NOTICE OF PUBLIC MEETINGS

DATE	TIME	EVENT/PLACE **	PERSONS ATTENDING
March 16	11:00 a.m.	**ECONOMIC DEVELOPMENT AUTHORITY**-SHD, Weyers Cave	
March 20	10:00 a.m.	**ECONOMIC DEVELOPMENT COMMITTEE**	Pyles & Kelley
	11:30 a.m.	**EMERGENCY SERVICES COMMITTEE**	Pyles & Kelley
	1:30 p.m.	**STAFF BRIEFING**	All Members
	7:00 p.m.	**RECYCLING COMMITTEE**	Pattie
March 21	10:00 a.m.	**VPAS**	
	5:30 p.m.	**CAP-SAW**	Pyles & Coleman
March 22	7:00 p.m.	**BOS MEETING**	All Members
March 23	4:00 p.m.	**LIBRARY (FISHERSVILLE)**	Pattie
March 27	8:30 a.m.	**BOS BUDGET WORKSESSION**	All Members
March 28	8:30 a.m.	**DEPARTMENT OF SOCIAL SERVICES**	Garber
	7:00 p.m.	**AUGUSTA COUNTY EMERGENCY SERVICES OFFICERS**	Pyles & Kelley
April 3	1:30 p.m.	**CMPT**	
	6:30 p.m.	**SD SMALL AREA PLAN COMMITTEE**	Bragg & Shull
April 5	10:00 a.m.	**MPO POLICY BOARD**	Coleman
April 6	9:30 a.m.	**BZA STAFF BRIEFING**	
	1:30 p.m.	**BZA**	
April 10	1:30 p.m.	**ACSA**	Pyles, Bragg & Shull
April 11	2:00 p.m.	**JAIL AUTHORITY**	
	3:00 p.m.	**GART**	
	7:00 p.m.	**PLANNING COMMISSION**	
April 12	3:00 p.m.	**LEPC**	Pyles
	3:00 p.m.	**ORDINANCE COMMITTEE**	Shull & Bragg
	7:00 p.m.	**BOS MEETING**	All Members
April 13	6:30 p.m.	**AGRICULTURE INDUSTRY BOARD**	Garber
April 18	10:00 a.m.	**VPAS (W'boro Senior Center)**	
	5:30 p.m.	**CAP-SAW (W'boro)**	Pyles & Coleman
April 19	7:00 p.m.	**PARKS & RECREATION COMMISSION**	Coleman
	7:00 p.m.	**BOS BUDGET PUBLIC HEARING**	All Members
April 24	10:00 a.m.	**ECONOMIC DEVELOPMENT COMMITTEE**	Pyles & Kelley
	11:30 a.m.	**EMERGENCY SERVICES COMMITTEE**	Pyles & Kelley
	12:00 noon	**AUGUSTA COUNTY FARM BUREAU WOMEN'S COMMITTEE LUNCHEON (New Verona Office)**	All members
	1:30 p.m.	**STAFF BRIEFING**	All Members
April 25	8:30 a.m.	**DEPARTMENT OF SOCIAL SERVICES**	Garber
	7:00 p.m.	**AUGUSTA COUNTY EMERGENCY SERVICES OFFICERS**	Pyles & Kelley
April 26	7:00 p.m.	**BOS MEETING**	All Members

DATE: March 16, 2017
H:calendar

****All meetings are at the Government Center unless otherwise noted.**

MEMORANDUM

March 16, 2017

TO: Augusta County Board of Supervisors

FROM: Timothy K. Fitzgerald, County Administrator

SUBJECT: STAFF BRIEFING, **MONDAY, MARCH 20, 2017, 1:30 p.m.**
Board Meeting Room, Government Center, Verona, VA

ITEM NO.		DESCRIPTION
S/B-01	**1:30 p.m.**	**VDOT ROADS** Report by VDOT **(SEE ATTACHED)**
S/B-02		**ECONOMIC DEVELOPMENT** 1. Report by Staff **(SEE ATTACHED)** 2. Mill Place Development Plan **(SEE ATTACHED)**
S/B-03		**FIRE AND RESCUE** Report by Staff **(SEE ATTACHED)**
S/B-04		**SHERIFF** Report by Staff **(SEE ATTACHED)**
S/B-05		**WAYNESBORO HOUSING AND REDEVELOPMENT** Report by Staff
S/B-06		**EXTENSION OFFICE** Report by Staff
S/B-07		**HVAC CONTROLS UPGRADE BID** Discuss bids received for Government Center HVAC controls upgrade and work to components of air handler #8. **(SEE ATTACHED)** Funding Source Building Sinking Fund 80000-8198
S/B-08		**PIPELINE** Discuss FERC draft letter concerning the Draft Environmental Impact Statement. **(SEE ATTACHED)**

S/B-09 **PLANNING COMMISSION/PUBLIC HEARINGS (SEE ATTACHED)**

1) Discuss a request to rezone from single Family Residential and General Business to Multi-Family Residential approximately 0.899 acres owned by Paxnfaith Investments LLC and Eavox Endeavors LLC located off Draft Avenue (Rt. 608) in Stuarts Draft approximately 120 ft. to the first parcel boundary line, south of the intersection of Draft Avenue (Rt. 608) and Manor Road in the South River District. The Planning Commission recommends denial of the request.
2) Discuss advertising to hold a public hearing for additions to the Sourcewater Protection Overlay District.

S/B-10 **WAIVERS**

S/B-11 **MATTERS TO BE PRESENTED BY THE BOARD**

S/B-12 **MATTERS TO BE PRESENTED BY STAFF**

S/B-13 **CLOSED SESSION (SEE ATTACHED)**

H:3-20sb.17

VDOT Report
March 20, 2017

Mr. Shull (Riverheads)

- RTE 656 (Offliter Rd) and RTE 608 (Cold Springs Rd) drainage issues with downstream subdivision.
- RTE 681 Mt Herman Rd. – Preliminary survey and planning of deficient structure replacement completed. Waiting on delivery of new structure and environmental permit to schedule installation.
- RTE 252 (Middlebrook) and RTE 620 (Newport Rd) –Rock outcropping review and removal are scheduled for the spring.
- RTE 654 (Old White Hill Rd) Depression near the intersection of RTE 651 has been addressed. Crossline pipes are scheduled for replacement this Spring.
- RTE 693 (Sinking Springs Rd.) Rural Rustic project – Tree and brush removal Completed. Actual construction to begin in April.
- RTE 620 (Spottswood Rd.) Pothole in roadway below Spotswood ball field has been addressed.
- RTE 726 (Dutch Hollow Rd) Multiple potholes have been addressed and grading on all graveled are schedule as needed.
- Pipe flushing operations at multiple locations have been completed.

Mrs. Bragg (South River)

- Update on Route 610 (Howardsville Turnpike) – design complete, R/W purchased. Ad review scheduled for March 1st. tentative advertisement date May 1st. Utility relocations have begun.
- RTE 608 (Draft Ave) between RTE 1511 (Flory Ave) and RTE 610 (Howardsville Turnpike) – conducting speed study to determine if any adjustment in existing 45 mph speed limit is appropriate, especially approaching the traffic signal at Rtes. 608/610. Study nearing final completion, 35 mph zone will be established on Rte 608 approaching the traffic signal from the north (approximately 0.1 mile north of signal).
- RTE 664 (Reed's Gap Rd.) Drainage issues are being reviewed. Pipe replacements and roadway scratching scheduled this summer.
- RTE 760 (Lake Rd) broken edges and deteriorating roadway surface will be address with spring and summer scratching operations.
- RTE 1530 (Forest Springs Dr.) roadway cracks are scheduled for repair this spring prior to resurfacing in 2018.
- RTE 1575 (Arrowhead Ln) roadway cracks are scheduled for repair this spring prior to resurfacing in 2018
- RTE 639 (Wayne Ave) 60" RCP pipe installation is complete.
- Pipe flushing operations at various locations is scheduled for completion in a couple of weeks.

Mr. Coleman (Wayne)

- RTE 250 & RTE 1306 (Birchwood Rd) Final grading of swale ditch at the outlet of the new installed pipe is scheduled. Once completed, property corner pins will be re-established
- RTE 641 (Old Fishersville Rd.) Speed bump improvements are being reviewed, stripping and sign delineation scheduled for in the spring.
- RTE 608 and RTE 641 4-WAY stop intersection being reviewed for improved awareness of traffic stop.
- Rte 358 Wilson Workforce & Rehabilitation Center Complex small area study update. Kickoff meeting (MPO, County, VDOT & Consultant) scheduled for late February / early March. Traffic counts being conducted and analyzed now.
- Pipe flushing operations at multiple locations have been completed.

Mr. Kelley (Beverly Manor)

- Update on RTE 612 (Laurel Hill Rd) project is continuing to progress.Completion date May, 2017
- RTE 613 (Old Greenville Rd) – Springlake subdivision had a walk thru inspection with Land Use engineer for final punch list items and acceptance into the system. Waiting on the finalization of public right of way acceptance forms to be completed.
- Pipe flushing operations at multiple locations have been completed.

Mr. Garber (Middle River)

- RTE 774 (Broad Run Rd.) Ditch restoration and cleanout is completed. Reviewing the possibility of replacing the pipes with box culvert and raising the roadway grade.. Hydraulic survey has been completed. Environmental permit will be requested for box installation this Fall.
- I81 – Turning lanes on RTE 256 and RTE 11 at Weyers Cave was submitted under a Smart Scale project for recommended funding scenario. Won't know status of acceptance until June.
- RTE 619 (Purple Cow Rd) Crossline pipe replacement at the intersection with RTE 340 scheduled.
- RTE 616 (Humbert Rd) Replacement of triple line of RCP cross pipes scheduled.
- Grading and adding stone on all non-hard surfaces as needed.
- Pipe flushing operations at multiple locations is completed.

Dr. Pattie (North River)

- RTE 42 (Scenic Highway) – Drainage concerns with property owner of Zak's Country Store is under review. Survey and Hydraulic studies have been completed. Workable solution is still under review.
- RTE 607 (Mt. Solon Rd) & RTE 843 (Drainage Divide Ln) – Sight distance improvement project is complete. New fence install for Mr. Gardner is completed
- RTE 738 (Roudabush Ln.) & RTE 42 –Mirror has been received

- All non-hard surface (Gravel) roads are being machined and spot gravel being placed.
- Pipe flushing operations at multiple locations have been completed.

Mr. Pyles (Pastures)

- RTE 250 – Whiskey Creek bridge project – center pier completed. Concrete pour for two abutments – currently backfilling abutment approaches.
- RTE T1117 (Craigsville) – Cleared environmentally, 8'x4' box culvert has been delivered to work site. Culvert installation tentatively scheduled for April due to winter's inclement weather. Installation of 24" RCP overflow pipe is completed
- RTE 250 (Churchville Hwy) shoulder repairs, trash pickup, and gutter sweeping completed before Maple Syrup Festival in Highland Co.
- RTE 254 (Parkersburg Turnpike) Low shoulders repairs complete.
- RTE 840 (Old Churchville Rd) Triple line of CMP pipes to be replaced with 7'x 5' box culvert has been ordered, waiting on environmental clearances due to wet land delineation.
- Pipe flushing operations at various locations have been completed.

Economic Development
Monthly Report for February 2017

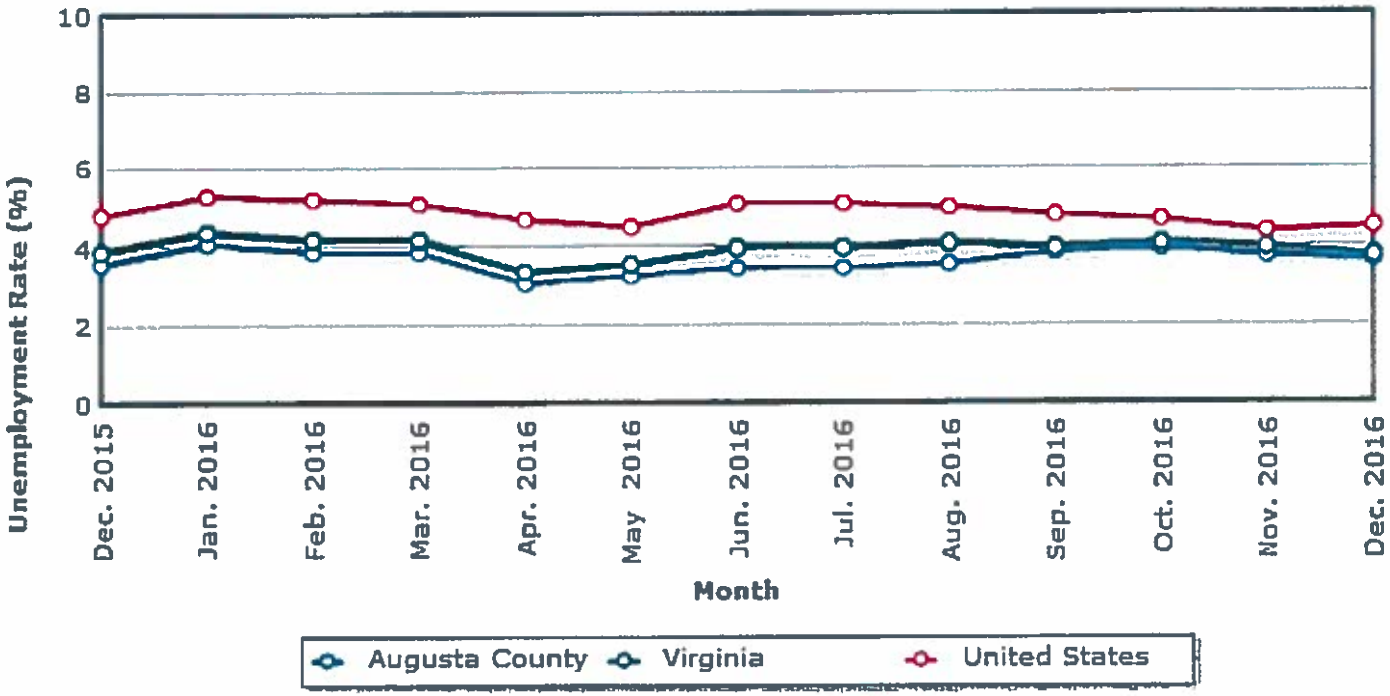
Unemployment Rate
Business Licenses Issued
Prospect Generation
Mill Place Commerce Park
Economic Development Authority
Existing Industry Visits
Partner Agency Interaction
Shenandoah Valley Partnership
Small Business Development Center
Tourism Update
Marketing Initiatives/Media

STAFF BRIEFING AGENDA ITEM NO. S/B-02.1

Unemployment Rates

Past 12 Months

*January/February data not available as of 3/15/17



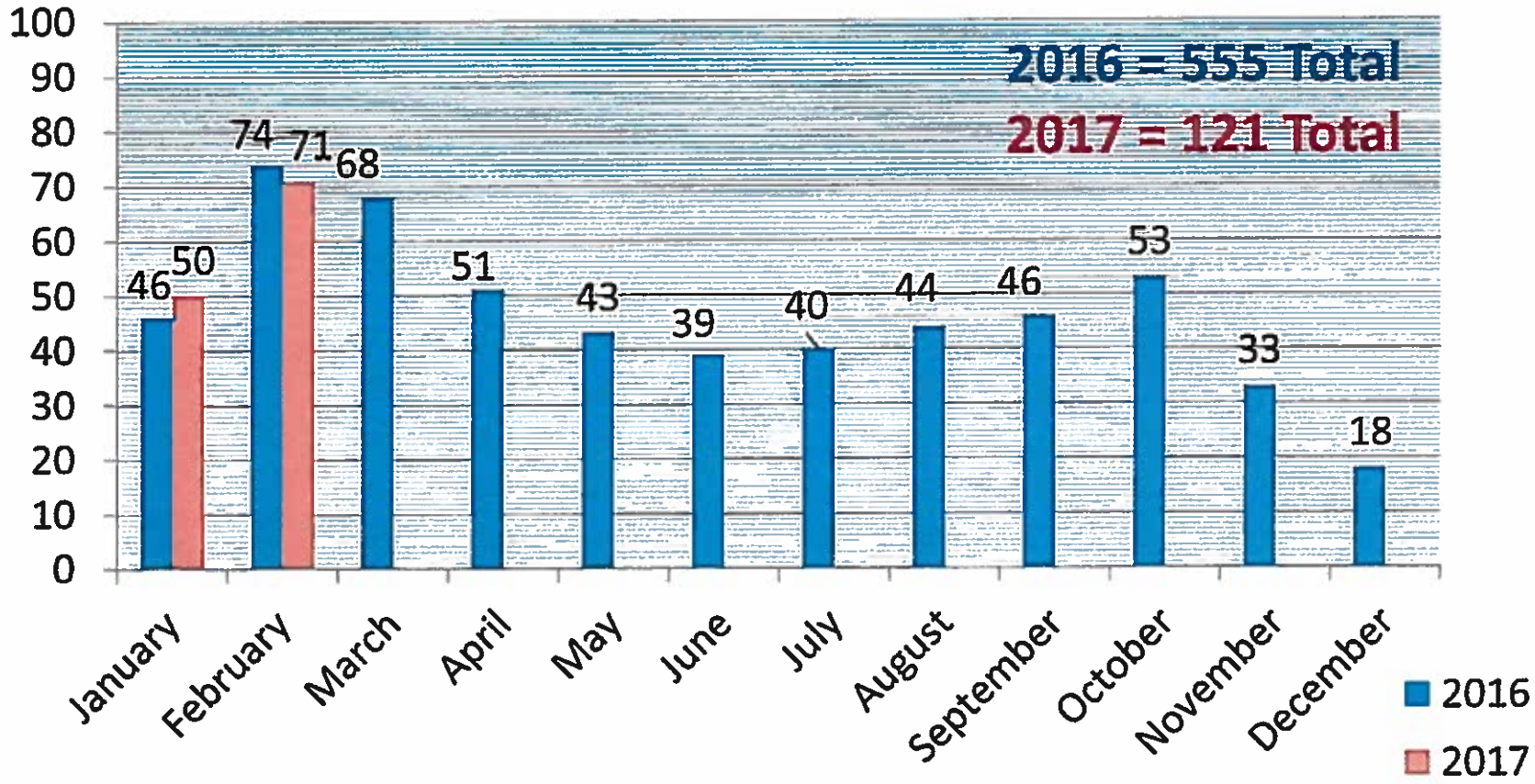
December 3.7%

Labor Force: 35,955

Employed: 34,613

Unemployed: 1,342

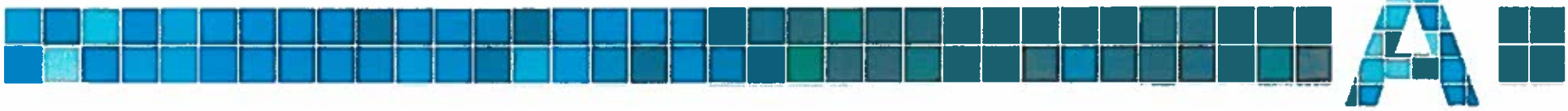
Business Licenses Issued



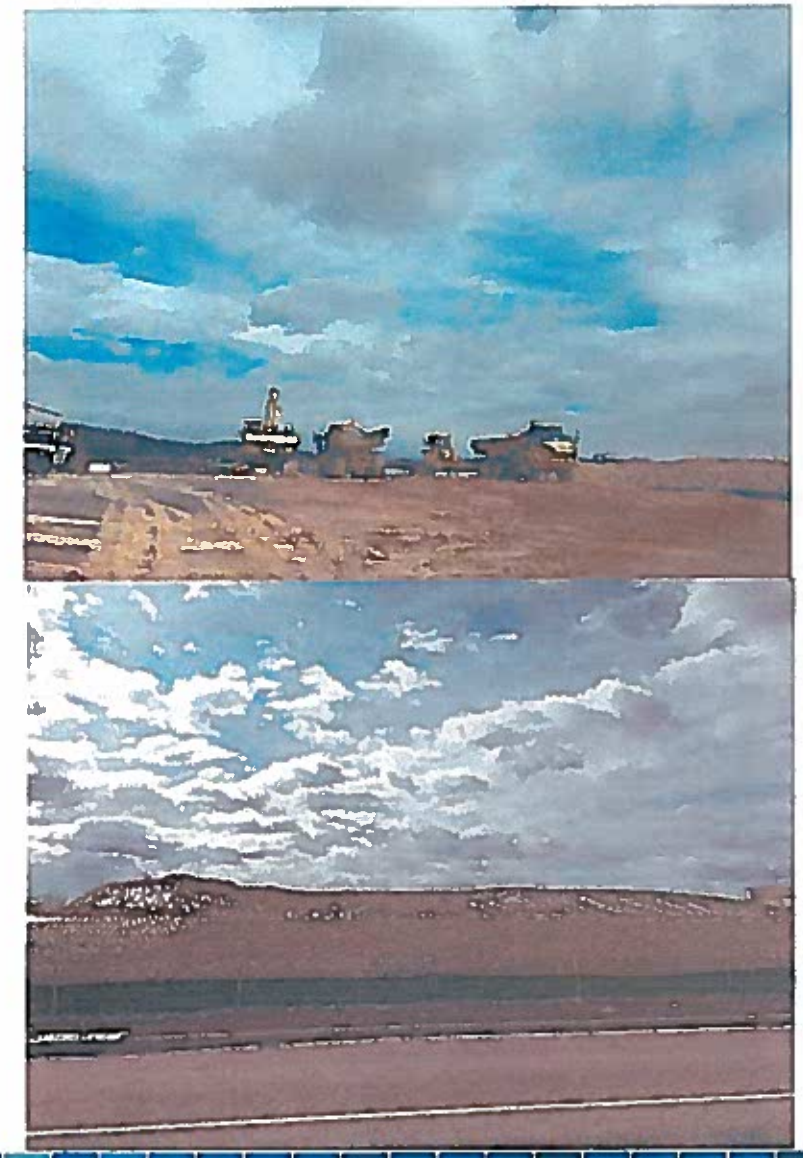
Prospect Generation (CY 2017)

	2017 YTD	Goal	Prior Year
	Total	2017	2016
Marketing Missions		3	3
Outreach VEDP		1	1
Total Outreach		**4**	**4**
Leads/SVP/VEDP	2	12	11
Leads/Other	3	12	14
Total Leads	**5**	**24**	**25**
Prospect Visits/SVP/VEDP		2	4
Prospect Visits/Other		2	1
Total Prospect Visits		**4**	**5**
ANNOUNCED ACTIVITY	**1**	**4**	**5**
Expansion Projects Announced*	1	3	3
New Company Locations*		1	2
Capital Investment (millions)	$26,800,000.00	$75,000,000.00	$25,520,000.00
Jobs Created	69	150	183
Jobs Retained			

*Announced Projects (YTD):	Investment	Jobs Created	Jobs Retained
Hershey Chocolate of Virginia	$ 26,800,000.00	69	
Total	**$ 26,800,000.00**	**69**	



Mill Place Commerce Park



BMP#3: Basin is gradually refilling.

Walking Trail

- Funding approved.
- Construction will follow the site work on Lot 13.

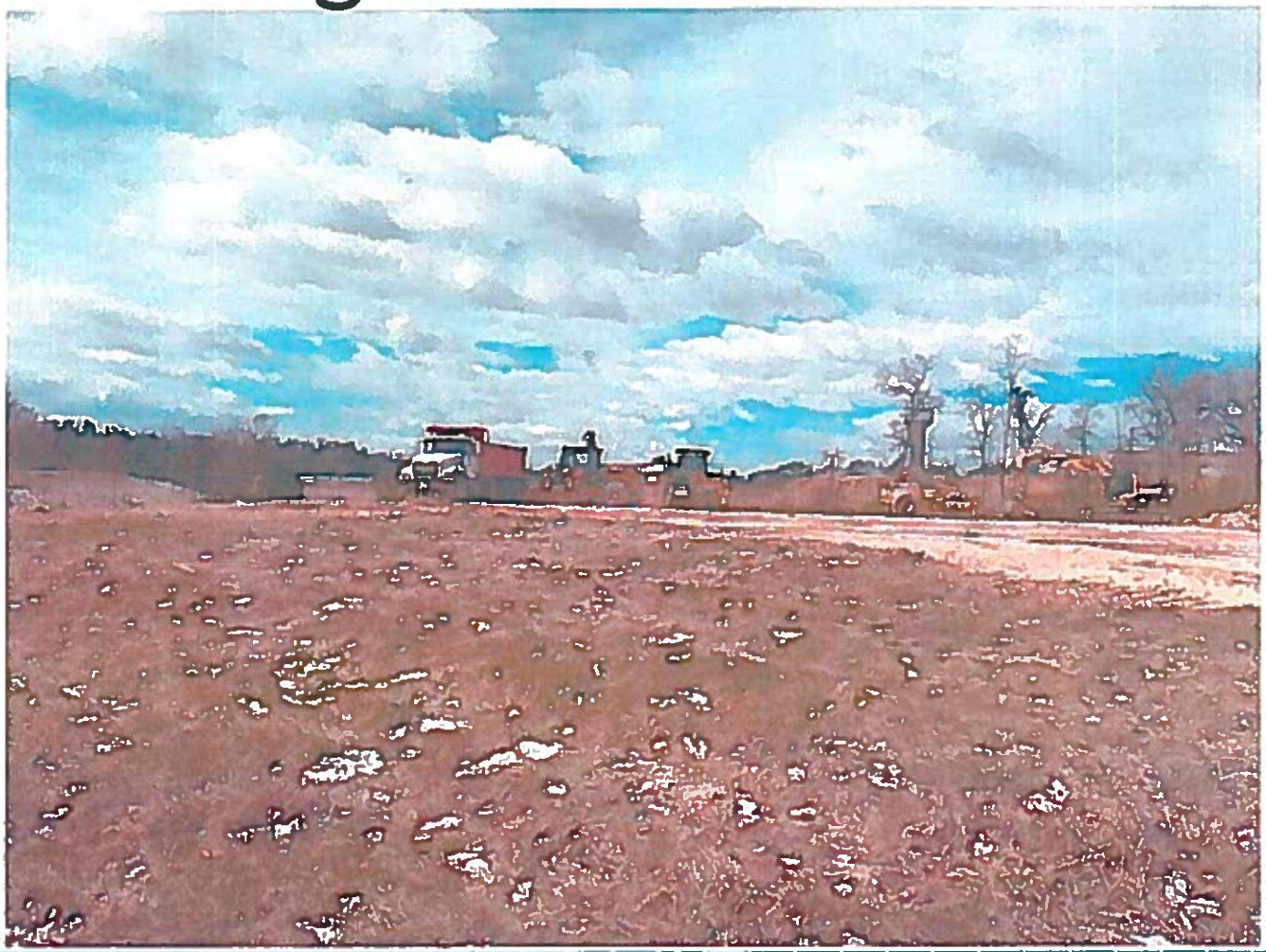
Development Plan:

- Staff will bring the final plan back to the Board in March to receive guidance on next steps.

InterChange/Sumitomo:

- Site is almost completely graded and excess cut is being compacted on adjoining site to benefit "pocket park"
- Site Plan approved
- Architectural Review Committee review complete
- Building Permit Application submitted

Mill Place Commerce Park
Blue Ridge Machine Works Site



Mill Place Commerce Park – BMP#3 Refill Progress

Economic Development Authority

(Regular meetings every other month on the third Thursday at 11am)

- Last meeting: March 16, 2017
- Next meeting: May 18, 2017

Remember to refer people to the

Augusta Small Business Loan Fund

Existing Industry Visits

(Goal: 40 visits/year)

– Valley Recycling (February 9)

– ComSonics (February 10)

– Hollister (Chamber Industrial Roundtable) (February 22)

– Fields of Gold Meet and Greet (Stable Craft Brewing, Cool Breeze Farm & Stables, My Peeps Farm, Sunrise Orchards, Barren Ridge Vineyards, Grazelen Farm, 2 Pond Farm, Valley Pike Farm Market, Project Grows) (February 23)

Partner Agency Interaction

- Greater Augusta Regional Tourism (GART)
  - Beerwerks Meeting 2/14
- Shenandoah Valley Tourism Partnership
  - Monthly Meeting 2/2
  - Marketing Committee Conference Call 2/27
- Career and Technical Education
  - CTE Discussion with Dr. Bond 2/9
  - CTE Trip to Scottsville/Tenaska Power Plant 2/27
- SAW Economic Development Staff Lunch 2/8
- Mid-Atlantic Food Port Roundtable 2/22
- Public Relations Council 2/28

Shenandoah Valley Partnership Update

- Workforce/Education Committee – February 10
- Marketing Committee – February 17
- New VEDP CEO Visit – March 3

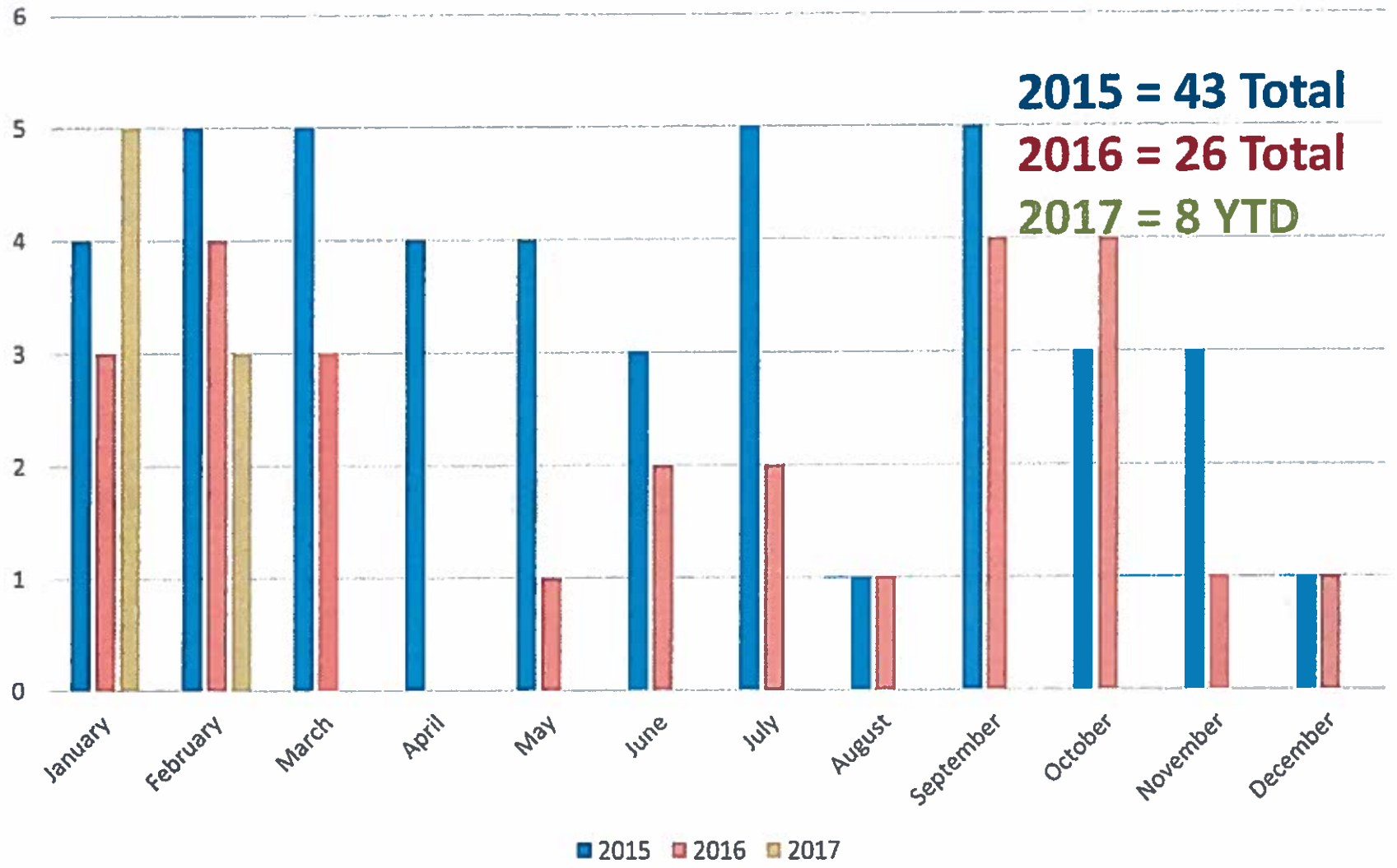
- Upcoming Events
  - Economic Development Forum – April 21

Small Business Development Center

	Clients Seen	Sessions	Hours	Attendees	Events
SBDC-All Offices *February 2016*	40	52	74	60	7
Verona Office *February 2016*	4	5	9	3	1
SBDC-All Offices February *2017*	36	43	79	31	3
Verona Office *February 2017*	3	3	9	6	1

Small Business Development Center

Clients Seen



Tourism Update

Greater Augusta Regional Tourism

GART Grant Program

- Three grants awarded to:
  - Queen City Potter Party
  - Virginia Food Truck Battle (Madee Project)
  - Waynesboro at War

Tourism Update

Greater Augusta Regional Tourism

Fields of Gold Meet and Greet – Barren Ridge Vineyards

February 23

Tourism Update

Shenandoah Valley Tourism Partnership

Shenandoah Valley Tourism Partnership

- Received **$25,000 VTC Marketing Grant**
- New website coming soon
- New marketing campaign coming soon including campaign in Orlando via partnership with SHD/ViaAir

Marketing Initiatives

- Facebook Pages
  - 151 "likes" and growing as of March '17
- "The Current View" Electronic Monthly Newsletter
  - List includes 348 names as of March '17
  - 37% open rate for February newsletter
- Update to Tourism website coming 2017

Marketing Initiatives - Recent Media

- Green spaces: A key in new development – *News Leader*, February 5
- Stable Craft Brewing expands – *News Leader*, February 15
- Breweries using homegrown ingredients in their beer – *WHSV*, February 24

OFFICE OF ECONOMIC DEVELOPMENT
County of Augusta, Virginia
18 Government Center Lane, P. O. Box 590
Verona, Virginia 24482-0590
(540) 245-5619 (Voice)

AMANDA N. GLOVER
DIRECTOR OF ECONOMIC DEVELOPMENT

TO: The Chairman and Members of the Board of Supervisors

FROM: Amanda N. Glover, Economic Development Director

CC: Tim Fitzgerald, Augusta County Administrator
Jennifer Whetzel, Deputy County Administrator

DATE: March 14, 2017

RE: Mill Place Commerce Park Master Plan

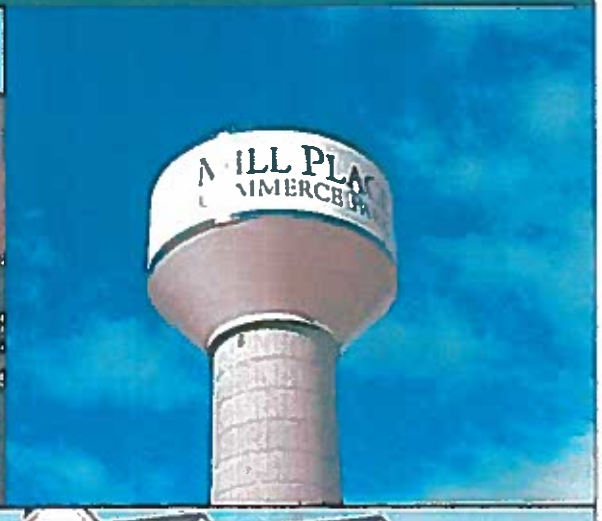
Attached is the final version of the Mill Place Commerce Park Master Plan including recommended next steps with budget amounts. This development plan will help Augusta County target and recruit the highest and best, yet realistic, uses for the Park. We will be seeking your guidance on how to proceed with suggested next steps based on the Timmons Group's recommendations, as outlined in the attached slides.

Historical Context

In October 2015, the Board of Supervisors authorized the Timmons Group to conduct a Business/Development Plan, Master Plan Update, and Preliminary Engineering Report for Mill Place Commerce Park. The paragraphs below review the project process, historical context, and project importance.

Mill Place Commerce Park went through an initial master planning process after the property purchase. The current master planning documents are dated 2001. Since that time, the 400+ acre site has seen several lots developed, including those for Shamrock Farms and Dascom, as well as additional infrastructure (natural gas, fiber, and a water storage tank). Additionally, overall attraction efforts have shifted from a "high tech only" strategy to a mixed-use strategy and the zoning for the Park has been updated to reflect that change in focus. However, the covenants and master plan have not been updated accordingly. Development requirements related to stormwater management and transportation have also changed during this time period. More than ever before, sites that are most "ready" attract the highest and best uses.

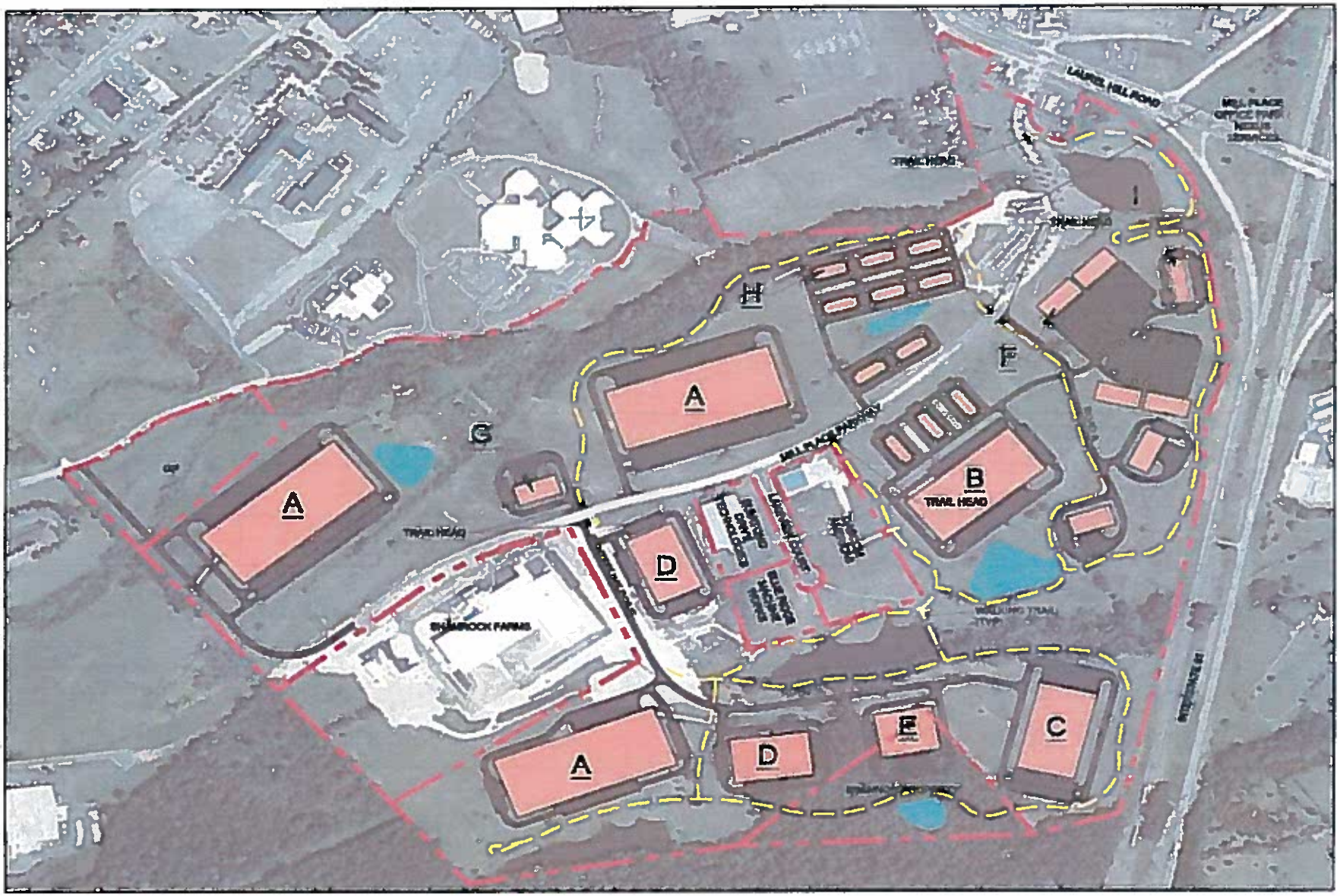
Mill Place Commerce Park Master Planning
Recommendations for Next Steps



AUGUSTA COUNTY, VIRGINIA
ECONOMIC DEVELOPMENT

TIMMONS GROUP

Final Concept Plan



Master Plan - Building Inventory

Building Type	Building Footprint (SF)	Quantity	Total Building Footprint (SF)
A	300,000	3	900,000
B	200,000	1	200,000
C	150,000	1	150,000
D	100,000	2	200,000
E	75,000	1	75,000
F	72,000	4	288,000
G	25,000	3	75,000
H	12,000	11	132,000
I	100 Hotel Rooms	1	Hotel / Conference

1.6 Million SF Commercial / Industrial, 420,000 SF Office & 100 Room Hotel / Conference Center

AUGUSTA COUNTY, VIRGINIA ECONOMIC DEVELOPMENT

TIMMONS GROUP

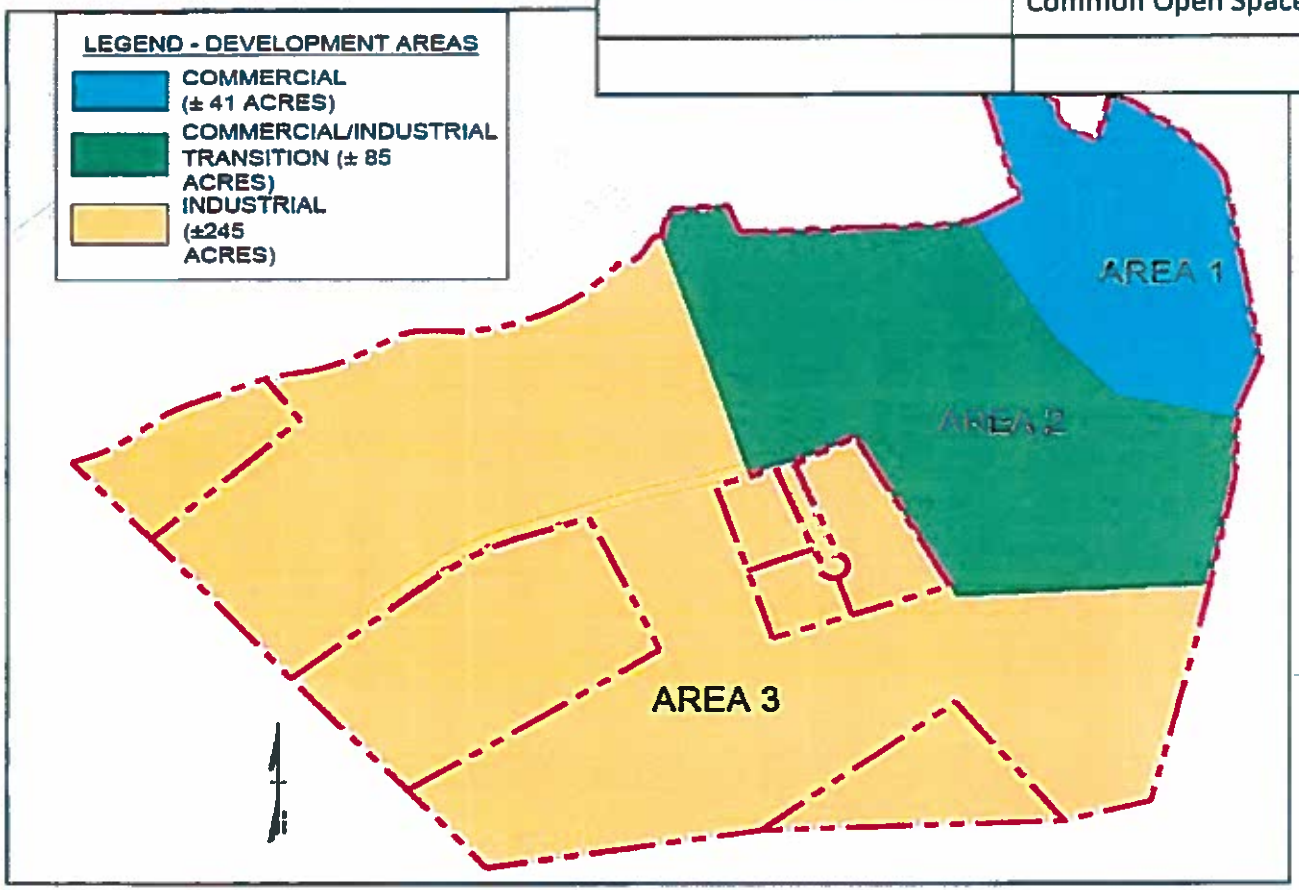
Recommendations Related to Land Use

1. Pursue rezoning (reference map of proposed zoning and uses on next slide)

2. Revise Declaration of Covenants and Restrictions to be consistent with the zoning and suggested practices.

Proposed Zoning & Uses

Area 1 Commercial	Area 2 Commercial/Industrial Transition	Area 3 Industrial
Professional and Business	Professional and Business	Professional and Business
Research and Development	Research and Development	Research and Development
Hospitality Establishments	Hospitality Establishments	Warehouse Uses 50,000 sqft or less
Retail and Service Businesses	Retail and Service Businesses	General Industrial Uses
Common Open Space	Warehouse Use 50,000 sqft or less	Ancillary Retail and Service Business
	General Industrial Uses	Common Open Space
	Common Open Space	



Recommendations Related to Achieving a Tier 4 Site

3. Complete necessary due diligence for Tier 4 rated site
   - 1' topographic survey - $20,000
   - Wetlands Delineation & COE Confirmation - $11,000
   - Boundary Survey - $15,000
   - Stormwater Structure & Sanitary Sewer Survey - $10,000
   - TOTAL - $56,000

Tier 5 – "Pad-Ready" Site Development

- ***We do not recommend the County pursue a pad-ready site due to costs.***
- Site shows well in the current state and the County can deliver, or pay the company the necessary costs for a pad ready site as an incentive, if desired.

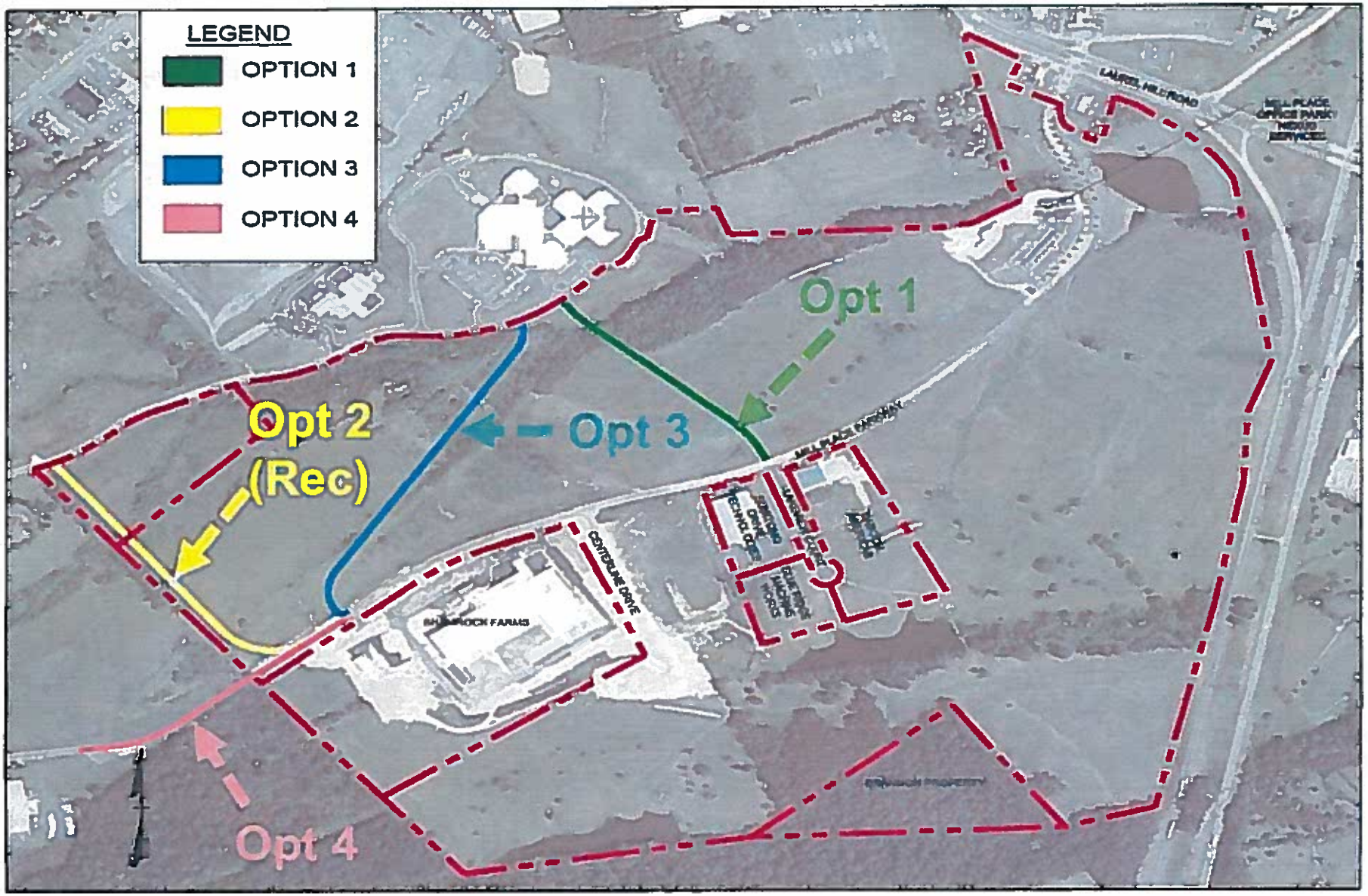
Recommendations Related to Design

Start working towards the recommended infrastructure improvements. Start design work for:

4. Mill Place Parkway Connector road to Technology Drive (Option 2/Recommended on next slide) - $424,000

5. Entrance/Turn Lane Design - $222,389 (not included in Smartscale Application; needed at 100% build-out of site)

Connector Road Concepts - Option 2 Recommended



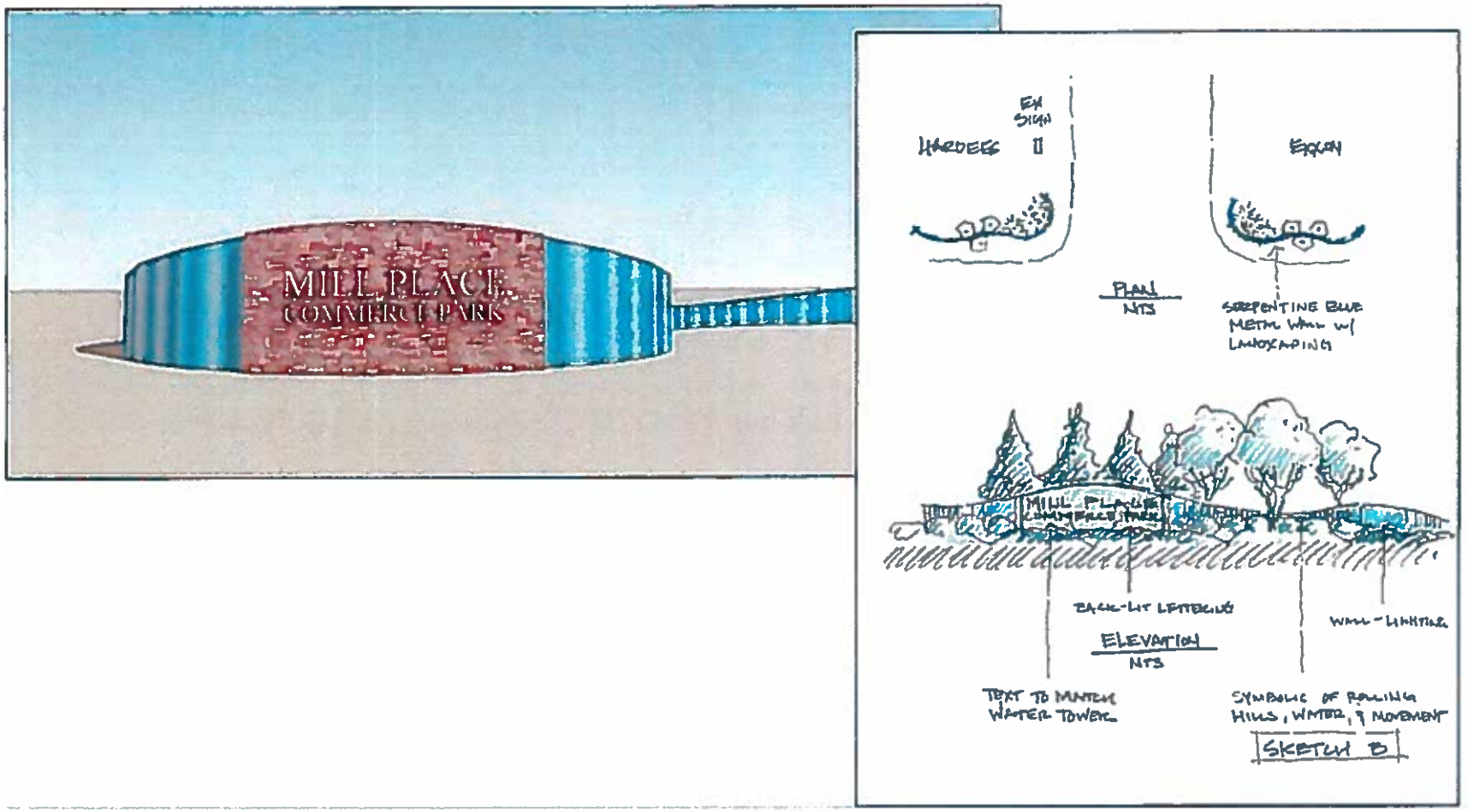
Transportation Analysis for Park Build-out
Entrance Roadway Improvements / Concepts

Recommendations Related to Design

Start working towards the recommended infrastructure improvements. Start design work for:

6. Landscaped Entrance & Sign - $32,000 – Staff top pick in this section
   - Meet with Hardee's & Exxon to see if potential synergies exist

Entrance Signage Concepts



AUGUSTA COUNTY, VIRGINIA
ECONOMIC DEVELOPMENT

TIMMONS GROUP

Gateway Entrance Signs – Renderings in Place

AUGUSTA COUNTY, VIRGINIA
ECONOMIC DEVELOPMENT

TIMMON

Recommendations Related to Design

Start working towards the recommended infrastructure improvements. Start design work for:

7. Trail System Design - $20,000 (for entire Park)

☑ 8. First phase of the road and utility extension into Pod C (behind Shamrock Farms) to open this parcel up for development - $196,000

☑ 9. Waterline into Pod C

8 & 9 have already started with Lot 13 development and the other confidential prospect locating behind Shamrock

AUGUSTA COUNTY, VIRGINIA ECONOMIC DEVELOPMENT

TIMMONS GROUP

Recommendations Related to Design

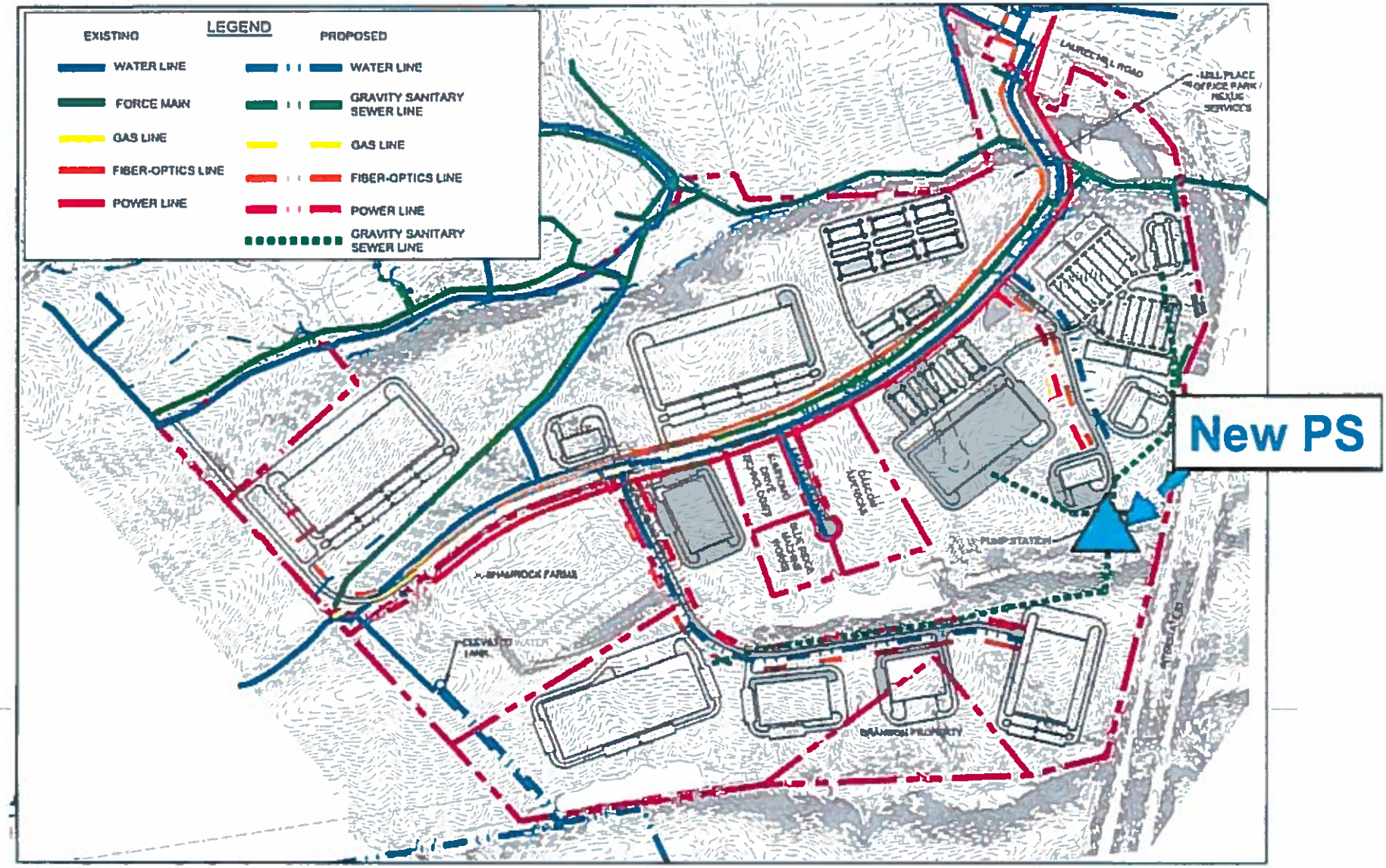
Start working towards the recommended infrastructure improvements. Start design work for:

10. Gravity Sewer to serve Pod C - $90,000

11. Pump Station & Sewer FM to serve Pod C & A - $119,000

12. Additional Study (not design) – Sewer Flow Monitoring, System Modeling, and Verification Surveys - $75,000 (reference sections 5.2 & 5.3)

Utility Analysis



Recommendations – Longer Term

13. Pursue VDOT Revenue Sharing Funds for the Mill Place Commerce Park Extension to Technology Drive and Landscaped Entrance

14. Pursue discussions regarding the acquisition of a portion of the Brannon Property (triangular piece) to "square off" the Park.

Recommendations – Longer Term

15. Coordinate with ACSA and the City of Staunton in regards to:
    - Sewer capacities within Mill Place Commerce Park
    - Available process and flow capacities at Middle River WWTP
    - Additional studies and review of existing agreements

16. Food and Beverage Prospects - engage ACSA as soon as practical to determine the potential impacts to the Middle River WWTP's flow and process capacities. (Existing Practice)

AUGUSTA
COUNTY, VIRGINIA

MILL PLACE COMMERCE PARK

DRAFT MASTER PLAN UPDATE

AND

PRELIMINARY ENGINEERING REPORT

ATTN: MS. AMANDA GLOVER
DIRECTOR OF ECONOMIC DEVELOPMENT
AUGUSTA COUNTY
P.O. BOX 590
18 GOVERNMENT CENTER LANE
VERONA, VA 22482-0590

PREPARED BY:
JOSEPH C. HINES, PE, MBA AND CRAIG KOTARSKI, PE
TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.
1001 BOULDERS PARKWAY, SUITE 300
RICHMOND, VA 23225

Table of Contents

Appendices

List of Tables

List of Figures

Section 1 – Executive Summary

Timmons Group was hired to update the development strategy for Mill Place Commerce Park, providing technical review and recommendations to the site's infrastructure while offering a fresh perspective for the overall Master Plan. Additionally, the Preliminary Engineering Report and planning efforts aim to provide a target for the next 10 years of development, provide guidance towards capital influence, and provide a pathway to achieve a Virginia Tier 4 or Tier 5 status for the Park.

Master Planning

The Master Plan, as shown in Figure 1, was developed for the 371 +/- acres, keeping in mind the site's key asset of interstate connection, as it is located at the intersection of Interstate 81 and Laurel Hill Road. The Master Plan maximizes the buildable density of the overall site, provides a secondary access point to Technology Drive, and considers the goals of Augusta County and its target industries.

Figure 1: Building Summary

Building Type	Building Footprint (SF)	Quantity	Total Building Footprint (SF)
A	300,000	3	900,000
B	200,000	1	200,000
C	150,000	1	150,000
D	100,000	2	200,000
E	75,000	1	75,000
F	72,000	4	288,000
G	25,000	3	75,000
H	12,000	11	132,000
I	100 Hotel Rooms	1	

Table 1: Building Summary

During the Master Planning process, the site was evaluated to be split into different development areas (see Figure 2 below), so as to focus the commercial and office development at the Park's entrance, with the larger industrial development located farther into the Park. A transition zone between these two development areas, Area 2, was added to provide area flexibility between the two types of uses. These areas will require a change to the existing zoning, but maintain similar use-types throughout the Park.

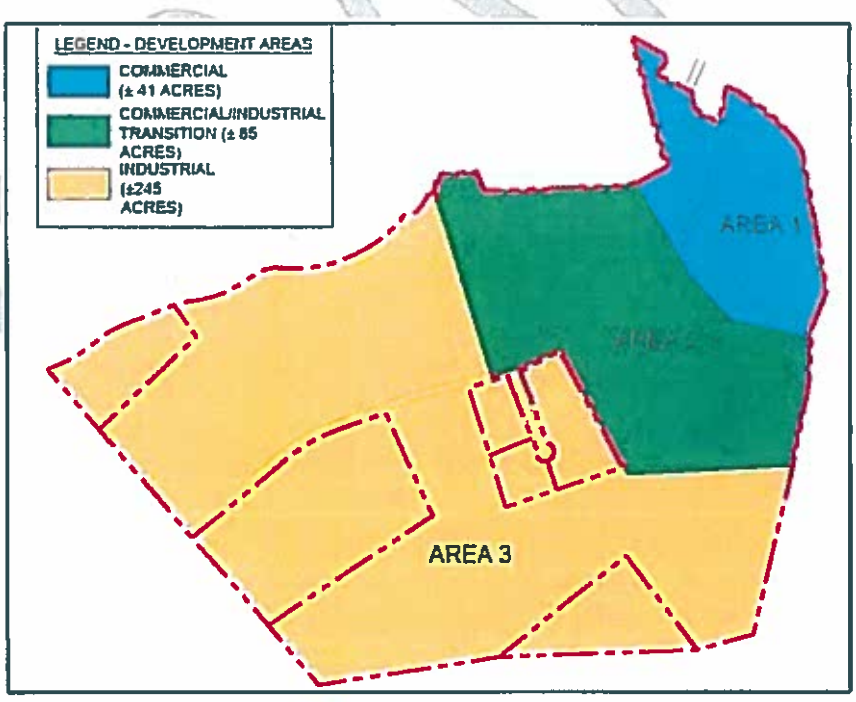


Figure 2: Proposed Development Areas

Grading and Stormwater

Grading and Stormwater analyses were provided as a part of the report. For the grading analysis, the site was split into pods, two or more pad sites, and was graded to balance the earthwork necessary for each pod in order to provide cost estimates (See Figure 3 below). The site's stormwater analysis yielded that the overall site was still subject to the Type IIB regulations, that is to say water quantity and quality measures are calculated with the methodologies used prior to June 2014. The County's IIC permit for the Park is valid until 6/30/2019. At that time, site specific BMPs will need to be consistent with current regulations.

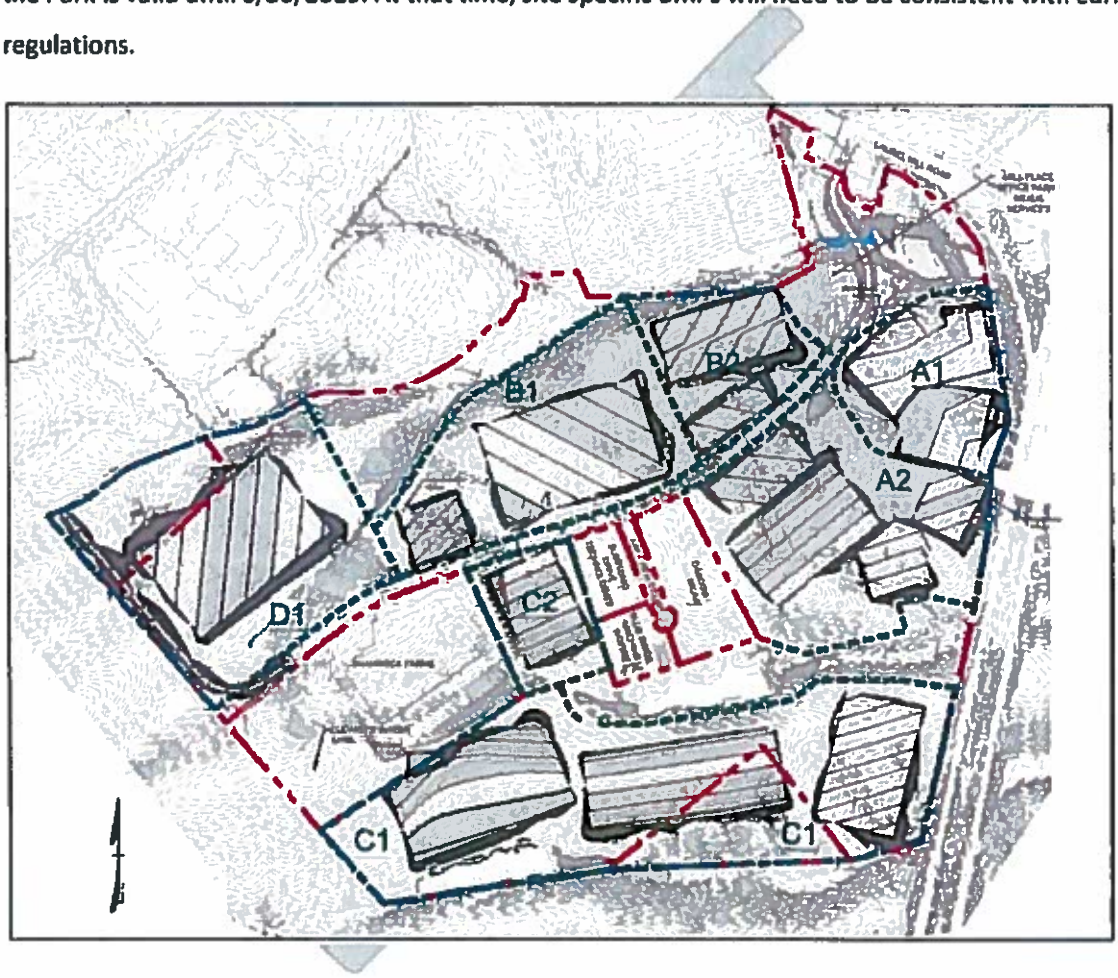


Figure 3: Development Pods Overview

In an effort to determine potential development costs for Mill Place Commerce Park, we estimated "pad ready" grading costs for the park based upon the anticipated conceptual pad graded layouts identified above. Opinion of probable costs for "pad ready" sites ranged from $71,700 per Acre (pod D1) to $141,500 per Acre (pod A1) with an average of $95,800 per Acre for the entire park.

Utility Analysis – Water and Wastewater

The site's water supply was reviewed with attention given to both fire flow and the water supply systems. The existing 750,000 gallon water tank, constructed to provide coverage for the higher demands of Shamrock Farms (2,150 gallons per minute at a residual pressure of 70 psi), should meet the requirements of any prospective users. The majority of future users will require a minimum of 2,000 GPM with at least 40 psi residual pressure, as this is the industry standard. Furthermore, the Verona water supply, which is provided by both the City of Staunton (0.63 MGD) and Berry Farms Water Treatment Plant (0.17 MGD), is operating under its current capacity. Additional capacity is available to provide the projected 1.6 MGD supply for Verona in the year 2027, as the Berry Farms Water Treatment Plant has a capacity of 1.0 MGD that is only partially being used.

Sewer lines were analyzed based on provided information. Based on our review, it is suggested that as built documentation of the sanitary system, as well as flow monitoring be performed. This will allow for a better assessment of the system, as there are certain areas that are at or near capacity. Furthermore, it is recommended that a formal agreement be considered between the City and the Augusta County Service Authority as it relates to connection to the sewer system in Mill Place Commerce Park.

Wastewater is currently treated at the Middle River Regional Wastewater Treatment Plant (MRRWWTP), which has a capacity of 6.8 MGD. This Plant is a shared facility between the City and the Augusta County Service Authority (ACSA), with the ACSA owning 1.9 MGD of the treatment capacity. In all cases, the Augusta County Service Authority should be involved early with respect to prospect inquiries from the Food and Beverage industry.

To ensure Augusta County is not limited in the types of food processing industries it can recruit, we recommend the inconsistencies with the industrial pretreatment process be addressed, capacity analysis for each prospect and its unique wastewater characteristics be performed, and alternatives for increasing capacity at MRRWWTP be explore.

Transportation Analysis

Timmons Group also analyzed traffic using an iterative process to understand the carrying capacity of the intersection at Mill Place Parkway and Laurel Hill Road. The existing conditions are adequate for the site to be developed up to 25% of its overall capacity. For development up to the 50% level of capacity, the following improvements are required: additional west bound left turn lane from Laurel Hill Road,

along with additional receiving and approach lanes on Mill Place Parkway. The lane widening along Mill Place Parkway would require additional right of way acquisition to support the expansion. Future development, beyond 50% capacity, would require a secondary access point, as discussed above, to Technology Drive.

Entrance Signage

An entrance sign was also conceptualized at the entrance to the Park at Laurel Hill Road during an interactive design charrette with the County. Through feedback and discussion of stakeholders, the sign was designed with the idea of movement and progress in mind, using a blue aluminum composite wall, with local stone, and black or gray colored lettering. Evergreen trees and up lighting are recommended to compliment the structure, as shown in Figure 4.

Figure 4: Gateway Entrance Sign – Site Context

Review of Declaration of Covenants and Target Sector Analysis

The Declaration of Covenants and Restrictions was reviewed to recommend revisions in an effort to create a more concise document, removing language or actions that could be interpreted as subjective in nature. While there were some minor notes made regarding the document in general, the largest and perhaps most critical recommendation of this section is to remove a perceived added layer of subjective review during the site plan application, with the reference to the Architectural Review Committee in Section 5. It is recommended to remove this language, while identifying another County department, such as Community Development to review the prospect's adherence to the covenants and restrictions of the Park.

The majority of the County's target sectors, including advanced manufacturing, life sciences, and value added agriculture and forestry, fit well within the site's constraints. Industries within the food processing/packaging market need to be discussed early in their pursuit, so that limitations due to wastewater treatment can be identified early as to whether they will be a hindrance. All other potential user-types, such as commercial, office and hospitality that are being targeted for the site, will work within the limitations, as those users are not particularly large wastewater users.

Summary of Business Plan and Return on Investment

For the County to achieve a Tier 4 rated site a one-foot topographic survey, along with a delineation and Corps of Engineers certification of streams and wetlands would be required. It is not recommended that speculative pad grading be done to achieve a Tier 5 site, as the overall property does not require it to show well. After this has been done, the following infrastructure improvements are also recommended.

1. Design and construct the entrance roadway improvements into Mill Place Commerce Park (the County has applied for SMART SCALE funding from VDOT).
2. Design and construct the signage at the entrance into Mill Place Commerce Park (this could be eligible for VDOT Funding).
3. Design the Mill Place Parkway Extension to Technology Drive and start pursuing funding to pay for the construction of the project (VDOT Revenue Sharing).
4. Since the City of Staunton has wastewater flow coming through Mill Place Commerce Park and currently owns a significant amount of the Middle River Regional WWTP capacity, work with the ACSA and City to conduct additional studies on the existing sewer system to determine existing flows and remaining capacity in the gravity system in addition to the most appropriate way to convey wastewater to the Middle River Regional WWTP.
5. Design the roadway for the first section of access road (approximately 1,000 LF) to Pod C1 below Shamrock. Consider utilizing VDOT Economic Development Access Funds to pay for this road.
6. Install a fitness / walking trail network throughout the Park.

Following is a summary table identifying the potential development costs as well as potential phasing:

Mill Place - Summary of Opinion of Probable Costs	Overall Costs
Ph 1 - Infrastructure Costs – Overall Site	
Connector Road to Technology Drive (1,900 LF)	$4,268,000
Entrance Roadway Improvements	$2,500,000
Landscaped Entrance / Signage	$350,000
Stonedust Fitness Trail Network (20,000 LF x $15/LF)	$300,000
Ph 2 – Infrastructure Costs – Development Pod A	
Road to serve Pod A (1,200 LF)	$4,342,000
Water & Sewer Utilities to Serve Pod A	$1,933,000
Ph 3 - Infrastructure Costs – Development Pod C	
Road to serve Pod C (2,850 LF)	$5,613,000
Water & Sewer Utilities to Serve Pod C	$1,332,000
Total Infrastructure Costs for Full Development	***$20,638,000***

Table 2: Summary of Opinion of Probable Costs

Using the County's 2016 real estate tax rate of $0.58 per $100 of assessed value and the machinery and tools tax rate of $2.00 per $100 with 20% assessment ratio, ***the return on investment model shows a potential annual revenue stream of $2.1 million upon build-out of the Park.***

The potential Return on Infrastructure Investment for the County is 20:1 ($412.8 million / $20.6 million).

Development Priorities

Based upon our current understanding of the long-term development of the park, following is list of development priorities we believe the County should pursue:

1. Design and approvals for the intersection improvements for Mill Place Parkway and Laurel Hill Road. Prior to developing concepts, meet with the property owners located at the entrance of the park (Hardee's and Exxon) to determine potential synergies between the County and the respective businesses.
2. Design of the entrance signs for Mill Place Commerce Park.
3. Design and approvals for Mill Place Parkway connector to Technology Drive.
4. Design and approvals for the first 1,000 LF section of roadway and utilities into Pod C (behind Shamrock Farms) to open up this land bay for development.

Conclusions and Recommendations

Given our understanding that Augusta County desires to achieve a Virginia Tier 4 or Tier 5 status for the site, we have drawn the following conclusions and are making the following recommendations:

1. Complete the necessary due diligence to achieve a Tier 4 status. This includes a topographic survey (1' contours) and a formal wetlands delineation with COE Confirmation.
2. Start working towards the recommended infrastructure improvements identified above. Given the timelines associated with engineering design and approvals, we recommend the County specifically proceed with engineering design for the connector road to Technology Drive and the first phase of the road and utility extension into Pod C (behind Shamrock Farms) to open this parcel up for development.
3. Pursue discussions with VDOT regarding Revenue Sharing Funds for the Mill Place Commerce Park connector road to Technology Drive. The landscaped entrance / signage might also be available for this funding as well.
4. Pursue discussions regarding the acquisition of a portion of the Brannon Property (triangular piece) to "square off" the Park. Further evaluate the costs of the property versus the benefit given that this property has some potential topographic challenges.
5. Given the significant costs associated with developing a Tier 5 / pad-ready site, we do not recommend the County pursue a pad-ready site. We believe the site shows well in the

current state and the County can deliver, or pay the company the necessary costs for a pad ready site as an incentive, if desired.

6. There needs to be significant coordination with ACSA and the City of Staunton in regards to the sewer capacities within the Park and available process and flow capacities at the Middle River Regional WWTP. Perform additional studies to determine the available capacities within the Park and available capacities of the existing infrastructure to Middle River Regional WWTP.
7. Should a prospect from the food and beverage industry be considered by the County, we believe it's in the County's best interest to engage the ACSA as soon as practical to determine the potential impacts to the Middle River Regional WWTP's flow and process capacities.
8. Make the recommended changes in Park zoning, as well as changes in the Declaration of Covenants and Restrictions. Remove the requirement for an Architectural Review Board and assign that responsibility to County staff to verify conformance with Covenants and Restrictions.

Acknowledgments

We would like to thank the Augusta County Board of Supervisors, Augusta County Staff and the Augusta County Service Authority for their confidence in Timmons Group and time and assistance with this project. In particular we would like to thank Amanda Glover and Rebekah Castle for their assistance with assembling information and helping coordinate meetings with key staff. It has been a pleasure working with everyone on this project and we look forward to implementing the recommendations in this report.

Section 2 – Project Purpose and Scope

Mill Place Commerce Park went through an initial Master Planning process in 2000. Since then the 300+ acre site has seen several lots developed, including those for Shamrock Farms and Dascom, as well as additional infrastructure improvements. The Park is conveniently located off of Interstate 81, providing connectivity to major transportation networks serving the Mid-Atlantic Region.

With various development and infrastructure improvements occurring in the Park, revisiting the Master Plan and updating the development strategy is now necessary to continue its build-out, influence necessary capital improvements and best understand the target industries that fit within the Park. This update to the Master Plan will assist the County by providing a road map to achieve a Virginia Tier 4 or Tier 5 status for Mill Place Commerce Park, while understanding how to accommodate the County's target market sectors.

The plan and report that follow offer a fresh perspective for the Master Plan, and provide a target for the next 10 years of development. This is done while keeping a realistic and flexible eye towards preferred industry and businesses.

Section 3 –Master Planning

While multiple factors were considered when analyzing the site, the key asset to capitalize on is the site's vicinity to Interstate 81, giving it immediate access up and down the east coast. With this in mind, we wanted to understand the possibilities for maximum build-out. Upon our analysis of site infrastructure and geographic location, we have prepared a Master Plan that maximizes the build-out in accordance with Table 5.

Type of Use	Building Footprint / Floor Area (SF)
Existing Commercial / Office	26,357
Existing Industrial	255,500
Potential Commercial / Office	420,000
Potential Industrial	1,600,000
TOTAL Commercial / Office	***446,357***
TOTAL Industrial	***1,855,500***

Table 3: Gross Floor Area by Type of Use

Section 3.1 – Property Description

The property is approximately 371 AC ±, located at the interchange of Laurel Hill Road and Interstate 81, with the Augusta County Line as the western boundary. The northern limits of the site are bound by the Augusta County Government Center complex, with undeveloped wooded area to the south.

According to available topographic mapping as shown in Figure 5, the site has a vertical elevation difference of approximately 125 feet. The intersection at Laurel Hill Road is the low point of the site (EL 1250), and the water tank is the high point of the overall site (EL 1376). The topography is rolling, with the majority of slopes to be impacted under 15%. The steeper slopes (greater than 15%) are mostly located at streams or at the grade transitions to the existing ponds. Please see Slope Analysis Map following in Figure 6.

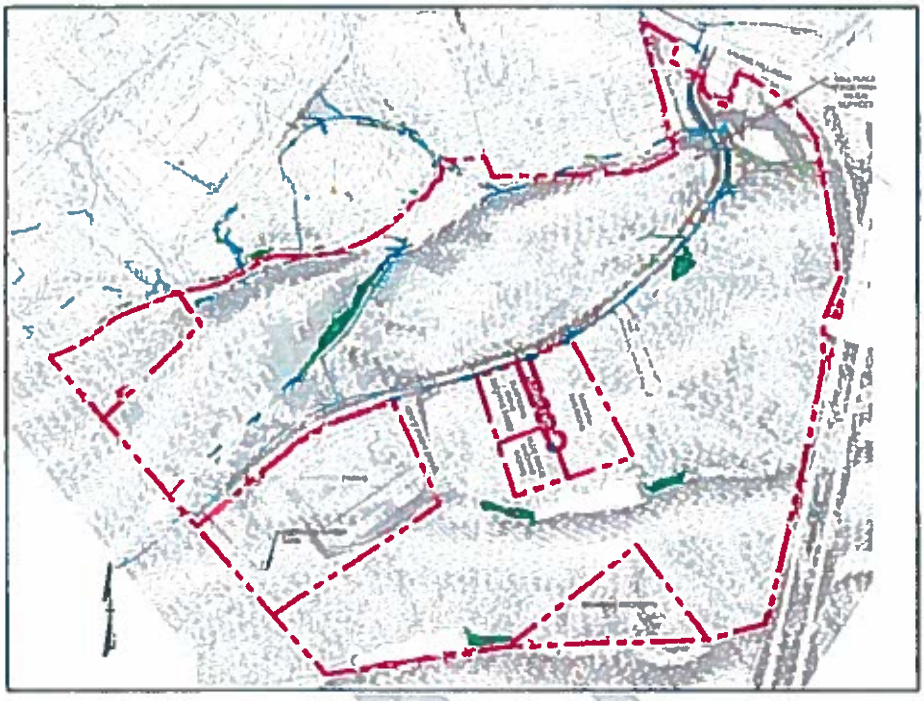


Figure 5: Existing Conditions (Appendix B)

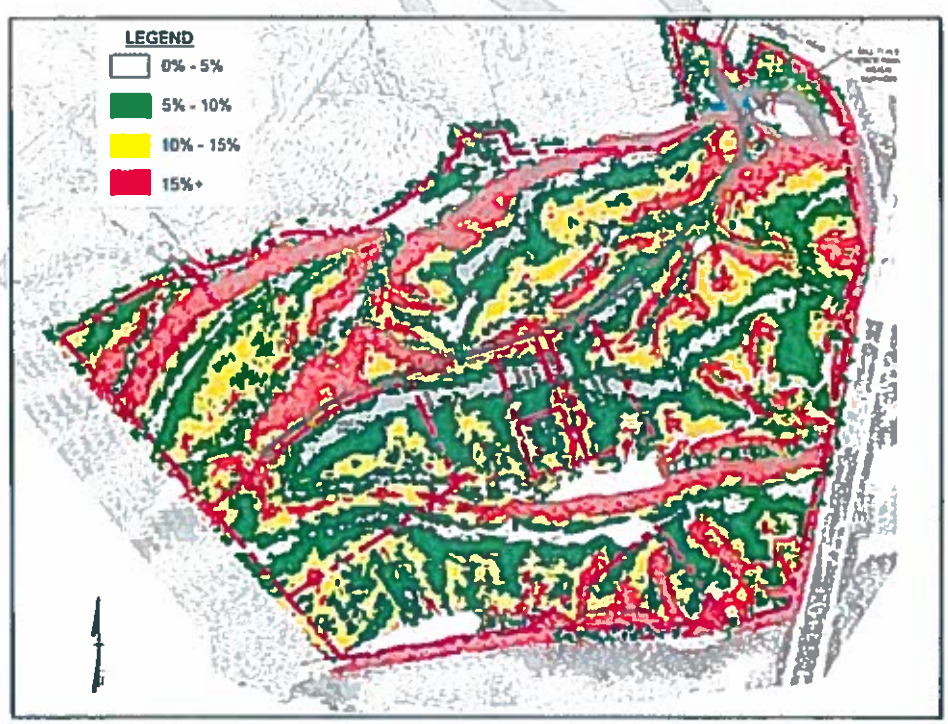


Figure 6: Slope Analysis Map

Site drainage is split onto both sides of Mill Place Parkway with the general drainage direction being towards the east. In December 2015, a 750,000 gallon water tank was placed into service on the western side of the site, improving water pressure and flow. Sanitary sewer drains to the Middle River Regional Wastewater Treatment Plant at a capacity of 6.8 MGD, of which the Augusta County Service Authority (ACSA) owns 2.04 MGD (30%).

Section 3.2 – Property Constraints

The property features several constraints that were considered during the Master Plan and Preliminary Engineering Report analysis, including locations of shallow rock and environmental features. The existing site elements, such as Mill Place Parkway and the rolling terrain, were considered as well in an effort to fully understand the best way to build out the Park, allowing for maximum potential to be achieved.

The topography throughout the site slopes consistently towards the east with Mill Place Parkway acting as a drainage divide. The north end of the property features a significant ridge, which was used as a border for development, with changes in grade of up to 70' with grades up to 50% or more. The south end also features a ridge, however, the change in grade is not as drastic with specific areas featuring a vertical change between 10'-46'.

Geotechnical boring data, performed previously by Timmons Group and Virginia Geotechnical Services, was also analyzed and considered throughout the Master Planning process. The subsurface data available shows multiple locations with shallow auger refusal. The areas where shallow auger refusal were most prevalent were on the southeast portion of the site, along with the south edge of the northern ridge as described above, and shown below in Figure 7.

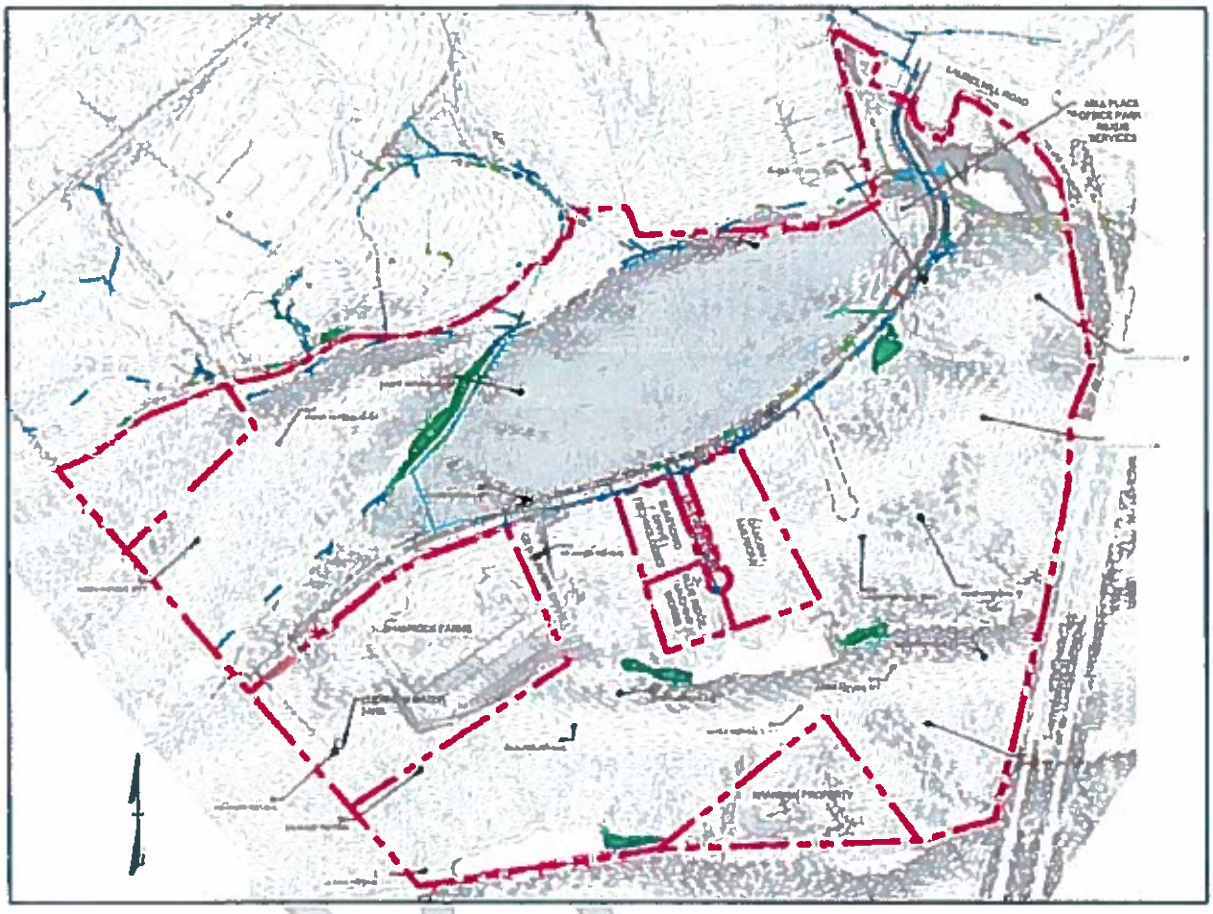


Figure 7: Boring Map (Appendix I)

The environmental feature observed was a stream running along the northern boundary line. This runs along the bottom end of the ridge described on that portion of the property. Additionally, there is an area located to the north of Mill Place Parkway, a few hundred feet into the Park that appears to have some characteristics of wetlands, however, no formal wetland analysis has been performed with this Master Plan update. Approximate Stream and Wetland locations are shown in Figure 8. Stream and wetland mapping are valid for five year periods, once confirmed by the Corps of Engineers and the Department of Environmental Quality.

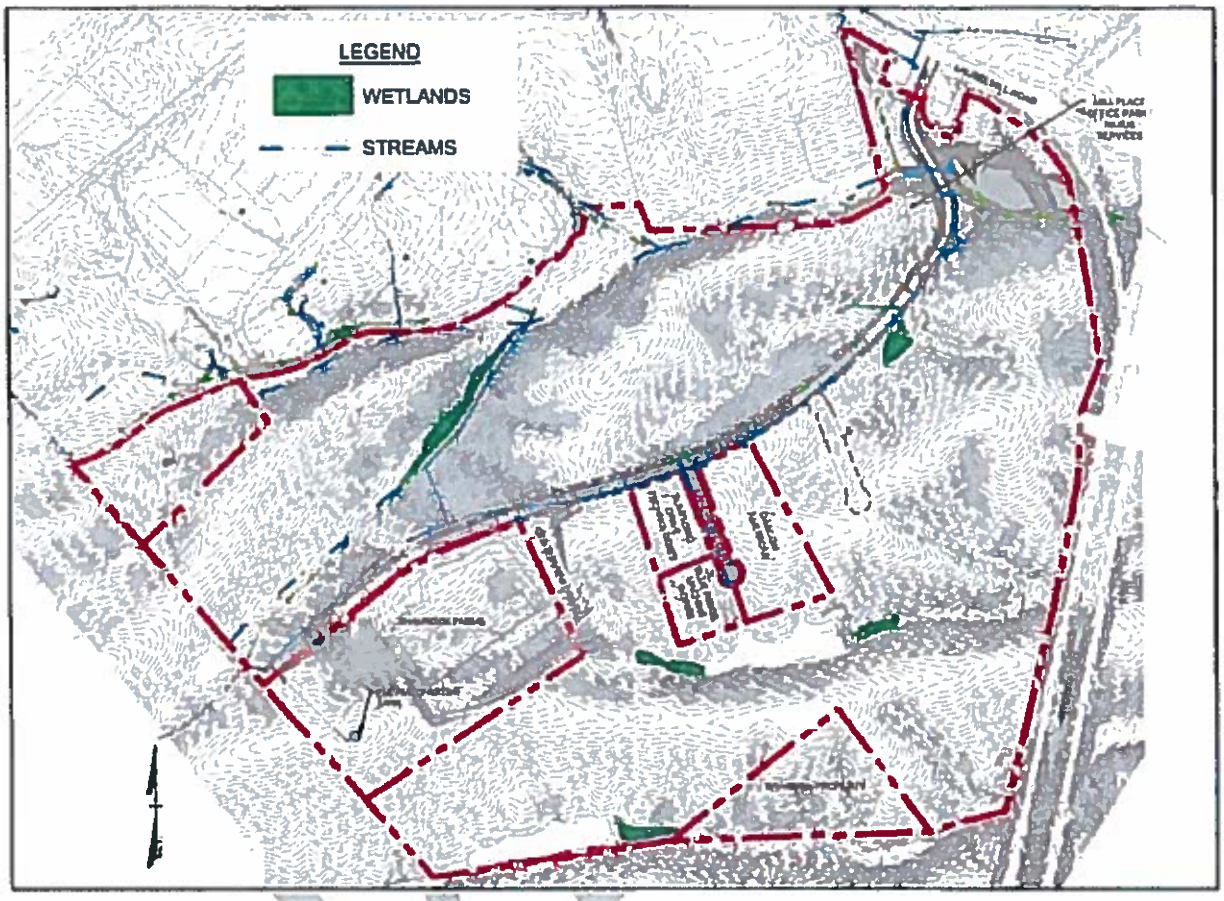


Figure 8: Environmental Features (Appendix C)

Section 3.3 – Transportation Access to Technology Drive

In addition to the improvements and transportation analysis that were provided regarding the intersection of Mill Place Parkway with Laurel Hill Road, a multi-step process for a secondary access point was also examined, as future build-out will necessitate one. See Section 6 for transportation analysis, which notes when an additional access point will be required. The first option considered was to extend a connection from the east end of Technology Drive down to tie into the intersection at Mill Place Parkway and Lakeview Court; the second option (the recommended option) connects Technology Drive to Mill Place Parkway by running a connecting road along the western property line; the third option was to assume a similar tie in point to Technology Drive, as Option 1, while following the ridge line to the west, tying into Mill Place Parkway across from the Shamrock Farms site. The fourth option considered a connection to Industry way, however this option would lead to increased traffic on Mill Place Parkway, which would result in increased improvements to Mill Place

Parkway and its intersection with Laurel Hill Road. A summary of the four road options is presented below in Figure 9.

Road Option	Max Slope	Length	Elevation Change	Max Cut	Cut (CY)	Fill (CY)	Net (CY)	Comments
1	7.53%	1,380 feet	53 feet	28 feet	42,008	27,980	14,028 (CUT)	Grade too steep
2	***4.00%***	***1,900 feet***	***10 feet***	***12 feet***	***31,940***	***32,510***	***570 (FILL)***	***Recommended Option***
3	7.28%	1,980 feet	72 feet	16 feet	37,907	37,893	14 (CUT)	Grade too Steep
4	4.25%	1,712 feet	2 feet	4 feet	8,972	7,929	1,043 (CUT)	

Table 4: Road Options Summary

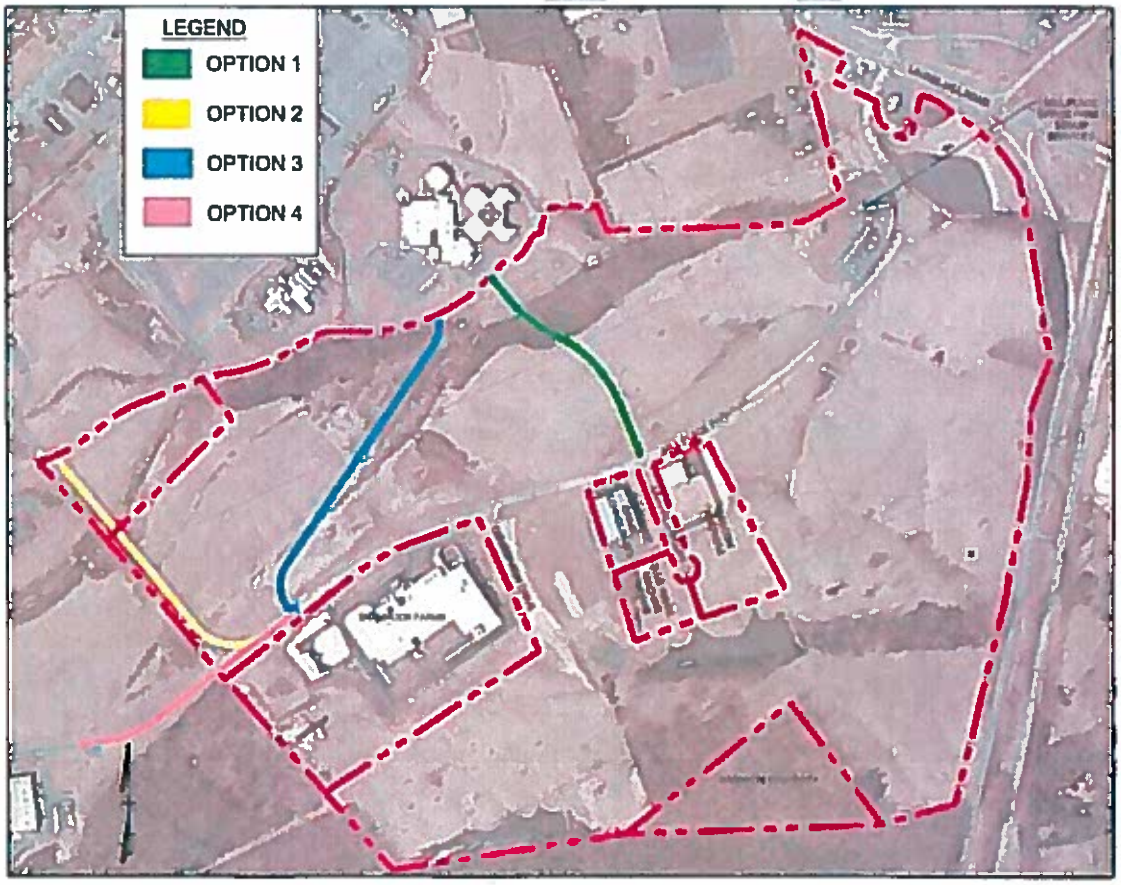


Figure 9: Road Options (Appendix E)

Secondary Access Point – Option 1

Connecting to Technology Drive with a T-intersection initially appeared to be desirable (See Figure 10), as it allowed for a cross intersection at the current intersection of Mill Place Parkway and Lakeview Court. After further review, there were several concerns that eliminated this option from consideration including topographic and subsurface terrain.

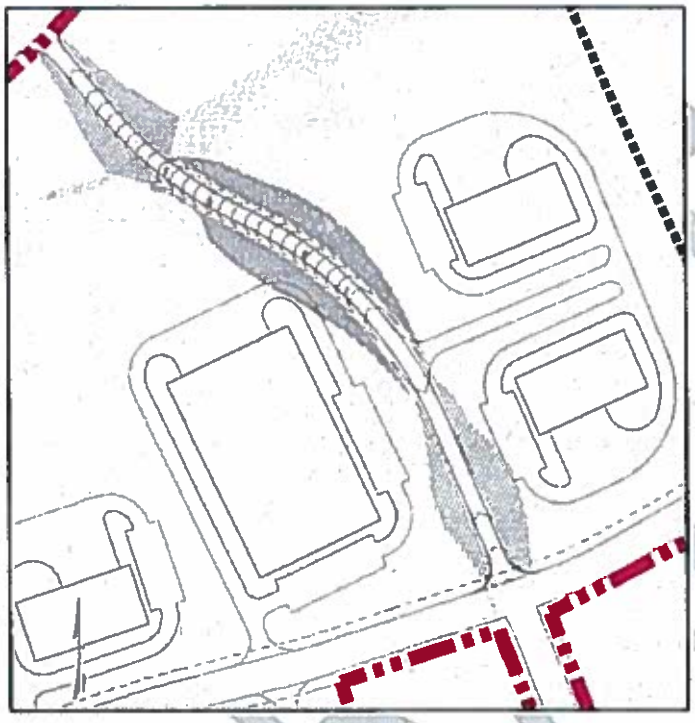


Figure 10: Secondary Access Point Option 1 Layout (Appendix E)

As shown in Figure 11 below. The alignment would require transition over a vertical distance differing up to 53', requiring road grades at a maximum of 7.5%, which is steeper than desirable for trucks. There was also evidence of shallow rock in the area due to geotechnical boring data showing auger refusal of 8.5'-11.5' below existing grade. With large areas of cut through the road profile exceeding 20' in total depth (max of 28'), this option could not be further

considered without additional subsurface inspection.

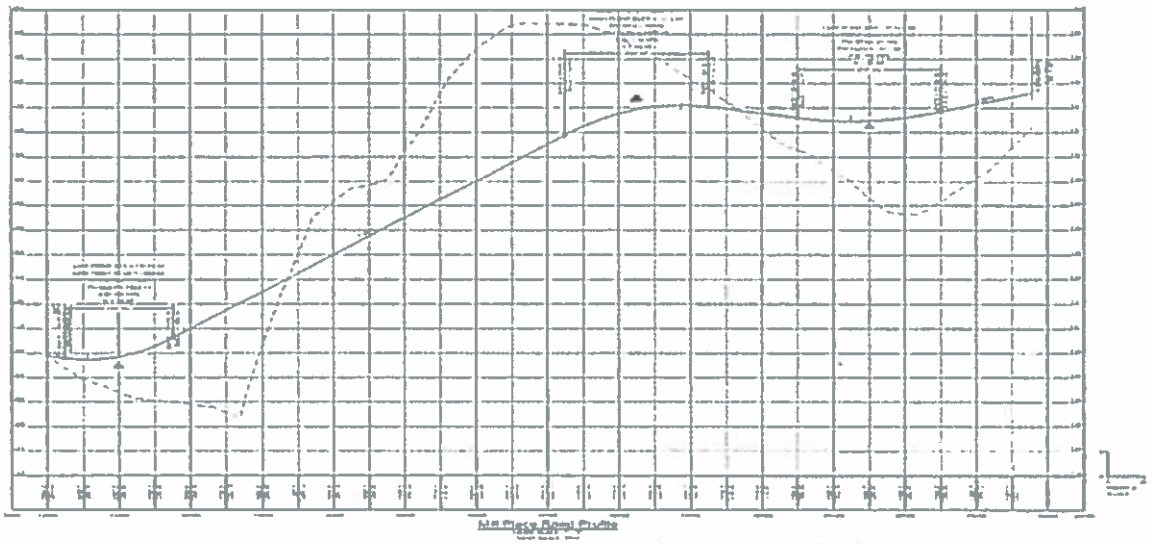


Figure 11: Secondary Access Point Option 1 Profile (Appendix E)

Secondary Access Point – Option 2, Recommended Option

The second option (the recommended option) connected Technology Drive down to the cul-de-sac at the end of Mill Place Parkway using a sweeping arc, appropriate for truck traffic through movements (See Figure 12). Consideration of the topography, as well as the subsurface conditions needed to be considered in this location. An additional consideration was the lost opportunity of not having a larger pad available in this location.

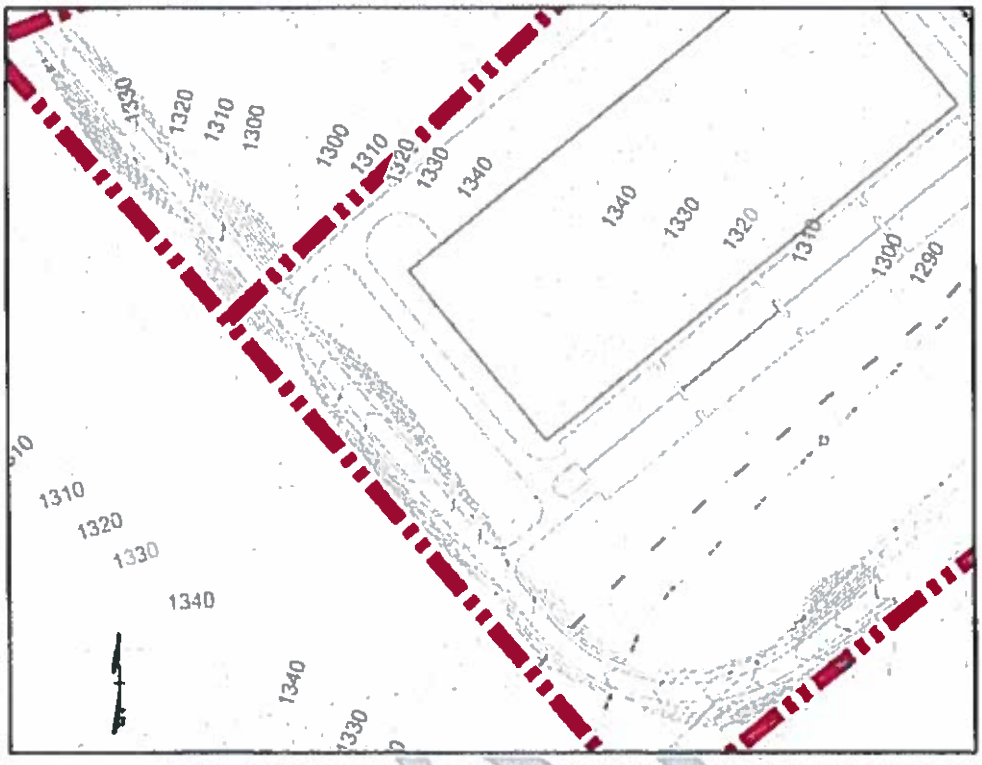


Figure 12: Secondary Access Point Option 2 Layout (Appendix E)

As shown in Figure 13 below. The topography worked well in this location, as the beginning and end of this road alignment were within 10' of each other. There are some locations of 10-15' cuts, however, the boring data available seemed to indicate favorable subsurface conditions with auger refusal ranging from 17'-36.5' below the surface. Furthermore, as additional grade analysis was done regarding the potential for building pads, it did not appear that there was development opportunity lost, as a 300,000 sf building pad was achievable on the area immediately to the east of the secondary access road.

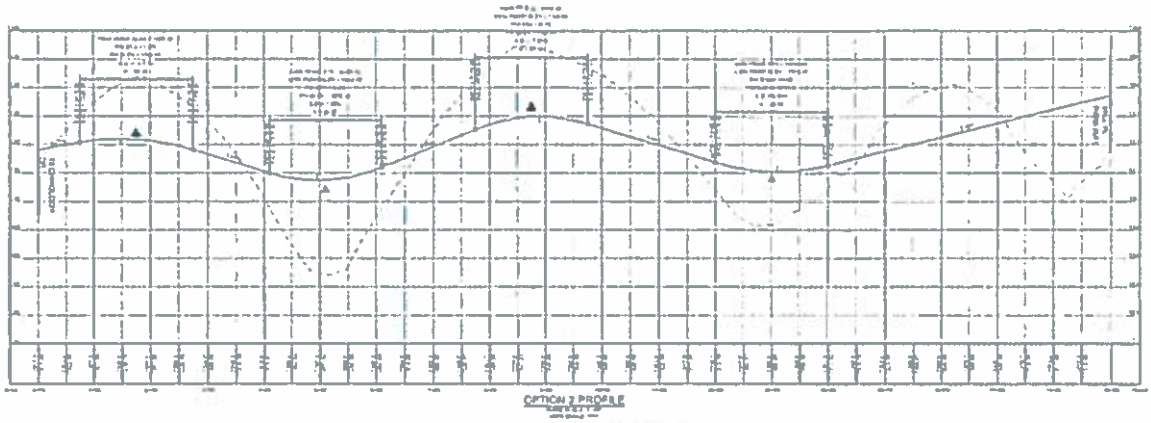


Figure 13: Secondary Access Point Option 2 Profile (Appendix E)

Secondary Access Point – Option 3

After the analysis of Options 1 and 2, a final check was done on connecting the intersection with Technology Drive from Option 1 to the intersection with Mill Place Parkway from Option 2 (See Figure 14). While the grade was more feasible then Option 1 (See Figure 15), the circuitous nature of this alignment did not enhance site development layout and square footage yield potential.

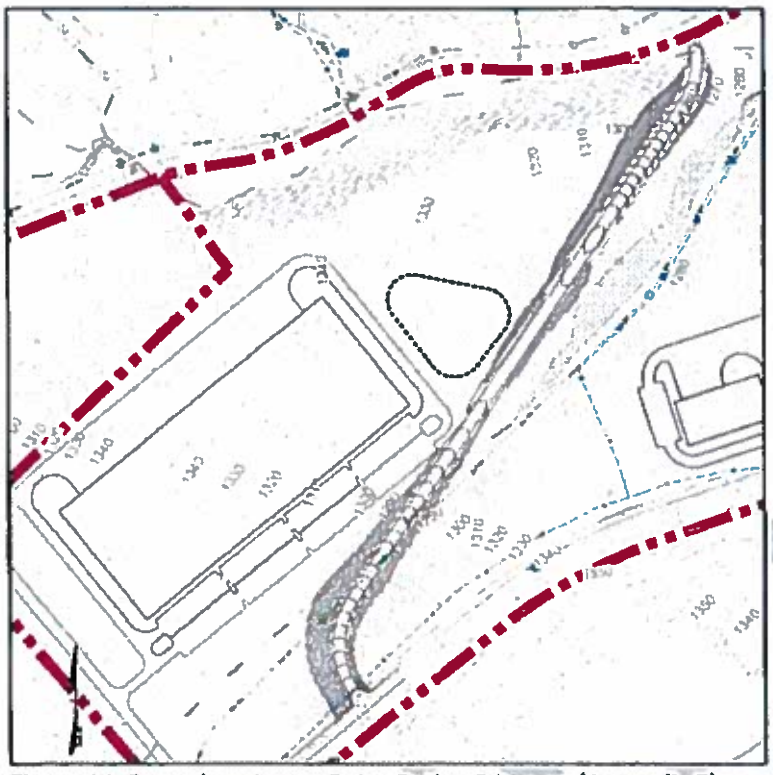


Figure 14: Secondary Access Point Option 3 Layout (Appendix E)

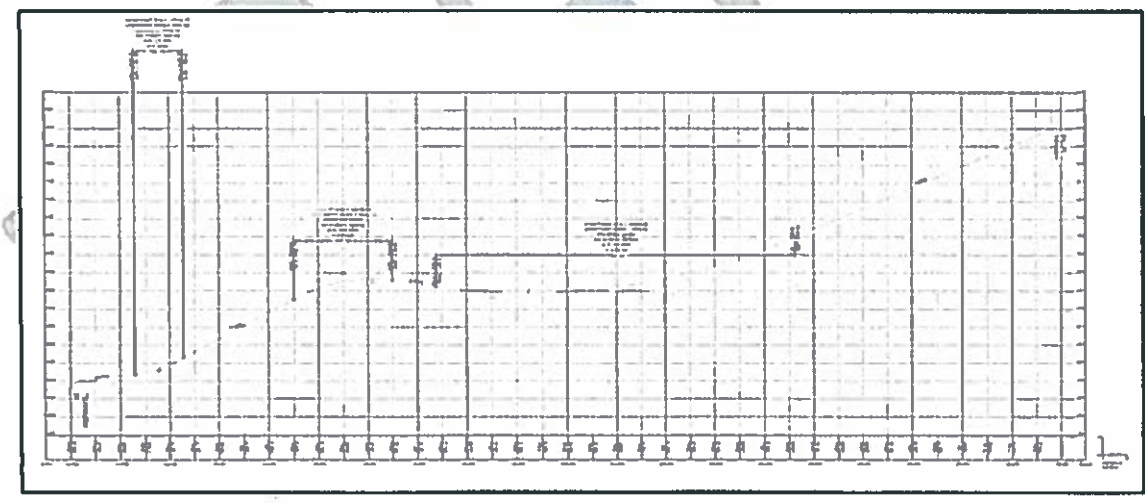


Figure 15: Secondary Access Point Option 3 Profile (Appendix E)

Secondary Access Point – Option 4

The fourth option considered a connection to Industry Way, located west of the park (See Figure 16). While there is not much elevation change, and earthwork required for this connection (See

Figure 17). The connection in Industry Way would allow users of the Green Hills Industry and Technology center to access Mill Place Parkway which would lead to an increase of traffic passing through The Park. See Appendix L for Opinion of Probable Cost.

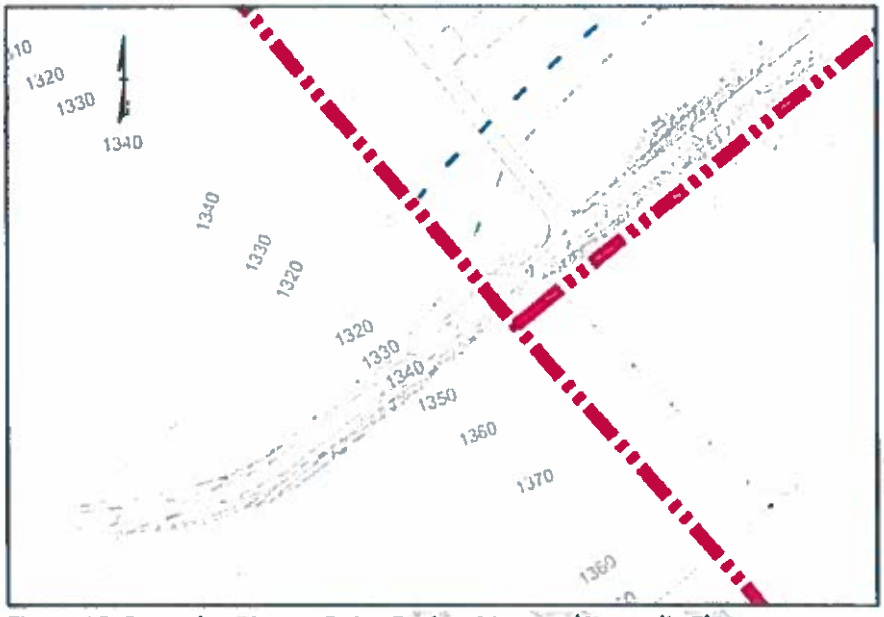


Figure 16: Secondary Access Point Option 4 Layout (Appendix E)

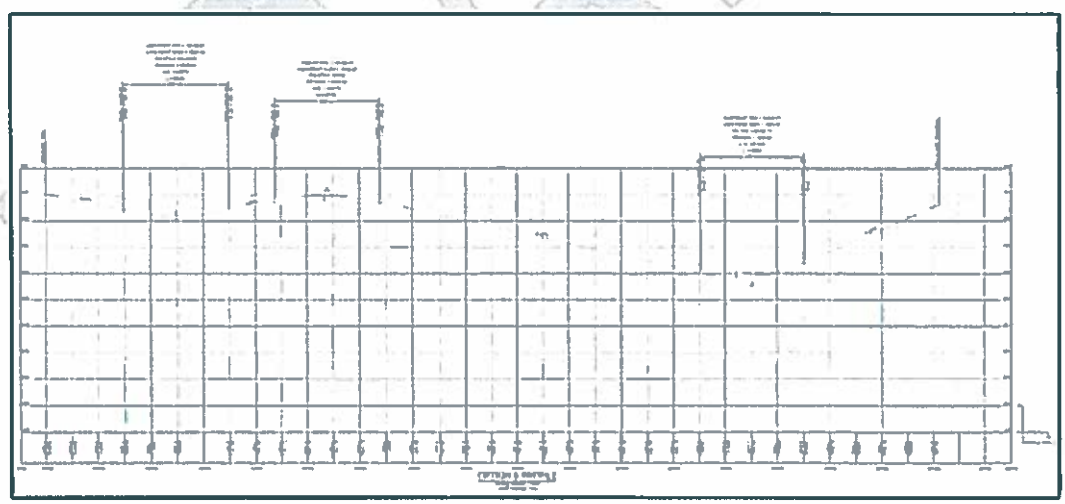


Figure 17: Secondary Access Point Option 4 Profile (Appendix E)

Section 3.4 – Development Areas

While reviewing current Park development, the previous Master Plan, as well as trends of similar properties, it was clear that the site should be divided into multiple use-areas. The delineation of these Development Areas are shown in Figure 18.

Commercial-based uses should be located near the entrance at Laurel Hill Road, providing easier access and visibility. While this area was studied for expanding the site's industrial use area, the steeper terrain, shallow rock, and existing office use on the north end of Mill Place Parkway, suggest this area is best suited for commercial use. Industrial type uses are not likely to occur over these areas due to larger site preparation costs, associated with the terrain and rock.

Industrial-based uses should be located on the west of the Park, as the topography supports development in need of large pad sites. Additionally, to maintain some flexibility in the overall development, it is important that there is a transition zone between those two broad uses, allowing market demand to have some influence on the site's build-out.

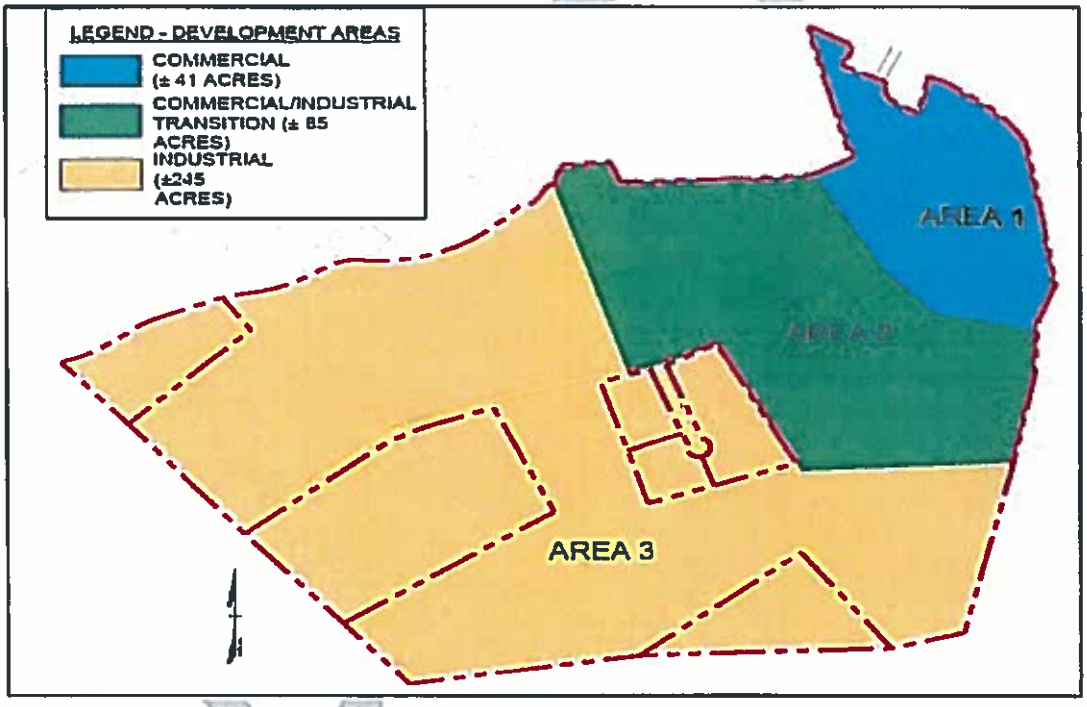


Figure 18: Proposed Development Areas

This strategy preserves the western and southern portions of the park (Area 3) for larger industrial users in need of 100,000 sf facilities or larger. The Transition Area (Area 2) would allow for smaller industrial users looking for up to 25,000 sf or for office/commercial space users. Furthermore, the Transition Area allows for the Industrial or Commercial Area to push further east or west, depending on a specific user's needs. The Commercial Area (Area 1) would feature development centered on office, development and research, or hospitality-type uses, which would also serve to complement the larger industrial users.

Area	Area Type	Acreage
Area 1	Commercial	41 +/- Acres
Area 2	Commercial/Industrial Transition	85 +/- Acres
Area 3	Industrial	245 +/- Acres

Table 5: Acreage by Area Type

Section 3.5 – Master Plan Layout

The development of the Mill Place Commerce Park Master Plan has been an evolving process. The final layout of the Master Plan provides options for future growth (See Figure 19). The current layout seeks to understand a reasonable maximum build-out with significant influence from the recommended secondary road access, the current pursuits and interests of the Park, as well as the ability to be flexible as users come on board.

Figure 19: Proposed Master Plan (Appendix A)

Building Type	Building Footprint (SF)	Quantity	Total Building Footprint (SF)
A	300,000	3	900,000
B	200,000	1	200,000
C	150,000	1	150,000
D	100,000	2	200,000
E	75,000	1	75,000
F	72,000	4	288,000
G	25,000	3	75,000
H	12,000	11	132,000
I	100 Hotel Rooms	1	

Table 6: Building Summary

Area 1 should remain commercial and office in nature, with the potential for some form of hospitality development. In addition to the existing single-story office space currently constructed, there is opportunity for that type of space to grow significantly in size (for square footage purposes, the commercial/office footprints were assumed to be two-story).

The existence of Interstate 81 frontage along the east edge of the property is a marketable advantage to a hotel and its ability to be seen by travelers while also providing ease of access back towards its destination. This visibility may also be desirable from other commercial/office forms of use, based on the opportunity to have signage visible to the thousands of vehicles per day that pass by on Interstate 81.

Moving from east to west through the Master Plan into Area 2, we enter a transition zone between the purely commercial/office area and the industrial area. Area 2 will feature a mix of uses, allowing for smaller industrial users or speculative buildings to be constructed and potentially partitioned. This will accommodate small users and allow for incubation of small business.

Area 3, the largest development area, is planned to be the industrial area. Area 3 has been planned for a maximization of square footage on the site considering the terrain and surrounding constraints. While the southern portion of this area will require some additional infrastructure for access purposes, there are sites and areas that are ready for development on the north end of the road with existing infrastructure in place.

Additionally, a walking trail is shown throughout the Master Plan, building off of what is currently under development around the centralized pond. This trail will serve as connection points

throughout the site, as well as an amenity to the Park in general. Features, such as fitness equipment, could be added and phased in to the overall site over a period of time.

Section 3.6 – Grading Analysis

The Master Plan layout was also analyzed from a grading perspective. The ideal grouping of individual sites was devised taking borrow and fill areas into consideration in an effort to make the best use of the overall parcel. This resulted in the creation of development pods (See Figure 20), where grading could be balanced across certain groupings to gain grading efficiencies. As the Park is built-out, two access roads will need to be built.

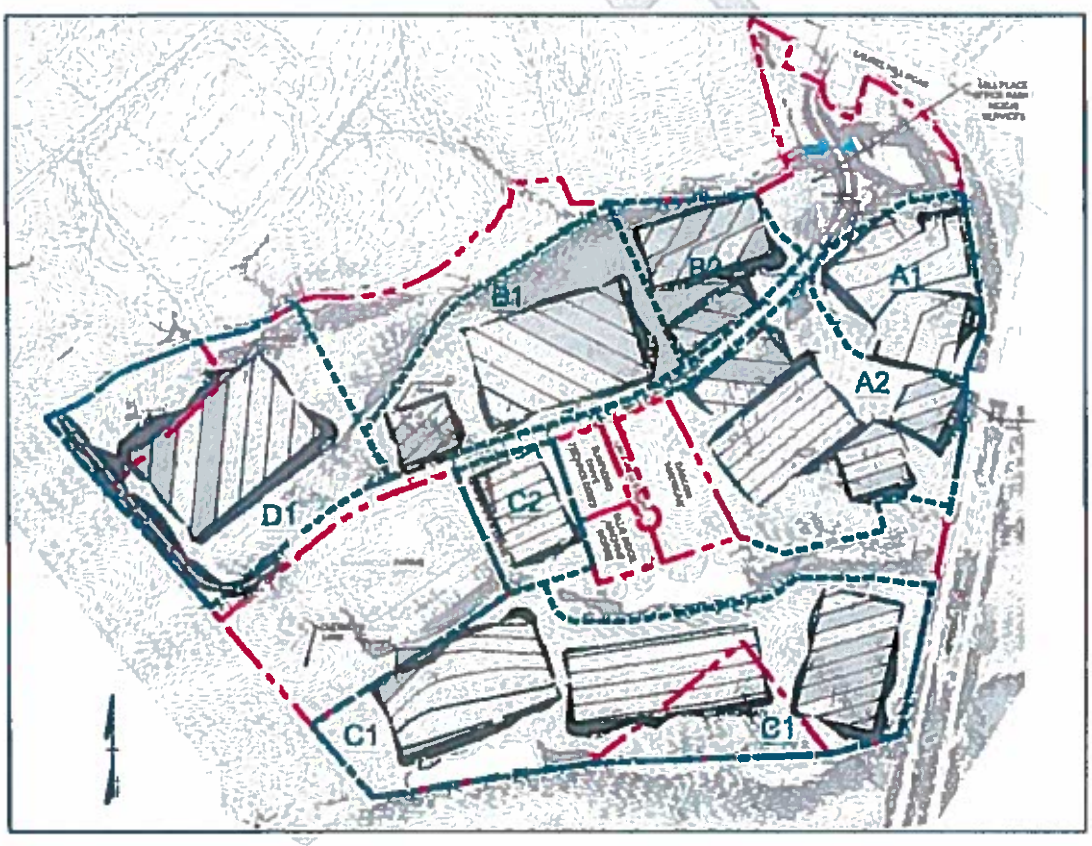


Figure 20: Development Pods Overview

In order to best understand the site development limitations and constraints of each development pod, we performed basic cut-fill analysis utilizing site development programs. We have summarized the approximate earthwork along with probable costs of pad-ready sites to provide the County with a good estimated cost should a prospect desire the County to construct a pad-ready site. Given that

some of the geotechnical borings encountered rock (practical refusal), we included a 30% contingency in these estimates for potentially bad soils and rock mitigation. For this analysis, the cut to fill ratios were all within 5-10% which equates to the site being balanced with no material needing to leave or be imported to any particular development. Below is a table summarizing cut-fill analysis by pod:

POD	Acreage	Cut (CY)	Fill (CY)	Net (CY)	Pad-Ready Opinion of Probable Costs	Costs Per Acre
A1	20	132,679	123,327	9,352 (CUT)	$2,830,000	$141,500
A2	43	200,628	185,818	14,810 (CUT)	$4,262,000	$99,100
B1	38	199,087	189,696	9,391 (CUT)	$4,138,000	$108,900
B2	17	70,185	66,153	4,032 (CUT)	$1,645,000	$96,800
C1	77	260,210	248,326	11,884 (CUT)	$5,752,000	$74,700
C2	11	33,497	31,492	2,005 (CUT)	$854,000	$77,600
D1	48	162,303	159,718	2,585 (CUT)	$3,440,000	$71,700
					Average per Acre	***$95,800***

Table 7: Cut Fill Analysis by Pod

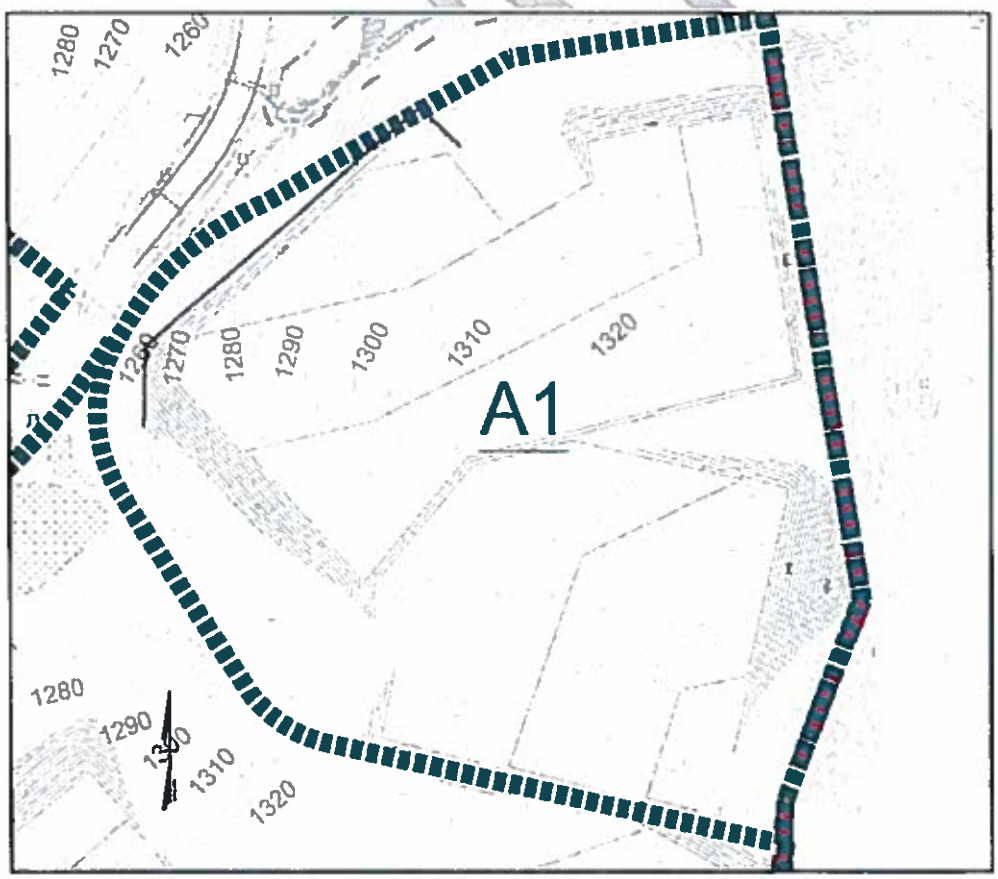


Figure 21: Pod A1 – 20 Acres

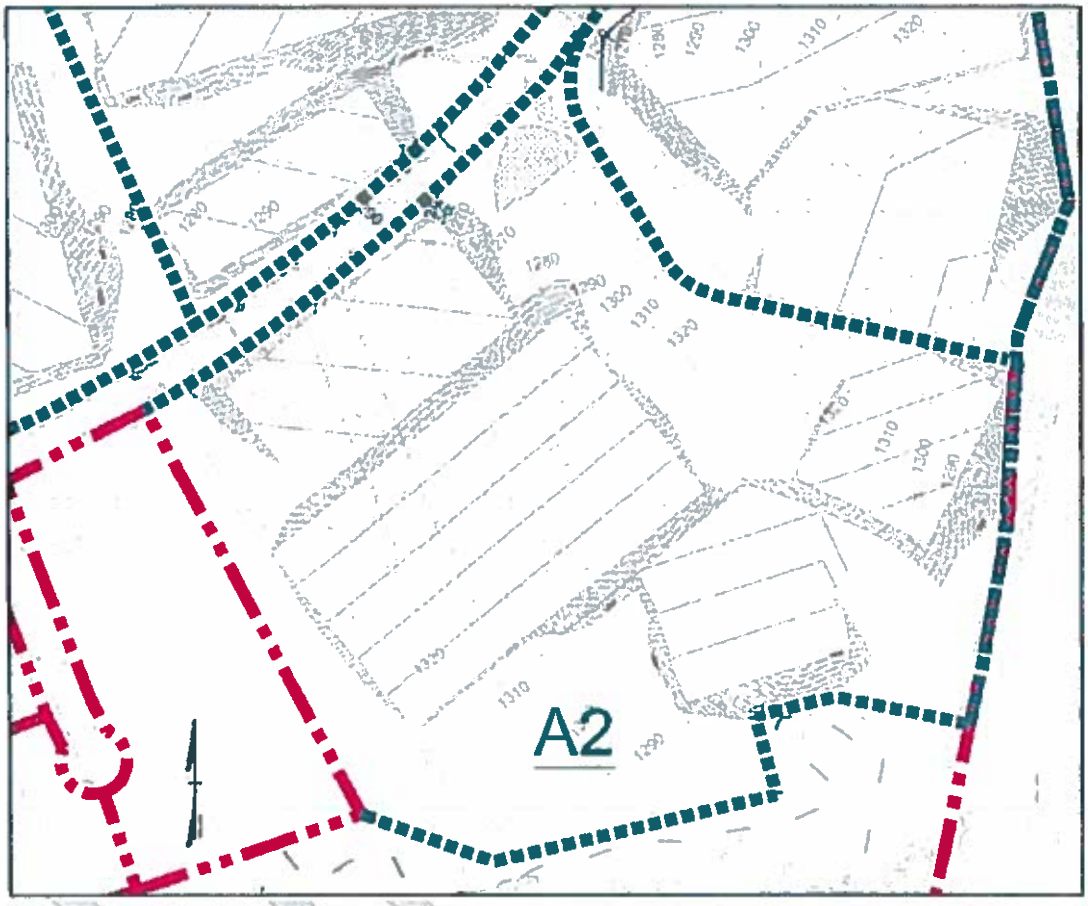


Figure 22: Pod A2 – 43 Acres

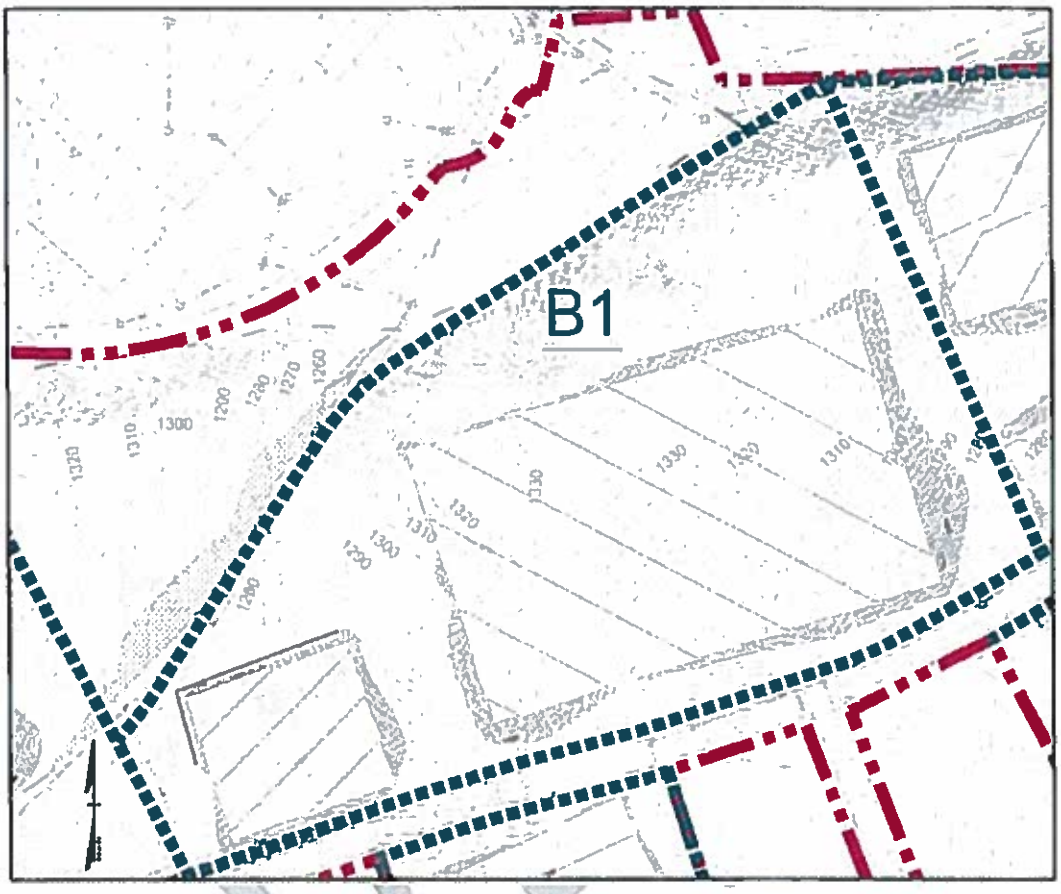


Figure 23: Pod B1 – 38 Acres

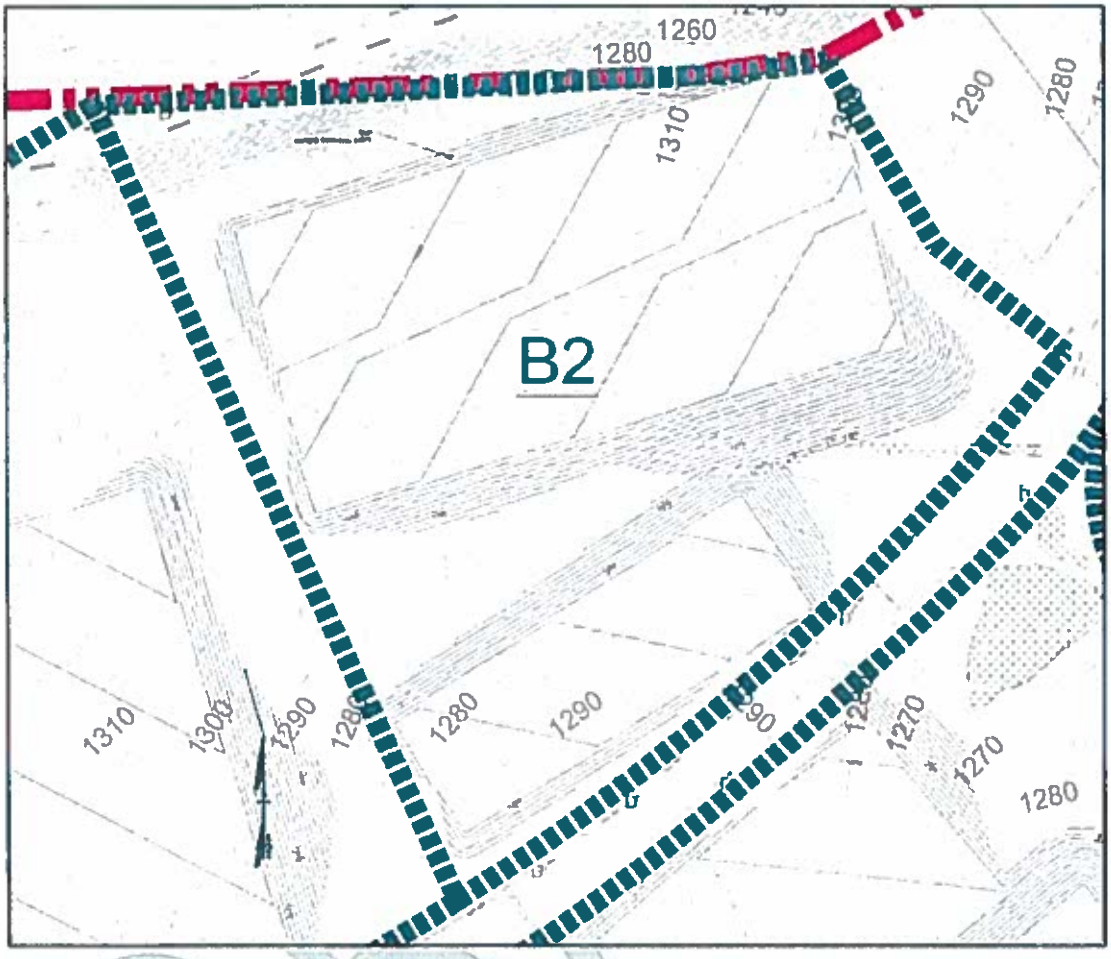


Figure 24: Pod B2 – 17 Acres

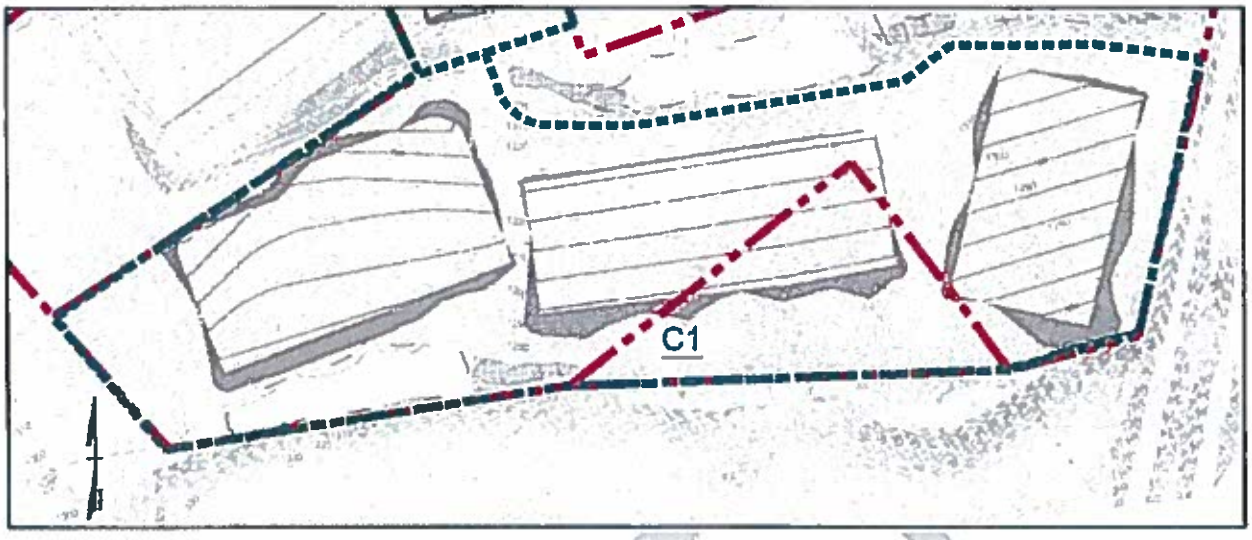


Figure 25: Pod C1 – 77 Acres

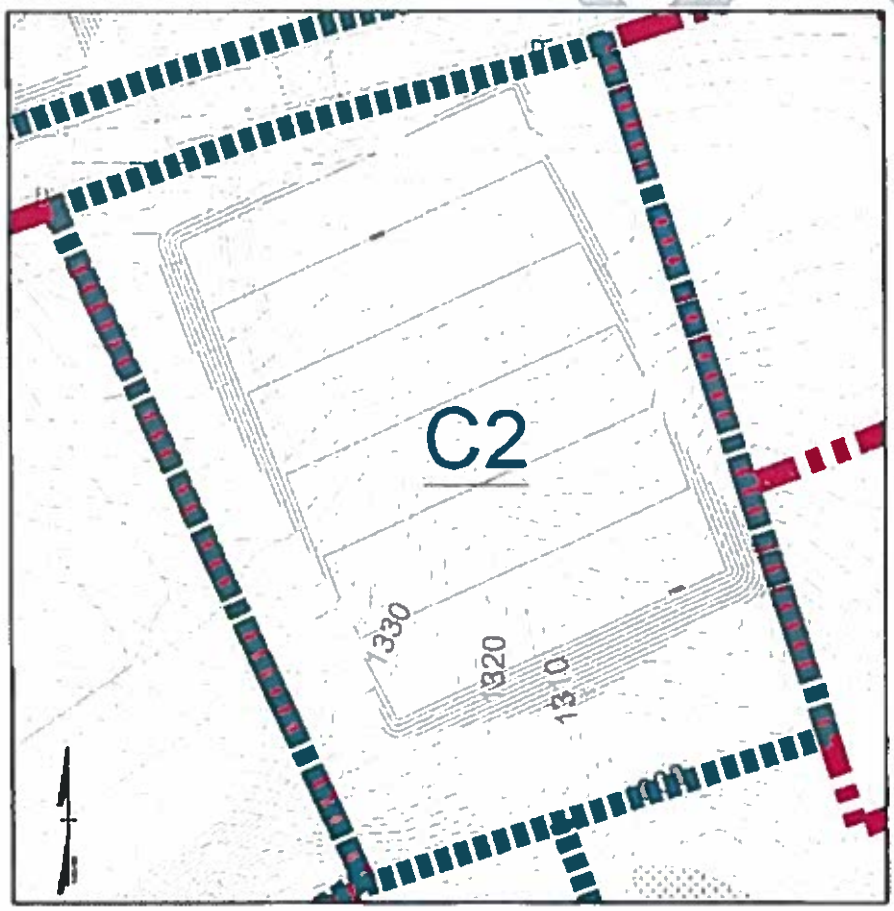


Figure 26: Pod C2 – 11 Acres

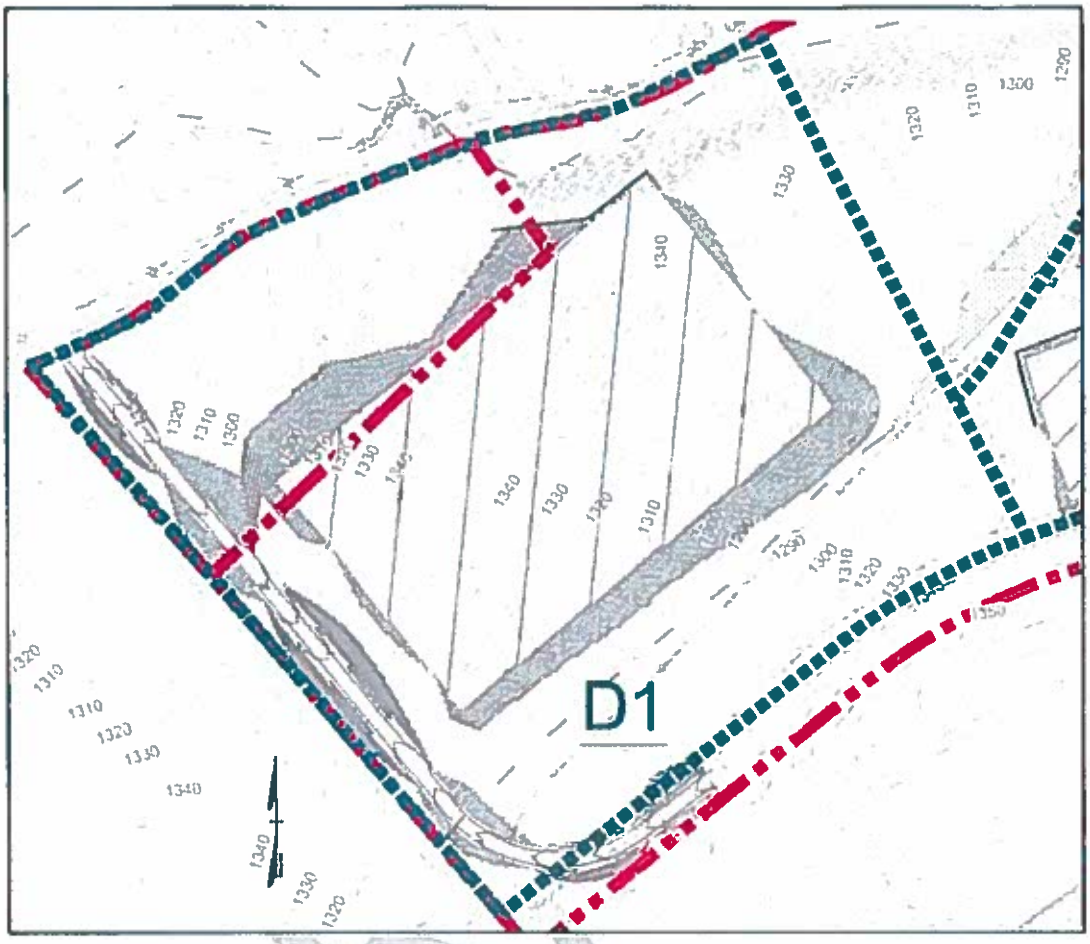


Figure 27: Pod D1 – 48 Acres

Section 3.7 – Access to Development Pods and Typical Road Sections

Access points into each Pod have been planned to minimize the number of entrances provided off of Mill Place Parkway. While the north side of Mill Place Parkway will access directly on the road, the south side will feature two access roads (Road A and Road C) which will serve the future parcels. It should be noted that these roads are designed to be in accordance with VDOT requirements, as the intent would be that they are accepted into the state system for maintenance, once a minimum of three users are located along the road.

To access Pod A, an approximate 1,200 linear feet (LF) road (Road A) will need to be constructed to allow a connection to Mill Place Parkway from pods A1 and A2. The first 450' of Road A can be built to serve pod A1, and the road can be extended to serve pod A2 as development of that pod progresses.

Pod B can easily be accessed off of the existing Mill Place Parkway, therefore no new roads will be necessary to access this development pod.

To access Pod C, an approximate 2,850 LF road (Road C) will need to be constructed to allow a connection to Mill Place Parkway. In order to allow the area south of Shamrock Farms to be developed, a minimum 1,000 LF of this road should be built to allow access to Pod C1. At this point, the road can be extended as needed to serve the eastern portion of Pod C1.

It is anticipated Pod D can be accessed off of the existing Mill Place Parkway and the proposed road extension to Technology Drive.

Below is a summary of Opinion of Probable Costs for the proposed road improvements, as shown in Figure 19. The extension of Mill Place Parkway, connecting it to Technology Drive, has been included, as discussed in Section 2.3. Please note these represent total project costs, including engineering, design, VDOT administration, construction engineering and inspection, etc.

Roadway Project	Opinion of Probable Costs	Length	Costs per LF	Comments
Mill Place Parkway Extension	$4,268,000	1,900	$2,246	Consistent with Staunton Crossing bids
Pod A Access Road	$4,342,000	1,200	$3,618	Significant grades and cuts provides access to I-81 frontage
Pod C Access Road	$5,613,000	2,850	$1,969	Provides access to I-81 frontage

Table 8: Road Improvements Opinion of Probable Cost

Several factors were taken into account in the design of the typical road sections shown below. Existing and future road and utility infrastructure was considered in the typical road section designs.

The proposed Mill Place Parkway road section has been designed to be consistent with the existing Mill Place Roadway design. The 60' right-of-way and 20' lane widths that are currently in place have been maintained. It is anticipated that any utilities (water, sewer, fiber, electric and natural gas) that will need to be extended along the roads can be constructed within right-of-way and utility easements. See Figure 28 below for a typical roadway section for these proposed roads.

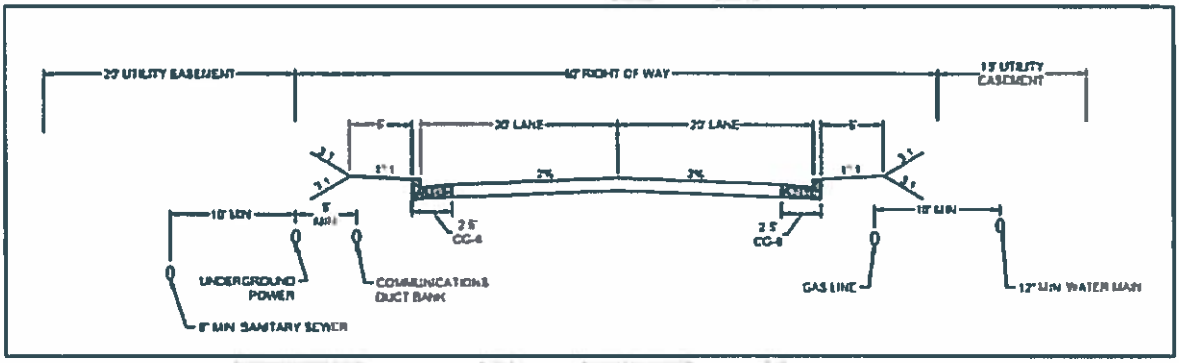


Figure 28: Typical Road Section – Mill Place Parkway Extension and Access Road A & C (Appendix F)

Section 4 – Stormwater Management Concept Plan

The following stormwater management concept plan has been prepared to provide baseline knowledge of existing conditions, governing stormwater regulations Part IIC criteria which expires 6/30/2019, preliminary stormwater compliance requirements for the Master Plan, a catalog of appropriate Best Management Practices (BMPs), and stormwater management strategies for the site specifically.

Section 4.1 – Existing Site Conditions Relative to Stormwater Management

Land Cover

The site boundary covers approximately 371 acres and is best characterized as forest and open space. Three primary land cover categories are used for determining stormwater compliance: impervious, managed turf, and forest/open space. As shown below in Figure 29, forest/open space occupies the majority of the site. Note: wetlands are considered forested land cover, and open water is considered impervious cover.

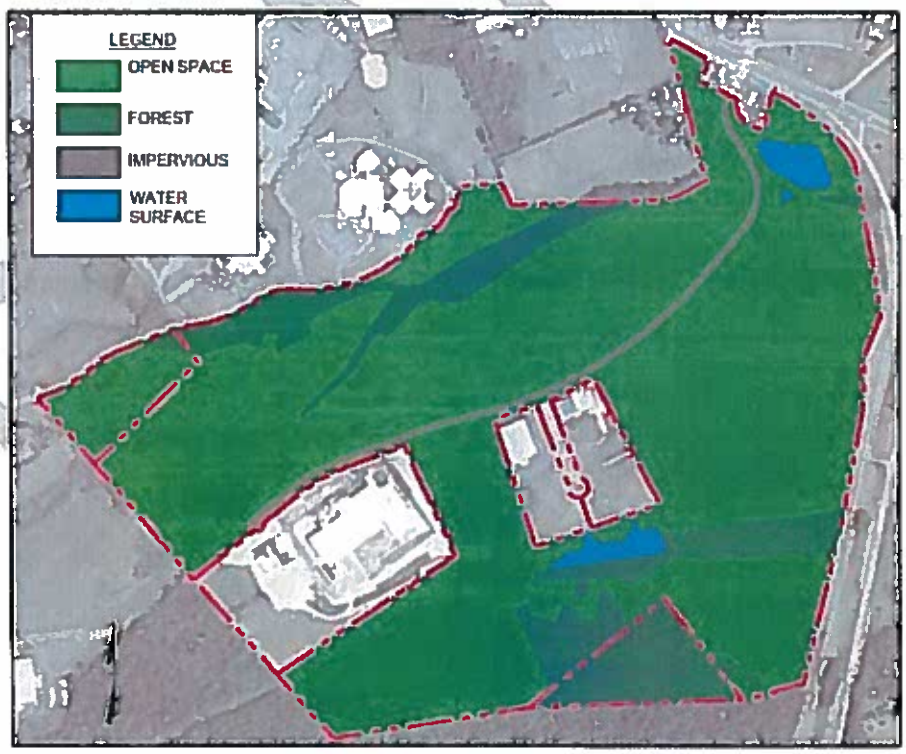


Figure 29: Land Use Cover

Soils

The Soil Survey, as prepared by the USDA Natural Resource Conservation Service, was used to determine the existing soils at the site as BMP design and performance is highly contingent upon hydrologic soil group (HSG). Soil survey maps are useful in providing a baseline of expected soil characteristics across large scale areas to help with planning for suitability of potential BMPs, but more detailed geotechnical soil borings will be required prior to the design stage to more accurately characterize local water tables, soil porosity, and infiltration rates. These borings will need to be prepared in addition to what has been done preliminarily, as they require site specific data to demonstrate compliance with the specifications associated with each BMP, in accordance with the stormwater regulations. Soils are classified by the Natural Resource Conservation Service into four Hydrologic Soil Groups based on the soil's runoff potential. The four Hydrologic Soils Groups are A, B, C, and D. Where A's generally have the smallest runoff potential and D's the greatest. Illustrated below in Figure 30 is a map of soil survey data by hydrologic soil group for the site, where B soils contain a mixture of gravelly sand and clay with a moderate infiltration rate, and C soils contain a mixture of sand, clay, and loam and have low infiltration rates. The site is primarily covered by C soils (approximately 200 Acres or 60%), with B soils (approximately 71 Acres or 21%) on the edges of the overall property. D soils make up the remaining 63 acres, respectively.

While there has been no indication of Karst Topography on the property in any of the geotechnical reports, the Valley and Ridge Region of the State is known to have a high concentration of Karst. Because of this, additional testing will potentially be required in the areas where any stormwater management facilities are proposed to verify whether karst is present.

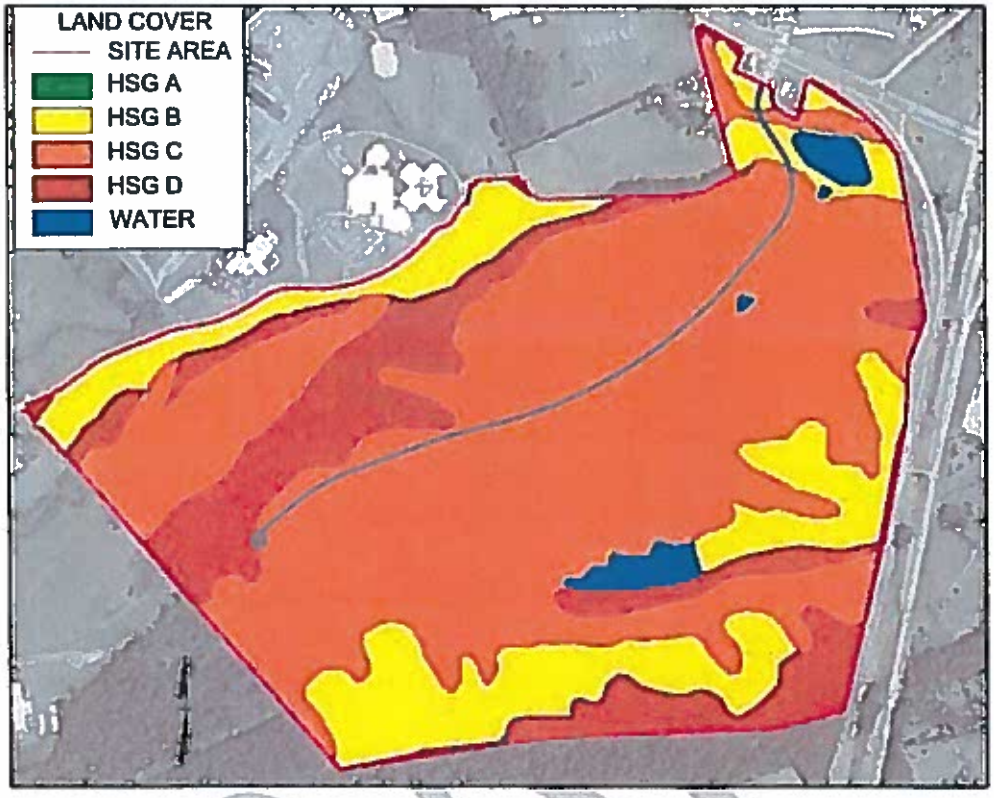


Figure 30: Map of Soil Survey Data by Hydrologic Soil Group

Topography

Existing drainage patterns at the site are illustrated below in Figure 31 – Drainage Map. Several drainage divides traverse the site, dividing runoff from the site into three major outfalls. All of these outfalls drain towards the east, with one leaving the site from the pond at the Park's entrance, while the other drains from the pond, located to the south of Lakeview Court, directly to the east and under Interstate 81. The southern portion of the site drains towards the southern boundary of the parcel before it is collected and directed east as well. The steepness of the existing topography has been previously addressed in this report and is shown on Figure 6 – Slope Analysis Map.

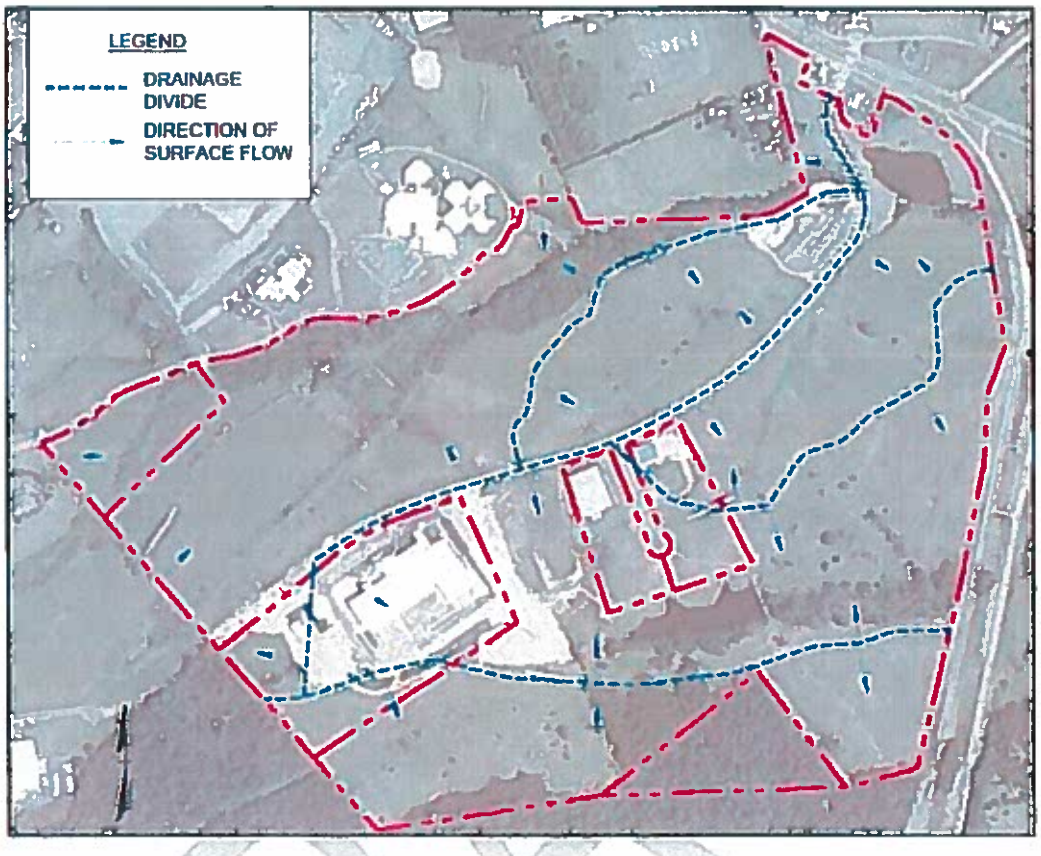


Figure 31: Drainage Map

Section 4.2 – Stormwater Quality

Water quality compliance for this Stormwater Management Concept Plan is demonstrated using the Part IIC criteria and the Simple Method Formula as defined in the Virginia Stormwater Management Handbook. Stormwater Quality requirements shall be met by each prospective user versus a regional facility for the Park. This has the advantage of allowing more flexibility to be maintained in the maximum build-out of the Park.

Recommended Site Specific BMPs

Due to the high rate of concentrated impervious area for each user, BMPs should be selected to provide high removal rates of phosphorus. With this criteria in mind, there are four BMPs that should be targeted: Sand Filters, Retention Basins, Biofilters or Proprietary BMPs. Each of these options has the ability to obtain a phosphorous removal rate of 65%, which under the Part IIC criteria is the maximum achievable. The County's IIC permit for the Park is valid until 6/30/2019. At that time, site specific BMPs will need to be consistent with Type IIB regulations which require use of the Runoff Reduction method spreadsheet and specifications set forth in the VA

BMP Clearing House. In addition to the above mentioned BMPs, permeable pavers could also be considered.

Retention Basins

Due to this BMP retaining water, and the potential for karst in the region, a double clay membrane would be recommended. Retention Basins (See Figure 32) can serve as a means to acquire water quality credits, and also to establish additional storage for reducing the flow off the site. Typically, safety benches and aquatic benches are associated with this BMP to gain the highest level of phosphorous removal. The aquatic benches should be planted with species that are able to withstand 12" – 18" of water on a consistent basis.

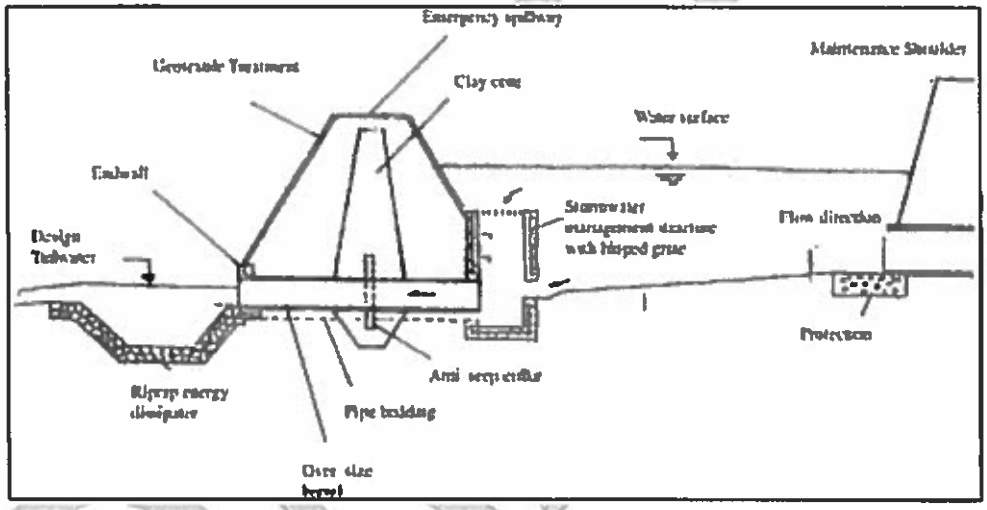


Figure 32: Wet Pond Typical Detail

Bioretention

Bioretention basins and/or cells are desirable BMPs due to their versatility in spatial configuration and exceptional phosphorous removal efficiency. One limitation is the amount of area that is practical for drainage. However, smaller, more localized Bioretention basins can be good solutions. Bioretention cells require forebays in addition to a planting plan. See Figure 33 below.

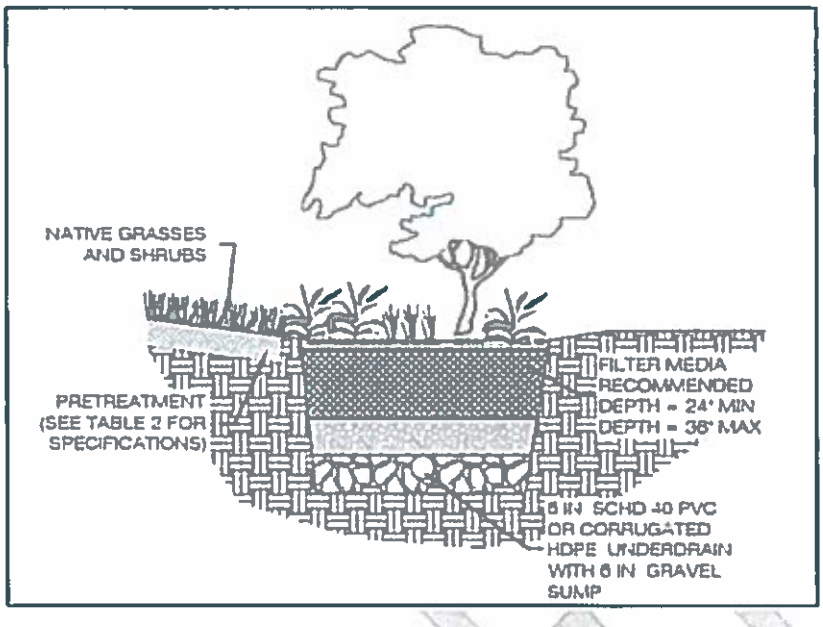


Figure 33: Bioretention Typical Detail

Sand Filters

Sand Filters (See Figure 34) can be designed to gain up to 65% removal, which is the same as Bioretention and Retention Basins. For this site, the application of sand filters would best be used by running the stormwater through a sand-filled structure, such as a pipe, where the sand acts as a filter to remove the phosphorous. Because debris can get caught in the sand filter, regular maintenance and observation is important.

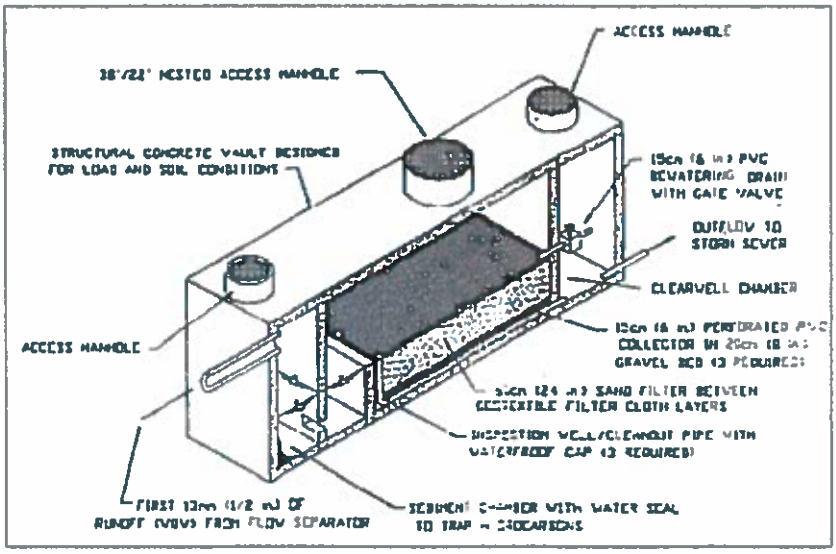


Figure 34: Sand Filter Typical Detail

Proprietary BMPs

Proprietary BMPs (See Figure 35 below) can be effective measures to reduce pollutant loads where other methods will not work. Proprietary BMPs, such as StormFilters®, utilize a replaceable cartridge system to filter runoff pollutants from impervious areas. Such systems are housed in an underground vault and require routine maintenance to clean/replace the filter cartridges and remove debris. These BMPs are ideally suited for urban areas where available surface area is sparse, however, they also can be quite effective where large areas to grade out surface BMPs (i.e. Bioretention or ponds) are not practicable.

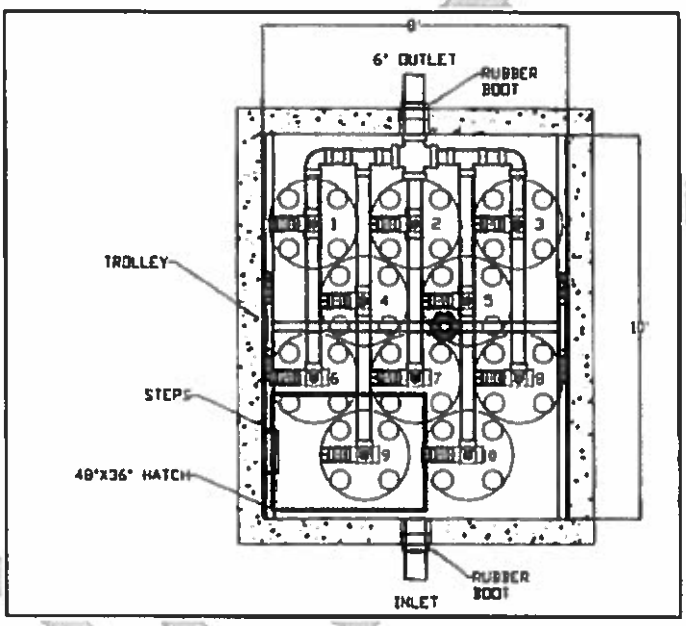


Figure 35: Proprietary BMP Typical Detail

Section 4.3 – Stormwater Quantity

Water quantity compliance is developed around preventing stream channel erosion and flooding. Concentrated stormwater flow from development sites must be reduced to pre-developed flow rates from both the two-year and ten-year storms. Channel adequacy is to be identified to where the subject parcel is less than 1% of the contributing drainage area, which for the subject site will be at the Middle River.

There are two retention ponds located on site that have been designed considering the future development of the Park. The first pond (BMP #1), located at the entrance of the Park has a drainage area that includes approximately half of the Park, the Augusta County Government Center, and a small area north of Route 11. The original design documents for this BMP include provisions for additional

impervious area (approximately 60 acres) draining to the pond as the Park is developed. The second pond (BMP#3), located southeast of Shamrock Farms has a drainage area that includes most of the developed areas of the Park. The design of this pond also accounts for additional impervious drainage (approximately 19 acres).

Additionally, there is a farm pond located to the northwest of Pod B1. Upgrading this existing pond, while in accordance with environmental requirements, could provide additional water quantity, however coordination with the Department of Environmental Quality and the Army Corps of Engineers will be necessary.

It is recommended that as the Park is built-out that a record is kept to accurately track the change in flow going to BMP#1 and BMP #3. This will ensure that the ponds stay in compliance with the original design intent.

Section 5 – Utility Analysis

Timmons Group was tasked with analyzing the existing utility system, evaluating both water and sewer, and its ability to accommodate future growth. With the expansion of Shamrock Farms and the potential growth for food processing type industries, an analysis of the Middle River Regional Wastewater Treatment Plant was also considered, as this is a critical component for the County to consider in its pursuit of additional industry to the Park.

Additionally, Timmons Group also reviewed the existing utility infrastructure for the site, identifying corridors that both dry and wet utilities could be installed, as noted in Figure 36. With the majority of utilities located in Mill Place Parkway, most utilities are shown to be extended at the intersection points with the two additional roads in the site.

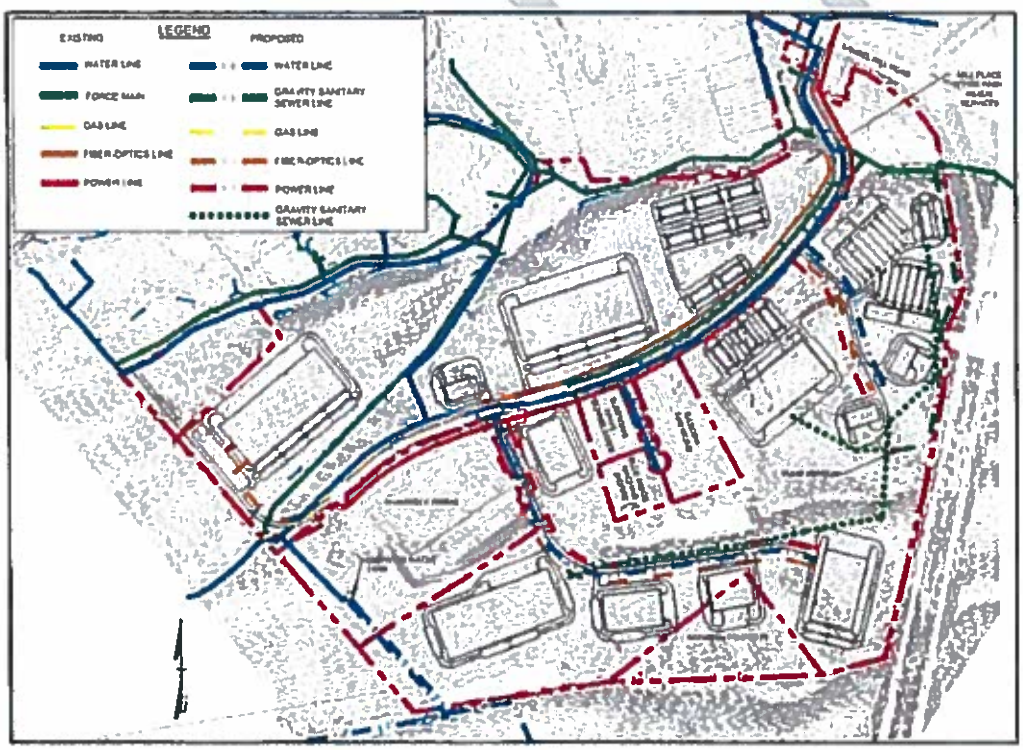


Figure 36: Potential Utility Layout (Appendix D)

Section 5.1 – Infrastructure and Utility Assessment – Water System

Recent improvements have been made to the Augusta County Service Authority (ACSA) Verona water system in and around the Park. A 2014 Preliminary Engineering Report (PER) prepared by

Peed & Bortz for ACSA explored various alternatives to provide the required storage demand and fire flow demand for several proposed facilities. These new facilities include Shamrock Farms at Mill Place Commerce Park and a commercial development just east of I-81. Additionally, an existing portion of the ACSA system southeast of the Park experienced poor fire flow availability. The alternative chosen was a 0.75 Million Gallon (MG) elevated storage tank located at the Park along with associated new piping. This 0.75 MG has since been constructed and is in operation as of December 2015.

Shamrock Farms requires a fire flow of 2,150 Gallons Per Minute (GPM) with 70 Pounds Per Square Inch (PSI) on-site residual. As the newly-constructed elevated storage tank was designed to meet this high demand, it is somewhat unlikely that any other facilities recruited to Mill Place Commerce Park would have a higher fire flow demand. Therefore, assuming a proposed facility's onsite water service connections are sized adequately, the existing water system should be sufficient to supply fire flow demands for potential Mill Place Commerce Park users.

The elevated storage tank minimum volume required by VDH Waterworks Regulations is half of the average daily demand. The 2014 PER determined a required elevated storage tank volume of 0.5 MG. This took into account two hours of fire flow demand (0.27 MG), the projected 2027 total daily Verona system demand (1.42 MG), and the existing 0.5 MG Verona elevated water storage tank. A portion of the projected 2027 total system demand included the Park build-out demand of 0.6 MGD. As the actual size of the elevated storage tank is 0.75 MG, not the minimum required 0.5 MG, ample volume is available for build-out of the Park.

The source water for the Verona water system is a combination of the ACSA-owned Berry Farm Water Treatment Plant (BFWTP) and City of Staunton supplied water. BFWTP has the capacity to treat 0.9 MGD of drinking water. In 2014, BFWTP produced 0.21 MGD. The remainder of the flow in 2014 was provided by the City of Staunton (0.80 MGD) for a total of 1.01 MGD. In 2016, system changes have increased the BFWTP production to 0.27 MGD. Additionally, two new production wells capable of adding 0.8 MGD in Verona are under development (which will also require a future expansion of the treatment facility to fully utilize that extra capacity). As the projected 2027 total Verona system demand is 1.6 MGD and BFWTP has the capacity to produce an additional 0.7 MGD (with the potential to add another 0.8 MGD), adequate treated water supply capacity exists. However, the Mill Place, Phase C infrastructure projects (noted in the Augusta Mill Place Water Project Preliminary Engineering Report Addendum, dated March 4, 2014) will need to be

constructed in order for the full capacity of BFWTP to be utilized. Additionally, receiving more water from the City of Staunton is an option. Therefore, the combined BFWTP and City of Staunton supply will be adequate to meet the water demand at the Park.

Section 5.2 – Infrastructure and Utility Assessment - Wastewater

As part of this study, Timmons Group performed an infrastructure and utility evaluation of the existing sewer system. This evaluation was predominately based on a 2009 Mill Place Sewer Analysis performed by Whitman, Requardt, & Associates for ACSA which looked at future capacity needs of the Park, the ACSA Verona service area, and the City of Staunton's Verona service area, to determine if any collection system restrictions could be predicted. The 2009 analysis considered a number of alternatives and variables which included future City flow projections, future County industrial flows, County comprehensive plan timeframe versus total build-out, peak flow factors, County comprehensive plan areas and sewer slopes. The variables and assumptions used in the 2009 analysis add complexity to the conclusions and make it difficult to project future wastewater system needs without further in-depth study.

The 2009 analysis looked at three primary runs of sewer: sewers within Mill Place Commerce Park, sewers between Mill Place Commerce Park and the lower interceptor sewer, and the lower interceptor sewer to the Middle River Regional Wastewater Treatment Plant.

Sewer System within Mill Place Commerce Park

With the exception of one run of 15" sewer, capacity of the sewer lines within Mill Place Commerce Park was not found to be an issue, even while including projected future City flows taken from the City's May 2009 report. The one sewer segment (pipe 3265) which showed a potential issue was mainly due to lack of slope. As-built field verification of the inverts may prove this not an issue. Another item of concern is the lack of any agreement in place between the City and County that restricts City flow through Mill Place Commerce Park. Given this, the City could contribute flows beyond their current projections and this could result in capacity issues within the Park.

Sewer System from Mill Place Commerce Park to the Lower Interceptor Sewer

According to the 2009 analysis, two sewers in this section show a potential capacity issue when using 2027 County flows and City build-out. These sections included one 16" sewer near the pond at

the entrance to Mill Place Commerce Park and an 18" sewer north of Route 612. Note that both of these sewers appear to have a very flat slope so as-built field verification would be beneficial to more accurately project capacity issues. Also note that these capacity issues were the result of using City build-out projections in the Green Hills Industry and Technology Center and other City areas along Route 11 which are planned to be diverted into the Mill Place Commerce Park sewer in the future when the Wilco Pump Station is taken offline.

Lower Interceptor Sewer to the Middle River Regional Wastewater Treatment Plant

The lower interceptor is made up of a 21" sewer which runs parallel to the Middle River and conveys flow from the Mill Place Commerce Park sewer and the Verona area to the MRRWWTP. According to the 2009 analysis, there will be a need to upsize approximately 2,800' of sewer to a minimum 27" diameter in the future in order to handle flows from the City and County. If development does not occur to the level projected in the County comprehensive plan, this capacity issue may not occur. Since this is dependent on many assumptions and future build-out, it is a long term issue. It does not appear that Mill Place Commerce Park will be the deciding factor for this sewer segment.

After performing the analysis, the following recommendations are made to better understand the existing system:

- It is recommended that the County Attorney review the existing agreement(s) with the City which may cover wastewater conveyance through the County. The City owns two thirds of the MRRWWTP capacity and portions of the City must flow through the Mill Place Commerce Park sewers to get there.
- As previously mentioned, as-built field verification of the sewer inverts should be performed on any sewers which are known to have flat or minimum slope. This information can be used to update the 2009 analysis and may have a significant impact on any sewer capacity concerns.
- Flow monitoring in the various sewer segments could yield additional information which will further clarify sewer capacity concerns. Flow monitors should be installed and left in place for several months to capture various wet and dry weather flow periods. This will help confirm flows and peaking factors.
- The sewer model from the 2009 analysis should be updated with current information. If the 2009 analysis is revisited, flow projections and peaking factors should be reviewed with ACSA to ensure appropriate and reasonable assumptions are being used.

- The southern portion of Mill Place Commerce Park will require a new pump station and force main to collect and convey wastewater flows. In order to reduce impacts on the existing sewer, it may be possible to run the force main under I-81 and discharge at a point where capacity is less of a concern.

Section 5.3 – Food Processing – Wastewater Analysis

The goal of this section is to understand the overall wastewater treatment system, including its capacity and limitations, in order to determine which food processing industries can be recruited to the Mill Place Commerce Park by Augusta County.

Mill Place Commerce Park is served by the ACSA-operated Middle River Regional Wastewater Treatment Plant (MRRWWTP). The City of Staunton and ACSA jointly own the MRRWWTP. The 4-stage Bardenpho plant is composed of two oxidation ditches, four secondary clarifiers, cloth filters, and UV disinfection. Of the 6.8 MGD design flow, ACSA owns 1.9 MGD and the City of Staunton owns 4.9 MGD. Additionally, ACSA actively tracks the mass loading proportions owned by ACSA and the City of Staunton. The mass loading proportion owned by each entity is the same as the volumetric loading proportion (28% by ACSA and 72% by City of Staunton).

Based on 2014 data provided by ACSA, the plant is at a third of its ACSA-owned volumetric capacity and is climbing towards half of its ACSA-owned mass loading capacity. The total suspended solids capacity (TSS) was observed to be higher than the other water quality parameters, five-day carbonaceous biochemical oxygen demand (BOD), total kjeldahl nitrogen (TKN), or total phosphorus (TP). MRRWWTP may experience capacity issues handling TSS before any other parameter when plant flow increases in the future.

The potential wastewater composition of several subcategories in the food processing industry was researched and evaluated. Table 11 presents the typical range of wastewater composition for six different food processing industries. Twenty different sources were referenced in order to compile the ranges presented. Each range of wastewater composition is composed of several different sources to ensure the most reliable and representative values are presented. The typical composition for municipal wastewater is also presented for comparison.

Food Processing Wastewater Characteristics		
Food Processing Industry	**Parameter**	**Range (mg/L)**
Dairy Processing	BOD	1100 - 2200
	COD	2300 - 3700
	TSS	800 -1300
	Nitrate	10 - 100
	Total Nitrogen	20 - 230
	Phosphorus	20 - 100
	pH	6 - 9
Carbonated Beverages	BOD	250 - 660
	TSS	170 - 340
	pH	10 - 11
Brewery	BOD	1900 - 3700
	COD	1900 - 4700
	TSS	700 - 1200
	Total Nitrogen	30 - 90
	Phosphorus	20 - 60
	pH	2 - 12
Cannery	BOD	700 - 2800
	TSS	100 - 800
	Phosphorus	1 - 8
	pH	7 - 8
Poultry Packaging	BOD	500 - 2300
	COD	1700 - 3800
	TSS	200 - 1500
	Total Kjeldahl Nitrogen	25 - 200
	Phosphorus	5 - 40
Meat Processing/Packaging	BOD	500 - 2000
	COD	1000 - 3000
	TSS	250 - 1200
	Total Kjeldahl Nitrogen	70 - 240
	Phosphorus	5 - 20
Typical Municipal Wastewater	BOD	110 - 350
	COD	250 - 750
	TSS	120 - 400
	Total Kjeldahl Nitrogen	20 - 60
	Phosphorus	4 - 12

Table 9: Food Processing Wastewater Characteristics

Several flow and mass loading projections were investigated to estimate future MRRWWTP capacity and limitations. Assuming no change to the current industrial wastewater demand and a 33% increase in municipal demand, about one-quarter of the plant's capacity would still be available.

Given the potential industrial facility size and wastewater characteristics, the possible mass loading demand on MRRWWTP was calculated. Based on these results, it was determined that the carbonated beverages, brewery, and Poultry/Meat Packaging food processing industries could be located at the Park because MRRWWTP can handle potential flows. This result would hold true under the scenario where municipal demand increases by 33% and current industrial wastewater demand does not increase. However, caution should be used when considering a cannery or an additional dairy processing facility in the Park. A cannery has the potential to consume a large portion of MRRWWTP's BOD demand (approximately 50%). There is a possibility of consuming approximately 50% of MRRWWTP's TP capacity with the addition of another dairy facility at the Park. If a Cannery or Dairy Processing Facility had a pretreatment facility with appropriate limits, then pursuit of these types of facilities would be acceptable. However, overly stringent treatment limits have the potential to discourage potential industrial facilities to the Park.

However, a tiered approach may be possible for accepting the waste stream of a cannery processing industry. If the production rate of the facility were limited, then the overall demand on MRRWWTP could be within its given capacity.

Attention must also be given to the fact that demands discussed above are daily averages and do not take into account the diurnal patterns of both the municipal and industrial wastewater flows. ACSA has experienced spikes in flow and mass loading from several of its industrial customers, including Shamrock, Hershey, and McKee. When there are spikes due to how the production process operates or there are unexpected wastewater process upsets, it is difficult for the WWTPs to handle these occurrences. As MRRWWTP currently has plenty of capacity, the spikes can be absorbed. However, if MRRWWTP were to approach its capacity, industrial wastewater spikes would make it much harder to maintain compliance with its permit. In this case, the addition of an equalization basin prior to secondary treatment at MRRWWTP would help absorb industrial wastewater spikes in flow.

The next steps to ensuring Augusta County is not overly limited to the types of food processing industries it can recruit are threefold: (1) address the inconsistencies with the industrial pretreatment processes through ACSA's Industrial Pretreatment Regulations, (2) perform a capacity analysis for each perspective Park occupant according to its unique wastewater characteristics and production rates, and (3) explore alternatives for increasing capacity at MRRWWTP.

(1) It is recommended that a schedule of regular communication between the industrial pretreatment operators and ACSA be created to better monitor pretreatment operation and be more prepared for potential process spikes and upsets. Additionally, it is recommended that regular inspections of industrial pretreatment facilities be mandated. While more stringent pretreatment limits would also help the ACSA WWTPs maintain compliance, a balance must be struck between overly stringent limits that would discourage companies from choosing the Park as a location for their facility, and overly relaxed limits that would quickly overload MRRWWTP. For a food processing industry to be located at the Park, pretreatment of wastewater would be required.

(2) The procedure demonstrated here for determining industrial wastewater demand should be performed for each potential customer of the Park to more accurately determine its impact to MRRWWTP's capacity.

(3) Should MRRWWTP be at capacity, two alternatives could be explored for increasing its capacity. The first is the potential expansion of the plant or the addition of an equalization basin. The second alternative would be to negotiate with the City of Staunton to utilize some of the unused capacity of its 72% ownership of the plant's capacity. This would require that the City of Staunton's municipal wastewater demand has not grown so that it is not already utilizing all of its capacity.

A 33% increase in municipal demand and a tripling of industrial wastewater demand, with adequate pretreatment installed at each industrial facility, would result in reaching the TSS mass loading capacity of the ACSA portion of MRRWWTP capacity. ***Given the above information, should a prospect from the food and beverage industry be considered by the County, we believe it is in the best interest of the County to engage the ACSA as soon as possible to determine the potential impacts to the Middle River Regional WWTP's flow and process capacities.***

Section 6 – Transportation Analysis

The current Mill Place Commerce Park development consists of approximately 255,585 square feet of industrial space and 26,402 square feet of office space. The Master Plan Update calls for an additional 1,600,000 square feet of industrial space, 420,000 square feet of office space, and a 98-room hotel.

6.1 Site Access

Currently, access to the park is provided via a single entrance at the signalized Laurel Hill Road/Mill Place Parkway/Lodge Lane intersection. The signal operates with protected-only mainline lefts and split phased side streets. This intersection is located approximately 90' to the west of the start of the terminal for the I-81/Laurel Hill Road interchange on-ramp.

Laurel Hill Road is a four-lane, median-divided major collector roadway with a posted speed limit of 45 miles per hour. At the intersection with Mill Place Parkway, Laurel Hill Road has a single left turn lane, two through lanes, and a single right turn lane in both the east and westbound directions.

Across Laurel Hill Road, Lodge Lane is configured as a single northbound (inbound) lane with a southbound shared through-left lane and a separate right turn lane.

Mill Place Parkway is a three-lane, undivided minor collector roadway with no posted speed limit. At the intersection with Laurel Hill Road, the three-lane section on Mill Place Parkway is configured as a single southbound (inbound) lane with a northbound shared through-left lane and a separate right turn lane. For the remainder of the roadway, the three-lane section is configured as one lane in each direction with a two-way left-turn lane in the center (third lane).

Access along Mill Place Parkway within the park is somewhat limited. Two (2) access roads – Road A and Road C – are proposed to the east and will provide access to available land between Mill Place Parkway in Interstate 81; they will not provide any external connectivity. Only driveways/entrances to individual land bays will be provided to along the western curb line.

Please see Section 2.3 for a discussion exploring the options for a secondary access point into the site.

6.2 VDOT Minimum Spacing Standards

VDOT's Roadway Design Manual, Appendix F, sets minimum standards for spacing between intersections. According to Table 2-3 in Appendix F, the required minimum spacing between an interchange on-ramp terminal and the first full movement intersection is 1,320'.

The Laurel Hill Road/Mill Place Parkway/Lodge Road intersection does not meet current VDOT Spacing Standards. Any additional development to Mill Place Commerce Park will impact the intersection/ interchange and will trigger a review by VDOT. Access Management Exception (AM-E) is anticipated to be required. The specifics of this study will need to be presented and approved by VDOT. Given the nature of this work, analysis of the adjacent interchange should be assumed at a minimum.

6.3 Site Traffic Volumes Estimates

Using the information from the Updated Master Plan and the Institute of Traffic Engineers (ITE) *Trip Generation Manual, 9th Edition*, projected site-generated traffic was calculated, which is summarized in Table 12.

LAND USE	ITE CODE	AMOUNT	UNITS	WEEKDAY						
				ADT	AM PEAK HOUR			PM PEAK HOUR		
					IN	OUT	TOTAL	IN	OUT	TOTAL
Hotel	310	98	Occupied Rooms	874	38	28	66	34	35	69
General Office	710	420,000	SF	3,907	531	72	603	93	456	549
Industrial Park	130	1,600,000	SF (GFA)	8,662	692	152	844	268	1,010	1,278
			TOTAL	13,444	1,261	252	1,513	395	1,501	1,896

Table 10: Site Generated Traffic

As shown in Table 19, at full build-out, Mill Place Commerce Park is estimated to generate an additional 13,444 average daily trips, 1,513 AM peak hour trips, and 1,896 PM peak hour trips.

Based on the existing traffic split and the nature of the uses (industrial/office oriented more to I-81), it is assumed that 65% of Mill Place Commerce Park would trend toward I-81 while the remaining 35% would trend toward Verona and the Route 11 corridor.

6.4 VDOT Road Design Standards

Improvements to Mill Place Parkway and turn lane improvements on Rt. 612 (Laurel Hill Road) will be designed in accordance with the latest edition of the *VDOT Road Design Manual* and constructed in accordance with the latest edition of the *VDOT Road and Bridge Standards & Specifications*.

Geometric improvements to Mill Place Parkway will be proposed in accordance with Urban Collector (GS-7) standards as a curb and gutter roadway with appropriate design speed and the turn lane improvements on Rt. 612 (Laurel Hill Road) designed to Urban Minor Arterial (GS-6) standards at 40 MPH design speed with shoulder/ditch roadside design characteristics.

As Mill Place Parkway is currently unposted, the design speed for this road will be established in advance by VDOT along with other critical geometric design elements.

6.5 Potential Transportation Network Improvements

AM and PM peak hour directional turning movement counts were collected at the Laurel Hill Road/Mill Place Parkway intersection in February 2016, and current signal timing data was obtained from the Virginia Department of Transportation (VDOT). In addition, average daily traffic (ADT) data was obtained from VDOT for Laurel Hill Road, Interstate 81, and the adjacent interstate ramps. See Figure 37 for the recommended transportation network improvements.

Timmons Group performed an iterative analysis of future conditions to determine the carrying capacity of the Laurel Hill Road/Mill Place Parkway intersection and need/timing for potential improvements and additional points of access. The following was considered with respect to future analysis:

- Background traffic volumes have not grown. Historical counts indicate no traffic growth has occurred along the corridor in 10 years.
- The ultimate intersection geometry will consist of the following three (3) improvements:
    - An additional westbound left turn lane (200' storage x 200' taper) on Laurel Hill Road;
    - An additional 300' of southbound receiving lane on Mill Place Parkway; and
    - An additional northbound approach lane (approximately 300') on Mill Place Parkway.

In order accurately identify the need and timing for the previously listed improvements, the development of the overall site was looked at in four (4) distinct and equal phases. A summary of traffic operations and phase-respective improvements are summarized below.

Figure 37: Recommended Transportation Network Improvements (Appendix O)

Phase 1 – 3,375 ADT (25% Build-out of Site)

The existing intersection geometry, without improvement, is capable of handling up to 25% of the traffic generated by the proposed site. Under this build-out scenario, the Laurel Hill Road/Mill Place Parkway intersection continues to operate at acceptable levels of service (LOS D or better). The resulting queues are accommodated by the existing auxiliary turn lanes.

Phase 2 – 6,750 ADT (50% Build-out of Site)

At partial (50%) build-out, the Laurel Hill Road/Mill Place Parkway intersection operates at an acceptable LOS D and the westbound traffic queues on Laurel Hill Road are contained within the dual westbound left turn lanes and do not spillback into the adjacent interchange. It should also be noted

that the Mill Place Parkway approach operates acceptably with two (2) ingress lanes and two (2) egress lanes. This is the geometry that was assumed prior and shown on the preliminary entrance concepts.

Phase 3 – 10,125 ADT (75% Build-out of Site)

Conditions similar to those noted above continue to exist assuming a 25% increase in AM and PM peak hour traffic volumes. The intersection operates at overall LOS D or better; however, westbound traffic queues on Laurel Hill Road were observed extending beyond the provided dual westbound left turn lanes into the functional area of the adjacent interchange.

Phase 4 – 13,500 ADT (100% Build-out of Site)

Under full build-out conditions, assuming installation of (1) an additional westbound left turn lane on Laurel Hill Road, (2) an additional southbound receiving lane on Mill Place Parkway, and (3) an additional northbound approach lane on Mill Place Parkway, the signalized Laurel Hill Road/Mill Place Parkway intersection operates at a LOS F. In addition, extensive traffic queues are noted on the westbound approach (during the AM peak) and the northbound approach during the PM peak. The westbound AM peak queue is of greater concern given that extends beyond the available auxiliary lane storage into the functional area of the adjacent interchange.

Summary of Transportation Analysis

In summary, the existing intersection geometrics can accommodate up to 25% of the traffic generated by the proposed site. With the improvements noted above, the intersection can accommodate up to 50% of the traffic generated by the site. Traffic volumes beyond the 50% threshold result in an unacceptable level of service and extensive traffic queues on Laurel Hill Road that spillback into the functional area of the adjacent I-81 interchange and will compromise traffic operations.

It is recommended that a secondary point of access for Mill Place Commerce Park be identified and incorporated into the site's master plan (see Section 2.3). If a viable secondary access point is not available, consideration should be given to adjusting the proposed uses and/or densities in the Park.

6.6 Planning-Level Estimate of Probable Costs

Timmons Group prepared an estimate of the probable costs for the proposed improvements cited previously in this report. This includes the following improvements:

- An additional westbound left turn lane (200' storage x 200' taper) on Laurel Hill Road;
- An additional 300' of southbound receiving lane on Mill Place Parkway; and
- An additional northbound approach lane (approximately 300') on Mill Place Parkway.

The additional receiving lane and northbound approach lane on Mill Place Parkway will require the purchase of additional right-of-way adjacent to the roadway to accommodate roadway widening. The estimate also includes a contingency for utility relocation costs that are unknown at this time. Given the proximity of the Exxon property to the west and the Hardee's property to the east, there are significant right-of-way costs expected to acquire the necessary width to accommodate the proposed approach lanes. In addition, both properties have overhead lighted signs that will need to be relocated or compensated. The Hardee's property also has light poles for the parking lot that will need to be relocated or compensated. The Exxon property has a significant grade change between the parking lot and Mill Place Parkway that will complicate the widening.

There are multiple utilities along the edge of pavement of Mill Place Parkway and they will need to be relocated during the construction process. In addition, the drainage and environmental impacts of the improvements may increase the needed right-of-way. Further survey and investigation may reduce the overall cost of the improvements.

A review of the existing traffic signal poles shows that two of the four poles will fall within the clear zone or directly within the path of the proposed lanes, and one of the four poles will not have a long enough arm to accommodate the westbound dual left turn lane geometry. Due to the necessary changes, it is expected that the full signal will be replaced to accommodate the proposed turn geometry and current VDOT signal standards.

Cost estimates for each improvement were further divided into three (3) phases. The preliminary engineering, utility, right-of-way, construction, and total costs for each phase of the intersection design options are summarized in Table 13.

Safety and Operational Improvements	Preliminary Engineering	Utility and Right-of-Way	Construction	Total Cost
Additional Left Turn Lane on Westbound Laurel Hill Road	$50,000	$50,000	$350,000	$450,000
Additional Receiving Lane on Southbound Mill Place Parkway	$100,000	$250,000	$350,000	$700,000
Additional Approach Lane on Northbound Mill Place Parkway	$100,000	$250,000	$500,000	$850,000
Replace Traffic Signal	$50,000	$100,000	$350,000	$500,000
Project Total Costs	$300,000	$650,000	$1,550,000	$2,500,000

Table 11: Safety and Operational Improvements

The total anticipated design and construction costs for the improvements are approximately $2,500,000 for all phases of the intersection improvements to Laurel Hill Road and Mill Place Parkway.

It's important to note that the County has applied for VDOT SMART SCALE funding for a portion of these recommended improvements.

Section 7 – Entrance Signage Concepts

Timmons Group was contracted to prepare entrance concepts as they related to the entrance for Mill Place Commerce Park at the intersection with Laurel Hill Road. As part of that process Timmons Group hosted an entrance sign design charrette with key County personnel. The feedback and consistency of preferences among staff was instrumental in the final design (See Figure 38 below).

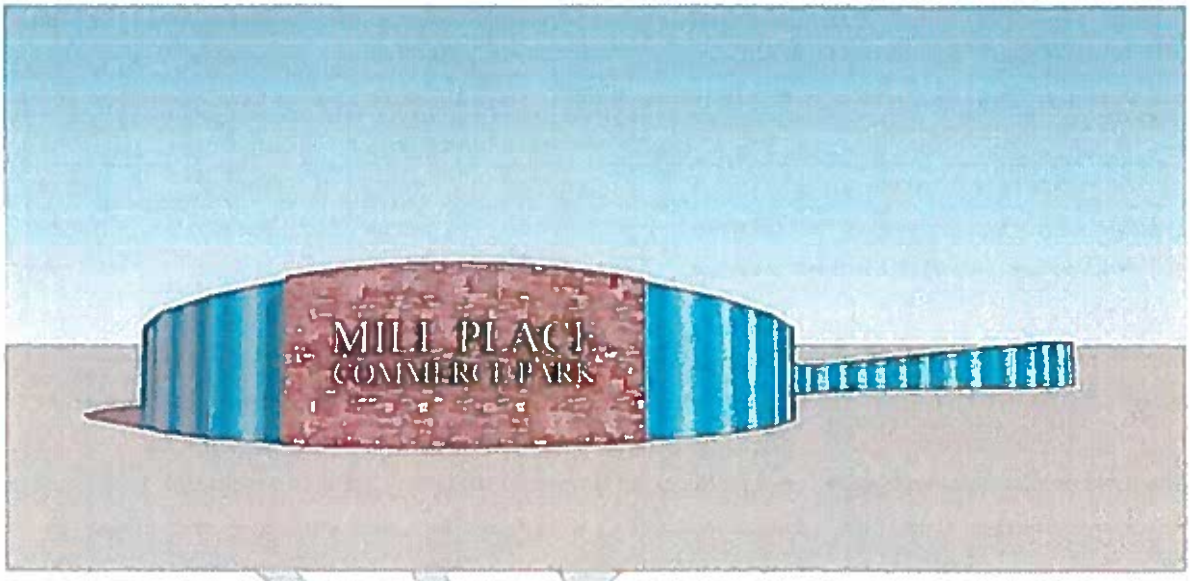


Figure 38: Gateway Entrance Signage – Final Design

Entrance Signage Design Charrette Summary

During the charrette, sign type and scale were discussed, with a preference towards height and width being equal, mixing in complimentary materials to the design.

Regarding materials, a focus on stone materials, specifically field stone, as well as concrete and cast iron materials were favored.

To be consistent with County marketing efforts, the agreed upon color palette was to use blues and greens or some mix of the two. Furthermore, a compliment of warm grays to white, was preferred and discussed to highlight the blues and greens of the signage (See Figure 39 below).

Several other items were discussed during the design charrette and considered throughout the process. These items include the following: signage location, with options either in the entrance median or on the Exxon side of the entrance recommended; budget and its need to be flexible; need for complimentary landscape and the upkeep of the existing, in particular the Bradford Pears that line the existing entrance; and that tenant signage should be flexible and may be located further into the Park, versus at the entrance.

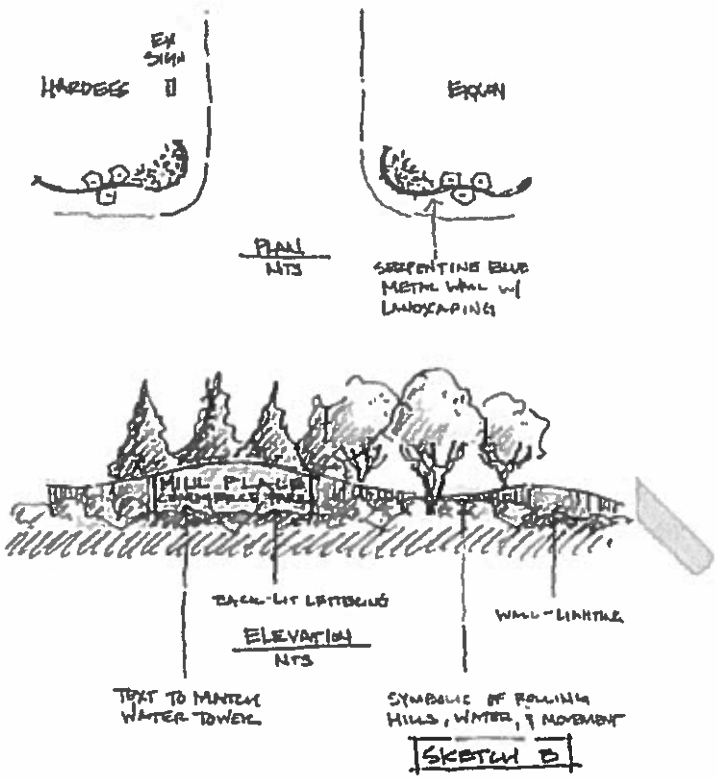


Figure 39: Gateway Entrance Signage – Original Concept Sketch

Entrance Signage Design Summary

After several iterations and options, the preferred one was selected (See Figures 40 and 41 below). This design used the form of a serpentine wall, while emphasizing landscape. The noted back-lit lighting, along with the wall illuminations was also favored in its design aesthetic. This option, also allows for application on each side of the drive (although additional property would be required to be purchased), while using local materials, such as stone.

In general the County was in favor of the forms that were used, such as the rolling hills and water as a symbolic gesture towards the idea of movement and progress.

It is assumed that the signage of the adjacent parcel (currently the Exxon station) would need to be relocated to fit the overall concept, as well as coordinated with VDOT as it relates to the need for easements in the right of way.

Figure 40: Gateway Entrance Signage –Site Context

The signs materials are presented as a blue aluminum composite wall, with local stone, and either black or a warm gray colored lettering. The lighting could feature a translucent blue wall, with either internal lighting of the lettering or external lighting to highlight them at night. The evergreens located around the signage could also be up lit, providing an illumination of the branches and structure of the multi-stem trees.

Figure 41: Gateway Entrance Signage – Full Site Context

Section 8 – Analysis of Zoning, Declaration of Covenants and Restrictions, and Design Standards

As part of the overall scope and in development with the Master Plan, Timmons Group reviewed the Planned Commerce Zoning District associated with Mill Place, as well as the Declaration of Covenants and Restrictions. The purpose was to evaluate how to adjust these documents to fit the new Master Plan, as well as understand if there were any unwarranted hindrances to future development that these documents may have unintentionally provided.

Planned Commerce District Analysis

Currently, the Planned Commerce District zoning divides the site into three areas (See Figure 42 below). The main difference between the three areas is that Area 3 allows for heavier industrial users and warehousing. This will also allow pursuit of non-industrial type users for Area 1, as this is the best use for this portion of the site, given the terrain and potential for shallow rock, which would yield larger costs for the preparation of pad sites.

PERMITTED USES		
AREA 1	AREA 2	
Professional and business offices Research and development uses Light industrial uses Hospitality establishments Retail and service businesses Upper-story residential uses Common open space Limited outdoor storage	Professional and business offices Research and development uses Light industrial uses Hospitality establishments Retail and service businesses Upper-story residential Common open space	Professional and business offices Research and development uses Retail and service businesses Warehouse uses General industrial uses Common open space Limited outdoor storage SUP: General outdoor storage
ALL STREETS ARE TO BE PUBLIC STREETS WITH MINIMUM 50 FT RIGHT OF WAY		
FRONT SETBACKS: 50 FT FROM MILL PLACE PARKWAY, 10 FT FROM ALL OTHER STREETS		
PROFFERS: 1. General Outdoor Storage will be allowed only in a portion of Area 3, as depicted on the Concept Plan, and only upon the issuance of a Special Use Permit by the Board of Zoning Appeals. 2. The intersection of Mill Place Parkway and Laurel Hill Road (Rt. 612) has been designed to accommodate up to 4,000 vehicles per day. Once that capacity has been reached, additional transportation improvements may be needed. Therefore, once the intersection capacity has been reached and at the time of submission of a site plan for any new construction on any portion of the Mill Place Commerce Park, the developer shall submit to Augusta County and VDOT, for review and approval, a Traffic Impact Analysis, projecting the additional vehicle trips to be generated by the proposed development and taking into consideration any remaining undeveloped portions of the Park. Prior to issuance of occupancy permits for any additional development, the Applicant shall construct road improvements, as required by the findings of the approved Traffic Study, commensurate with the extent of the proposed development for which occupancy permits are requested.		

Table 12: Permitted Uses

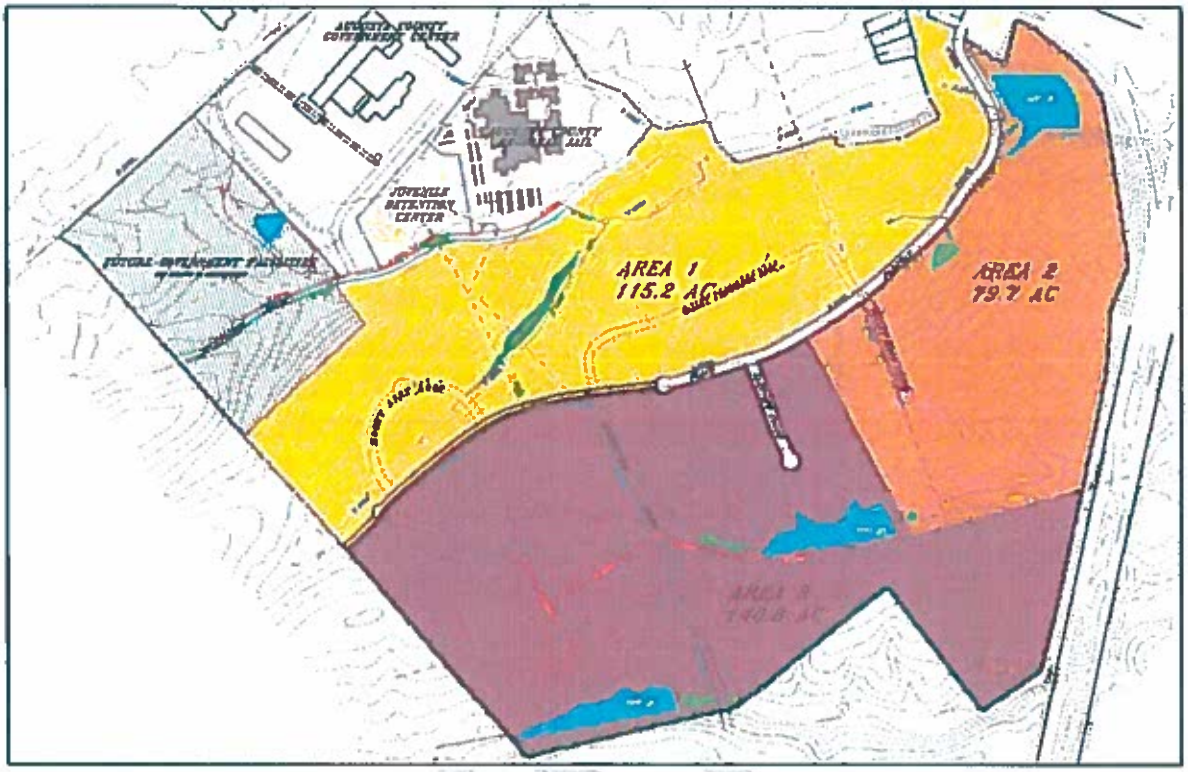


Figure 42: Existing Zoning Areas

Per the Master Plan Analysis, the most likely locations for a larger industrial user or warehousing center are on the north end of Mill Place Parkway. Per the current zoning, however, they would not be permitted. The recommendation to shift the Development Areas as shown in Figure 43 and presented with the Master Plan would allow for this. Furthermore, while the new Development Areas relate to the previous areas associated with the zoning (Development Area 1 relates to Existing Zoning Area 2, Development Area 2 relates to Existing Zoning Area 1, and Development Area 3 relates to Existing Zoning Area 3), there are some additions and limitations to the use types that are recommended.

It is recommended that Warehouse and General Industrial Uses be included in both Development Areas 2 and 3, allowing Mill Place Commerce Park to pursue large regional/national users. Previously limiting the large area tract type uses to Existing Zoning Area 3, placed unnecessary limitations on the Park's build out and potential economic success, particularly to the land to the north of Lakeview Court. It is also recommended that accessory use types such as retail or service,

be allowed in Development Areas 2 and 3, as there are many industrial prospects that may require this, such as a brewery having a tasting room on site.

It is also recommended to remove residential uses, as that does not appear to fit with the general direction and goals of Mill Place Commerce Park and could prove to be confusing for potential commercial business users. In addition, retail and service businesses should be removed from Development Area 3, unless they are accessory to the other on-site use. Furthermore, light industrial uses should be removed from Development Area 1, allowing the commercial user-types at the front of the Park, along Laurel Hill Road, where the terrain is less desirable to the industrial type users.

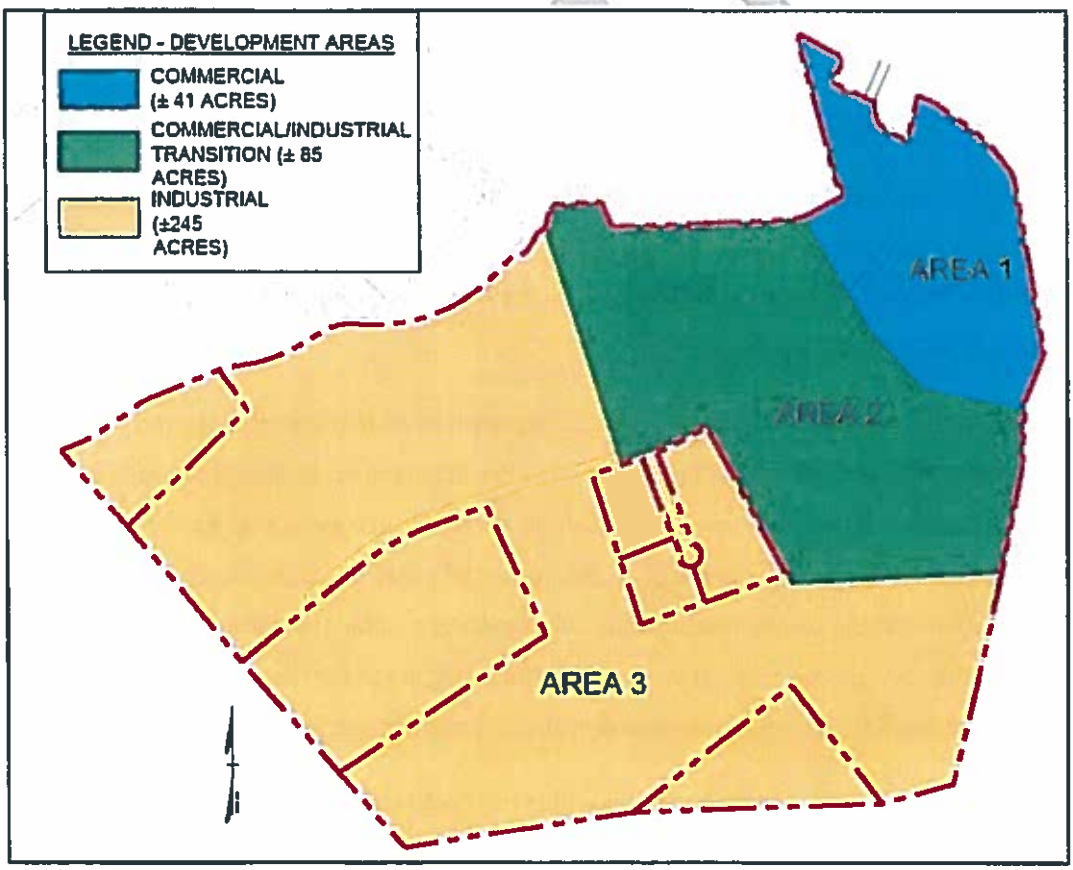


Figure 43: Proposed Development Areas

Area 1 Commercial	Area 2 Commercial/Industrial Transition	Area 3 Industrial
Professional and Business Offices	Professional and Business Offices	Professional and Business Offices
Research and Development Use	Research and Development Use	Research and Development Use
Hospitality Establishments	Hospitality Establishments	Warehouse Uses 50,000 sqft or less
Retail and Service Businesses	Retail and Service Businesses	General Industrial Uses
Common Open Space	Warehouse Uses 50,000 sqft or less	Accessory Retail and Service Business
	General Industrial Uses	Common Open Space
	Common Open Space	

Table 13: Area Use Summary

Declaration of Covenants and Restrictions and Design Standards Analysis

Review of the Declaration of Covenants and Restrictions yielded several items recommended for revision including process oriented items and specific design standards. The items noted below are intended to reduce any unnecessary limitations or concerns towards development while maintaining the integrity of the Park.

The single biggest recommendation is to remove a perceived added layer of subjective review during a site plan application, with the reference to the Architectural Review Committee in Section 5. The Declaration of Covenants and Restrictions is written in such a way that is to be objective, versus subjective. Eliminating the use of an assessment of a plan by the Architectural Review Committee will assist in communicating this. The regulations within the Declaration of Covenants and Restrictions are primarily objective, however the ambiguity of the review could falsely reflect a review that is more subjective, providing a perceived hurdle through the site plan process.

In addition, the following sections and items within the Declaration of Covenants and Restrictions document should be reviewed and revised:

- Section 4 Use and Improvements: Use types and descriptions should be updated to reflect the development areas and uses noted above.
- Section 5 Architectural Review Committee: This section should be revised in its entirety to remove the perceived added hurdle of an Architectural Review Board. During recruitment

of industry this added layer of review can be interpreted as subjective and therefore as a potential risk to move a site forward. It is suggested that compliance of the Declaration of Covenants and Restrictions be performed by Community Development staff, versus an additional entity. The review by Community Development should be to ensure the plan is in accordance with the Covenants and Restrictions, making it clear that the review is objective.

- Section 14 Lighting: We suggest defining the term "significant illumination" with something definitive and demonstrable, such as "one-half foot candle at the property line."
- Exhibit A, Prohibited Business Uses: Per the Master Plan, it is recommended that Sections B, D, L, and R be reviewed and edited. Section B should be edited to allow for the construction of a hotel in Development Area A. Section D should be evaluated as it prohibits certain industry support businesses, which may fit within the light industry type use, that would be desirable in the Park. Section L, mini-warehouses should be removed from Prohibited Uses, as it is conceivable that a mini warehouse could grow over time. Section R prohibits Warehouses, under Business Support Businesses. This should be removed, as warehousing is one of the uses allowed under the previous Zoning Area Plan and the current Master Plan.

Section 9 – Target Sector Market Analysis

While Mill Place Commerce Park is uniquely located with its vicinity to a major transportation network via Interstate 81, it does have some limitations to consider in regards to pursued prospect types with the existing infrastructure currently on site.

Augusta County is pursuing several target sectors/markets, including:

a. Advanced manufacturing,
b. Food processing/packaging,
c. Life sciences, and
d. Valued-added agriculture and forestry.

The intersection of Interstates 81 and 64 with easy access to global markets attracts logistics and distribution companies to Augusta County.

Each of the above industries requires minimal water and wastewater capacity with the exception of the Food Processing industry.

Wastewater from food processing can have significant variability of the constituency and has the potential for high BOD5 (Biological Oxygen Demand), COD (Chemical Oxygen Demand) and TSS (Total Suspended Solids). These are usually higher for food-processing wastewater compared to other industries. A high BOD level indicates that the wastewater contains elevated levels of dissolved and/or suspended solids, minerals and organic nutrients containing nitrogen and phosphorus. Each of these represents a contaminant of particular concern and need to be proactively dealt with prior to discharging the wastewater into a municipal system.

For comparative analysis, below is a table showing representative BOD5 for certain food processing and a comparison to typical municipal waste (table developed from various industry sources):

Product	BOD5 (mg/l)
Whole Milk	104,600
Skim Milk	67,000
Ice Cream	292,000
Brewery	5,600
Fish Processing	2,600
Meat Slaughterhouse	1,130
Meat Packinghouse	1,290
Municipal Waste	*250 to 300*

Table 14: BOD5 Comparison

Based upon our evaluation and information provided by the Augusta County Service Authority (ACSA), the biggest potential constraint to the site is the available flow and processing capacity of the Middle River Regional Wastewater Treatment Plant. As such, any prospect from the food and beverage industry will need to be evaluated on a case-by-case basis with the ACSA.

Based upon our evaluation of the other industries, we recommend that the County continue to proactively pursue Advanced Manufacturing, Food Packaging, Life Sciences and Value-added Agriculture and Forestry for Mill Place Commerce Park.

Other on-site users, such as office space and hospitality, would not be affected by the wastewater capability. The office space and hospitality type users, however, will further impact the traffic at the Mill Place Parkway and Laurel Hill Road intersection leading to a quicker need for expansion, as those types of users generate a larger amount of trips per day.

Section 10 – Business Development Plan

Virginia Tier 4 and Tier 5 Requirements

In order to achieve a Virginia Tier 4 status, a site must have full infrastructure and have the necessary due diligence items completed to remove as much risk as possible associated with the development of the project. These risk elements can include schedule risks, permitting risks as well as cost risks. After reviewing the information provided on Mill Place Commerce Park, it appears the site is almost a Tier 4 site, however, it is lacking certain due diligence items that need to be completed in order to achieve a Tier 4 status. Below are the recommended due diligence items:

1. Complete a 1' topographic survey (LiDAR recommended) by a licensed land surveyor in Virginia
2. Complete a formal wetlands delineation and receive COE confirmation (this will be valid for 5 years after confirmation)

In order for the site to achieve a Tier 5 status, the County would need to invest in a pad-ready site. Given that the site currently has minimal due diligence items required to achieve a Tier 4 status, we do not believe it is necessary for the County to make a speculative investment in a pad-ready site. The Park is currently in agricultural use and has existing industries, therefore we believe it shows extremely well to prospective industries.

Recommended Infrastructure Improvements

While the site currently needs minimal investment to achieve a Tier 4 status, there are certain infrastructure improvements that we are recommending the County consider making in Mill Place Commerce Park. These recommended improvements include the following:

1. Design and construct the entrance roadway improvements into Mill Place Commerce Park (the County has applied for SMART SCALE funding from VDOT)
2. Design and construct the signage at the entrance into Mill Place Commerce Park (this could be eligible for VDOT Funding)
3. Design the Mill Place Parkway Extension to Technology Drive and start pursuing funding to pay for the construction of the project (VDOT Revenue Sharing).
4. Since the City of Staunton has wastewater flow coming through Mill Place Commerce Park and currently owns a significant amount of the Middle River Regional WWTP capacity, work with the ACSA and City to conduct additional studies on the existing sewer system to

determine existing flows and remaining capacity in the gravity system in addition to the most appropriate way to convey wastewater to the Middle River Regional WWTP.

5. Design the roadway for the first section of road to access Pod C1, below Shamrock. Consider utilizing VDOT Economic Development Access Funds to pay for this road.
6. Install a fitness / walking trail network throughout the Park.

Following is a summary table identifying the potential development costs as well as potential phasing:

Mill Place - Summary of Opinion of Probable Costs	Overall Costs
Ph 1 - Infrastructure Costs – Overall Site	
Connector Road to Technology Drive (1,900 LF)	$4,268,000
Entrance Roadway Improvements	$2,500,000
Landscaped Entrance / Signage	$350,000
Stonedust Fitness Trail Network (20,000 LF x $15/LF)	$300,000
Ph 2 – Infrastructure Costs – Development Pod A	
Road to serve Pod A (1,200 LF)	$4,342,000
Water & Sewer Utilities to Serve Pod A	$1,933,000
Ph 3 - Infrastructure Costs – Development Pod C	
Road to serve Pod C (2,850 LF)	$5,613,000
Water & Sewer Utilities to Serve Pod C	$1,332,000
Total Infrastructure Costs for Full Development	***$20,638,000***

Table 15: Summary of Opinion of Probable Costs

Potential Return on Investment (ROI) Model

The County currently has multiple businesses located in the Park. In order to determine the realistic investment that might come from prospective businesses, it is important to take a look at the investments already made in the Park as well as other potential investments. Below are summary tables identifying the investments of the existing businesses and office / commercial space in the Park.

Company	Total Area (SF)	Total Investment*	$ / SF	Jobs
Shamrock	190,000	$50,000,000	$263	60
Dascom	16,500	$3,000,000	$182	12
Sumitomo	55,000	$6,400,000	$116	33
Blue Ridge Machine Works	16,000	$1,300,000	$81	10
Totals / Avg per SF	***255,500***	***$60,700,000***	***$219***	

* Total Investment is Real Estate and Machinery and Tools combined

Office / Commercial	Total Area (SF)	Assessed Value*	$ / SF
Nexus - Bldg 1	10,527	$834,600	$79
Nexus - Bldg 2	7,040	$495,800	$70
Nexus - Bldg 3	8,790	$756,900	$86
Totals / Avg per SF	*26,357*	*$2,087,300*	*$79*

* Assessed value is based upon information from the Virginia Mass Appraisal Network

In addition, the County has an interest in serving the hospitality market with a potential hotel in the Park. As such, Timmons researched similar hotels in the region that have conference centers. For the purposes of the master plan and ROI model, it appears that the site can easily accommodate a 100 room hotel with a conference center. Below are two comparable hotels with the appropriate information:

Comparable Hotels	Rooms	Assessed Value (Improvement)	$/Room	Year Constructed	Year Assessed
Best Western Waynesboro	75	$5,420,150	$72,269	2007	2015
Fairfield Inn Harrisonburg	100	$6,743,200	$67,432	2010	2016
Totals / Avg per Room	*175*	*12,163,350*	*$69,850*		
Mill Place - Proposed Hotel	*100*	*$7,500,000*	*$75,000*	*Assume 2017 Construction*	

Based upon the Master Plan, the Park will support the construction of new facilities that total approximately 1.6 million SF of industrial and approximately 420,000 SF of office / commercial in addition to a 100 room hotel with conference center at full build-out. As such, we've made reasonable assumptions as to the potential investment ($ per SF) based upon the industry type and potential size of the facilities. Below is a summary of these potential investments, which would be in addition to the existing businesses in the Park:

Building Type (Potential Industry)	Building Footprint (SF)	Quantity	Total Building Footprint (SF)	Investment $ per SF	Total Potential Investment ($)
A (Adv/Light Mfgr)	300,000	3	900,000	$250	$225,000,000
B (Adv Mfgr)	200,000	1	200,000	$300	$60,000,000
C (Adv/Light Mfgr)	150,000	1	150,000	$200	$30,000,000
D (Dist/Adv/Light Mfgr)	100,000	2	200,000	$150	$30,000,000
E (Dist/Light Mfgr)	75,000	1	75,000	$150	$11,250,000
F (Office / Commercial)	72,000	4	288,000	$90	$25,920,000
G (Adv/Light Mfgr)	25,000	3	75,000	$150	$11,250,000
H (Office / Commercial)	12,000	11	132,000	$90	$11,880,000
I (Hospitality)	100 Room Hotel	1			$7,500,000
				Totals	*$412,800,000*

Timmons Group has developed a ROI model based upon the information provided above that has been included in ***Appendix P – Potential Return on Investment Model.***

While there are a wide range of potential Return on Investment models, we have developed a model that focuses solely on the potential economic benefit to the County based upon the real estate and machinery & tools tax revenues, which are historically the primary revenue generators for a local government. The County's 2016 real estate tax rate is $0.58 per $100 of assessed value and machinery & tools tax rate is $2.00 per $100 with 20% assessment ratio.

Based upon the potential ROI model, it appears the County could generate approximately $2.1 million in additional real estate and machinery & tool tax revenue per year based upon build-out of the Park.

The Potential Return on Infrastructure Investment for the County is 20:1 ($412.8 million / $20.6 million).

Potential Funding Sources

There are several potential funding sources available to the County that could be utilized for the development of the Park. These funding sources can help offset some of the base infrastructure costs associated with development of the base infrastructure of the Park, or can be utilized during the deal closings for specific prospects. Below are the funding sources that we believe the County should further explore for the Park:

- VDOT Revenue Sharing (50/50 matching funds)
- Economic Development Access Funds (eligible for up to $650,000 grant per project with a maximum contribution of $150,000)
- Virginia Resource Authority (low interest loans)
- SMART SCALE (VDOT)
- Transportation Partnership Opportunity Fund (Deal Closing Fund)
- Commonwealth Opportunity Fund (Deal Closing Fund)

Development Priorities

Based upon our current understanding of the long-term development of the park, following is list of development priorities we believe the County should pursue:

1. Design and approvals for the intersection improvements for Mill Place Parkway and Laurel Hill Road. Prior to developing concepts, meet with the property owners located at the entrance of the park (Hardee's and Exxon) to determine potential synergies between the County and the respective businesses.
2. Design of the entrance signs for Mill Place Commerce Park.
3. Design and approvals for Mill Place Parkway connector to Technology Drive.
4. Design and approvals for the first 1,000 LF section of roadway and utilities into Pod C (behind Shamrock Farms) to open up this land bay for development.

Conclusions and Recommendations

Given our understanding that Augusta County desires to achieve a Virginia Tier 4 or Tier 5 status for the site, we have drawn the following conclusions and are making the following recommendations:

1. The County complete the necessary due diligence to achieve a Tier 4 status. This includes a topographic survey (1' contours) and a formal wetlands delineation with COE Confirmation.
2. Start working towards the recommended infrastructure improvements identified above. Given the timelines associated with engineering design and approvals, we recommend the County specifically proceed with engineering design for the connector road to Technology Drive and the first phase of the road and utility extension into Pod C (behind Shamrock Farms) to open this parcel up for development.
3. Pursue discussions with VDOT regarding Revenue Sharing Funds for the Mill Place Commerce Park connector road to Technology Drive. The landscaped entrance / signage might also be available for this funding as well.
4. Pursue discussions regarding the acquisition of a portion of the Brannon Property (triangular piece) to "square off" the Park. Further evaluate the costs of the property versus the benefit given that this property has some potential topographic challenges.
5. Given the significant costs associated with developing a Tier 5 / pad-ready site, we do not recommend the County pursue a pad-ready site. We believe the site shows well in the

current state and the County can deliver, or pay the company the necessary costs for a pad ready site as an incentive, if desired.

6. There needs to be significant coordination with ACSA and the City of Staunton in regards to the sewer capacities within the Park and available process and flow capacities at the Middle River Regional WWTP. Perform additional studies to determine the available capacities within the Park and available capacities of the existing infrastructure to Middle River Regional WWTP.
7. Should a prospect from the food and beverage industry be considered by the County, we believe it's in the County's best interest to engage the ACSA as soon as practical to determine the potential impacts to the Middle River Regional WWTP's flow and process capacities.
8. Make the recommended changes in Park zoning, as well as changes in the Declaration of Covenants and Restrictions. Remove the requirement for an Architectural Review Board and assign that responsibility to County staff to verify conformance with Covenants and Restrictions.

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