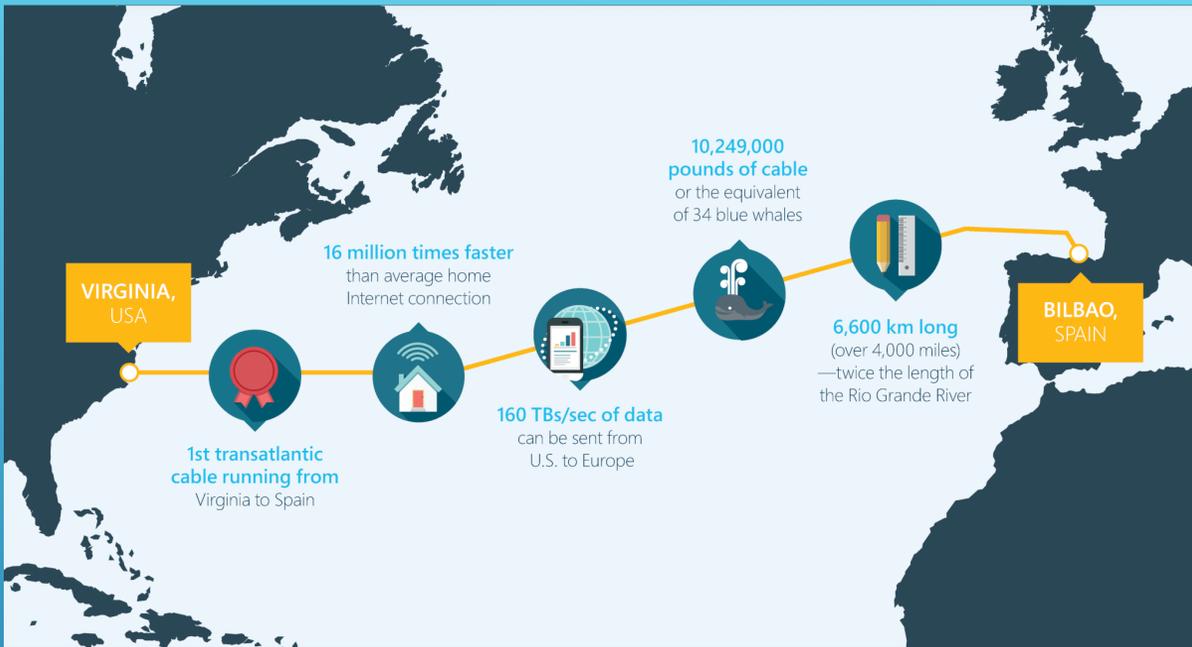
### SUMMIT IG

### LUMOS:

CARRYING THE CONNECTION TO THE  
MAREA ATLANTIC FIBER CABLE TO SPAIN

**CAROLINE COUNTY, VIRGINIA OFFERS HYPER FIBER REDUNDANCY  
FOR SAFE DATA CENTER OPERATIONS**

[WWW.VISITCAROLINE.COM/ECONOMIC.HTML](http://WWW.VISITCAROLINE.COM/ECONOMIC.HTML)



LUMOS AND MAREA UNDERSEA CABLE RUNS THROUGH CAROLINE COUNTY

Infrastructure + Owner	Current Capacity	Planned Capacity	Connection Point	Notes
<b>Electricity</b> <b>Rappahannock Electric Cooperative</b>	Several Substations within a few miles. Any level of service is possible at this site. Redundant service can be delivered on demand.	3 phase 12 KV upgrade underway + rebuild to support 35 KV top circuit at Ruther Glen; for massive users, any capacity can be built to provide adequate supply	At Site	R.E.C. can dedicate substations with multiple dedicated feeds.  ODEC is developing rate options that may be applicable for large users. The new member's kW demand is a key factor in each of these options with one option offering a 5 year discounted rate to members under 25 MW of load, while new members with 25 MW of load plus may be eligible for monthly charges based on PJM wholesale market prices for energy, capacity, transmission, and ancillary services.
<b>Natural Gas</b> <b>Columbia Gas of Virginia</b>	Columbia Gas ties into the VNG 30" HP Gas Transmission line near the sewage treatment plant East on Rt. 207	Capacity is based on Mid-Atlantic pipeline transmission access at the site, capacity practically unlimited	At Site	Natural Gas already exists in the Caroline Commerce Center Industrial Park;  Natural Gas can be brought to Carmel Church Station
<b>Potable Water</b> <b>Caroline County Department of Public Works</b>	1.2 MGD of available capacity	500,000 GPD in new wells planned. 750,000 GPD potential in purchase from community to the south. 16 MGD Long term plan of withdraw from the Rappahannock River; permitting underway	At Site	Ample for Distribution Centers/Manufacturing  Reuse water will provide long term substantial savings. For 100K daily user: \$26,000/year; for a 500K daily user: \$132,000/year, a substantial savings over potable water
<b>Reuse Water</b>	.5 MGD available capacity	Reuse water capacity will expand with County dev.	Will be brought to site	
<b>Sanitary Sewer</b> <b>Caroline County Department of Public Works</b>	County facility currently processes 1 MGD of its 1.5 MGD capacity  County can supply .5 MGD in Effluent for gray water re-use if connections are made.	Permits in hand for expansion up to 3 MGD. 2.5 year turn around to build new capacity under Design-Bid-Build process.	At Site	Abundant capacity for Distribution and Data Centers
<b>IT- Telecom – Fiber</b> <b>Summit 1G</b>	Unlimited dark fiber pipe, Multiple bundles of hundreds of gigs of capacity can be supplied, can supply multiple data centers	More conduits available within duct bank Unlimited capacity	At Site Interchange 104	52" minimum depth multi-duct system connecting Ashburn, VA with Richmond, VA and Hampton Roads, VA trans-Atlantic Cable landing site.  Meant to provide data resiliency back-up to Ashburn and to connect to landing site.
<b>IT- Telecom – Fiber</b> <b>Verizon</b>	24 fiber strands at exit 104 currently 24 Gig Capacity...can be upgraded To unlimited, can supply multiple data centers	Upgrades can be made within 30- 45 days of request: Verizon unspecified additional capacity is characterized as "limitless" with about \$250,000 infrastructure extension	At Site Interchange 104	Line is partial above and below grade
<b>IT-Telecom—Fiber</b> <b>Lumos, now SEGRA</b> <b>Marea Ocean Cable to Spain</b>	32X100 Gig Capacity Over DWDM	Large pipeline with capacity for US communications with Europe—Six Month build out can provide "unlimited capacity" for end user	At Site Interchange 104	Current Segra service in Caroline County at Interchange 104

# More to Say About Electricity

The Subject Property is Between Two Substations  
The Retail Provider, Rappahannock Electric Cooperative  
is Working with Old Dominion Electric Cooperative to  
Provide PJM Wholesale Prices to New, Large Users

Provide Your Load Information, and We Will Have Your Costs  
Modeled

Solar Power is also an option in Caroline County; with thousands of acres near your site, and numerous providers seeking land in Caroline; we can bring forward a solar utility to provide energy directly to your facility.



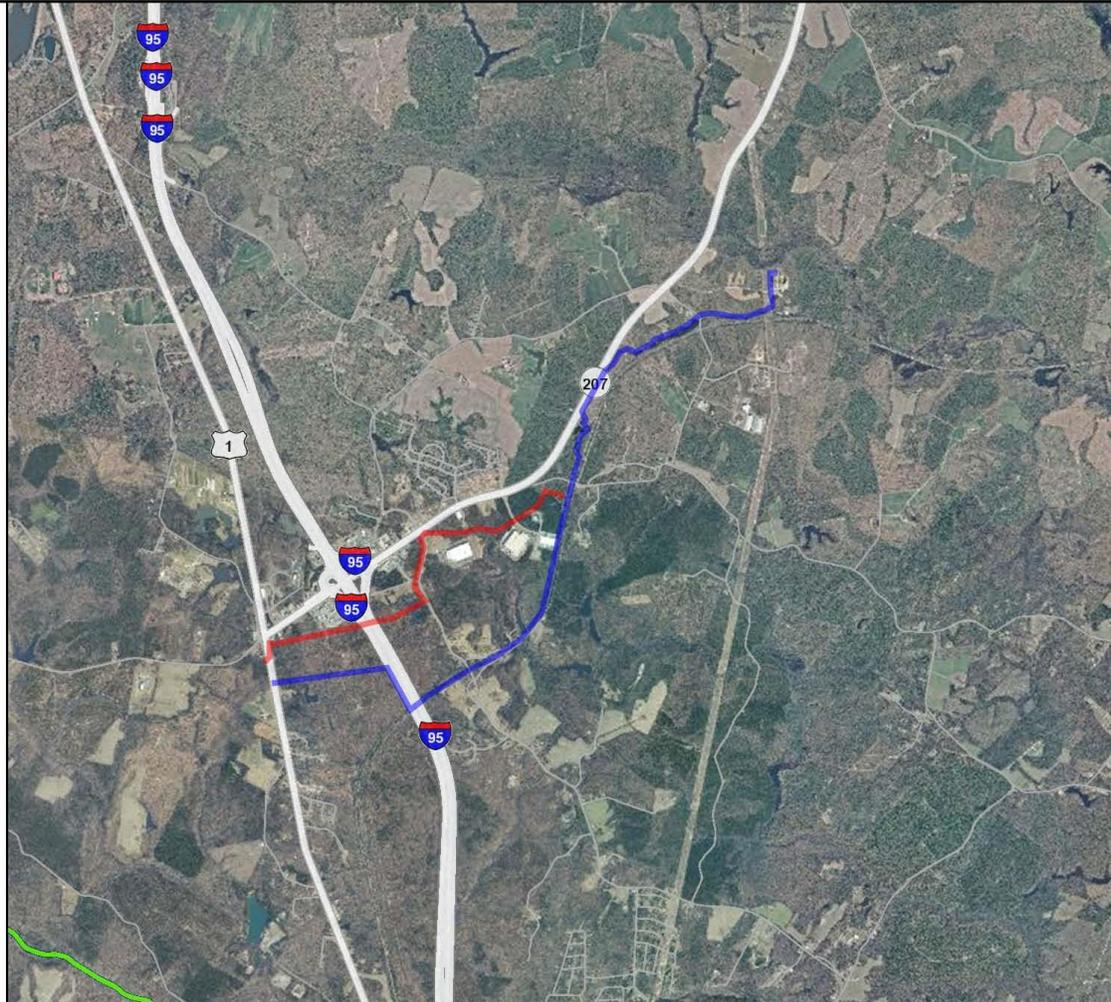
# Caroline County, Virginia

## Legend

- County Boundary
- Roads (100,000)
- Interstate
- US Highway Primary
- State Highway Primary
- Roads - Back (100,000)
- Interstate
- US Highway Primary
- State Highway Primary
- Secondary
- Secondary - 0
- Null
- Road Labels

Proposed Reuse Route

Alternate Route



Map printed from Caroline  
<http://caroline.mapsdirect.net/>

Feet  
0 1300 2600 3900 5200  
1:72,224 / 1"=4,755 Feet

**Title: Reuse Water**

**Date: 3/15/2017**

*DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Caroline County is not responsible for its accuracy or how current it may be.*

# 400,000gpd Reuse Water = Operational Savings

# Caroline County, Virginia

## Legend

- County Boundary
- Parcels
- Sewer - Gravity Main
- Water - Main
- Roads (12,000)
- Interstate
- US Highway Primary
- State Highway Primary
- Secondary
- Secondary - 0
- Null
- Roads - Back (12,000)
- Interstate
- US Highway Primary
- State Highway Primary
- Secondary
- Secondary - 0
- Null

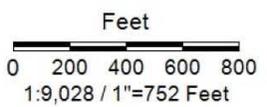


**Title: 82-8-5**

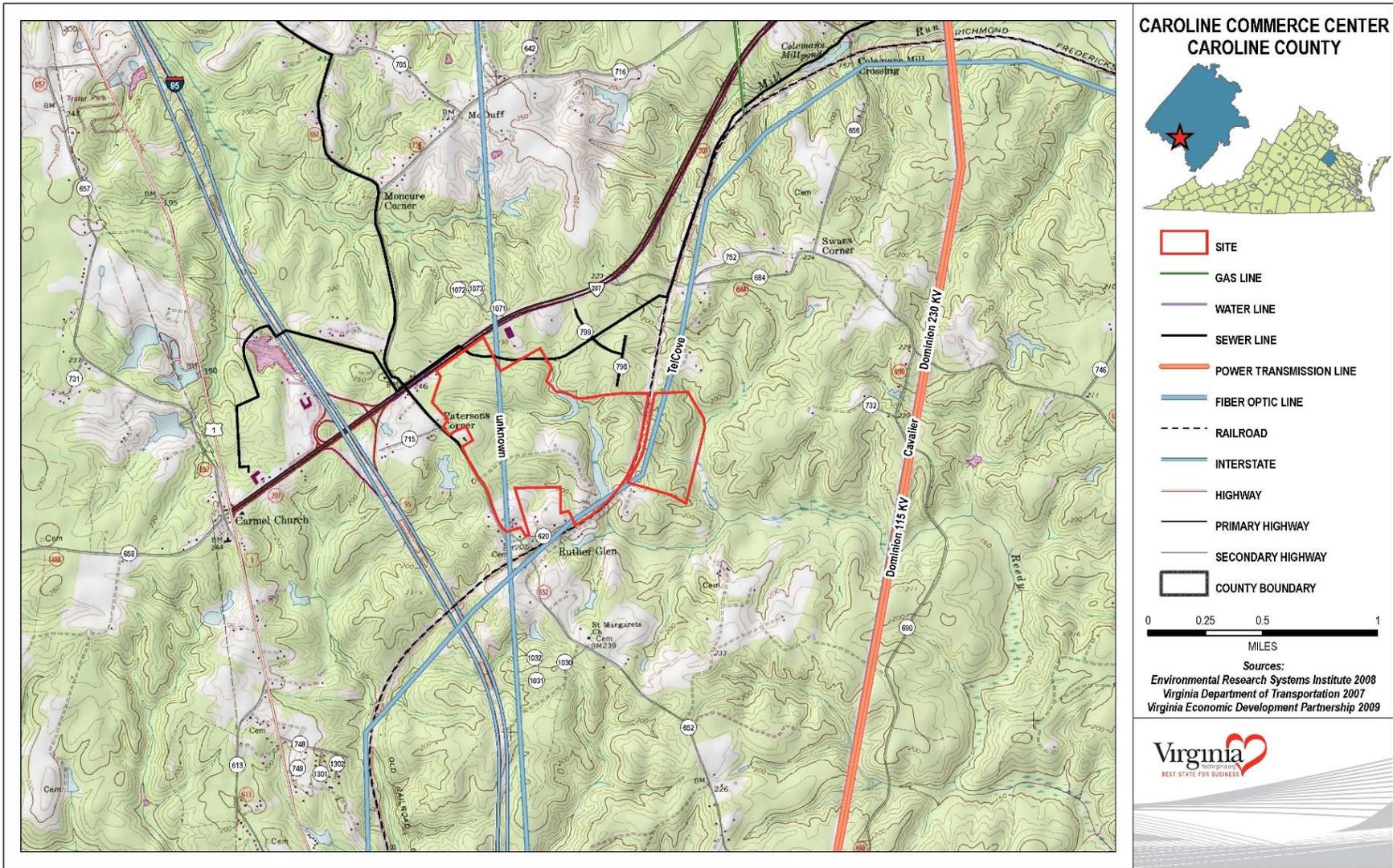
**Date: 11/7/2016**

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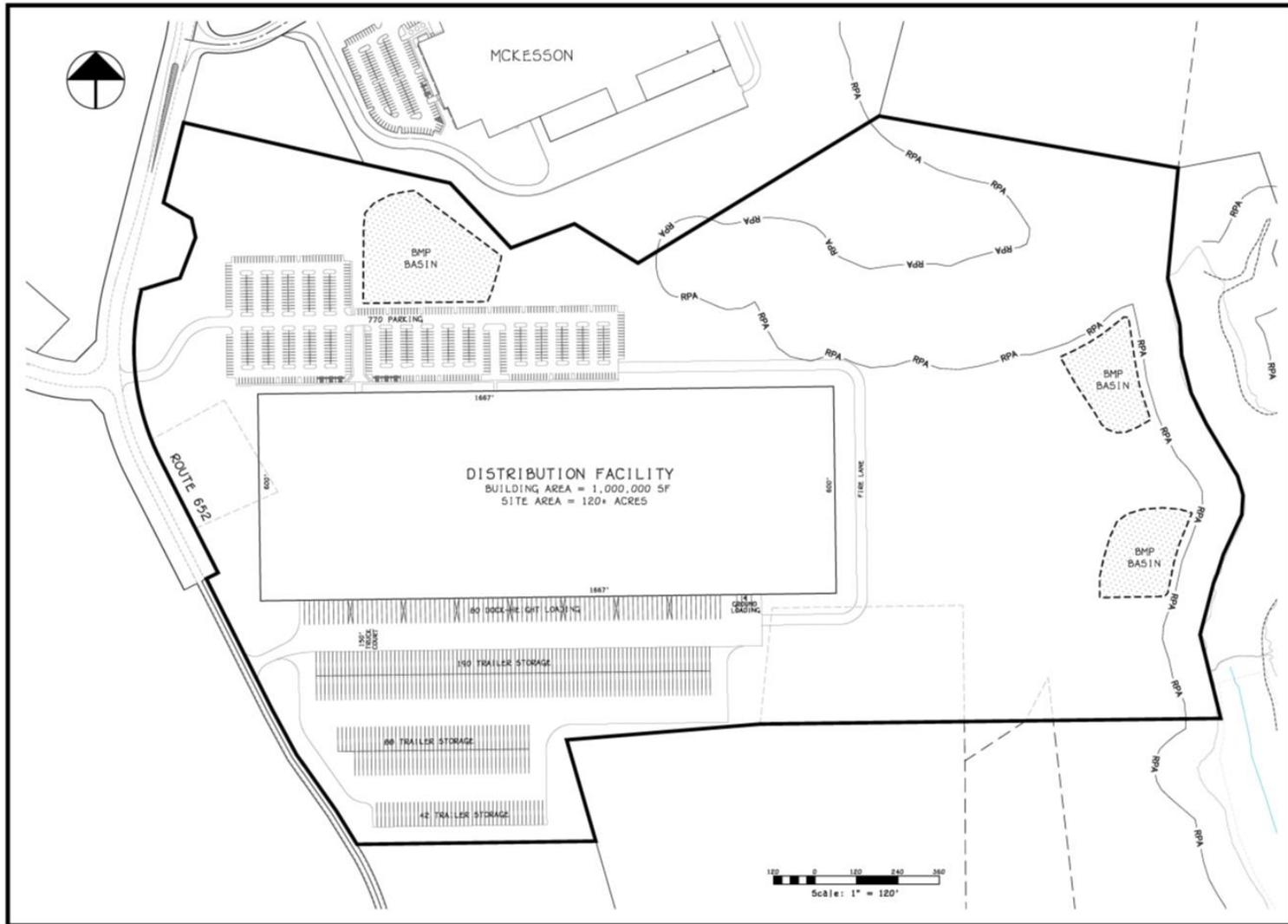
Map printed from Caroline  
<http://gis.worldviewsolutions.com/caroline/>



Conventional Utilities Are  
 At Caroline Commerce  
 Center



Approximately 200 Acres—M1, Mitigated, Utilities, Seconds From 95  
 Engineered Test Fit 1 Million Square Feet+



www.thebaycompanies.com

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FILED: 06166...1\_millicor...at  
 DATE: November 9, 2012  
 REVISED:  
 REVISED:  
 REVISED:

RICHMOND  
**BAY**  
 THE BAY COMPANIES  
 8000 HILL CREEK ROAD  
 RICHMOND, VA 23218  
 (804) 488-7200  
 FAX: (804) 488-7200  
 Consulting Engineers

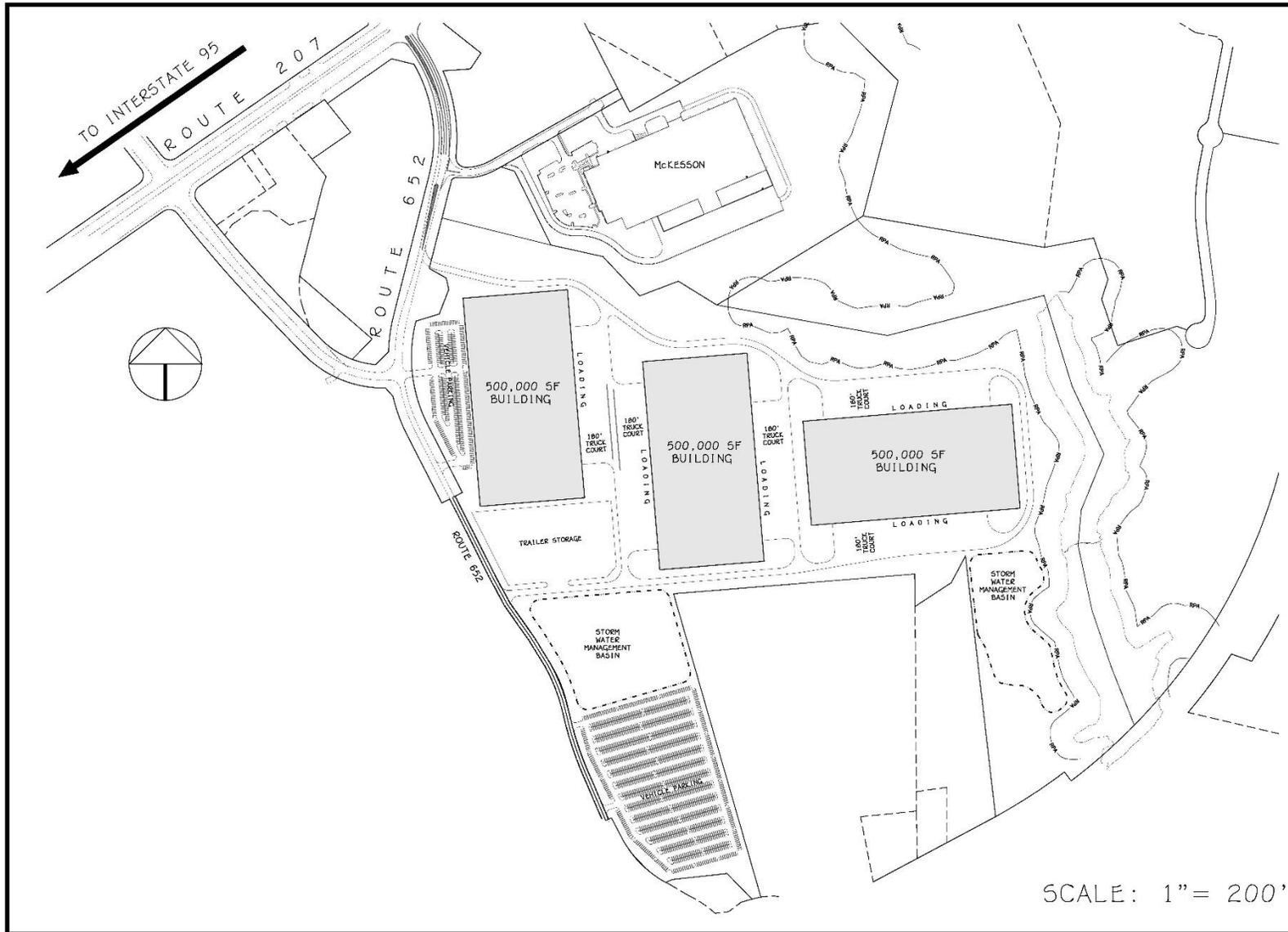
PROJECT:  
**Distribution Facility**  
 Caroline Commerce Center  
 Reedy Church District  
 Caroline County, Virginia

SHEET:  
**Concept Plan**  
 SHEET NO:  
**C1**  
 JOB NO. 06166

## Caroline Commerce Center

- Acreage for Large Building
- Additional Acreage-South
- Seconds Away from I-95
- Wetland Mitigated
- Low Land Prices
- Fortune 15 Neighbor
- All Utilities,
  - Gas
  - Electric
  - Water
  - Sewer
  - Fiber

Site is Able to Host Over 1MSF



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FILED: 06166\_3\_500k\_wf

DATE: September 4, 2018

REVISED:

REVISED:

REVISED:



8500 WELL CHECK ROAD  
NEWPORTSPRING, VA 23119  
(804) 258-2060  
FAX (804) 258-1081

Consulting Engineers

PROJECT:

Caroline Distribution Center

Caroline Commerce Center

Reezy Church District  
Caroline County, Virginia

SHEET:

Concept Plan

SHEET NO:

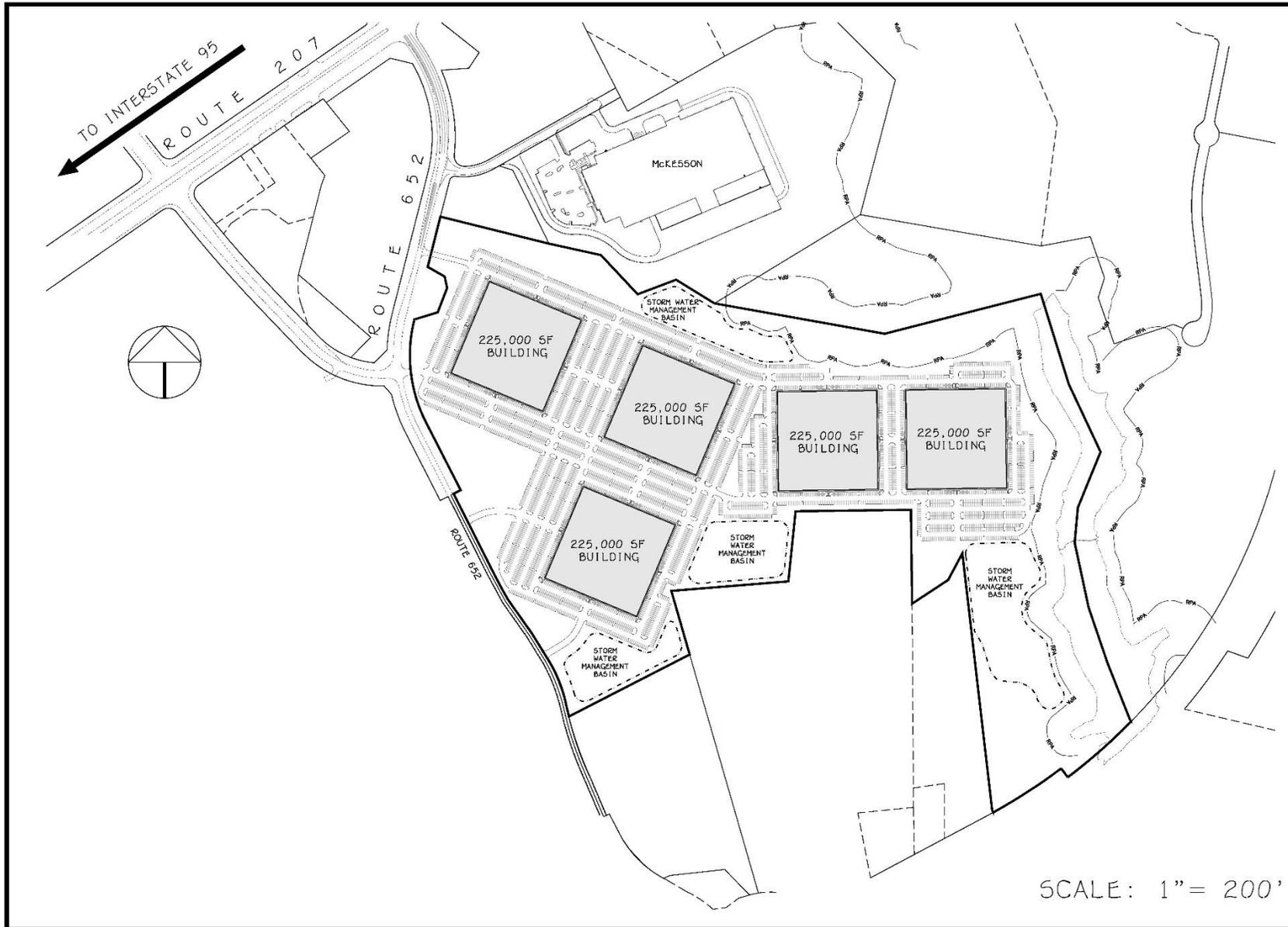
C1

JOB NO:

06166

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# MULTI BUILDING OPTION



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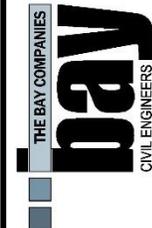
FILED: 09166\_4\_225k\_sf\_data\_center

DATE: November 15, 2018

REVISED:

REVISED:

REVISED:



8000 BELL CREEK ROAD  
MECHANICSVILLE, VA 23116  
(804) 569-7090  
FAX: (804) 569-7061

PROJECT:

**Caroline Commerce Center**

Data Center

Ready Church District  
Caroline County, Virginia

SHEET:

Concept Plan

SHEET NO:

C1

JOB NO. 06166

[www.thebaycompanies.com](http://www.thebaycompanies.com)

THE SITE IS ABLE TO HOST MANY PLANS

# Taxes Are Low in Caroline County, Virginia

## What You Need to Know for Data Centers:

Caroline County has changed its tax ordinance for data center equipment so that a data center in Caroline County will be paying far less than other business classifications. The new rate equals that of Prince William's of \$1.25/\$100 starting with 50% depreciation. Next Page for details...

- ▶ **Business Taxes for all Other Categories**
- ▶ Business Personal Property Tax: \$3.80 per \$100 of Assessed Value
- ▶ Machinery and Tools Tax: \$3.50 per \$100 of Assessed Value  
Business Equipment: Assessed on Sliding Scale  
Equipment Assessed at 22% Original Costs  
Heavy Equipment Assessed on Sliding Scale
- ▶ Motor Carriers: \$3.50 per \$100  
Larger Business Trucks/Heavy Equipment assessed on sliding scale
- ▶ Real Estate Tax: \$0.83 per \$100
- ▶ Caroline Has Reimbursed Business Taxes As an Incentive to Locate in the County





# Low Taxes to Nurture Your Caroline Investment

## In 2019 Caroline County Lowered Its Tax Rate for Data Center Personal Property



County	Method of Depreciation			Tax Rate per \$100 of Assessed Value
	Year 1	Year 2	Year 3	Value
Caroline County	50%	35%	20%	\$1.25
Prince William County	50%	35%	20%	\$1.25
Fairfax County	50%	35%	20%	\$4.57
Loudoun County	50%	40%	30%	\$4.20
Fauquier County	60%	40%	20%	\$2.30
Culpeper County	65%	50%	40%	\$3.50
Henrico County	68%	45%	27%	\$0.40
Virginia Beach	40%	40%	40%	\$0.40

### Depreciation Methods and Tax Rate Comparisons

NOTE: Data Center equipment is normally replaced every 3 years; the depreciation rate for year 4 is 30% and for year 5 forward is 15%.

### Tax Comparisons

The estimate is based on equipment cost of \$100 per square foot for 1,000,000 square foot facility.

All of Caroline County Is a Technology Zone

Data Centers Will Get The Right Deal to Be In Caroline County

County	Value	Rate	Year 1	Year 2	Year 3	Total
Caroline County	\$100,000,000	\$1.25	\$625,000	\$437,500	\$250,000	\$1,312,500
Prince William County	\$100,000,000	\$1.25	\$625,000	\$437,500	\$250,000	\$1,312,500
Fairfax County	\$100,000,000	\$4.57	\$2,285,000	\$1,599,500	\$914,000	\$4,798,500
Loudoun County	\$100,000,000	\$4.20	\$2,100,000	\$1,680,000	\$1,260,000	\$5,040,000
Fauquier County	\$100,000,000	\$2.30	\$1,380,000	\$920,000	\$460,000	\$2,760,000
Culpeper County	\$100,000,000	\$3.50	\$2,275,000	\$1,750,000	\$1,400,000	\$5,425,000
Henrico County	\$100,000,000	\$0.40	\$272,000	\$180,000	\$108,000	\$560,000
Virginia Beach	\$100,000,000	\$0.40	\$160,000	\$160,000	\$160,000	\$480,000

# Caroline Political Leadership

- ▶ Pro Business
- ▶ Deal Makers
- ▶ Aggressive
- ▶ Realistic
- ▶ Has Enacted a CDA Ordinance, Technology Zone
- ▶ Ready to Lead the Next Recruitment
- ▶ Changed its tax ordinance to attract data centers



## Caroline is Ready to Close a Deal

# Closing Thoughts:

- ▶ Caroline has an ideal property at an ideal site in an ideal location
  - ▶ Immediate Interstate Access
  - ▶ Utilities in Place, Redundant Fiber, Redundant Power Supply
  - ▶ Already Zoned M1—Data Center a BY RIGHT USE
  - ▶ Excellent Labor Market
  - ▶ Low Cost Land...1/10 to 1/20 of NOVA land costs
  - ▶ Low Taxes
  - ▶ Aggressive Deal Makers—Caroline Will Work for Investment
  - ▶ Caroline Wants Your Investment and Will Earn It
- 
- ▶ Contact:
  - ▶ Gary R. Wilson
  - ▶ Director, Caroline County
  - ▶ Department of Economic Development
  - ▶ [Gwilson@co.caroline.va.us](mailto:Gwilson@co.caroline.va.us) 804.633.4074 Cell: 804.366.6059

