



Planning Commission Worksession
January 17, 2023

Development Goals

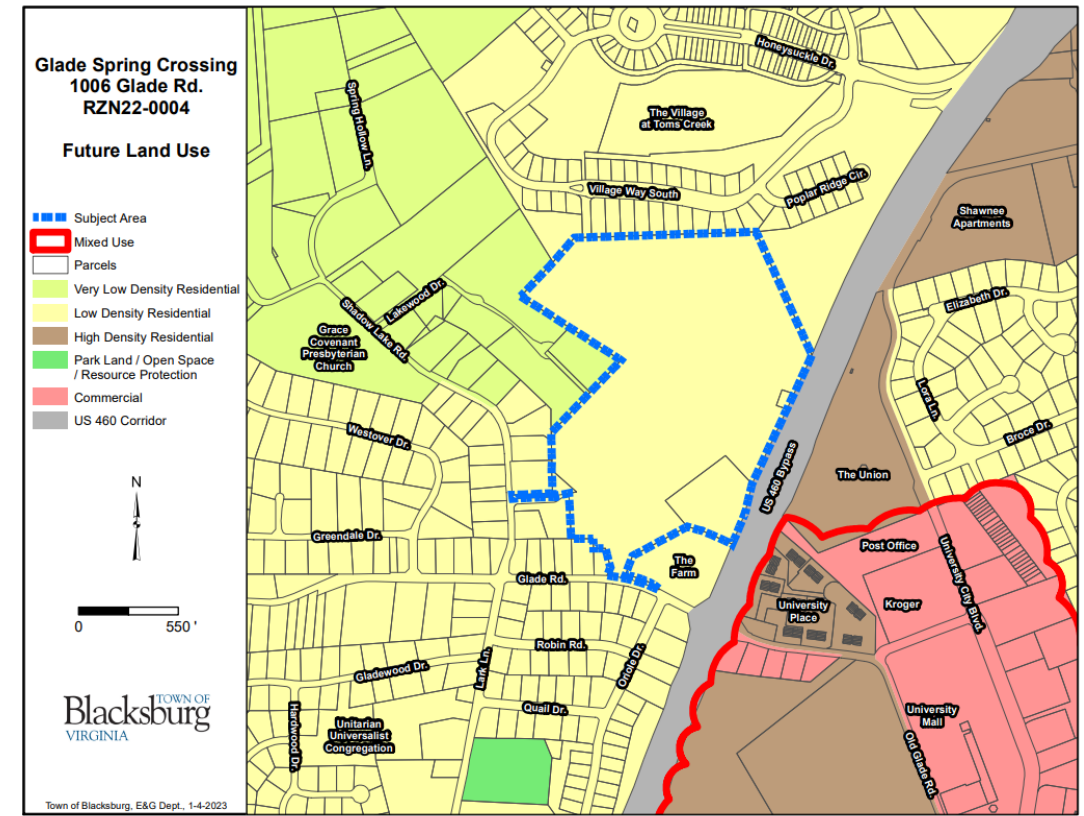
- To offer a diverse collection of market-rate and mixed-income new construction homes affordable to the Town of Blacksburg's critical workforce, young families, and first-time homeowners.
- To provide aesthetically pleasing, energy efficient homes in a sustainable location, professionally managed by a homeowner's association.
- To participate in reducing the environmental impact on Tom's Creek with regional stormwater management and encouragement of natural habitat and wildlife in our open space.
- To provide cost-efficient community amenities and infrastructure to keep lot costs down and future maintenance costs low.



How do you achieve this?

Process to achieve Development Goals:
Mixed-income housing.... It's desired by the developer and the Town but why isn't it happening?

- Comprehensive Plan Amendment 2020/2021: low density residential 1-4 units/ac
- Planned Residential Rezoning: why?
 - Density = affordable units
 - Lot sizes
 - flexible housing types and percentages
 - Cost-efficient infrastructure:
 - Which are most necessary without sacrificing safety or function
 - Variances, changes in the standard
 - Allows a forum for community partnership: Stormwater, affordable housing.



Town GIS

Process

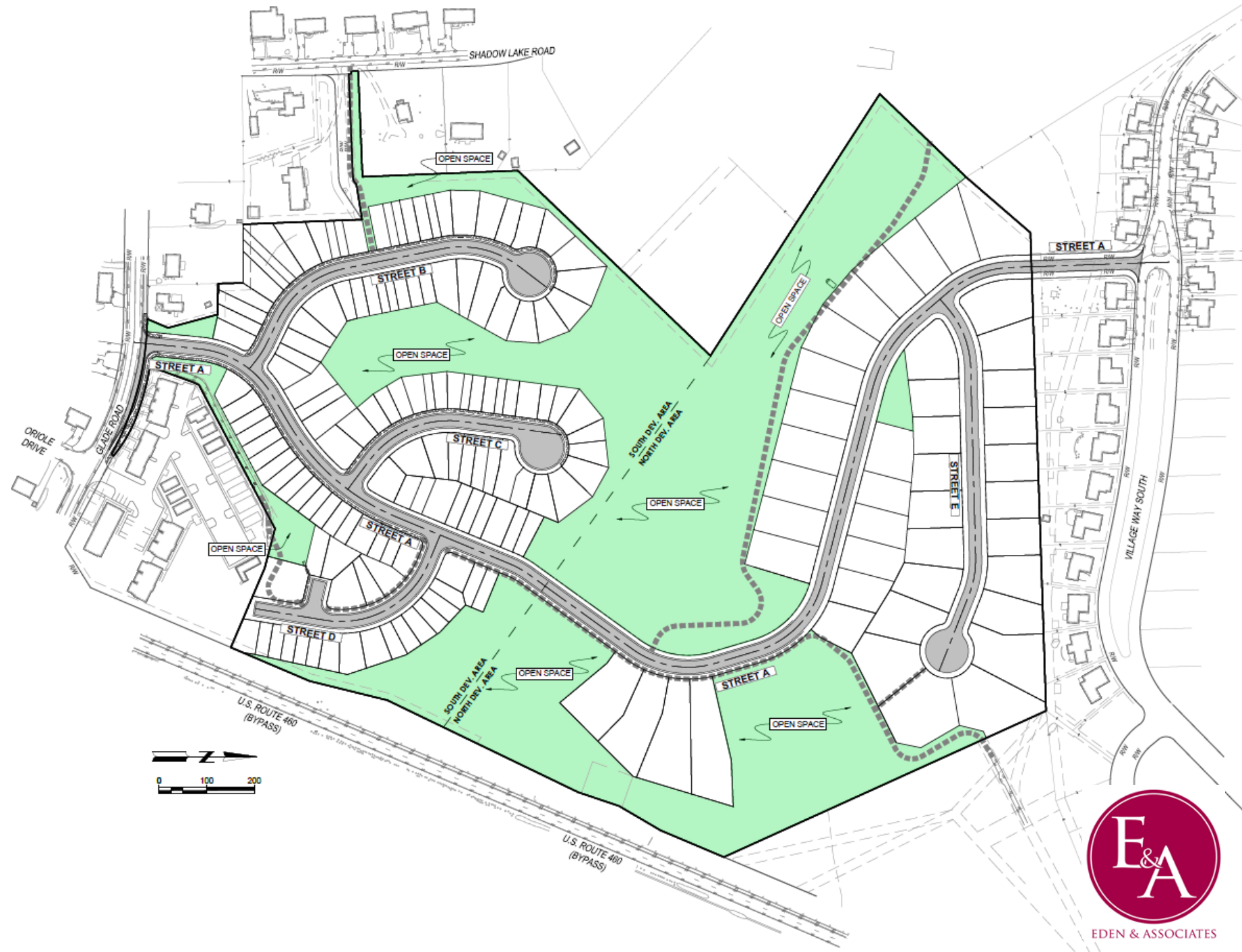
- January –May 2022, preliminary meetings with Town staff: housing, planning & engineering
- Voluntary Neighborhood meeting: June 29, 2022: over 40 residents
- Organized Meetings with staff:
 - July 14th (Planning),
 - July 21st (Engineering),
 - July 26th (Engineering),
 - July 28th (housing),
 - August 9th (whole Group)
 - October 11th (whole group),
 - October 13th (with you on Landscaping),
 - November 8th (whole group),
 - November 14 (you on Proffers/Landscaping).
- Voluntary VWN tie-in Neighbor meeting: October 16
- Town Neighborhood meeting: Dec 7th





Concept Plan

- 176 owner occupied units (3.9 units/acre)
 - 134 Mixed Income
 - 10 units 60-80% AMI
 - 10 units 80-100% AMI
 - 4 units 100-120% AMI
 - 110 units mixed income
 - 42 Market rate
 - Professionally HOA managed
- 35% open space



Market Rate

- 42 units



home
PERFECTED



ELEVATIONS & RENDERS
NORTHERN AREA

pattern book | 11.16.2022



NORTHERN AREA

Market Rate

- 2623 sq
ft

ELEVATION + RENDER



Market Rate

- 2772 sq
ft

ELEVATION + RENDER



Market Rate

- 2751 sq ft

ELEVATION + RENDER



Mixed-income housing

- 134 lots



ELEVATIONS & RENDERS
SOUTHERN AREA

Mixed-income housing

- 1080 sq ft

ELEVATION + RENDER



Mixed-income housing

- 1080 sq ft

ELEVATION + RENDER



Mixed income housing

- 1334
sq ft

ELEVATION + RENDER



Mixed income housing

- 1334 sq ft

ELEVATION + RENDER



Mixed income housing

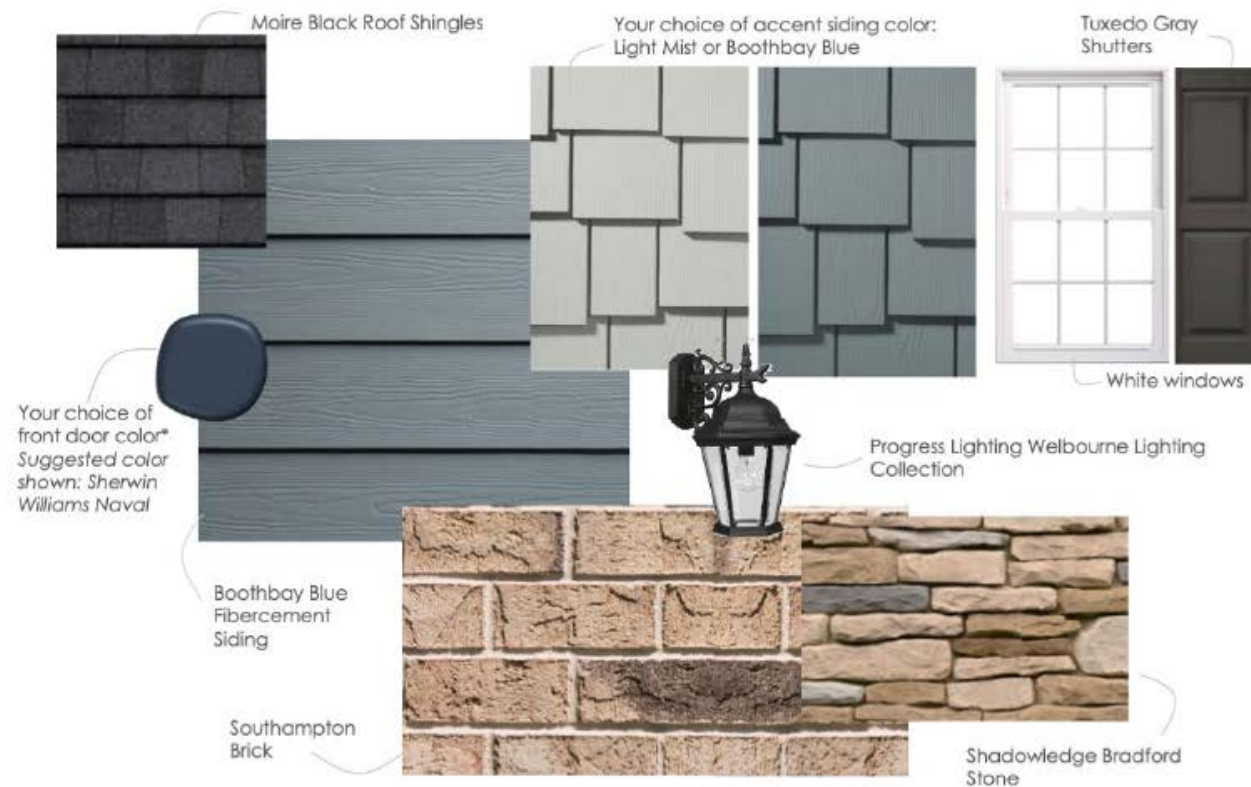
- 1334 sq ft

ELEVATION + RENDER



PALETTES & FINISHES

PALETTE 6





GLADE SPRING
Crossing



1 CONCEPT 02 - 3D
A101

Street Rendering



3 CONCEPT 02 - VIEW 01
A101



4 CONCEPT 02 - VIEW 02
A101



2 CONCEPT 02 - 3D ELEV
A101



5 CONCEPT 02 - VIEW 03
A101

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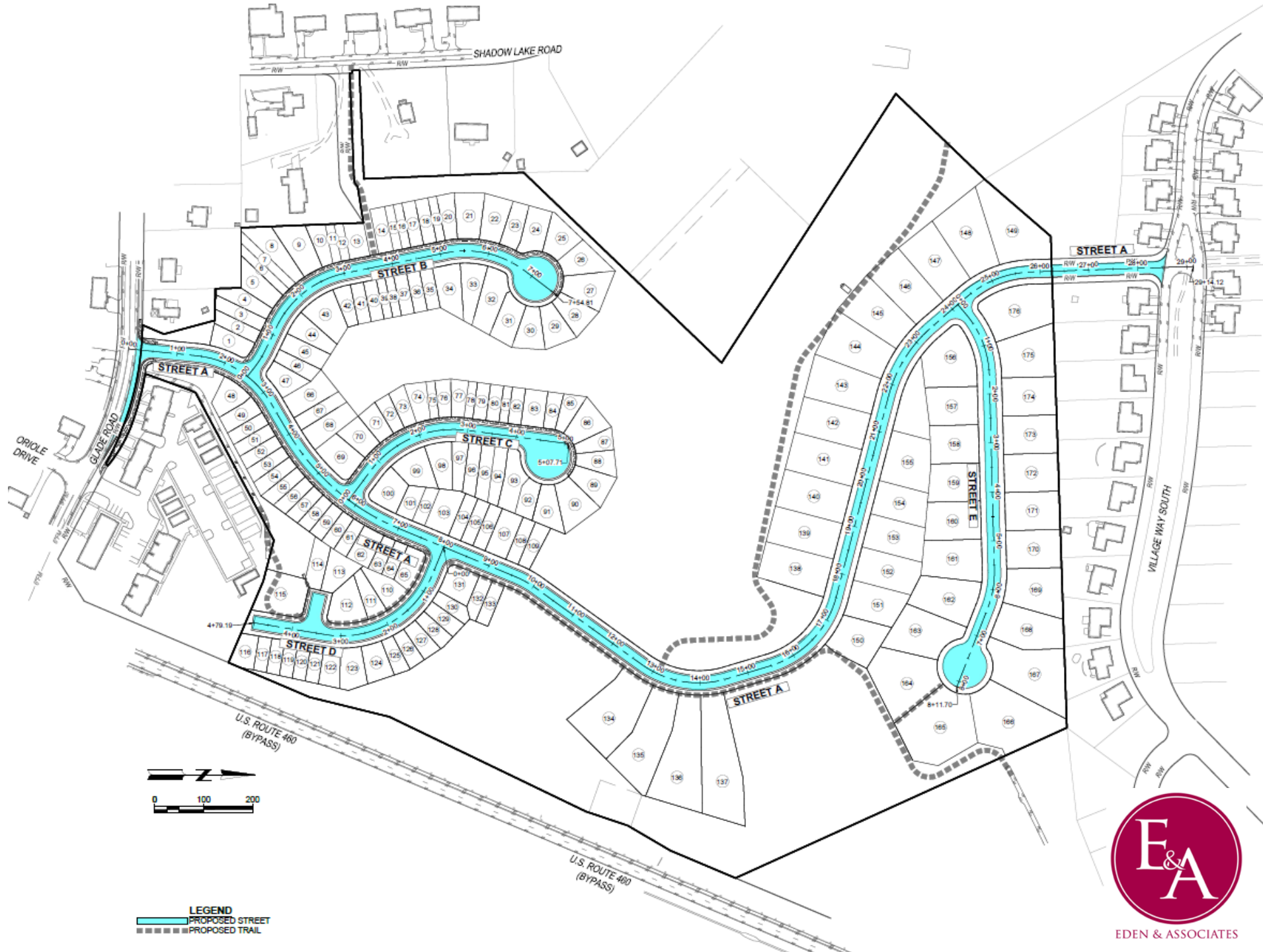
DRAWN DATE:
11/23/2022
DRAFTED BY:
architectonic
REVISED DATE:
N/A

DRIVEWAY CONCEPT - VISUALS
GLADE SPRINGS SITE CONCEPTS

A101
CONCEPTUAL

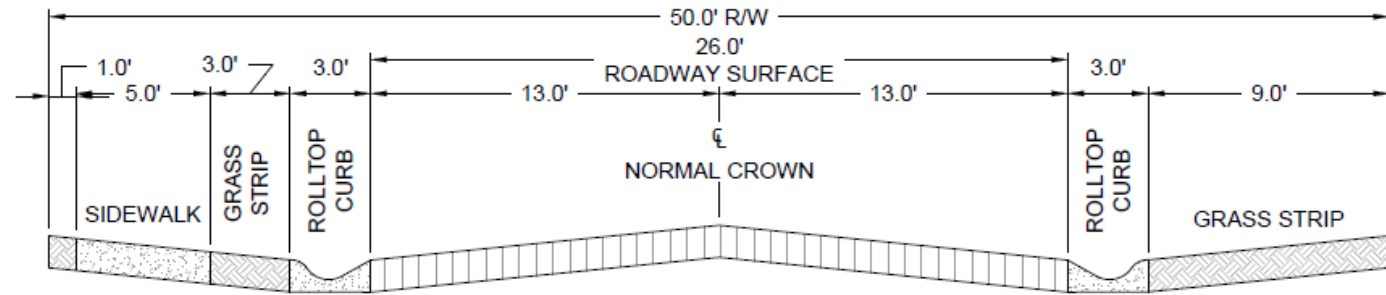


Transportation Circulation

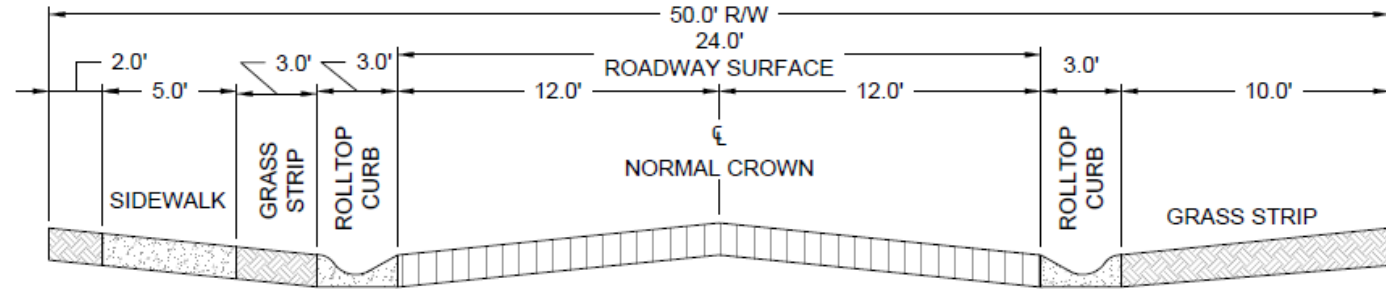




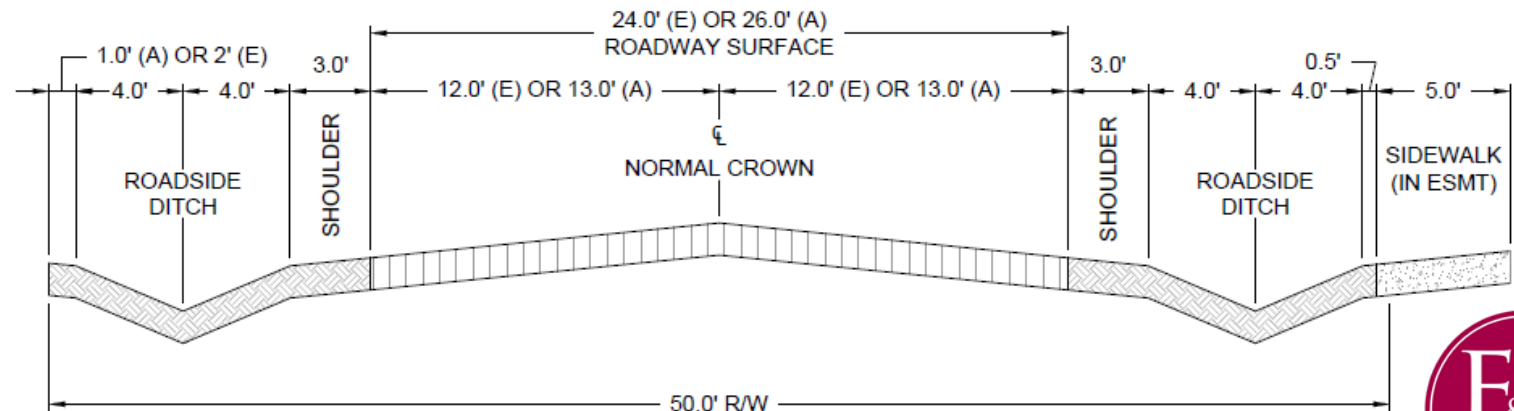
Typical Sections



**TYPICAL ROAD CROSS SECTION
FOR STREETS A (STA 0+50 TO STA 16+50) AND B
(NOT TO SCALE)**



**TYPICAL ROAD CROSS SECTION
FOR STREETS C AND D
(NOT TO SCALE)**



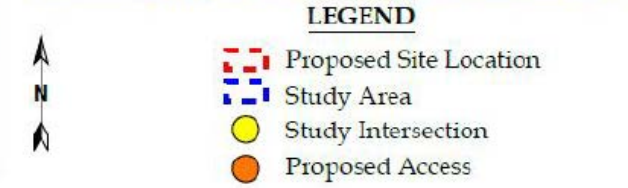
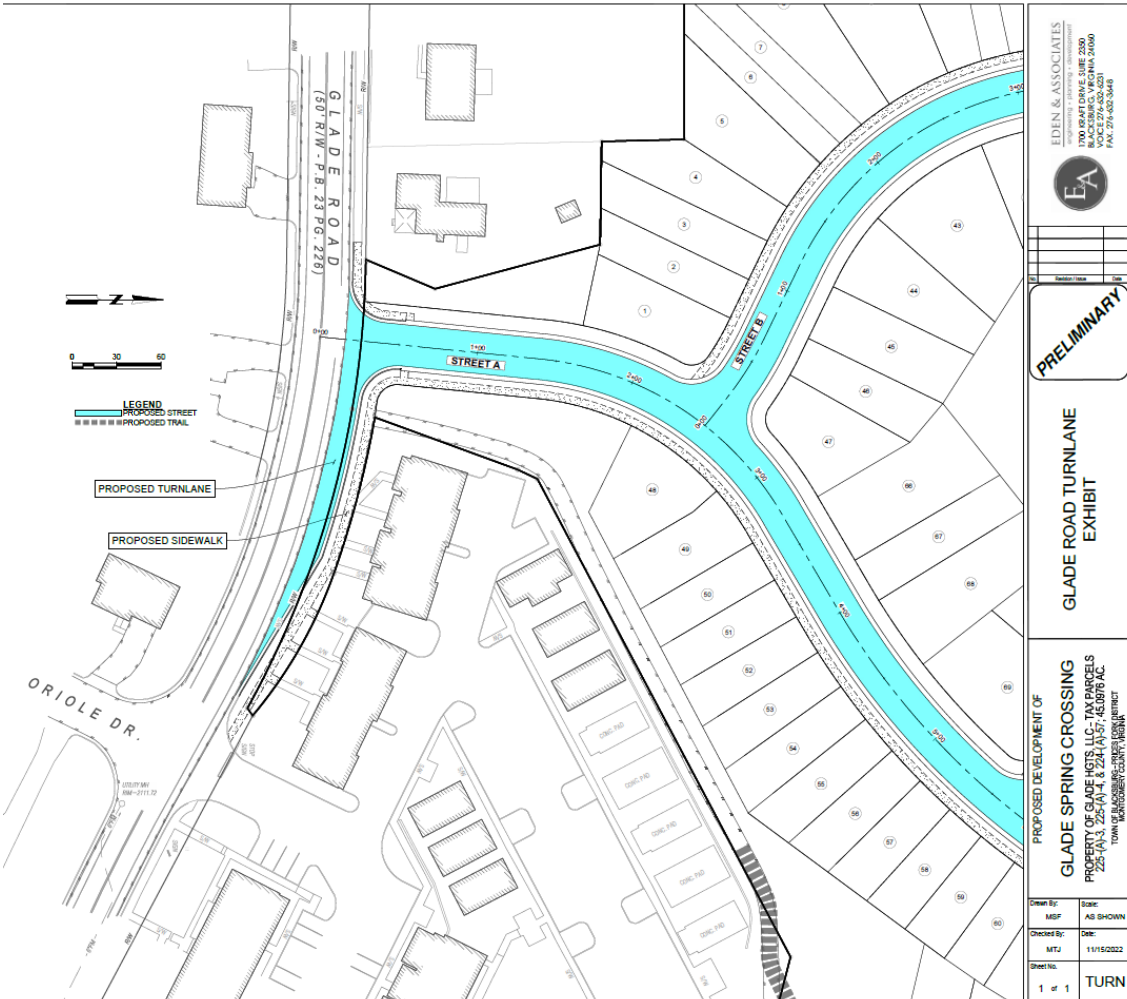
**TYPICAL ROAD CROSS SECTION
FOR STREET A (STA 16+50 TO STA 24+00) AND
STREET E
(NOT TO SCALE)**


NOTE: THE STREET IN PARENTHESIS!
DEFINES THE STREET TO WHICH THE
APPLIES.



Transportation Circulation

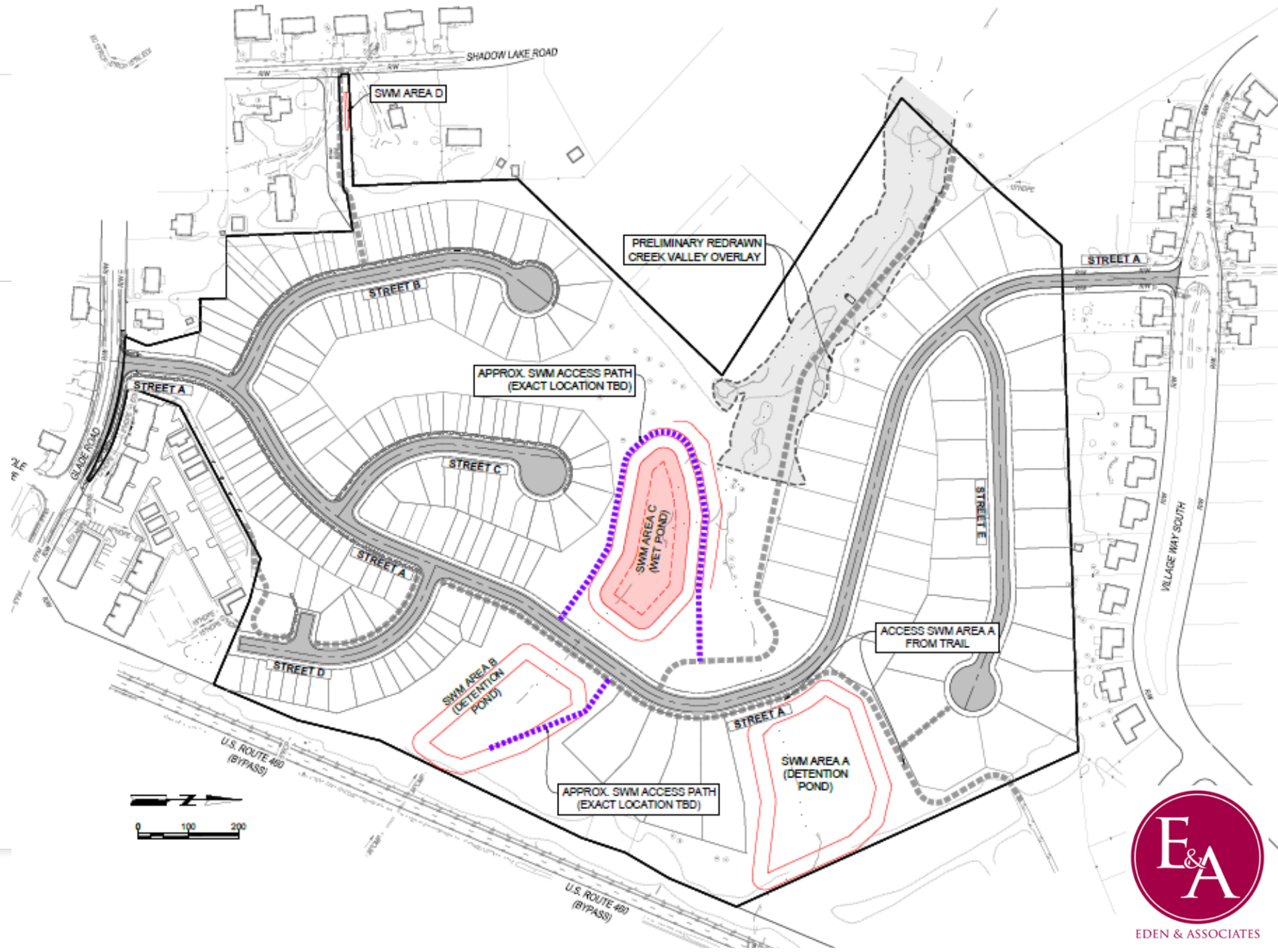
- Traffic Study Recommendations
 - Right turn lane into development
 - Glade/Old Glade existing left turn delays exacerbated
 - Minimal impacts to existing intersections



	Glade Heights Blacksburg, VA	Site Location Map
	Scale: Not to Scale Figure 1	

Stormwater Management

- Dry Water Quantity Ponds: 3
- Water Quality Area: Wet Pond
- Redrawn Creek Valley Overlay:
 - 100-year floodplain
 - Wetlands
 - 50' within creek
 - Slopes > 25%



Stormwater Management

Regional Benefits: Quantity

- 1-year peak reduction of nearly 60%
- 10-year peak reduction of just under 50%.

Preliminary Results

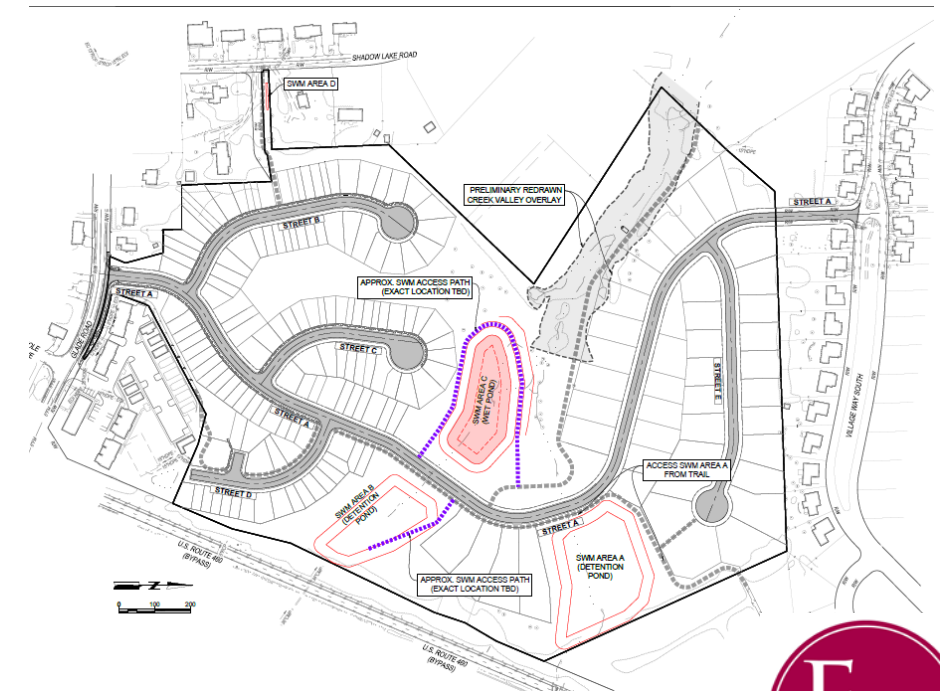
Stormwater Improvement Summary

Water Quantity

	Existing condition	After Regional SWM improvements	Net reduction of peak flow rate at prop. Line (pt. of discharge)
1-year peak flow rate	75.45 cfs	24.83 cfs	-46.32 cfs
10-year peak flow rate	175.77 cfs	90.38 cfs	-85.39 cfs

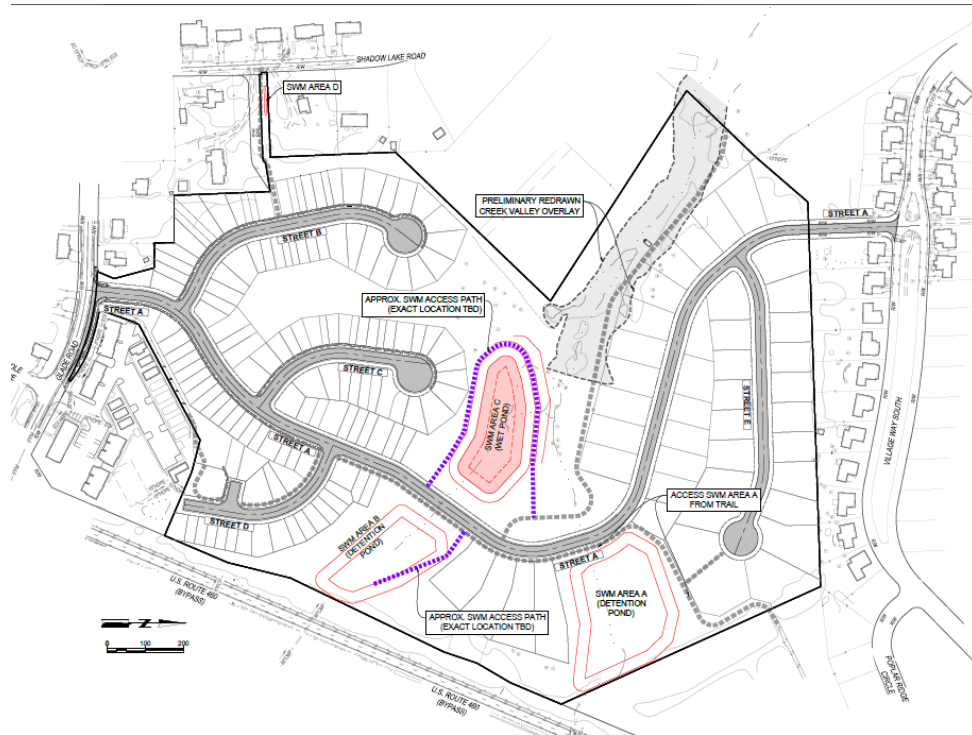
Water Quality

Target TP load reduction	TP load reduction achieved (after SWM improvements)	Excess TP load reduction relative to target
26.53 lb/yr	39.02 lb/yr	+12.49 lb/yr



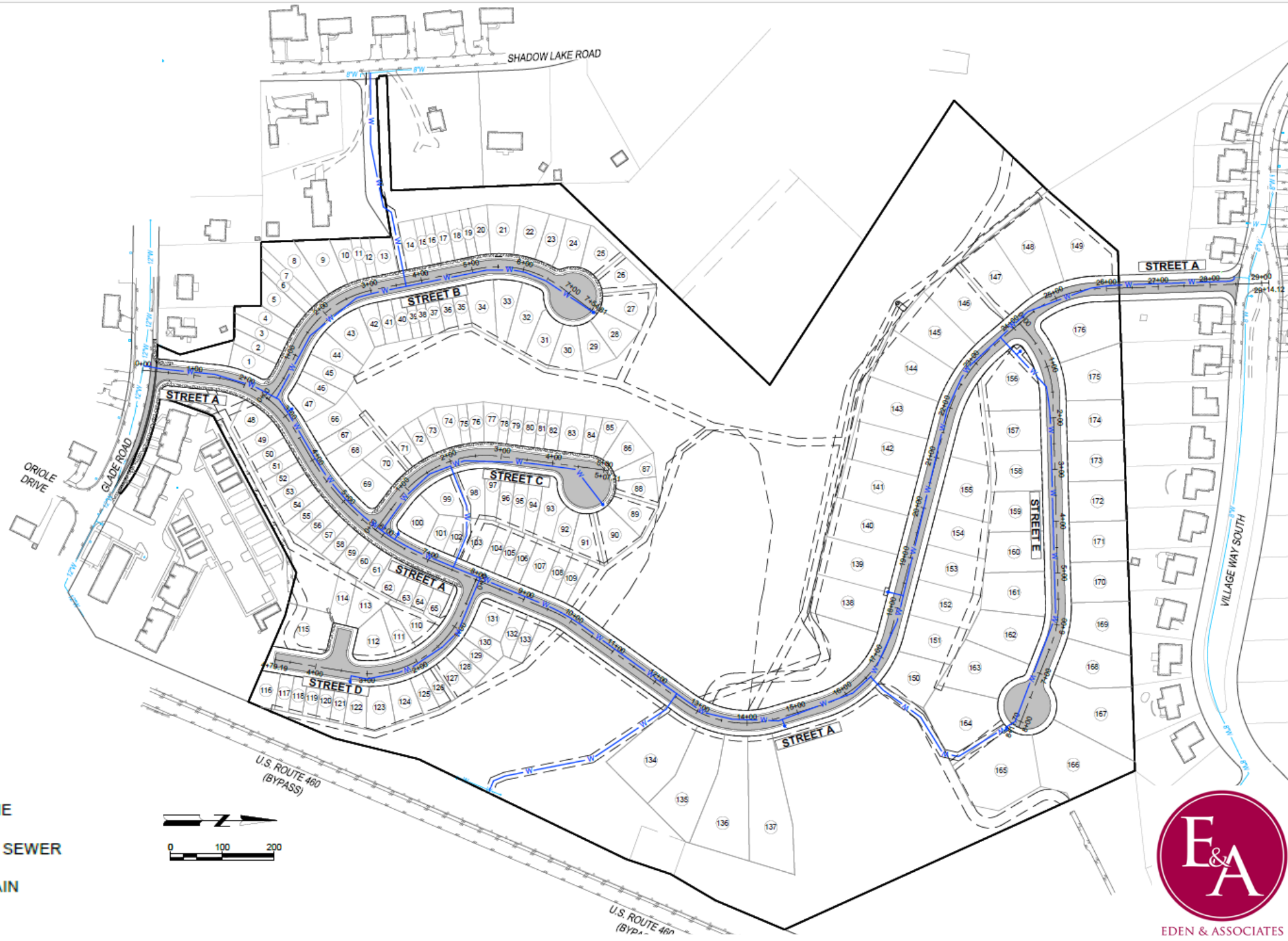
Stormwater Management

- Regional Wet Pond benefits
 - Pollutant reduction from runoff
 - Promotes biodiversity: plants/fish/wildlife
 - Quantity reduction of storms, evaporation
 - Aesthetically pleasing neighborhood amenity
- pollutant reduction can exceed the required load reduction by 45%.



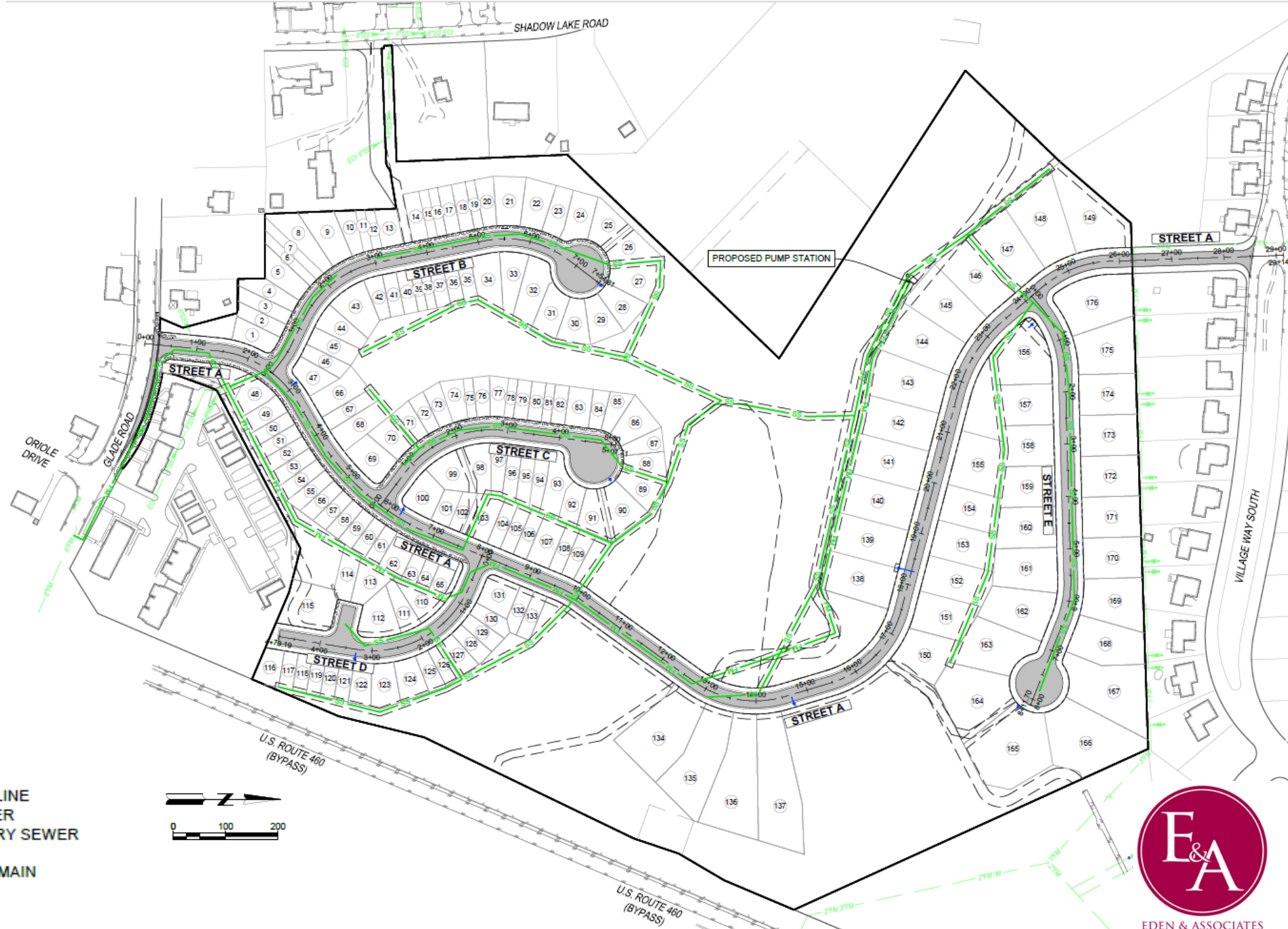
Water System

- Relocate V@TC backfeed loop
- Adequate capacity exists









Sewer System

- New pump station
- Force Main to Glade Rd.
- Reroute the Farm flow
- Downstream Capacity issues in Univ City Boulevard and with existing Force Main in Glade Rd.
- Solution
 - Divert flow around Capacity section
 - Increase pump size at Karr Heights
 - Cost?



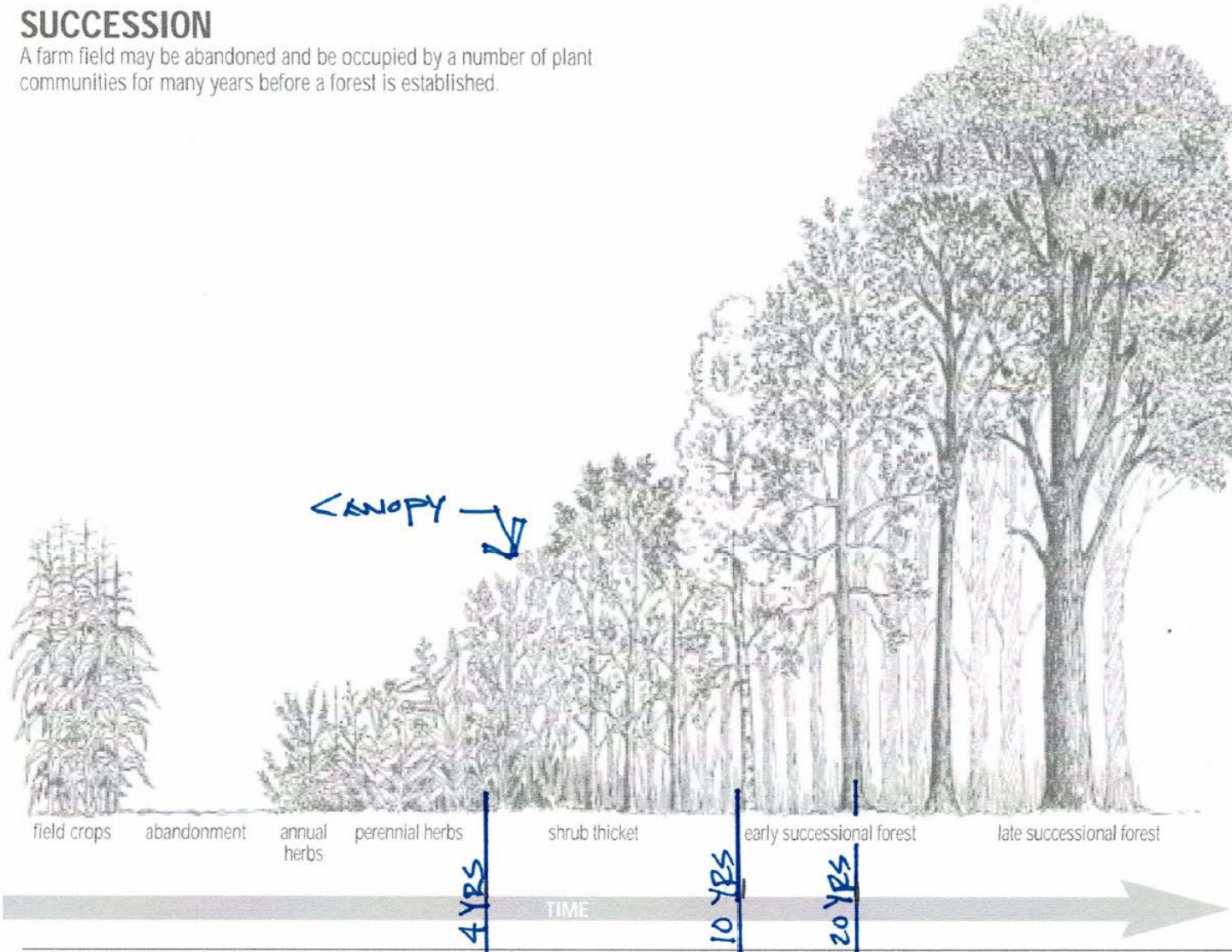
LEGEND

	W	EX. WATERLINE
	W	PROPOSED WATERLINE
	SS	EX. SANITARY SEWER
	SS	PROPOSED SANITARY SEWER
	FM	EX. FORCE MAIN
	FM	PROPOSED FORCE MAIN

Open Space Management Land Use Plan: Managed Successional Areas

SUCCESSION

A farm field may be abandoned and be occupied by a number of plant communities for many years before a forest is established.



★ Homeowner's Association



LandOwner Resource Center, Ontario Extension

Landscaping

LEGEND

STREET TREES



EXISTING WOODLAND
RETAINED



MANAGED TURF AREAS



MANAGED SUCCESSIONAL
LANDSCAPE



STORMWATER AREAS



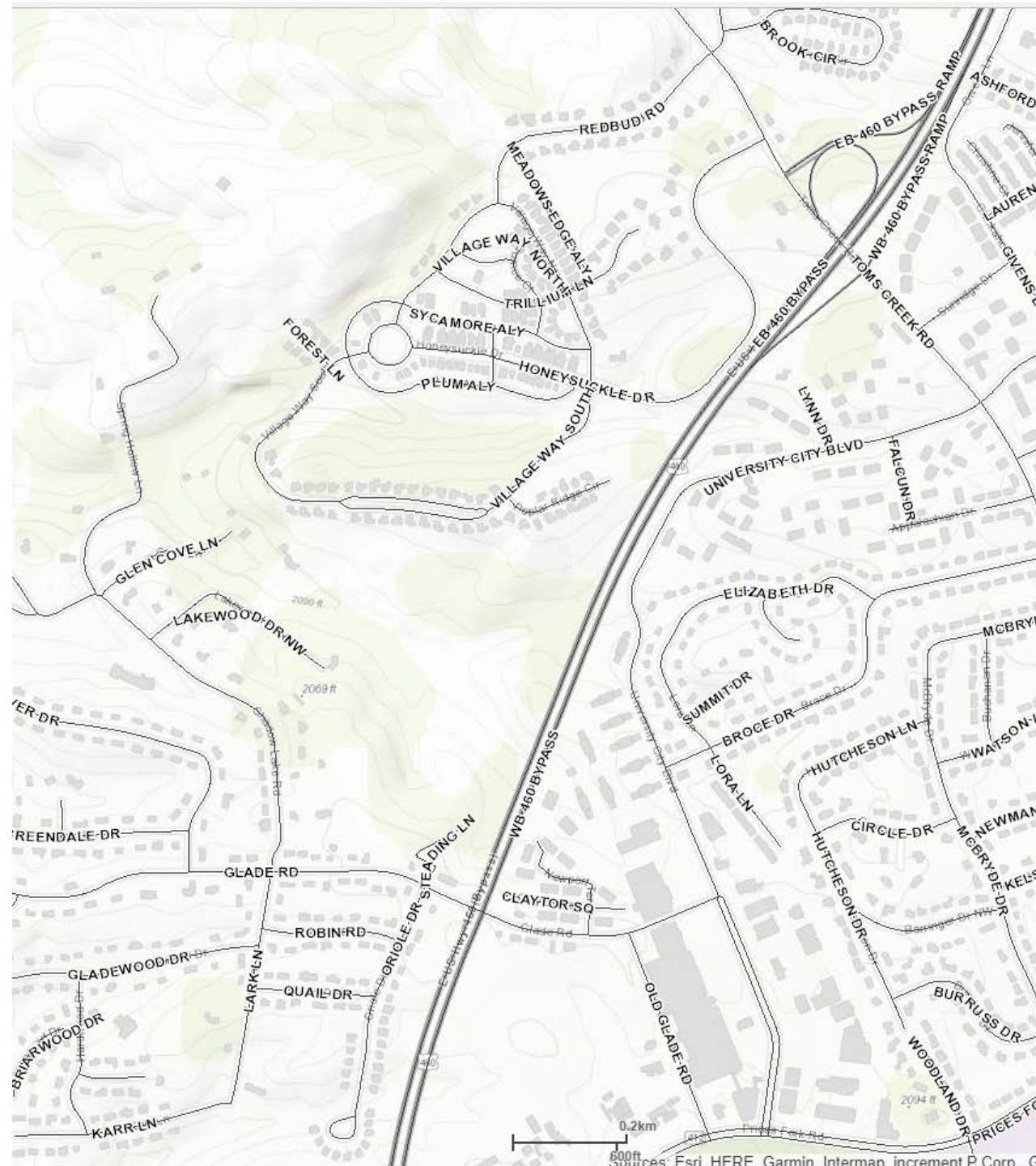
Questions and Comments

CONTACT INFORMATION

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- Marla/Cary Hopper: Development Team
 - marlakemsey1@gmail.com
 - caryhopper@msn.com
- Website: <https://gladespringcrossing.com>



Vicinity Map

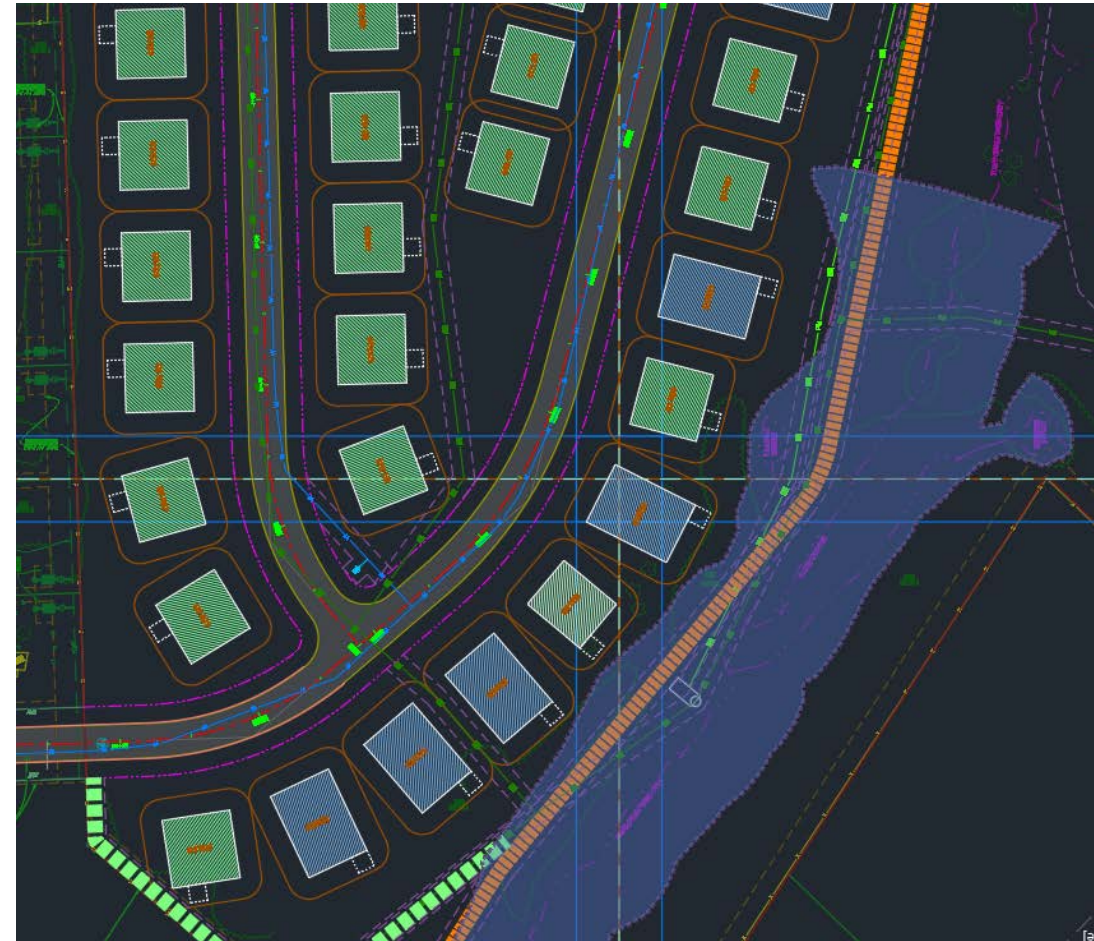
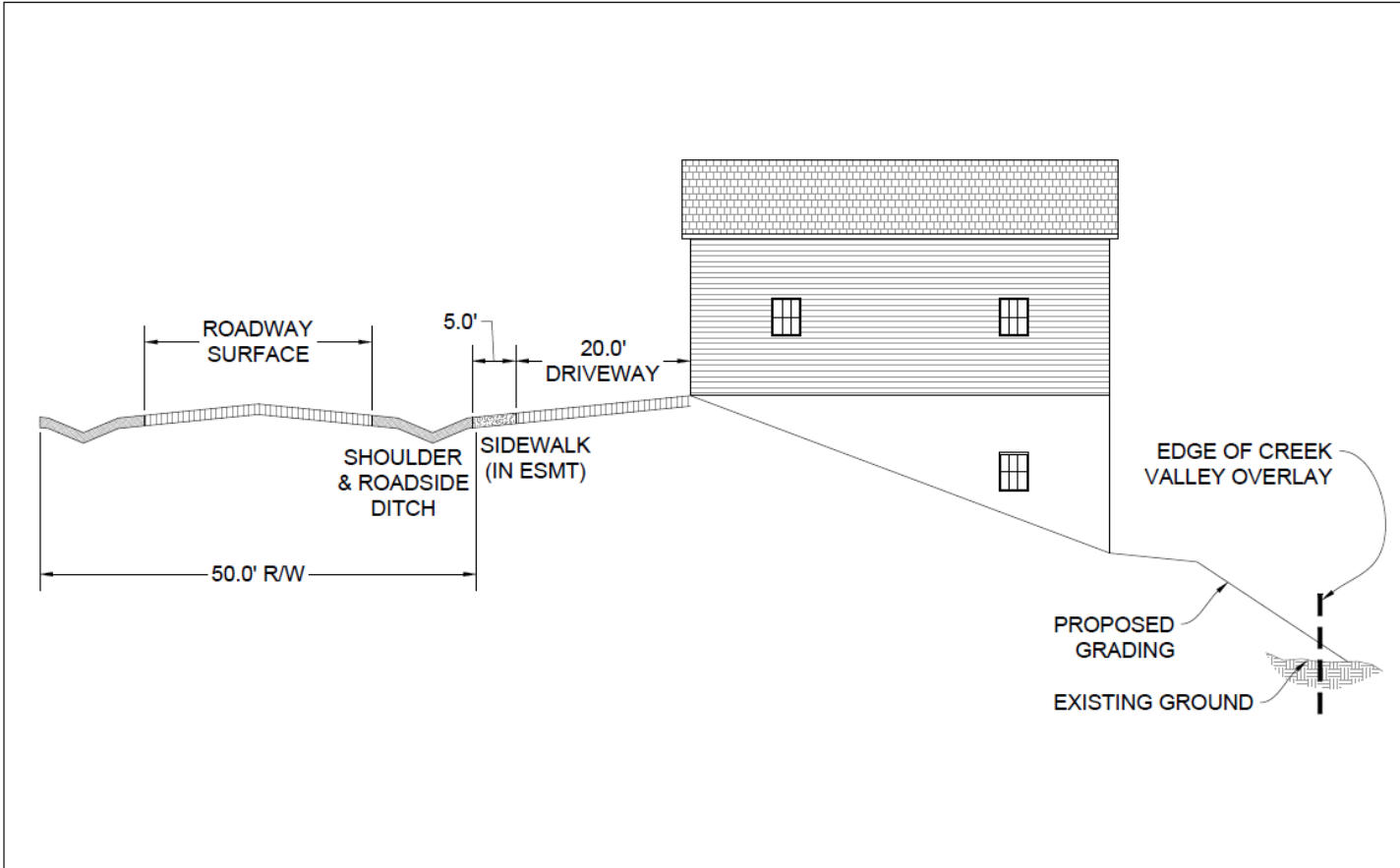


Town of Blacksburg GIS



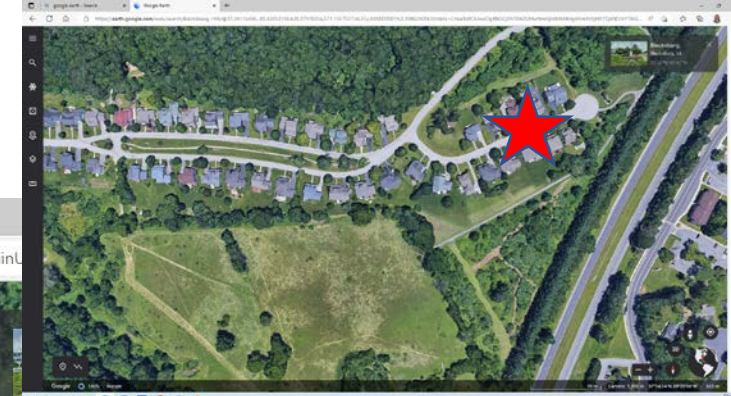
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Sidewalk Variance



Sidewalk Variance

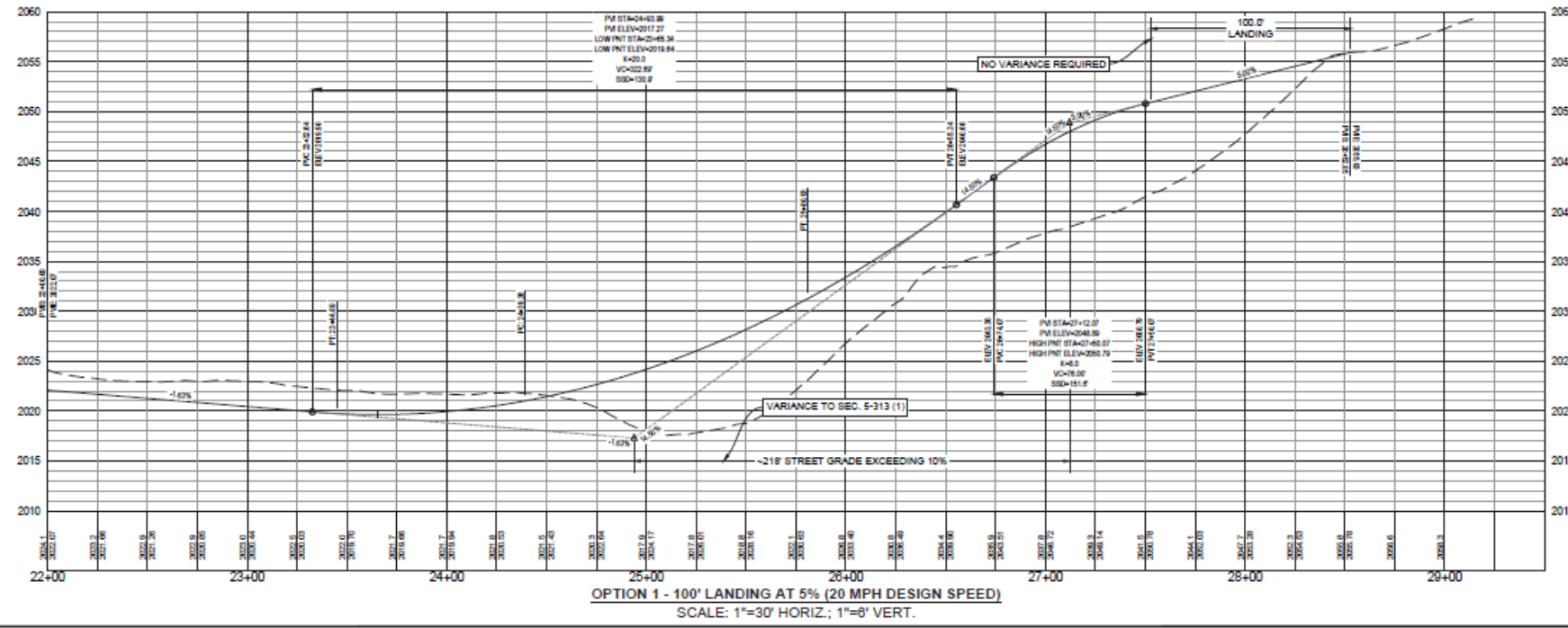
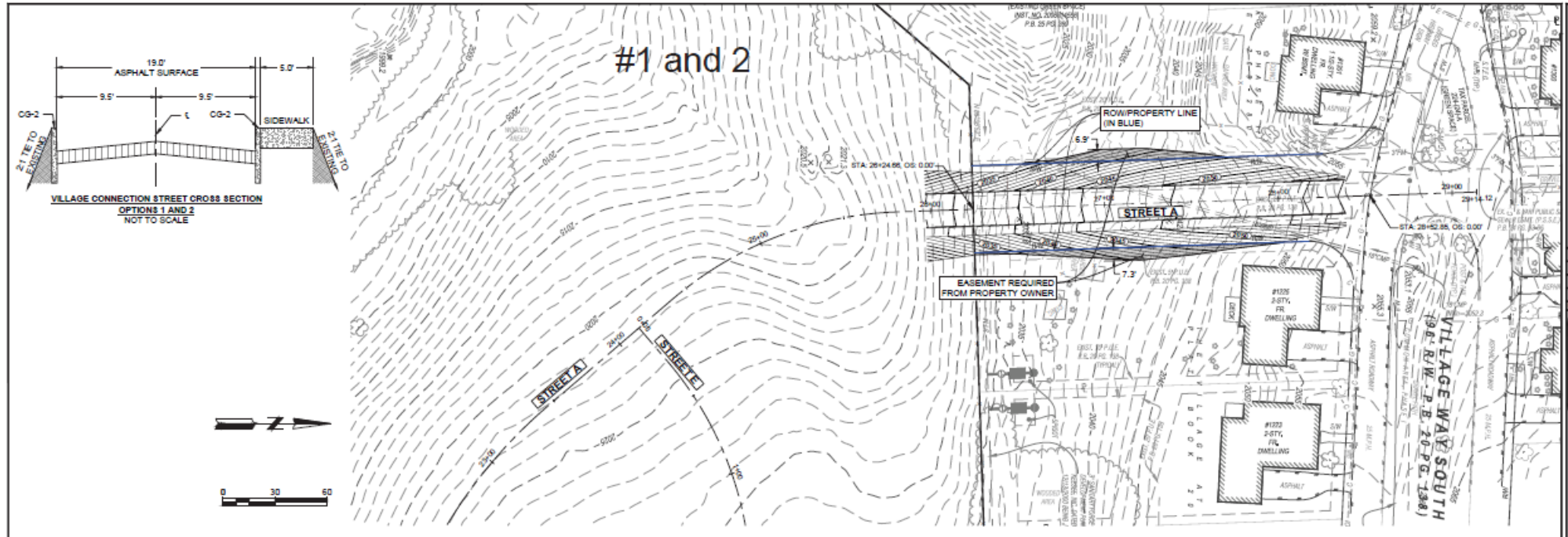
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Google 100% Google
20 m Camera: 884 m 37°14'28"N 80°26'08"W 625 m

Slope/Landing Variance at VWS intersection

- Sidewalk, landing by code



10/16/2022 11:51:00 AM

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 BLACKSBURG, VIRGINIA 24000
 VOICE 757-432-4231
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PRELIMINARY

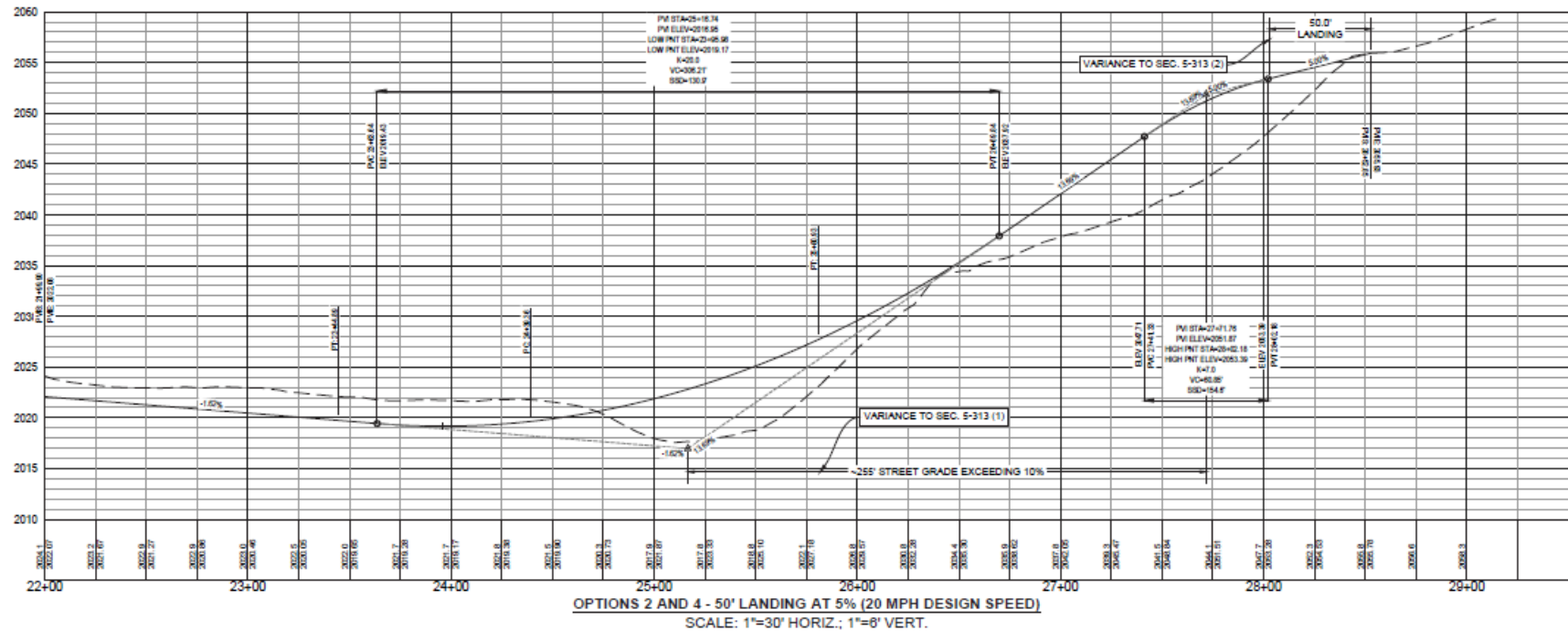
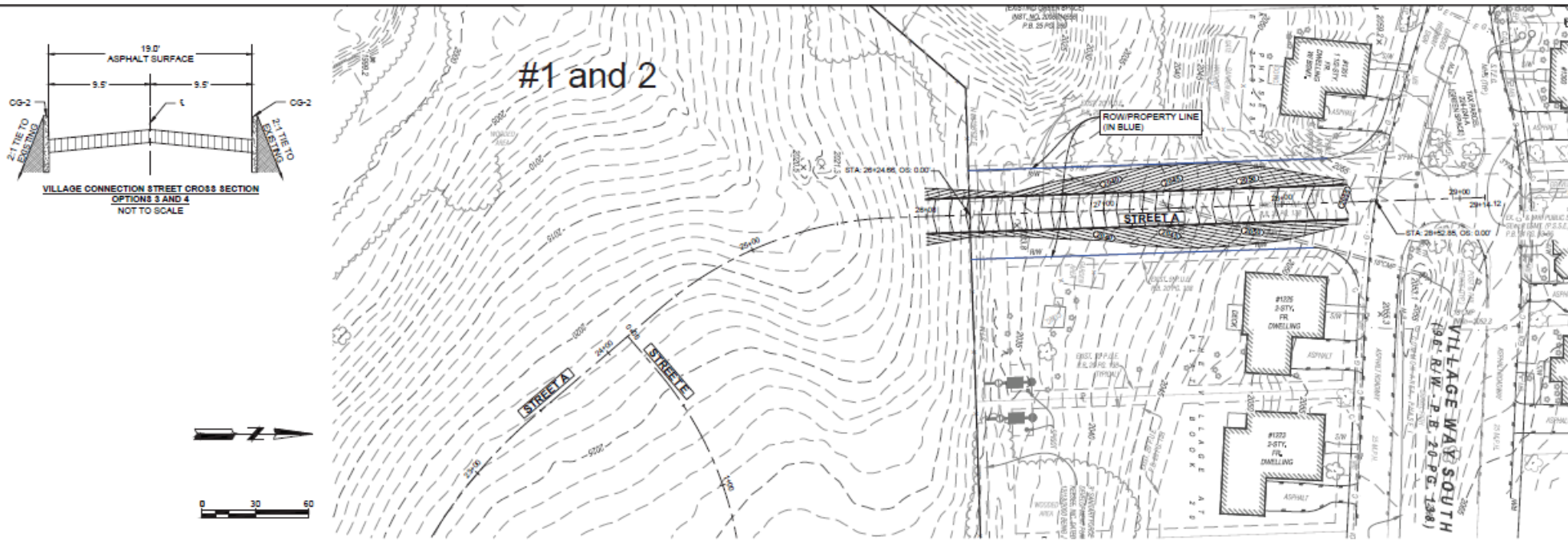
STREET A - VILLAGE WAY S.
 INTERSECTION EXHIBIT
 (OPTION 1)

PROPOSED DEVELOPMENT OF
 GLADE SPRING CROSSING
 PROPERTY OF GLADE HGTS. LLC - TAX PARCELS
 225(A)-3, 225(A)-4, & 224(A)-57, 45,2876 AC.
 TOWN OF BLACKSBURG-PRINCE GEORGE STREET
 MONTGOMERY COUNTY, VIRGINIA

Drawn By: MSF	Scale: AS SHOWN
Checked By:	Date: 10/18/2022
Sheet No: 1 of 4	EX1

Slope/Landing Variance at VWS Connection

- With sidewalk and landing variance



EDEN & ASSOCIATES

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 WILSONVILLE, OR 97150
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 FAX 503-632-3448

EA

PRELIMINARY

PROPOSED DEVELOPMENT OF
STREET A - VILLAGE WAY S.
 INTERSECTION EXHIBIT
 (OPTION 4)

PROPERTY OF GLADE HGTS, LLC - TAX PARCELS
 225(A)-3, 225(A)-4, & 224(A)-57, 45,0976 AC.
 TOWN OF WASHINGTON COUNTY, OREGON

Drawn By: MSF
 Scale: AS SHOWN

Checked By: -
 Date: 10/18/2022

Sheet No. 4 of 4
EX4

Walnut Dr: Givens Farm

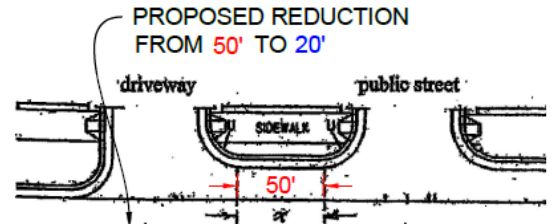
Similar to our connection >12% grade non-standard landing



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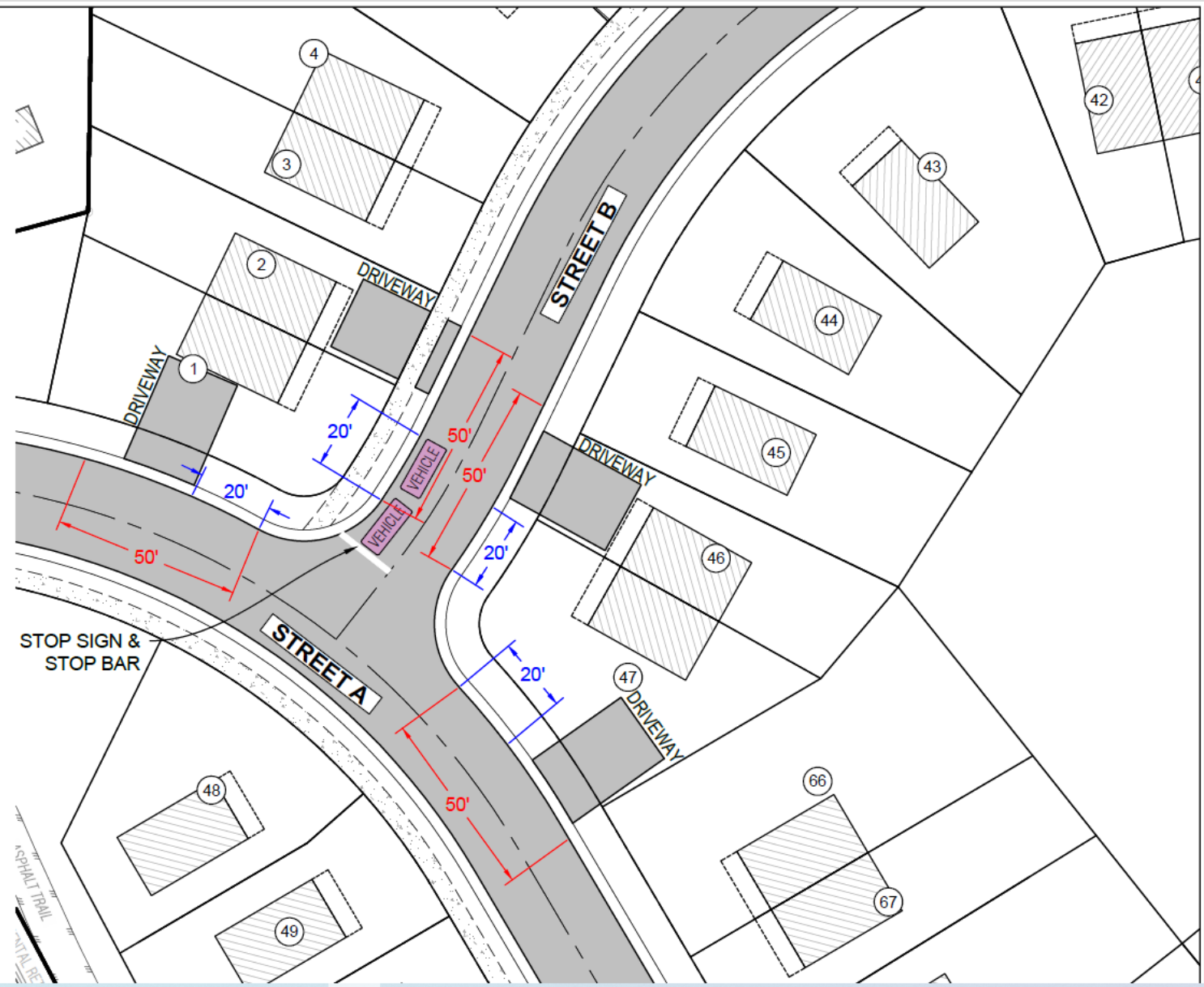
Driveway
variance

#9 Driveways



x = 50' feet = driveways on local or collector street
x = 75' feet = driveways on arterial street

"DRIVEWAY MEASUREMENTS DIAGRAM"
PER SEC.5-318(d) OF SUBDIVISION
ORDINANCE



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BLACKSBURG, VIRGINIA 24060
PHONE: 757-652-5231
FAX: 757-652-5048



PRELIMINARY

DRIVEWAY VARIANCE EXHIBIT

PROPOSED DEVELOPMENT OF
SPRING CROSSING
E GLADE HGTS, LLC - TAX PARCELS
25-(A)-4, & 224-(A)-57, 45.0876 AC.
BLACKSBURG-PRICES FORK DISTRICT
MONTGOMERY COUNTY, VIRGINIA

Transportation Circulation

- Traffic Study: of trip generated by the development
 - AM peak hour: 5 cars entering from V@TC 1 car in 12 minutes
 - AM peak hour: 14 cars exiting to V@TC 1 car in 4 minutes
 - PM peak hour: 16 cars entering from V@TC
 - PM peak hour: 10 cars exiting to V@TC

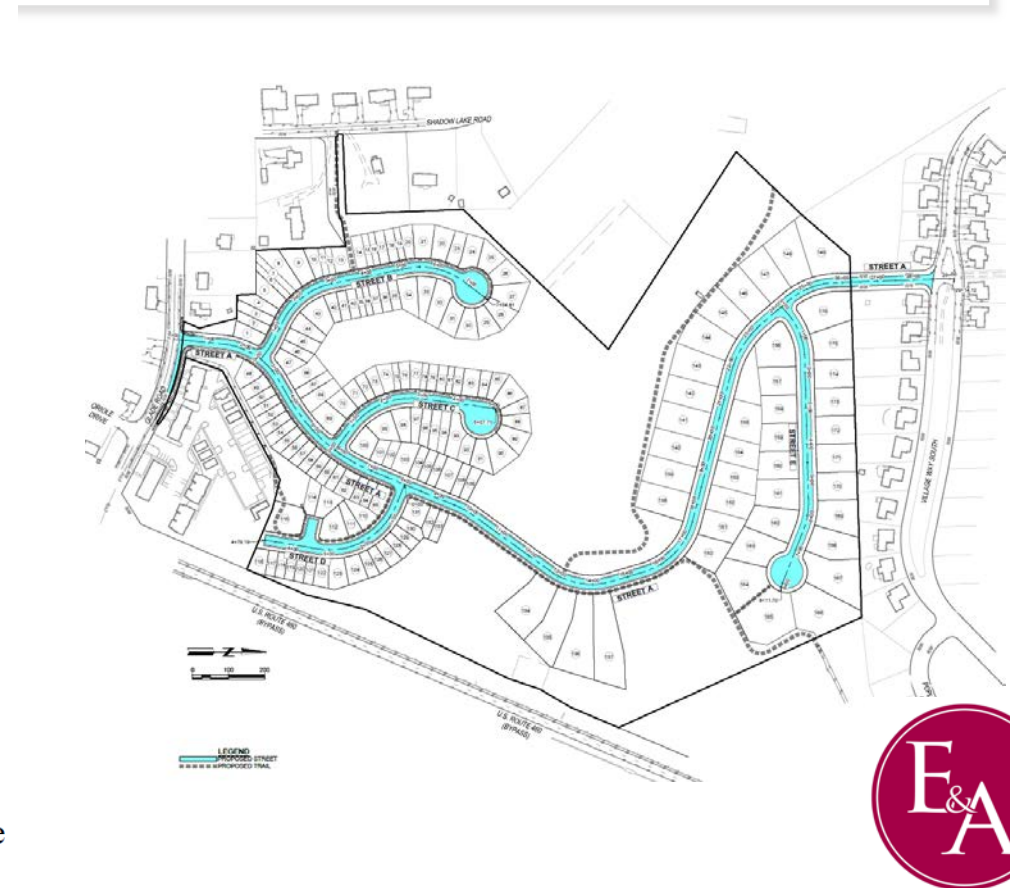
Land Use (ITE Land Use Code)	Size	Weekday Daily Traffic (vpd)		AM Peak Hour (vph)		PM Peak Hour (vph)	
		Enter	Exit	Enter	Exit	Enter	Exit
Single Family Detached Housing (210)	180 units	867	867	33	94	109	64

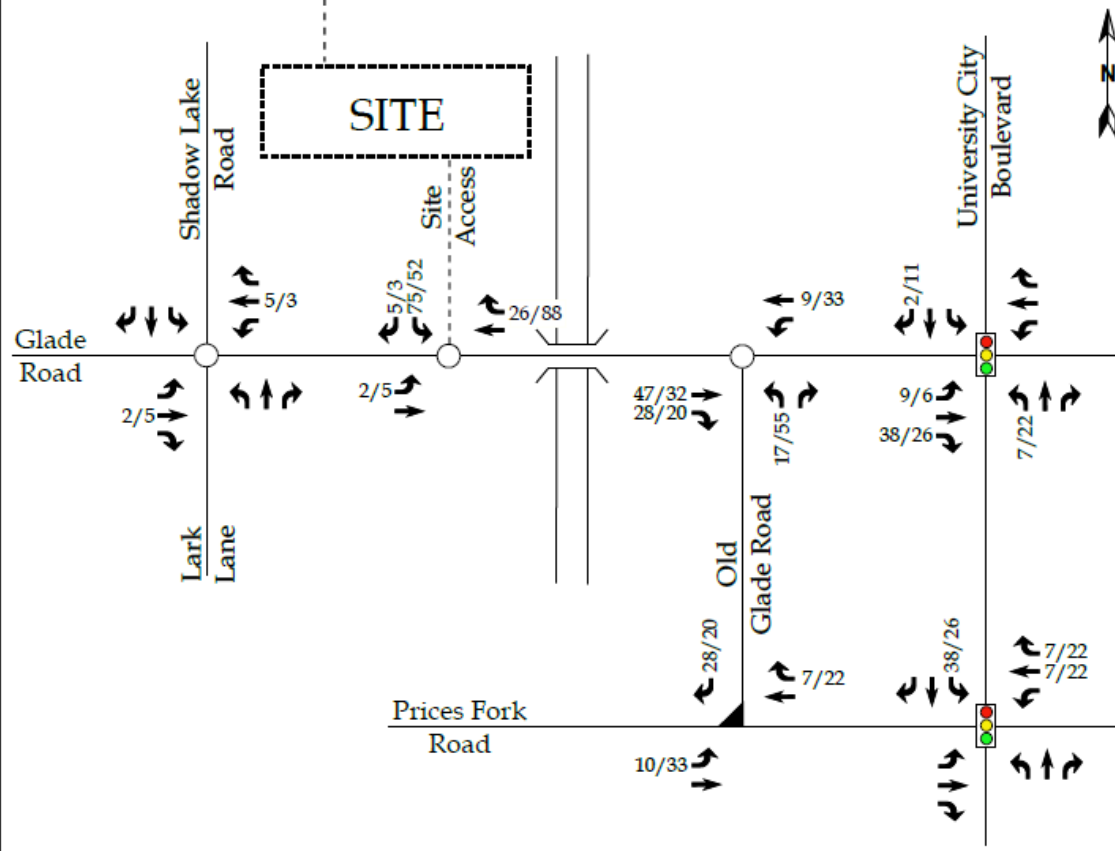
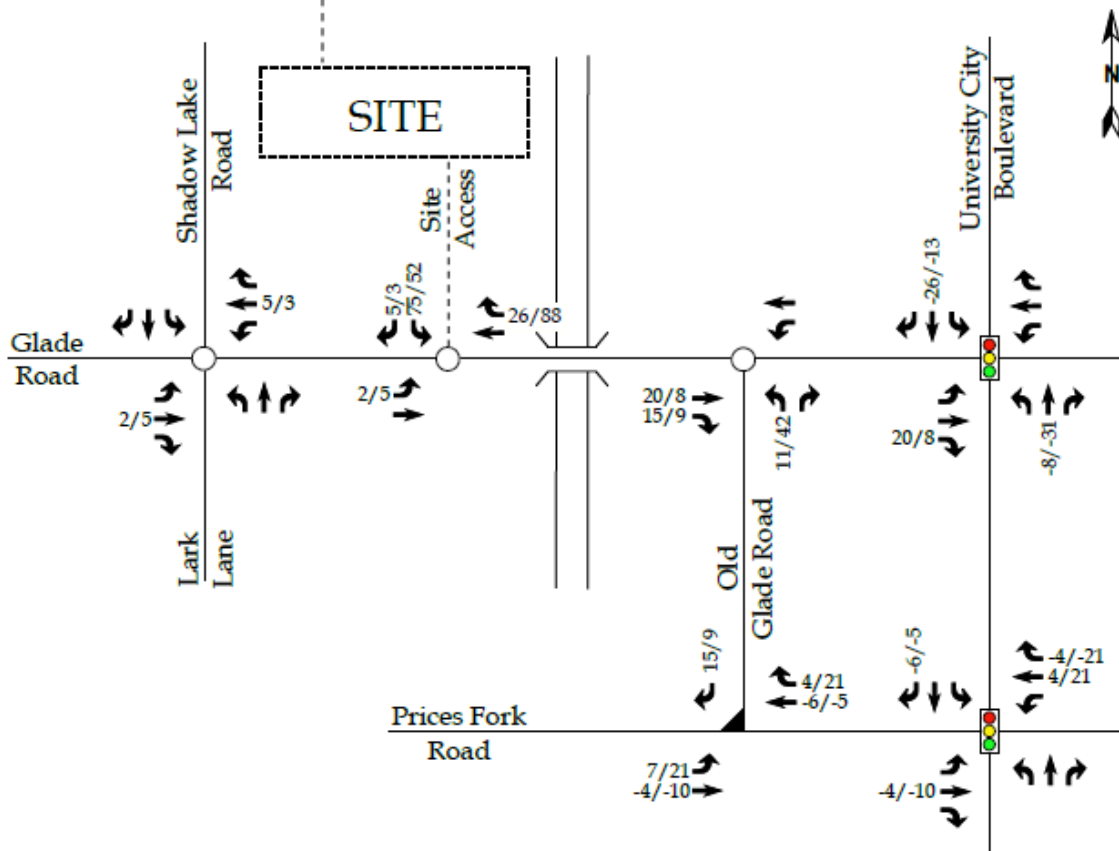
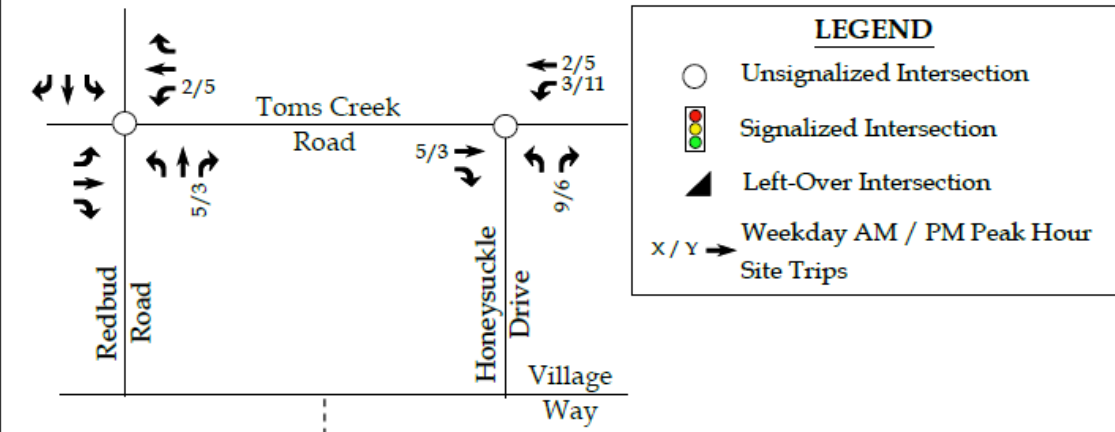
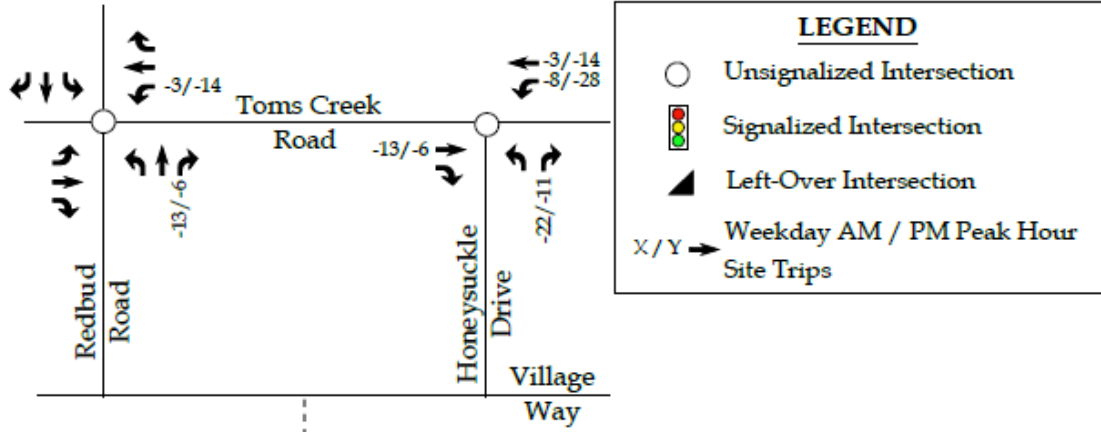
Site Trip Distribution

The following site trip distribution was applied based on a review of the existing traffic volumes, the adjacent roadway network, and engineering judgement:

- 10% to / from the north on University City Boulevard
- 40% to / from the east on Prices Fork Road
- 30% to / from the west on Prices Fork Road
- 5% to/from the west on Glade Road
- 15% to/from the east on Toms Creek Road

Through coordination with the Town, it was determined that 30% of the existing traffic utilizing Honeysuckle Drive or Redbud Road to access the Village neighborhood to the north of the proposed site would utilize the proposed interconnectivity to access Glade Road instead of continuing to utilize the Toms Creek Road.





Glade Heights
Blacksburg, VA

Rerouted Village
Existing Traffic

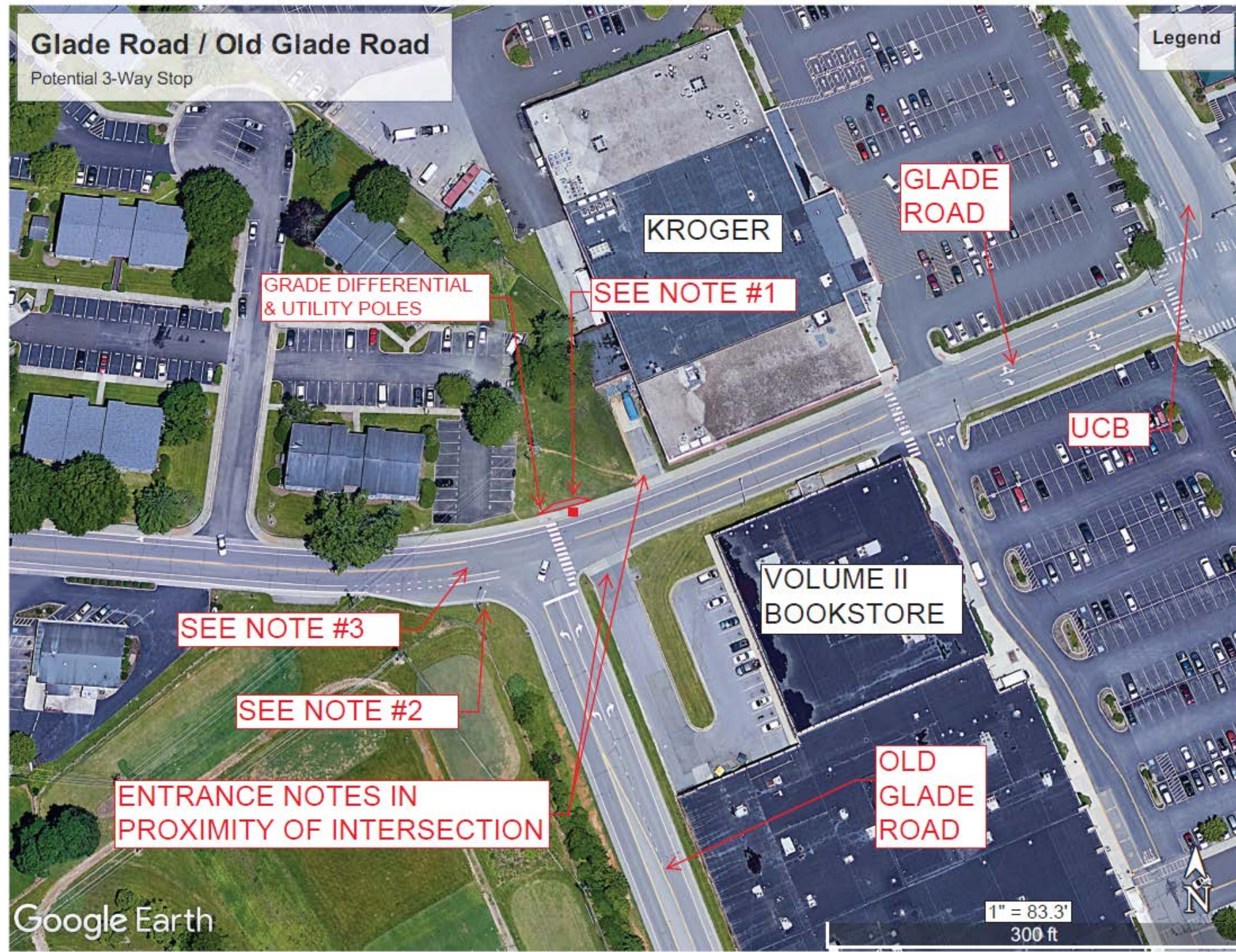


Glade Heights
Blacksburg, VA

Site Trip Assignment

Glade/Old Glade

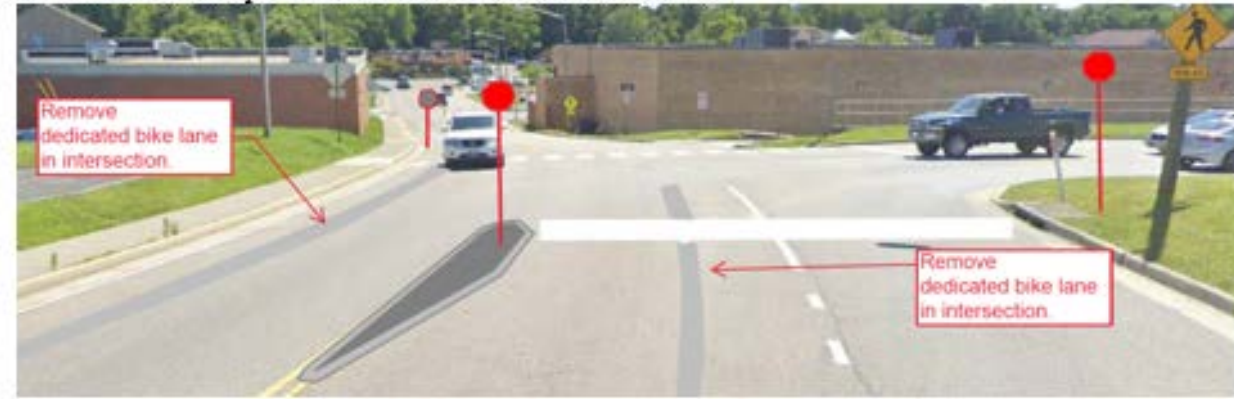
- Issue: LOS F on Northbound Left turn
- Traffic Signal not warranted
- 3-way stop warranted in no-build condition (NOW)



Potential image in the westbound direction.



Recommended improvements in the eastbound direction.



Visibility concerns in the eastbound direction.



- Westbound

- Least intrusive fix
- Island in ex. Bicycle lane, stop sign and stop bar
- Modify dedicated bicycle lane
- Provide adequate traffic control measures during construction
- \$50-60k does not include pedestrian crossing problems, lack of landing on Glade.

- Eastbound

- Island to separate through lanes and place two stop signs and stop bars
- Stop ahead sign at Citgo

3-way stop: Pros and Cons

- Improve LOS on Old Glade
- Worsen LOS on Glade (major collector)
- Maximum queues do not reach the Kroger driveways to the east. Stop about 150 feet short of the intersection
- An all-way stop with multiple lanes on multiple approaches decreases in safety and creates more confusion.
 - Commercial entrance (Vol 2)
 - Kroger loading dock
- \$50-60k

OTHER OPTIONS?

- Roundabout?
- Traffic signal cheaper?

Table 5: Level-of-Service Summary for Old Glade Road & Glade Road

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Lane Queue (ft)	Overall LOS (Delay)
Existing (2022) Conditions	EBT	--	--	--	N/A ³	--	--	--	N/A ³
	EBR	--	--	--		--	--	--	
	WBL/T ²	A	9	10		A	8	10	
	NBL ¹	B	15	20		D	28	103	
	NBR ¹	A	10	13	A	10	15		
No-Build (2026) Conditions	EBT	--	--	--	N/A ³	--	--	--	N/A ³
	EBR	--	--	--		--	--	--	
	WBL/T ²	A	9	10		A	8	10	
	NBL ¹	B	15	20		E	37	135	
	NBR	A	10	13	A	10	15		
Build (2026) Conditions	EBT	--	--	--	N/A ³	--	--	--	N/A ³
	EBR	--	--	--		--	--	--	
	WBL/T ²	A	9	10		A	8	13	
	NBL ¹	C	17	33		F	133	378	
	NBR	B	10	13	B	10	15		
Build (2026) Conditions (All-Way Stop)	EBT	B	11	40	B (11)	B	13	40	C (20)
	EBR	B	10	40		B	11	28	
	WBL/T	B	11	30		C	24	145	
	NBL	B	12	25		D	27	148	
	NBR	A	10	15		B	11	25	

1. Level of service for minor approach
2. Level of service for major-street left-turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections.