

**Board of Supervisors**

Robert "Bob" Thomas, Jr., Chairman  
Laura A. Sellers, Vice Chairman  
Meg Bohmke  
Jack R. Cavalier  
Wendy E. Maurer  
Paul V. Milde, III  
Gary F. Snellings

C. Douglas Barnes  
Interim County Administrator

Infrastructure Committee  
AGENDA

September 7, 2016 @ 1:30 p.m.  
ABC Conference Room, Second Floor

**Committee Members:** Paul Milde, III, Chairman; Laura Sellers; Jack Cavalier

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Agenda Item	
	Introduction ❖ Welcome
1.	Stafford Regional Airport Hanger Expansion (SRAA)
2.	Lake Arrowhead Dam
3.	Lynhaven Lane
4.	FY2018 Revenue Sharing
5.	FY2018 Transportation Alternatives Program
6.	2016 Smart Scale Application Updates
7.	Commercial Private Road Improvements
8.	Celebrate Virginia Water Tank
9.	Next Meeting - October 4, 2016
	Adjourn



## **Stafford Regional Airport**

- The Chairman of the Stafford Regional Airport Authority (SRAA), Hamilton Palmer, sent a letter to the Chairman of the Stafford Board of Supervisors dated August 2, 2016 (attached) requesting certain consideration from the Board to allow construction of a 15,000 to 22,000 aircraft maintenance and storage facility at the Regional Airport
- The considerations requested include:
  - Exemption from payment to Stafford of 55% of the gross income from this facility which is included as a condition of the airport terminal loan
  - Waive utility connection fees estimated at \$200,000. These include connection fees for the proposed facility along with certain deferred fees which will be required when the airport can be served by public sewer.
- SRAA borrowed approximately \$1,320,000 of the \$1,400,000 maximum authorized by the Board. They have been repaying this loan since June 2014, and presently have an outstanding loan balance of approximately \$1,301,600
- The Department of Utilities has calculated the water and sewer connection and pro rata fees that would be due from SRAA at about \$143,700. This amount has been shared with SRAA, but is subject to final design of the new hangar
- Mr. Palmer has been invited to address the committee regarding this request.

**From:** Hamilton Palmer [<mailto:hpalmer@hgp.biz>]  
**Sent:** Tuesday, August 2, 2016 5:01 PM  
**To:** Bob Thomas <[BThomas@staffordcountyva.gov](mailto:BThomas@staffordcountyva.gov)>  
**Cc:** Kirkland, Lindy <[kirkland@goprecise.com](mailto:kirkland@goprecise.com)>; 'Edward Wallis' <[director@staffordairport.com](mailto:director@staffordairport.com)>  
**Subject:** Stafford Regional Airport new hangar plans

Mr. Thomas,

Stafford Regional Airport is in the early stages of designing, financing and building a new 15 to 22,000 square foot hangar to house transient jet aircraft, and corporate aircraft waiting to build a hangar. This new hangar will also provide space for aircraft support facilities.

We are thankful for the loan from the County that enabled us to leverage and build the new terminal building. We are paying that loan back. We think this new hangar together with our 1,000 foot runway extension will be a catalyst for corporate entities to base their aircraft in Stafford, to build new corporate hangars and to possibly move all or a portion of their corporate operations to Stafford County.

Attached is a letter outlining our Hangar Expansion Plan including financing and what we would like from the Board of Supervisors to help make this new hangar a reality.

Please forward our Expansion Plans to Board Members and to the County Administration for discussion and hopefully approval to assist us in constructing this hangar.

Thank you for your help and please call or email if you have any questions or need additional information,

Hamilton



August 2, 2016

Mr. Robert "Bob" Thomas  
Chairman, Stafford County Board of Supervisors  
1300 Courthouse Rd.  
Stafford, VA 22554

SUBJECT: Expansion Plans for Stafford Regional Airport

1. Stafford Regional Airport Authority (SRAA) intends to commercially finance and build a 15,000 to 22,000 square foot hanger to provide space for an aircraft maintenance facility as well as overnight, protected parking for business aircraft that frequent our airport and interim space for corporate aircraft wishing to permanently relocate at Stafford. Neither capability currently exists, and it is believed that establishing these services will encourage greater use of our facilities, generate additional revenue, and attract additional private sector investment at the airport.
2. As the governmental entity serving Stafford County, Prince William County and the City of Fredericksburg, SRAA does not exist to produce a profit distributed to investors. Currently, our primary source of income is the sale of aircraft fuel. All funds derived from these sales, less expenses, are used to pay down loans for existing infrastructure and current operating expenses. It should be noted that our focus has been to enhance the attractiveness of Stafford airport as a magnet for corporate investment; consequently, we have out of financial necessity deferred setting aside funds for the inevitable depreciation and replacement of our existing capital assets.
3. We intend to first seek alternative financing for the proposed hanger construction loan versus a moral obligation commitment from any jurisdiction that is represented by SRAA. This will necessitate commercial financing at a rate higher than that which would be available to us if a moral obligation was forthcoming from one or more jurisdictions. Given this assumption, our financial analysis indicates construction of the proposed hanger will likely be financially possible if three of the following conditions can be met:
  - a. SRAA, as the hanger owner, is exempted from paying fifty-five percent (55%) of the gross income derived from hanger fees (only on hangar's owned by SRAA) as repayment for the terminal construction loan. This is necessary to permit the anticipated revenue stream from hanger clients to cover the cost of the hanger construction loan.
  - b. Stafford County utility connection fees for water and sewer hookups, estimated to be nearly \$200,000 for the Airport, are waived. Failure to do so would force SRAA to finance the hookup fees and increase the overall cost for construction.



- c. Stafford County will accelerate the planned water system improvements to provide sufficient water pressure for fire and sprinkler protection at Stafford Airport and specifically for this large hanger.
4. It is well known that Stafford Regional Airport produces a substantial economic benefit for the citizens of this region, both from jobs generated by its presence and the funds expended in the course of its operation. What is probably less well known is that the majority of its infrastructure has been funded by Federal and State grants and loans, loans that are the fiscal responsibility of SRAA. When we receive final approval to begin design and construction of our runway extension, an improvement that will be critical to the long-term potential of this airport, SRAA will be responsible for funding the 2% locality cost in addition to the 90% Federal and 8% State shares of the estimated \$12Million cost for the extension. Construction of the proposed hanger, with assistance from Stafford County as outlined in paragraph 3. above, will better posture us to meet those future obligations by increasing the attractiveness of Stafford Airport for corporate investment and by demonstrating community commitment to its growth.

SRAA would be happy to provide any information you or the Board of Supervisors might require. We look forward to your support in this matter.

Sincerely,



Hamilton G. Palmer, Chairman  
Stafford Regional Airport Authority

## **Lake Arrowhead Dams**

- The two private dams in the Lake Arrowhead community have been out of compliance with the state dam safety regulations for many years. Previous investigations indicated there are deficiencies in design and maintenance which could result in one or both of these dams failing in the event of a large rain event
- The Board authorized \$30,000 for an engineering study of the larger Lake Arrowhead Dam to determine the extent of any deficiencies under current dam safety standards, provide recommendations to correct these deficiencies, and estimate the cost for correction
- The study, conducted by the Timmons Group, has been completed and provided to the state for concurrence with the findings
- The study determined that the larger Lake Arrowhead Dam has a high hazard class rating, and the spillway has inadequate capacity. Renovations are required to either increase the emergency spillway capacity, or provide protection to the downstream slope of the dam to protect it from failure in the event the dam is overtopped
- These modifications are estimated to cost around \$400,000 with a 10% contingency added
- Timmons also found that the Little Lake Arrowhead Dam has a low hazard class rating and has adequate spillway capacity. They also found that this dam has an outlet pipe in need of replacement. This replacement is estimated to cost around \$190,000 with a 20% contingency added
- Timmons was requested to provide a proposal for engineering services for the renovation of both dams. They responded with a proposal amount of around \$40,000 for the larger dam, and \$25,000 for Little Lake Arrowhead Dam
- The entire project cost is estimated at slightly over \$700,000, including design, construction and engineering support during construction. A breakdown of these estimated costs is provided on the following page
- The Lake Arrowhead community must decide whether to proceed with this effort. We are currently waiting for a response from the residents regarding their interest in completing the repairs and upgrades necessary for the dams to get back into compliance

- Funding for this effort could be provided in the following manner:
  - The Board could apply the remainder of the Lake Arrowhead Sanitary District fund balance following completion of the road improvements. This balance is estimated at just under \$140,000. This would allow the design of the renovations to proceed immediately
  - Apply for a grant from the Department of Conservation and Recreation to reimburse previous expenditures
  - Create a Lake Arrowhead Service District as a funding mechanism for the dam renovations. The boundary would be modified somewhat from the Sanitary District boundaries to encompass all of Lake Arrowhead, while removing a few properties included with the Sanitary District that won't benefit from the dam renovations
  - The Board could consider allocating funds in the form of a loan from the Capital Projects Reserve to allow the renovations to proceed in advance of the community raising sufficient funds
  - The loan could be repaid over a 10-year period at 2.5%, requiring an initial service district tax rate of 9¾¢ per thousand for capital and maintenance reserve funding. The rate would drop to a fraction of this after payment of debt service
- A summary of the estimated costs and funding sources is provided below

<b>Big Lake Arrowhead Dam</b>	
Preliminary Engineering	\$ 25,600
Final Design	\$ 39,691
Construction Cost	\$ 360,250
Construction Engineering Support	\$ 9,457
<b>SUBTOTAL</b>	<b>\$ 434,998</b>
Contingency	\$ 43,500
<b>TOTAL</b>	<b>\$ 478,498</b>
<b>Little Lake Arrowhead Dam</b>	
Final Design	\$ 23,876
Construction Cost	\$ 158,840
Construction Engineering Support	\$ 6,334
<b>SUBTOTAL</b>	<b>\$ 189,050</b>
Contingency	\$ 37,810
<b>TOTAL</b>	<b>\$ 226,860</b>
<b>GRAND TOTAL</b>	<b>\$ 705,358</b>

<b>Funding Sources</b>	
State Grant	\$ 25,000
Road Improvement Fund Balance	\$ 138,348
Capital Projects Reserve Loan	\$ 542,010
<b>TOTAL</b>	<b>\$ 705,358</b>

- If there were interest in proceeding in this manner, the Board would have to act on the establishment of a service district, and set the tax rate. This could be done during the budget process next year.

- Staff could proceed with the final design for both dam rehabilitation efforts if the remaining Lake Arrowhead Sanitary District fund balance of nearly \$140,000 were budgeted and appropriated, then executing a contract in the amount of \$63,567 from these funds

## **Lynhaven Lane**

- Lynhaven Lane is a private gravel road approximately 1/3 mile long serving 16 building lots with 13 residences and a business (Augustine GC maintenance shop). The road intersects with Courthouse Road west of the intersection with Walpole Street
- The community approached the County in 2012 for assistance to have the road accepted under the VDOT Rural Addition Program
- The road was established with a 30' ingress-egress easement around 1960, and meets all the requirements for acceptance under the Rural Addition Program
- The Board responded by requesting VDOT perform an analysis of the improvements required, and an estimated cost, to bring the road up to standards
- VDOT completed the study, noting the poor subgrade conditions, road curvature, stormwater management, and sight distance problems at the intersection with Courthouse Road, and estimated a cost between \$300k and \$500k to bring the road up to state standards for acceptance. Additional investigation and recent experience with rural road improvements indicate the construction cost will be around \$300,000.
- This information was provided to the community, and they were also advised that they would be required to fund the improvements necessary to have the road accepted. In light of the high cost per owner for these improvements, they were asked to confirm their interest in completing the improvements to Lynhaven Lane
- Staff was provided with a petition with 75% of the property owner agreeing to fund the improvements in May 2016, and subsequently held a community meeting with County staff
- The community was informed that additional survey and engineering would be necessary to define the improvements necessary and obtain a better estimate for the cost of the work. This effort would cost \$20,000
- If the decision is made to proceed, plats must be developed to transfer the ingress-egress easement into right of way. This is estimated to cost an additional \$1,000 per parcel, or about \$18,000.
- VDOT has a rural addition program whereby revenue sharing can be applied to fund 50% of the cost for constructing the improvements necessary for acceptance by VDOT. No state funds can be applied to the effort until the road is accepted by the

state. Therefore, survey, engineering and land acquisition costs are not eligible for state funding

- At this time, there is no funding to initiate this effort. The Board could consider fronting the cost for the initial survey and engineering, and for the development of plats. It is expected that the property owners will dedicate all necessary right of way and easements without cost.
- The County would be reimbursed in the following manner:
  - Create a Lynhaven Lane Service District to allow the benefitted parties to pay for the cost of the improvements by way of an additional assessment on their property. The service district boundary is proposed to be as shown on the attached graphic.
  - The Board must hold a public hearing prior to establishing a service district
  - The loan could be repaid over a 10-year period at 2.5%, requiring an initial service district tax rate of 50¢ per thousand for survey, engineering, plat development and construction costs
- A summary of the estimated costs and funding sources is provided below

<b>Lynhaven Lane Cost Estimate</b>		<b>Lynhaven Lane Funding</b>	
Preliminary Survey & Engineering	\$ 20,000	Shelton Woods Proffers	\$ 50,000
Plats	\$ 18,000	Revenue Sharing	\$ 177,300
Construction Cost	\$ 300,000	Lynhaven Lane Service District	\$ 144,500
<b>SUBTOTAL</b>	<b>\$ 338,000</b>	<b>TOTAL</b>	<b>\$ 371,800</b>
Contingency	\$ 33,800		
<b>TOTAL</b>	<b>\$ 371,800</b>		

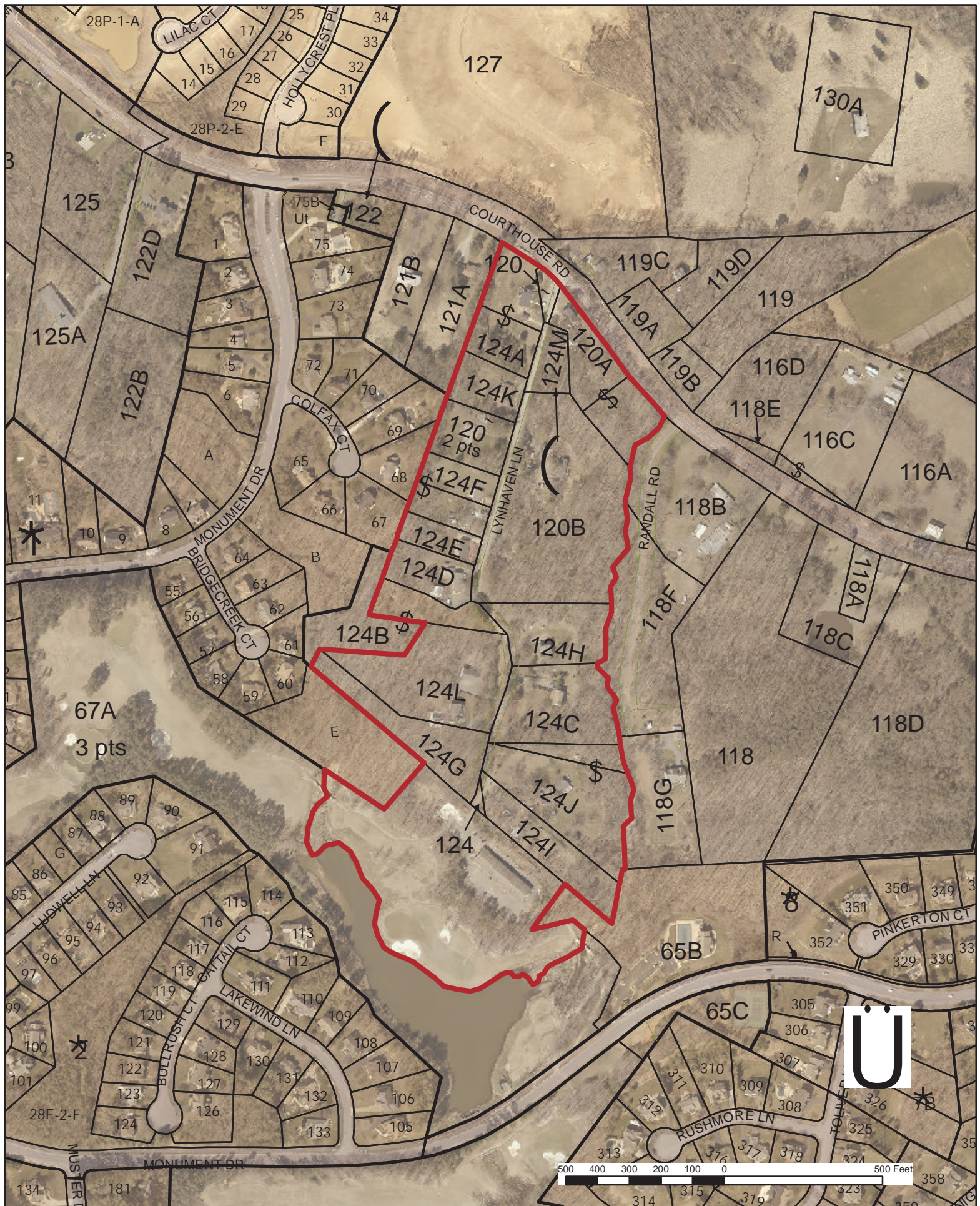
- If the Board wished to proceed in this manner, the Board would establish a service district, and set the tax rate. This could be done during the budget process next year
- The survey and preliminary engineering could be initiated for the \$20,000 noted above, followed by the development of plats when the acquisition requirements have been identified

## **Raven Road**

- The Board identified improvements to the 0.4 mile private section of Raven Road to allow acceptance for VDOT maintenance in the FY2017 Secondary Six Year Plan
- This effort will also require up front funding for survey, preliminary engineering and plats, to allow acceptance by VDOT prior to the initiation of construction. SSYP funds can only be used for construction
- Staff has received a proposal for these services in the amount of \$20,940 for survey and plat preparation. The road appears to be in condition for paving in accordance with low volume rural road standards with little additional work required.



# Lynhaven Lane Service District





## **FY2018 Revenue Sharing**

- VDOT has published the revenue sharing schedule for FY2018, with our request due to the district office by November 1.
- Stafford County submitted a request for FY2017 in the amount of \$3,814,863, but due to increased competition from other localities for these funds, our request was reduced by \$100,000 associated with the Eskimo Hill Road project.
- The FY2017 project allocations are listed below:

▪ Route 1 and Courthouse Road	\$1,140,897
▪ Ferry Road	\$ 470,000
▪ Berea Church Road	<u>\$2,103,966</u>
<b>TOTAL</b>	<b>\$3,714,863</b>

- Due to the decreased fuels tax revenue, the County has delayed the completion of the Enon Road project. The Board has recommended funding Enon Road with the use of FY2018-FY2023 Smart Scale funds as the first priority for application by Stafford County.
- Staff estimates that Enon Road will have over \$1.6M in available revenue sharing funds that could be transferred to other eligible projects to avoid the deallocation.
- The Stafford Parkway feasibility study originally was estimated to cost roughly \$400,000. It had an allocation of \$200,000 in revenue sharing funds. The study came in under budget therefore; \$42,365 is available to be applied to other revenue sharing projects.
- The total estimated of revenue sharing allocation available for transfer to other projects is as follows:

▪ Enon Road	\$1,613,183
▪ Stafford Parkway	<u>\$ 42,365</u>
<b>TOTAL</b>	<b>\$1,655,548</b>

- The Juggins Road project is identified in the Secondary Six Year Plan (SSYP) and therefore is eligible to receive revenue sharing funds. The County's CIP has revenue sharing funds in FY18, however due to the delay of the Enon Road

project funds are immediately available to be transferred to Juggins Road. The required matching funds will be from the Virginia Public Schools Authority bond borrows.

- Staff proposes to reallocate funds from Enon Road to the projects already underway and those identified within the CIP for FY2018 Revenue Sharing funds as follows:

FY2018 CIP Projects

▪ Juggins Road	\$1,025,000
▪ Berea Church Road	\$ 92,068

Projects Underway

▪ Mountain View Road, Phase 1	\$ 338,462
▪ Poplar Road, Phase II	<u>\$ 22,721</u>

**TOTAL** **\$1,478,251**

- This results in a recommended total revenue sharing reallocation of \$1,478,251. This leaves a balance of \$177,296 in revenue sharing associated with Enon Road.
- As noted previously, the Lynhaven Lane project is estimated to be eligible for revenue sharing in the amount of the remaining balance of \$177,296. If this project advances, it could be included in an amended Secondary Six Year Plan and revenue sharing funds applied
- In summary, staff proposes to withhold additional revenue sharing requests for FY2018 and transfer the funds previously allocated for Enon Road and Stafford Parkway to the eligible projects identified above.

## **FY2018 Transportation Alternatives Program (TAP) Funding Request**

- In FY2017 the County applied to fully fund the design, right-of-way and construction of a sidewalk adjacent to Mine Road from Cathedral Lane to High Pointe Boulevard. The County was awarded approximately \$494,000 (with required 20% match of approximately \$124,000; \$618,000 total). This project is in the design phase.
- Staff is now considering a new sidewalk project along the east side of Onville Road that would connect the northern terminus of the Onville Road / Garrionsville Road intersection project (VDOT project currently under construction) to existing sidewalk at Garrison Woods Drive just south of Barrett Heights Road as shown on the attached graphic.
- Construction of this sidewalk has long been identified as a priority but has been deferred waiting for completion of the intersection improvements at Onville and Garrisonville Roads by VDOT. The proposed sidewalk would provide for safer access along a busy roadway that is frequently used by pedestrians traveling between their homes and nearby commercial areas along Garrisonville Road.
- Following a site visit between VDOT and County staff, we believe a sidewalk on the east side of Onville Road is most practical.
- Construction of the sidewalk will require minor right-of-way acquisition along with utility adjustments, and a crosswalk at Evans Lane. The sidewalk will be five feet wide and approximately 1,100 feet in length.
- The estimated cost for the construction of this sidewalk is \$550,000.
- Staff recommends submitting an application for FY2018 MAP-21 Transportation Alternative Program (TAP) funds. The \$550,000 cost would include \$440,000 as a grant, combined with \$110,000 from the required 20% County local match. Staff is proposing to use Transportation Fund revenues, although proffer funds could be applied if available.
- As part of the TAP application process, a public hearing is required prior to the application deadline of November 1, 2016.

- If this project is selected for FY2018, staff will bring the issue to the Board to authorize a public hearing at the September 20<sup>th</sup> meeting, with the public hearing held at the October 18<sup>th</sup> meeting.
- The project must also receive FAMPO endorsement as part of the application submission.

### **Streetscape Funding Transfer**

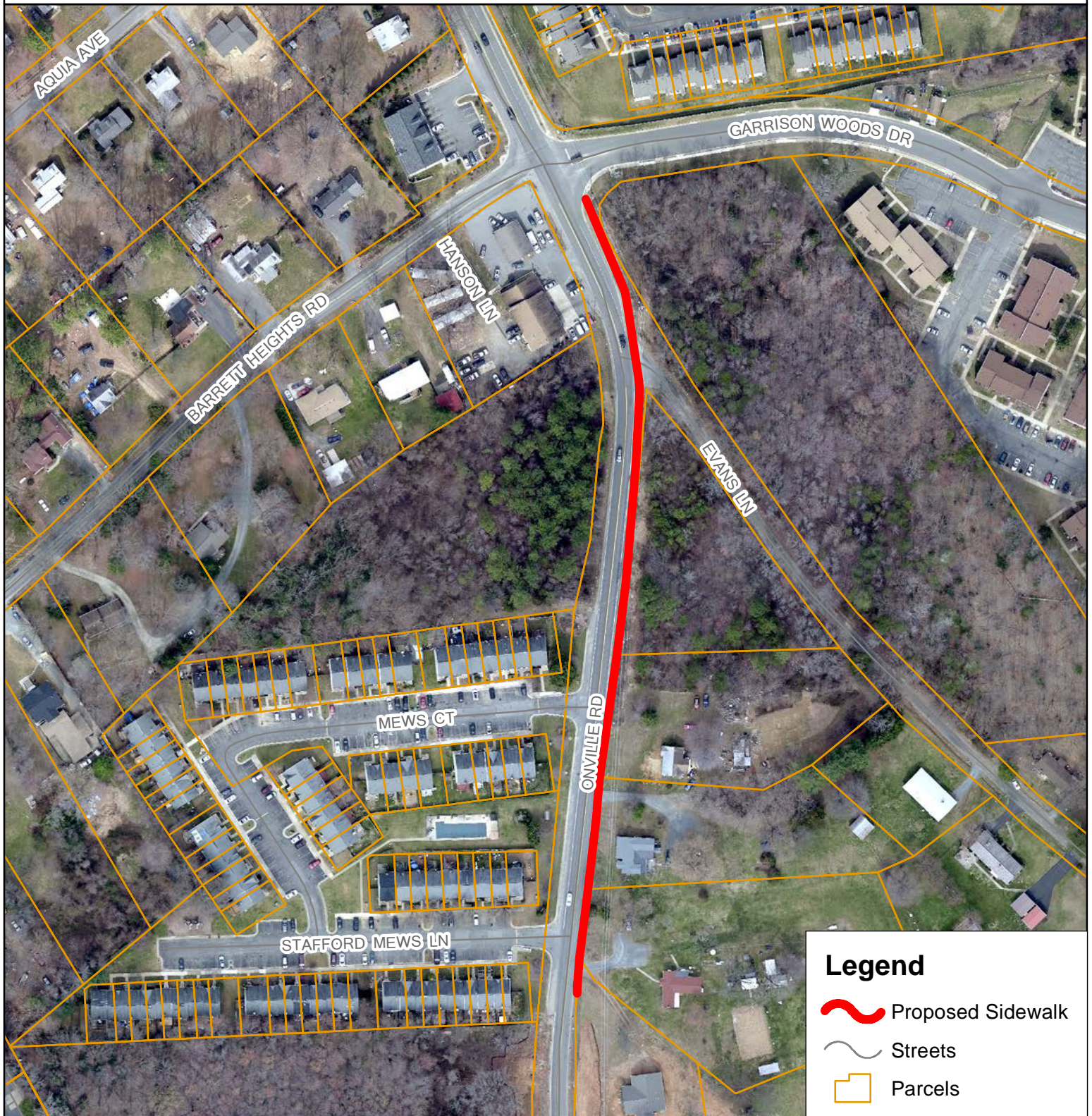
- Stafford has prioritized the completion of streetscape enhancements in the Courthouse area in past applications under the previous Enhancement Grant Program. To that end, we have been very successful in being awarded funding from this source.
- The recent streetscape improvements used this funding, however, we have over \$2.3 million in unspent Enhancement Grant funds that are at risk of deallocation.
- A major section of streetscape improvements were completed in front of the Government Center, and the road improvements through the Courthouse area will allow completion of similar pedestrian enhancements. These improvements are funded in large part with HB2 funding.
- No additional streetscape advancements are planned until after completion of the road improvement project.
- With the recent decision to follow the Rappahannock River between Kings Highway and the George Washington's Boyhood Home property, the estimated cost for the Belmont to Ferry Farm Trail Phase 6 project has increased to approximately \$2.8 million. This leaves a shortfall in funding of approximately \$1.8 million.
- Staff recommends transferring the maximum amount possible from the Courthouse Streetscape project to BFF Trail Phase 6 project. Staff suggests Board endorsement of this action, followed by VDOT Central Office concurrence and ultimately Commonwealth Transportation Board member approval. The local VDOT office is supportive of this move.
- Staff is prepared to bring this matter to the full Board at an upcoming meeting.








# Stafford County Proposed Onville Road Sidewalk Project

Produced by the Stafford County GIS Office  
540-658-4033 | [www.StaffordCountyGIS.org](http://www.StaffordCountyGIS.org)



## Legend

-  Proposed Sidewalk
-  Streets
-  Parcels

Coordinate System: NAD 1983 HARN StatePlane Virginia North FIPS 4501 Feet

Produced: 8/30/2016

MXD Path: \\srv16\gisdata\users\gis\Brad\MiscProjects\Public Works\OnvilleSidewalk.mxd

Data layers are compiled from various sources and are not to be construed or used as a "legal description." Data layers are believed to be accurate, but accuracy is not guaranteed.

0 100 200 400 Feet





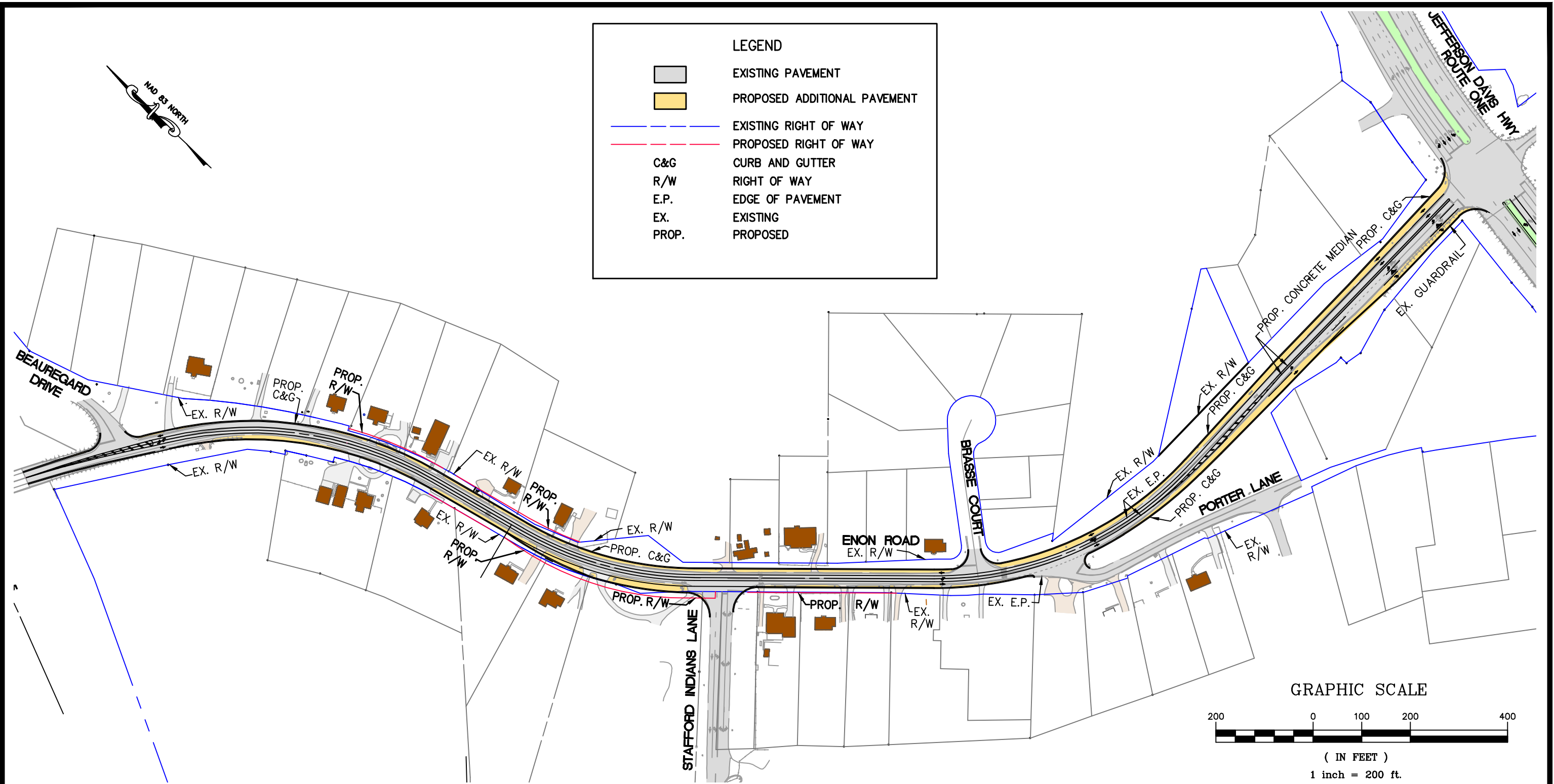
## 2016 Smart Scale Application Updates

- Staff has been working with VDOT, FAMPO, GWRC and VRE on all Smart Scale project applications per the Board's recommendation by Resolution R16-217(R) which was approved as amended on August 16, 2016.
- Staff officially notified VDOT/DRPT of the County's intent to submit these applications through a formal "Notice of Intent" on the Smart Scale website. This guarantees assistance from the Commonwealth in preparing these applications.
- The completed applications are due by September 30, 2016, at which time the Commonwealth will begin its screening process.
- Graphic representations of the four projects to be submitted by Stafford are attached, and a brief summary provided below.
  - Route 1/Enon Road – improvements to the intersection of Route 1 and Enon Road, and extending along Enon Road to the I-95 overpass. This project was under design as a locally administered project until being deferred due to funding shortfalls related to reduced gas tax collections. Completion of the project is expected to cost \$4,900,000, the amount which the County is requesting under this program.
  - Route 1/Eskimo Hill Road/American Legion Road Intersection Improvements – continuing improvements to the Route 1 corridor to provide faster, safer traffic movement along this major highway. This project is estimated to cost \$3,670,000, with full funding provided under the Smart Scale program.
  - Butler Road Widening – this project would complete the road improvements from the Falmouth Intersection to Castle Rock Drive, and make travel on Butler Road faster and safer. This project is estimated to cost \$28,500,000, with all but a small amount of CMAQ funds coming from Smart Scale.
  - Decatur Road – this project includes approximately 2.6 miles of 2-lane reconstruction between the emergency exit for Aquia Harbour and Widewater Road. The project will include widening travel lanes, adding shoulders and striping, and straightening out horizontal and vertical curves, making the road much safer for motorists. It is proposed to apply the 3R (resurfacing, restoration, and rehabilitation) road standard for these improvements, similar to the Brooke Road improvements, to reduce cost. This involves using 11' lanes and 2' shoulders. The project is estimated to cost \$15,500,000, with the entire amount funded by Smart Scale. This estimate is still under review and may change over the next two weeks.

- All other Smart Scale projects approved under Resolution R16-271(R) are being prepared and submitted by FAMPO or GWRC, or were included in the Atlantic Gateway project which recently received funding.
- The FAMPO and GWRC projects will compete for Statewide Smart Scale funds, while the County applications are competing for District Grant funds in addition to the Statewide funds.
- Graphics for all of the above projects are provided where available.

#### FAMPO Project Change

- The Board recommended the Route 610 (Garrisonville Road) Direct Connect Ramp to I-95 Express Lanes as the #2 priority project for FAMPO submission. FAMPO is now proposing to combine this project with a previously unmentioned project to expand the Mine Road Park & Ride Lot.
- FAMPO/GWRC believes combining these two projects will enable the application to score higher under the Smart Scale process by including the score from commuter lot projects.
- The Mine Road Lot Expansion would add approximately 400 new parking lot spaces to a lot that is currently 100% utilized. The existing lot has 740 spaces.
- FAMPO, GWRC and VDOT have developed the attached conceptual layout of this parking lot expansion. The latest concept for the northbound express lane connection is also attached.
- Three properties would need to be purchased and all are owned by MD Bel Management Company LLC which is based out of the San Diego, California area. The property tax IDs, acreage, current zoning and 2016 assessed values are as follows
  - Assessor's Parcel 20-141; 1.29 Acres; B-3 (Office); \$559,800
  - Assessor's Parcel 20-142; 1.20 Acres; R-1 (Suburban Residential); \$522,700
  - Assessor's Parcel 20-143; 0.68 Acres; R-1 (Suburban Residential); \$296,000
- FAMPO/GWRC estimates the total cost of this parking lot expansion to be approximately \$8 million with the Route 610 Direct Ramp project estimated at \$11 million.
- The suggested change to our Smart Scale project application is currently without Board endorsement. The Board may wish to act upon this at the September 20 meeting to provide direction to FAMPO staff.



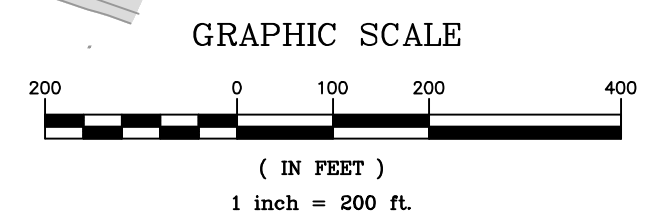
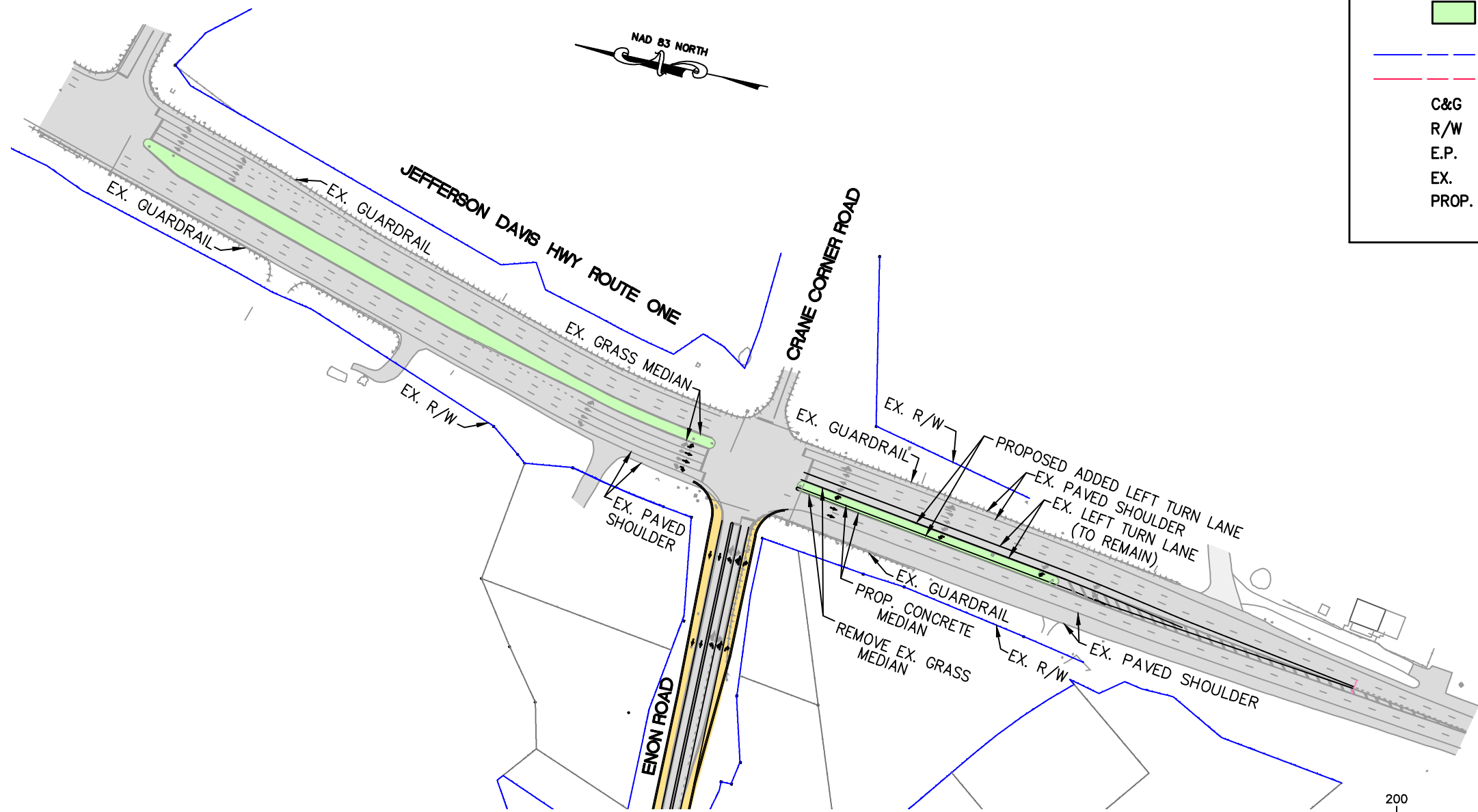
# ENON ROAD CONCEPTUAL ROAD IMPROVEMENTS PLAN

STAFFORD COUNTY, VIRGINIA

**The Engineering Groupe**  
Inc.

Engineers | Surveyors | Planners  
13580 Groupe Drive, Suite 301, Woodbridge, Virginia 22192  
Phone (703) 670-0985 Fax (703) 670-7769 www.enggroupe.com





# ENON ROAD

## CONCEPTUAL ROAD IMPROVEMENTS PLAN

STAFFORD COUNTY, VIRGINIA

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PROJECT MANAGER<Project\_Mgr\_Name.0001.000-0000.01>-----  
SURVEYED BY, DATE <Surveyor\_Name.0001.000-0000.01>-----  
DESIGN BY <Designer\_Name.0001.000-0000.01>-----  
SUBSURFACE UTILITY BY, DATE <Surveyor\_Name.0001.000-0000.01>-----  
**FREDERICKSBURG DISTRICT**

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		0001-089-689, P101, R201, C501	

DESIGN FEATURES RELATING TO CONSTRUCTION  
OR TO REGULATION AND CONTROL OF TRAFFIC  
MAY BE SUBJECT TO CHANGE AS DEEMED  
NECESSARY BY THE DEPARTMENT

CONCEPTUAL LAYOUT



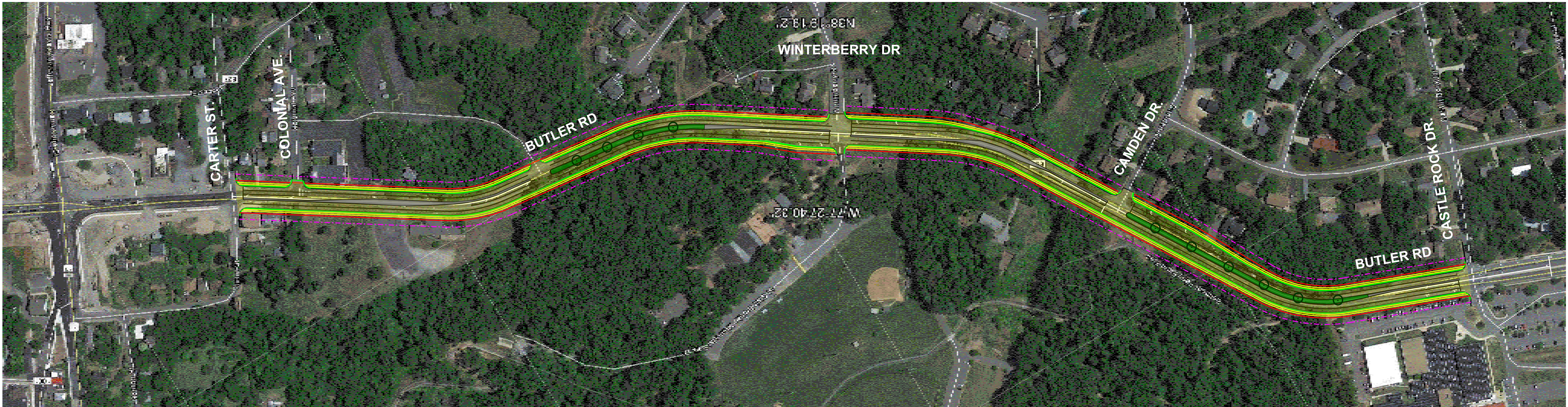
SCALE 1"=80'

PROJECT  
0001-089-689

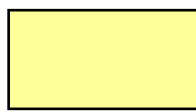

SHEET NO.



Conceptual Layout  
Butler Road  
UPC: 105911  
Stafford County  
Scale: 1": 150'



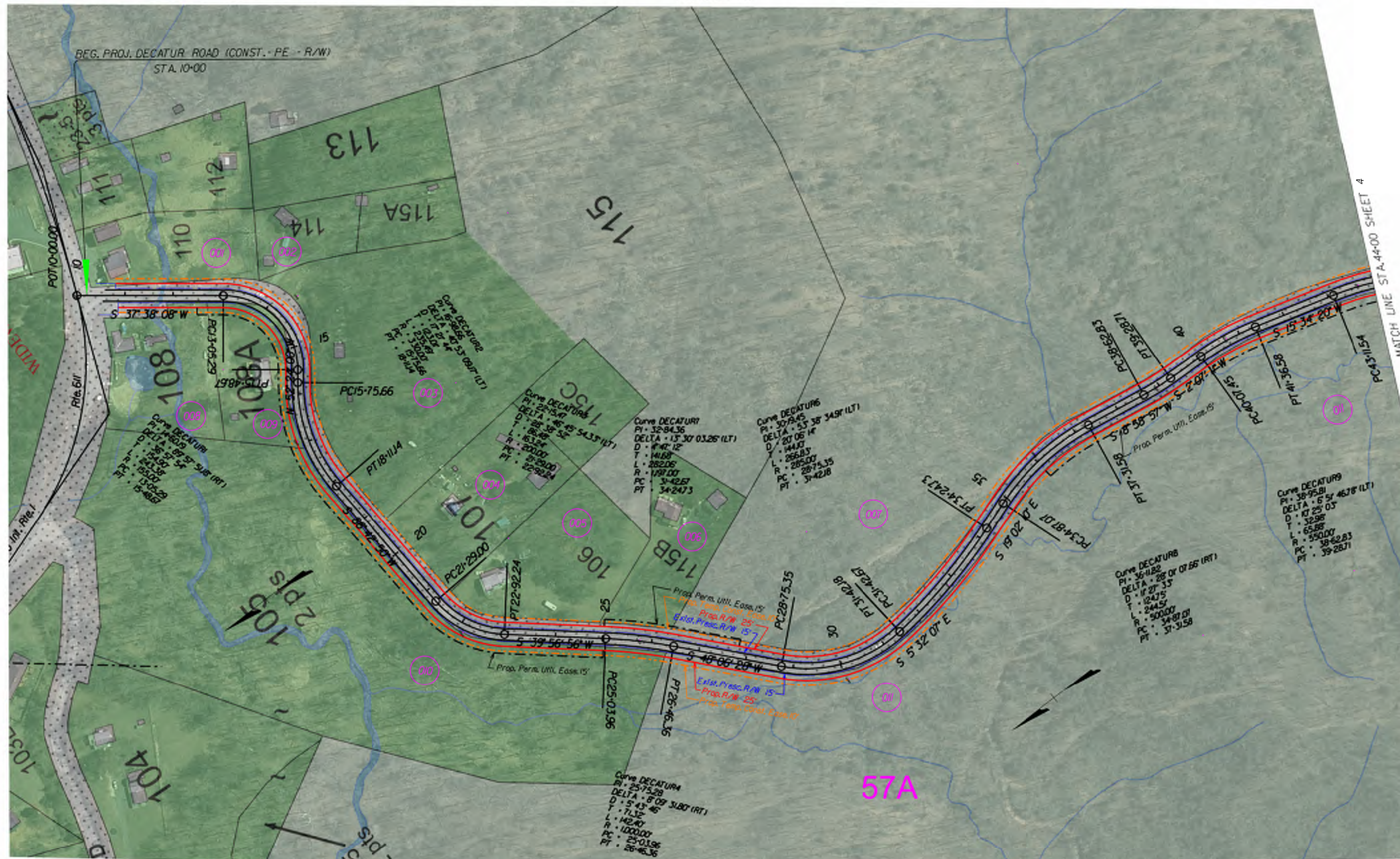
Legend

-  Proposed Pavement
-  Proposed Raised Grass Median
-  Proposed Concrete (Median & Sidewalk)
-  Proposed Landscaping
-  Proposed Right of way (50' O.C.)
-  Proposed 30 ft Utility Easement



STATE	ROUTE	PROJECT	SHEET NO.
VA.		RTE.635 DECATUR RD.	3

TAX MAP 225



PROJECT	SHEET NO.
	3







STATE	STATE		SHEET NO.
	ROUTE	PROJECT	
VA.		RTE.635 DECATUR RD.	5



	PROJECT	SHEET NO 5
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# ROADWAY TYPICAL - TRAFFIC - RIGHT OF WAY DETAIL SHEET

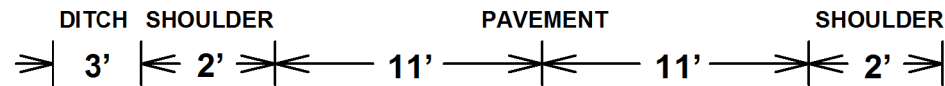
## STANDARD 3R TYPICAL SECTION

### ROUTE 635 RURAL COLLECTOR

Stafford County

DESIGN SPEED 30 MPH POSTED SPEED 25 MPH

PROJECT: 0635 - 089 - 000, C501 UPC: ?



Paved Wedge Required. Actual Lane Width = 12' Actual Shoulder Width = 1'

PARCEL NO.	RIGHT OF WAY PARCELS		
	LAND OWNER	FEE TAKING Includes Pres. R/W	PRESCRIPTIVE R/W
Total	TAX MAP PARCEL	SQ. FEET	SQ. FEET
104	Tax Map 31-n & 22-s	*	*
* See R/W PCES estimate for approximate takes.			

EASEMENTS		
PERM.	UTILITY	TEMP.
SQ. FEET	SQ. FEET	SQ. FEET
*	*	*

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA							
URBAN MAJOR COLLECTOR UNDIVIDED ROLLING RRR ST'D. MIN DESIGN SPEED 30 MPH		URBAN LOCAL UNDIVIDED ROLLING RRR ST'D. MIN DESIGN SPEED 30 MPH		RURAL LOCAL UNDIVIDED ROLLING RRR ST'D. MIN DESIGN SPEED 30 MPH		RURAL LOCAL UNDIVIDED ROLLING RRR ST'D. MIN DESIGN SPEED 30 MPH	
Decatur Rd. Rte. 635	Fr: Int. Rte. 611 To: Int. Rte. 658	Decatur Rd. Rte. 635	Fr: Int. Rte. 658 To: Int. Rte. 661	Decatur Rd. Rte. 635	Fr: Int. Rte. 661 To: Will. & Mary La.	Decatur Rd. Rte. 635	Fr: William & Mary La. To: End
ADT		1743 (2015)		1597 (2015)		739 (2015)	
Design Vehicle		WB40		WB40		WB40	
DHV							
D (%) (design hour)							
T (%) (design hour)							
V (MPH)							
Sta. 10+00 to 73+00		Sta. 73+00 to 89+00		Sta. 89+00 to 100+00		Sta. 100+00 to 148+90	

FAMPO #2: Conceptual layouts of Express Lanes connection at Route 610: Option 3





# POTENTIAL SMART SCALE PROJECT MINE ROAD PARK & RIDE EXPANSION



FOOTPRINT OF PROPOSED PARKING  
LOT ON STAFFORD COUNTY TAX MAP

## CONCEPTUAL

EXISTING MINE ROAD  
PARK & RIDE

SALISBURY DR

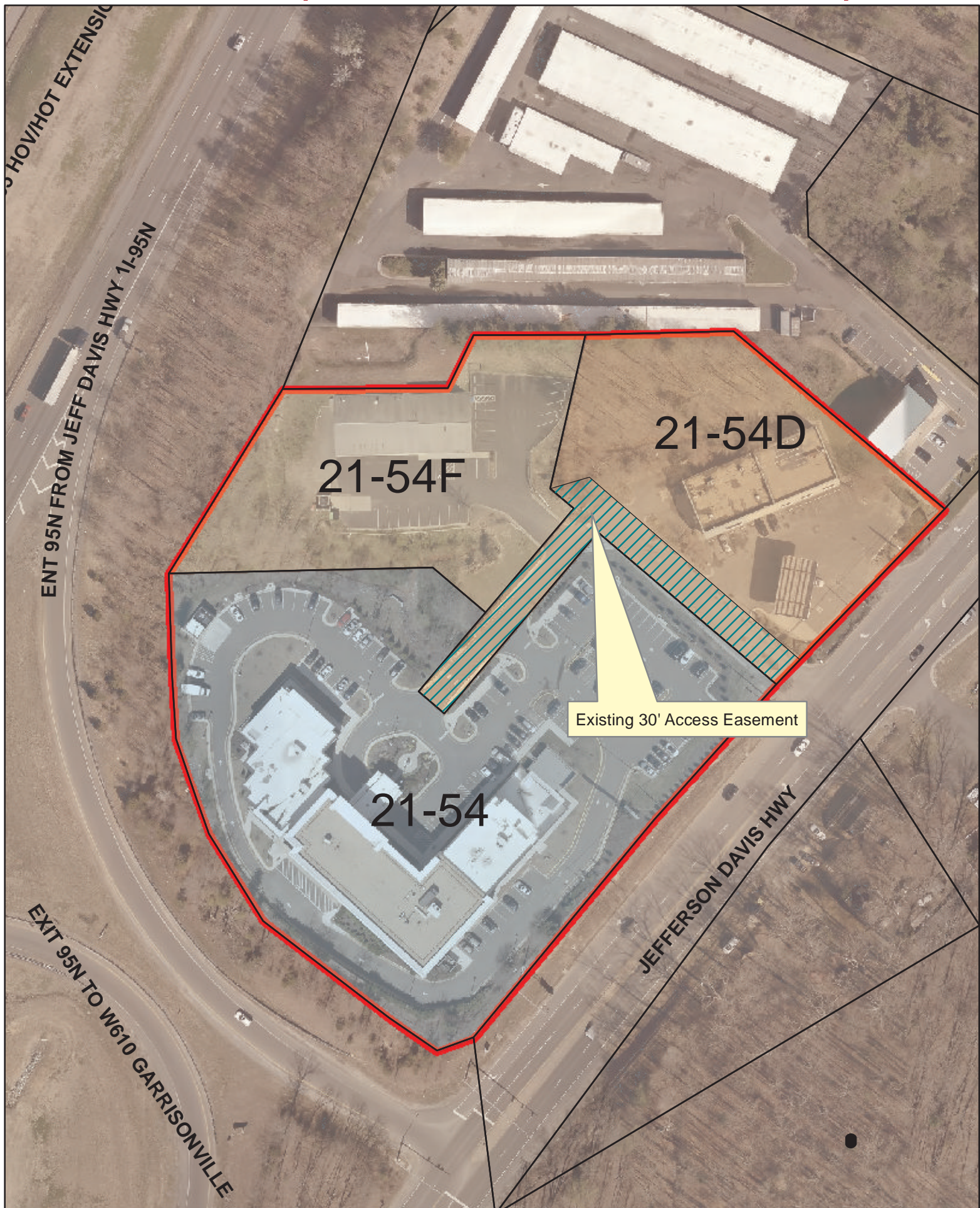


## Commercial Private Road Improvements

- County staff have received multiple concerns about the condition of the private road off of Route 1 north of the northbound entrance to I-95 off of Route 1(see attached graphic)
- The road serves three parcels, 21-54D (Fas Mart, Valero, and 3 other businesses), 21-54 (Hampton Inn), and 21-54F (former Rental Depot, now an inventory liquidator)
- The Hampton Inn is a high traffic user, and the furthest from the intersection with Route 1. While specific information on transient occupancy tax is not released, we estimate this business provides around \$70,000 a year in T. O. tax revenue to the County
- This road is attached to Parcel 21-54D, with a 30' wide access easement allowing use by Parcels 21-54 and 21-54F
- The road, constructed around 1990 has fallen into disrepair due to the high traffic volume and lack of maintenance. The three businesses using the road have been unable to agree to share in the cost of maintenance
- One option to provide a long term solution to this matter would be to improve the road to state standards and have it accepted into the state system for maintenance. Staff has reviewed the completed road and compared it to current state acceptance standards.
- Our review identified the following major modifications that would be required to meet minimum standards, although some relief may be granted in the form of waivers:
  - Conversion of the 30' wide access easement to a dedicated 50' wide right of way
  - Reconstruct approximately 300' of road length and provide cul de sac or hammerhead turnaround for VDOT maintenance and emergency vehicle use
  - The entrance to Fasmart/Valero closest to Route 1 is too close to meet VDOT entrance requirements.
  - Entrance spacing and configuration for some of the entrances do not meet minimum standards and would have to be reconfigured. This would be particularly difficult for the entrance to Fasmart/Valero.
  - Relocate waterline out of roadway into a utility easement.
  - Relocate power poles out of clear zone adjacent to roadway.
- Staff estimates these improvements would cost in the neighborhood of \$150,000 to complete. This estimate is based upon a cursory review of site conditions compared to minimum road standards, and previous road reconstruction work completed by the County. A more detailed estimate would require engineering to determine subsurface conditions, utility interference, and other information not currently available.
- Whereas this road serves commercial interests, no state funds can be applied to the effort



# Minimum Requirements for VDOT Acceptance





## Celebrate Virginia Elevated Water Storage Tank

- The CIP called for construction of a one million gallon elevated water tank on Greenbank Road in Celebrate Virginia to replace the existing Berea Tank at Dominion Virginia Power.
- The Department of Utilities solicited a bid for construction in April of 2015 with the winning bid being submitted by Landmark Structures of Fort Worth Texas for \$2.42 million.
- The final design and construction of the tank called for a 145.5' high composite water storage tank with a 60' diameter bowl.
- The tank is on schedule to be completed and placed in service by September 30, 2016.
- Staff expects to bid the removal of the .05 MG Berea Water Tank this fall, with the tank demolition completed by next spring.

