

Council Special Meeting

Obey Creek Development Agreement Process



January 8, 2015

Agenda for the Special Meeting

1.	Welcome
2.	Public Comment (Approximately 10 minutes)
3.	Updates
	Council Sub-Committee on Affordable Housing
	Revised Fiscal Analysis
	Connectivity Information – Bicycle and Pedestrian
	Revised Traffic Analysis
4.	Review of Past Discussions and Next Steps
	Prepare for 1/22-1/23 Facilitated Discussion
5.	Comments from East West Partners
6.	Public Comment (Approximately 10 minutes)

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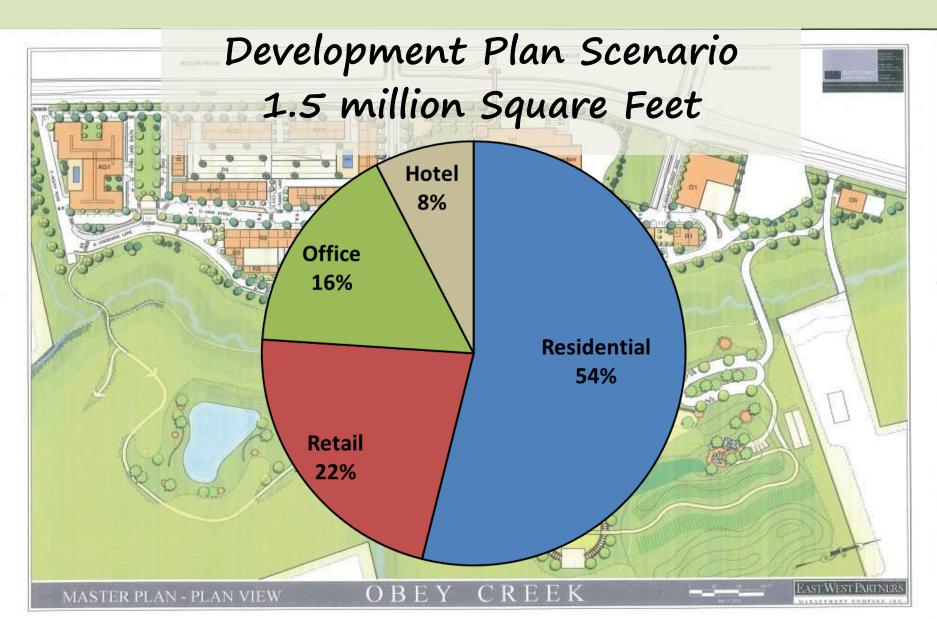
Updates: Council Sub-Committee on Affordable Housing

Councilmembers Cianciolo, Greene, and Ward

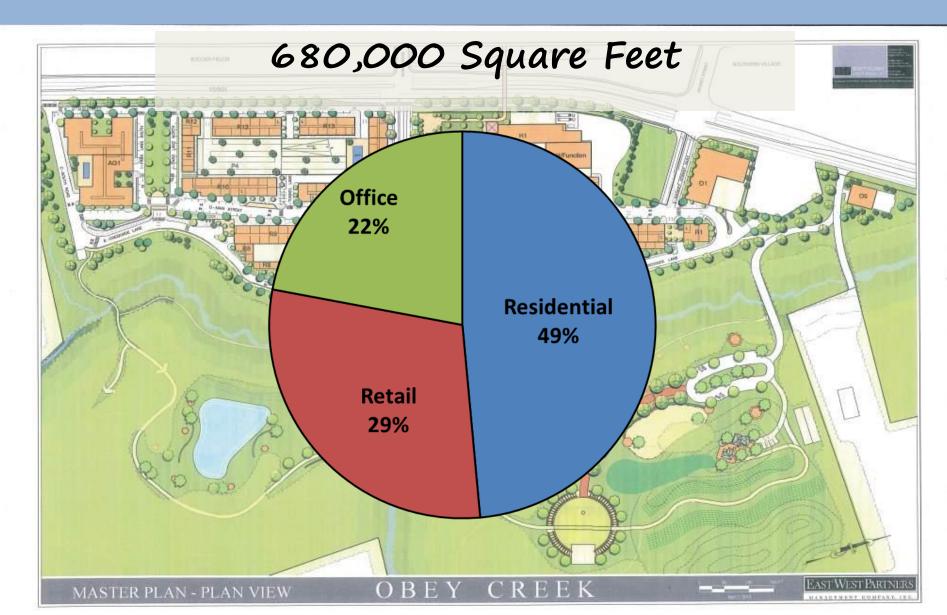
Updates: Fiscal Analysis – Minimum Development Scenario

Ken Pennoyer, Business Management

Original Scenario

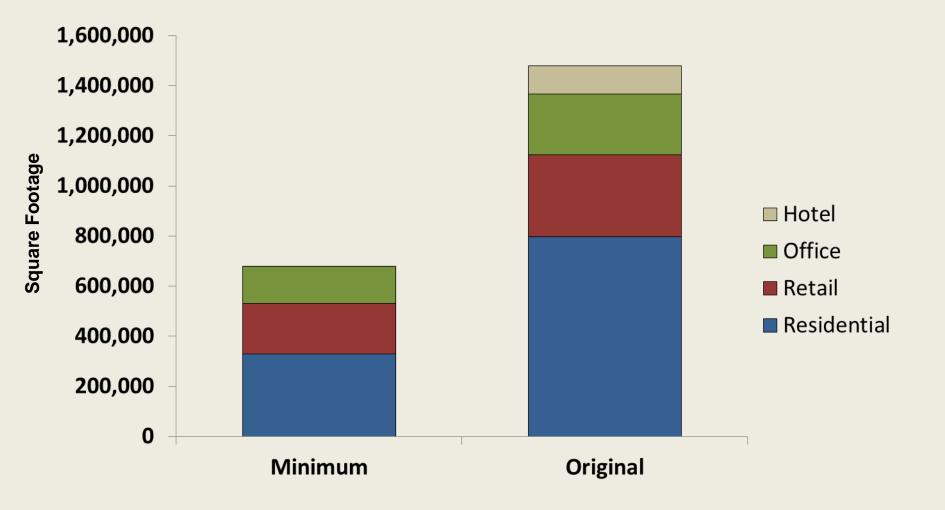


Minimum Scenario



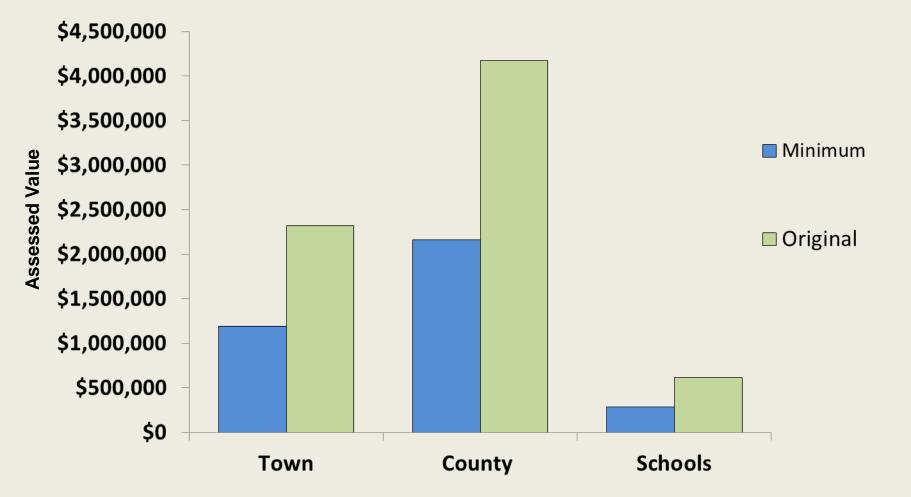
Scenario Comparison

Original versus Minimum



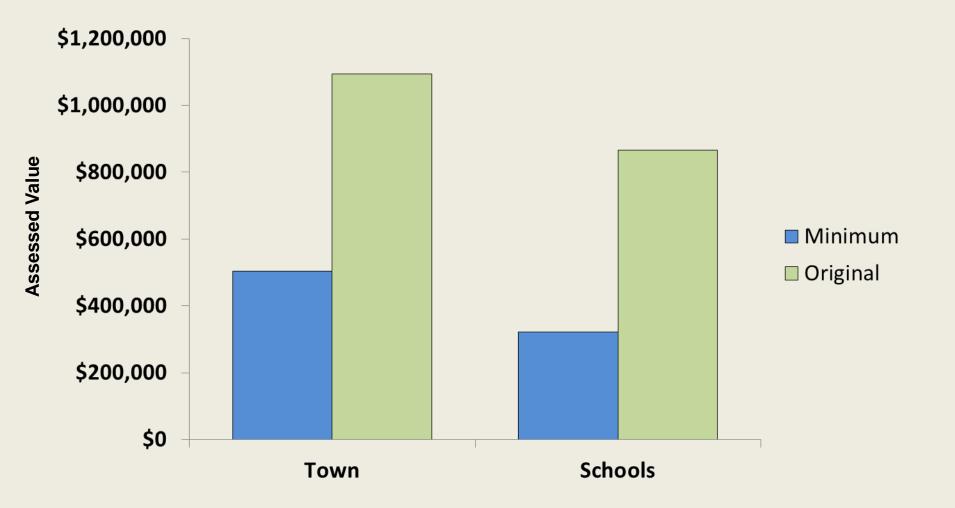
Annual Revenues

Original versus Minimum



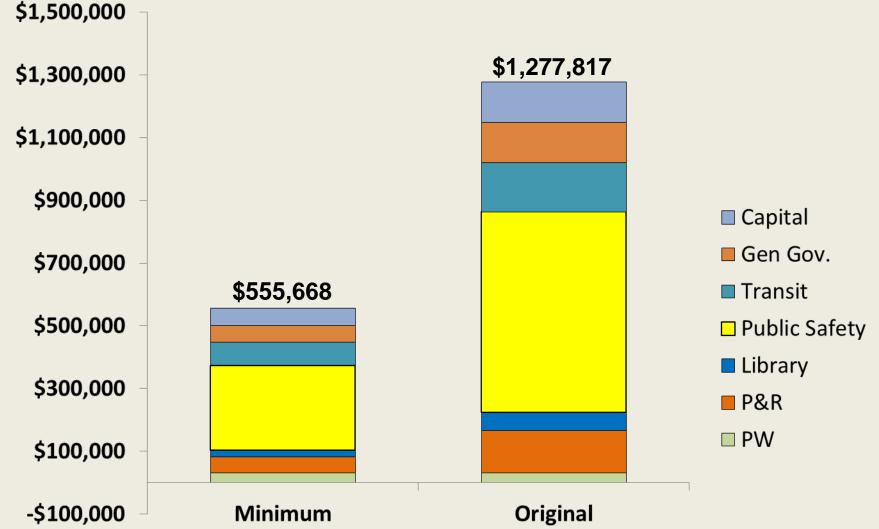
One-time Revenues

Original versus Minimum



Town Annual Costs

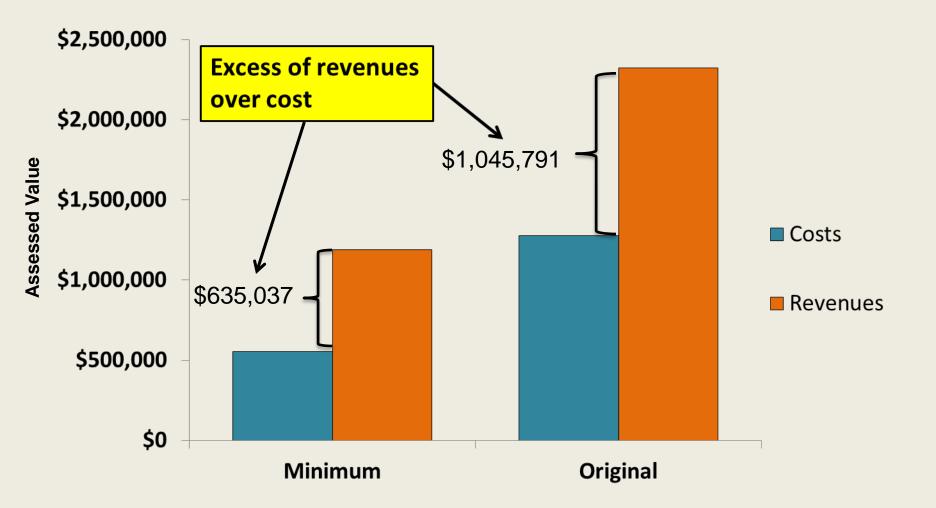
Original and Minimum Scenarios



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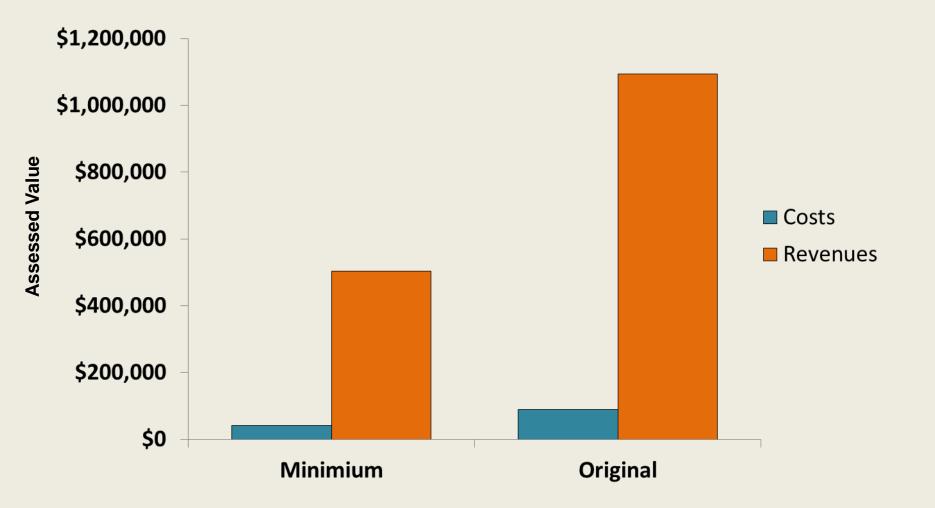
Assessed Value

Town Annual Revenue versus Cost Original and Minimum Scenarios



Town One-time Revenue versus Cost

Original and Minimum Scenarios



Updates: Connectivity Information – Bicycle and Pedestrian

David Bonk, Transportation and Long Range Manager

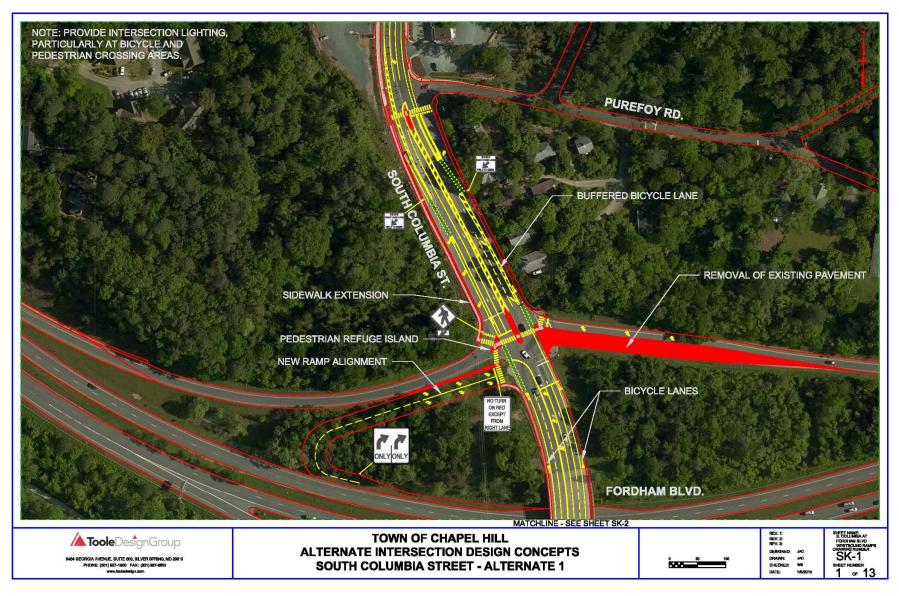
Toole Design Group: South Columbia Assessment

- Identify existing safety challenges for pedestrians and bicyclists (Page 2)
- Review potential operational or safety challenges resulting from proposed roadway modifications (Pages 3-5)
- Develop concepts and recommendations which address existing and future pedestrian and bicycle safety and access issues (Pages 6-11)

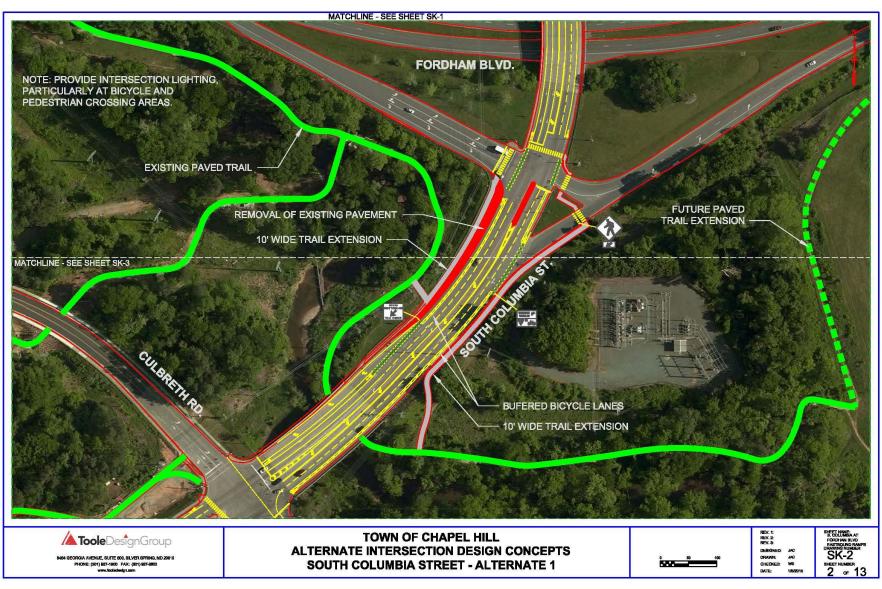
Toole Design Group: South Columbia Assessment

Alternate 1

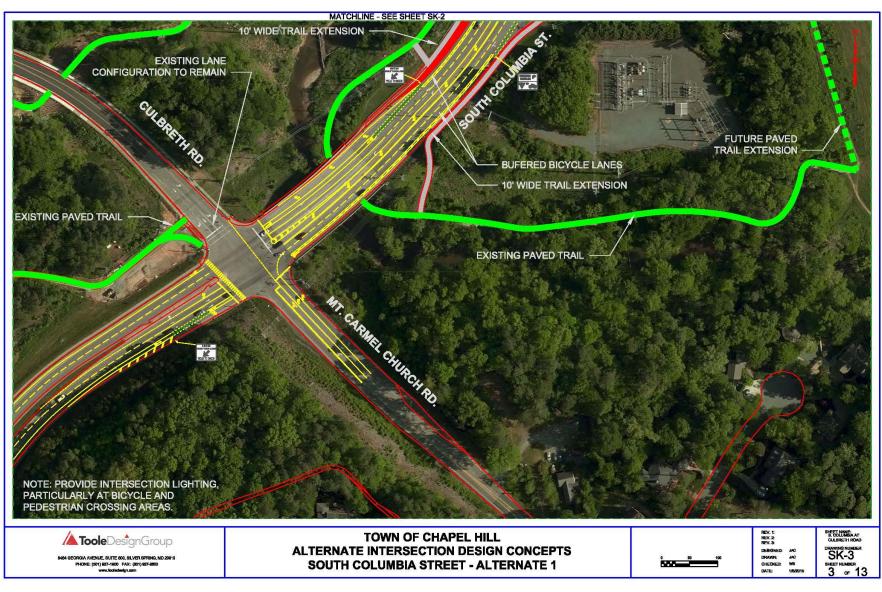
Alternate 1: Image 1 of 13 in Memorandum



Alternate 1: Image 2 of 13 in Memorandum



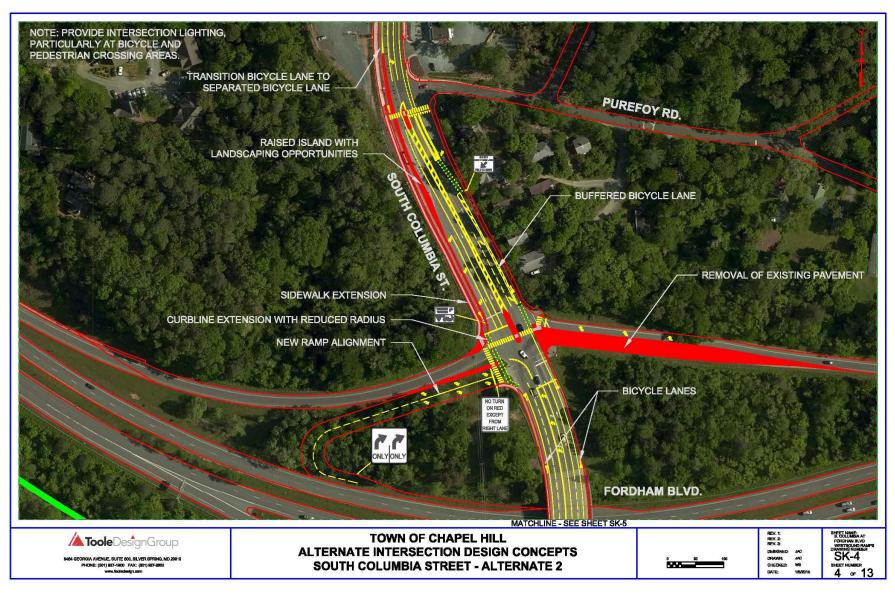
Alternate 1: Image 3 of 13 in Memorandum



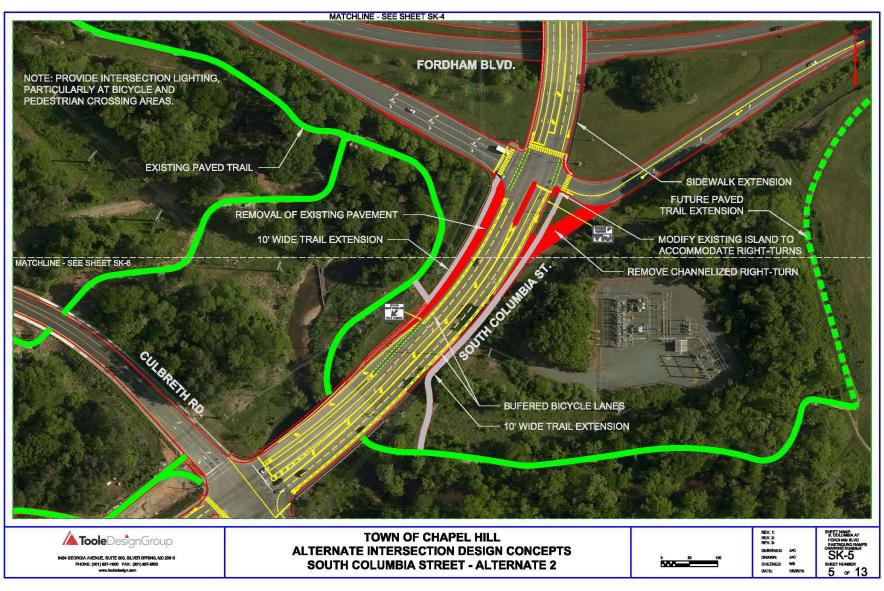
Toole Design Group: South Columbia Assessment

Alternate 2

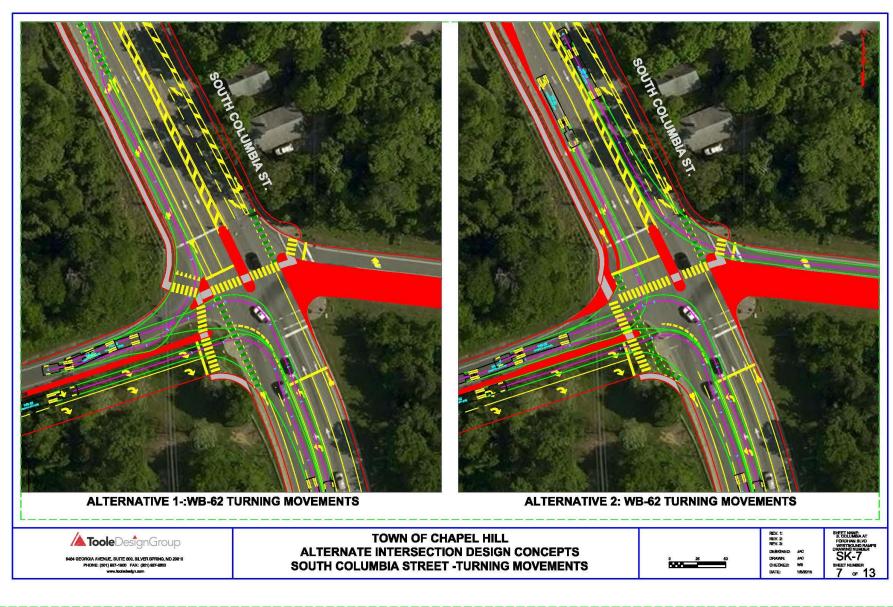
Alternate 2: Image 4 of 13 in Memorandum



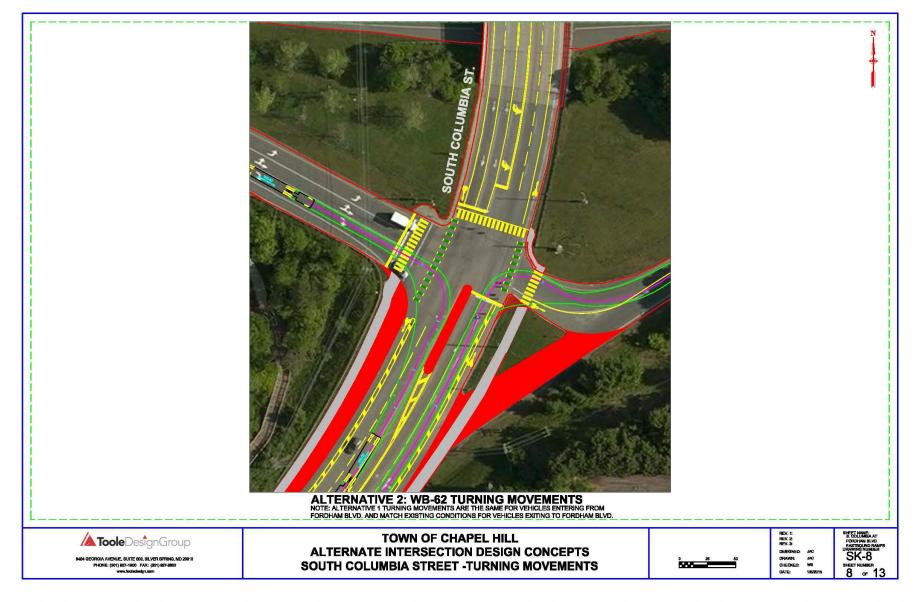
Alternate 2: Image 5 of 13 in Memorandum



Alternate 2: Image 7 of 13 in Memorandum



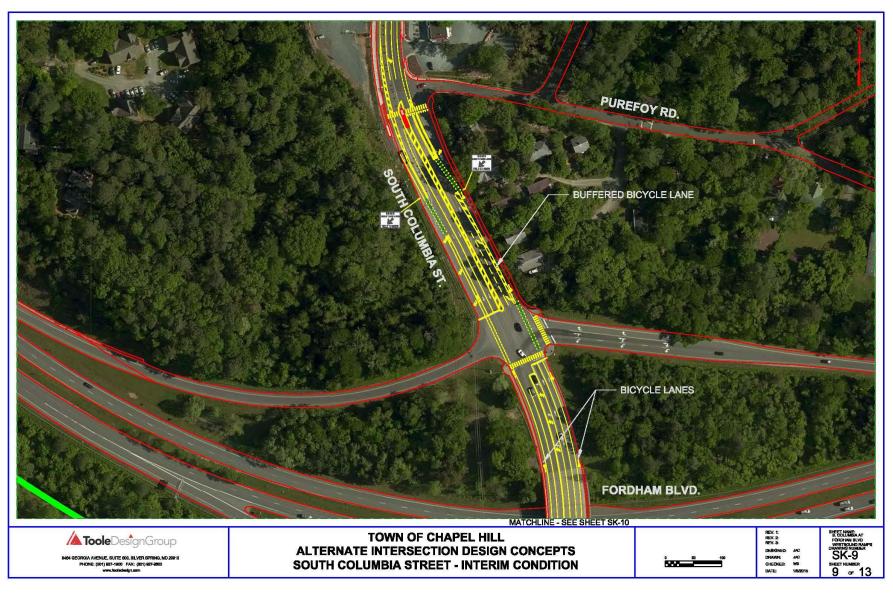
Alternate 2: Image 8 of 13 in Memorandum



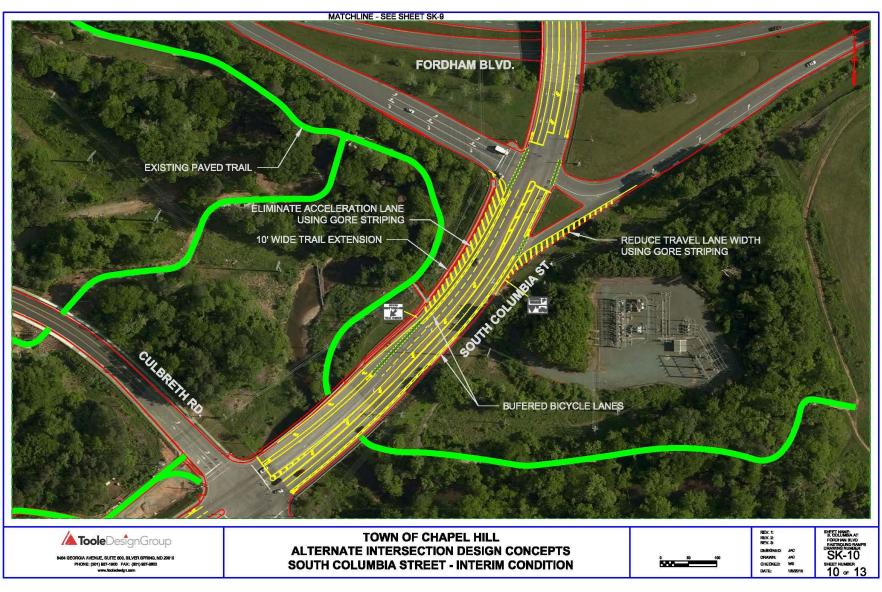
Toole Design Group: South Columbia Assessment

Interim Improvements

Interim Improvements: Image 9 of 13 in Memorandum



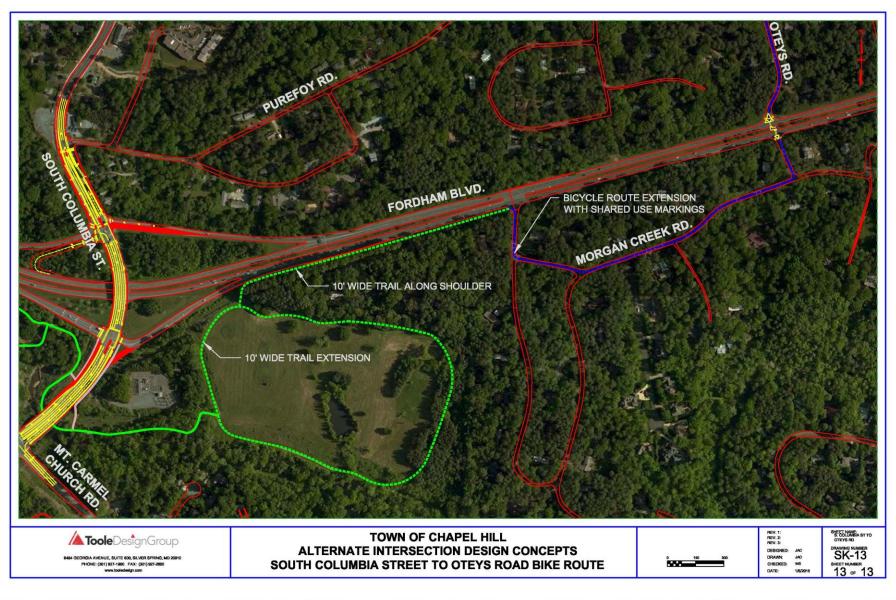
Interim Improvements: Image 10 of 13 in Memorandum



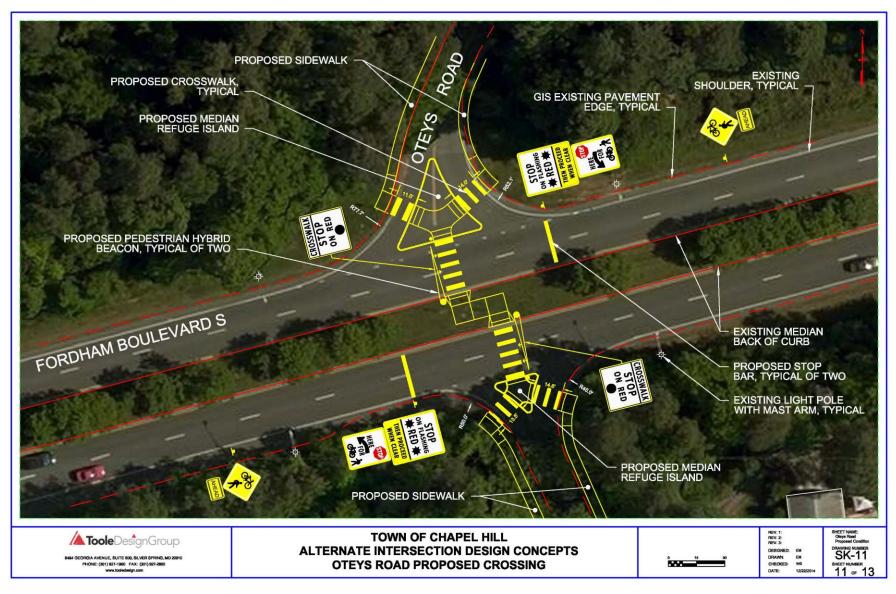
Toole Design Group: South Columbia Assessment

Oteys Road Access and Crossing Design

Oteys Road: Image 13 of 13 in Memorandum



Oteys Road: Image 11 of 13 in Memorandum



Updates: Traffic Analysis – Minimum Development Scenario

Craig Scheffler, HNTB

Obey Creek Mixed-Use Development Transportation Impact Study

Today's Presentation

- Obey Creek "Minimum" Concept Trip Generation Analysis
- Updated Traffic Analysis for Toole Design Group Alternatives
- Traffic Simulation Model Update for Toole Design Group Alternative #1



Obey Creek Mixed-Use Development Transportation Impact Study

"Minimum" Concept Trip Generation Analysis

- Developed Trip Generation Data for November 2014 Concept Plan Using "Minimum" Density Values
- Compared Results with Initial Obey Creek Concept in TIS
- No Further Assessments of Trip Distribution/Assignment or Impacts



Table 1. Comparison of Proposed Land Uses and Densities for Obey Creek Scenarios

Land Use	ITE Code	Original TIS Concept Data	Nov 2014 "Minimum" Concept Data	Unit	
Apartments	220	300	200	Dwelling Units	
Condominiums/Townhomes	230	100	50	Dwelling Units	
Senior Adult Housing - Attached	252	300	0	Dwelling Units	
Hotel	310	140	0	Rooms	
Community Rec Center	495	48,000	0	Square Feet	
General Office Building	710	226,500	150,000	Square Feet	
Shopping Center	820	404,525	200,000	Square Feet	

Obey Creek Mixed-Use Development Transportation Impact Study

"Minimum" Concept Trip Generation Analysis Changes in Density



HNTB

Obey Creek Mixed-Use Development Transportation Impact Study

"Minimum" Concept Trip Generation Analysis

> Site Trip Generation Details

> > HNTB

 Prepared Trip Generation Methodology Document

- Calculated Trips Using ITE Methodology and Adjusted by Field Collected Information/Research
- Adjusted Raw Trips For Internal Capture, Transit, Pedestrian/Bicycle, Pass-by Trips & Diverted Linked Trips
- Distribute Vehicle Trips By Existing Trip Patterns & Proposed Spatial Access
- Assign Trips

Trip Generation Step	24 Hour Volumes		AM Peak Hour Trips			Noon Peak Hour Trips			PM Peak Hour Trips			
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
1. ITE Raw Trip Generation Calculations	12,836	12,836	25,672	719	450	1,169	814	772	1,585	1,098	1,295	2,393
2. Internal Capture	-1,284	-1,284	-2,568	-46	-46	-92	-144	-144	-288	-241	-241	-482
EXTERNAL TRIP GENERATION BEFORE MODAL REDUCTION	11,552	11,552	23,104	673	404	1,077	670	628	1,297	857	1,054	1,911
3. Transit Trip Reductions	-1,282	-1,282	-2,565	-98	-63	- <mark>1</mark> 61	-60	-57	-116	-131	-155	-286
4. Ped/Bike Trip Reductions	-130	-130	-259	-10	-6	-16	-6	-6	-12	-13	-15	-29
TOTAL EXTERNAL VEHICLE TRIPS (DRIVEWAY VOLUMES)	10,140	10,140	20,280	565	335	900	604	565	1,169	712	884	1,596
5. Pass-By Trips	-1,213	-1,213	2,425	-0	-0	-0	-119	-119	-237	-176	-176	-352
6. Diverted Linked Trips	-999	-999	1,997	-0	-0	-0	-98	-98	-195	-145	-145	-290
TOTAL EXTERNAL VEHICLE TRIPS (NEW TRIPS)	7,928	7,928	15,858	565	335	900	387	348	736	391	563	954

Trip Generation Step		24 Hour Volumes			AM Peak Hour Trips			Noon Peak Hour Trips			PM Peak Hour Trips		
		Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	
1. ITE Raw Trip Generation Calculations		7,066	14,132	406	229	635	440	423	862	605	756	1,361	
2. Internal Capture		-707	-1,414	-22	-22	-44	-74	-74	-148	-126	-126	-252	
EXTERNAL TRIP GENERATION BEFORE MODAL REDUCTION		6,359	12,718	384	207	591	366	348	714	479	630	1,109	
3. Transit Trip Reductions		-494	-987	-57	-32	-89	-34	-32	-66	-74	-92	-166	
4. Ped/Bike Trip Reductions		-49	-99	-6	-3	-9	-3	-3	-7	-7	-9	-17	
TOTAL EXTERNAL VEHICLE TRIPS (DRIVEWAY VOLUMES)		5,816	11,632	322	172	493	329	313	642	398	528	926	
5. Pass-By Trips		-778	-1,555	-0	-0	-0	-76	-76	-151	-112	-112	-224	
6. Diverted Linked Trips		-640	-1,281	-0	-0	-0	-62	-62	-124	-92	-92	-184	
TOTAL EXTERNAL VEHICLE TRIPS (NEW TRIPS)		4,398	8,796	322	172	493	191	175	366	194	324	518	

Table 3. Obey Creek Development - Summary Trip Generation Data (November 2014 "Minimum" Site Concept)

"Minimum" Concept Trip Generation Analysis

Summary

•

- Net Result 40-50% Less Trips Generated in "Minimum" Scenario Compared to Original Concept
- No Impact Analyses of "Minimum" Concept Have Been Done
- May Affect Mitigation Recommendations



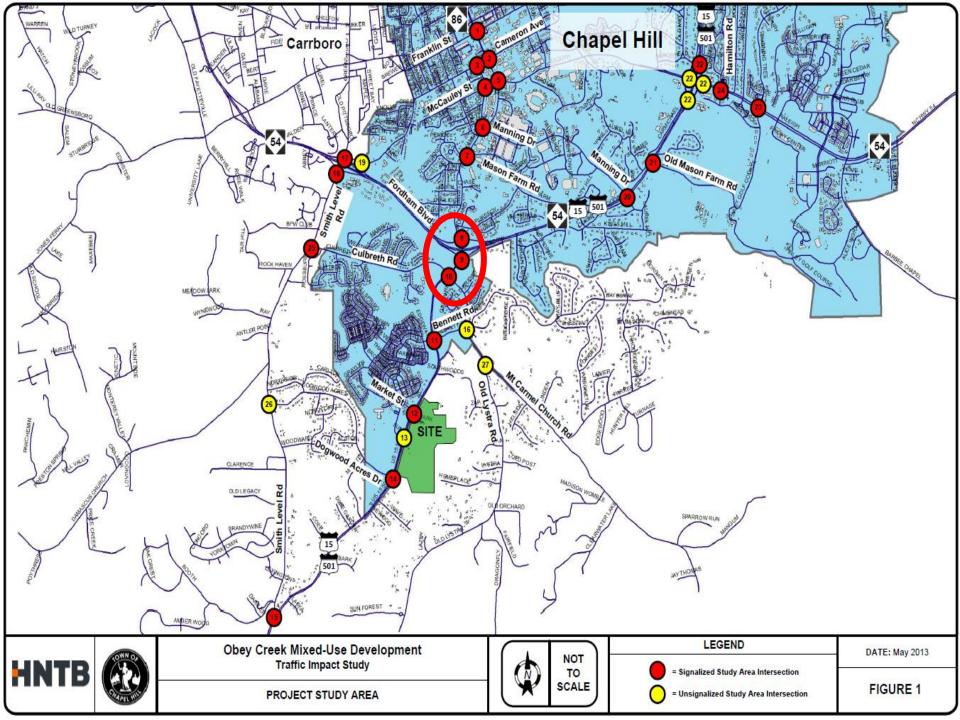
Updated Traffic Analysis

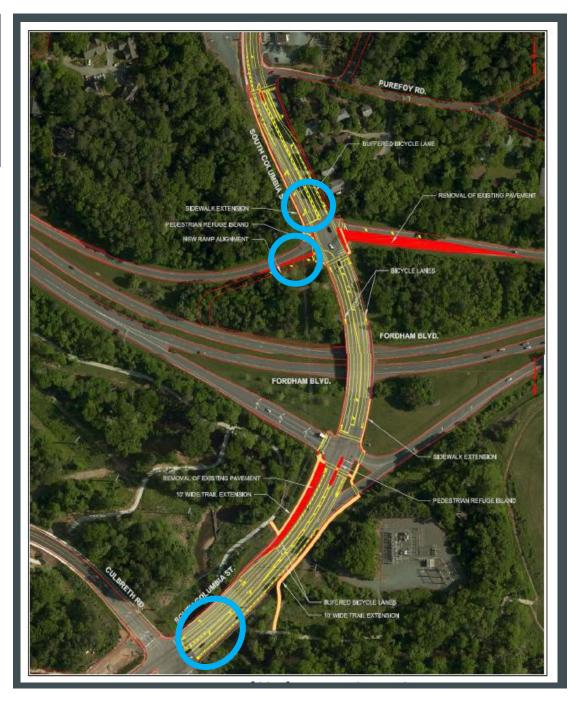
HNTB

 Bypass Interchange
 Considers Toole Design Group Alternatives #1 and #2

• US 15-501 Corridor at NC 54

- 2022 PM Peak Hour Worst Case for Alternative #1
- 2022 AM Peak Hour Worst Case for Alternative #2
- Accounts for Geometric Changes
 That Affect Traffic Flow

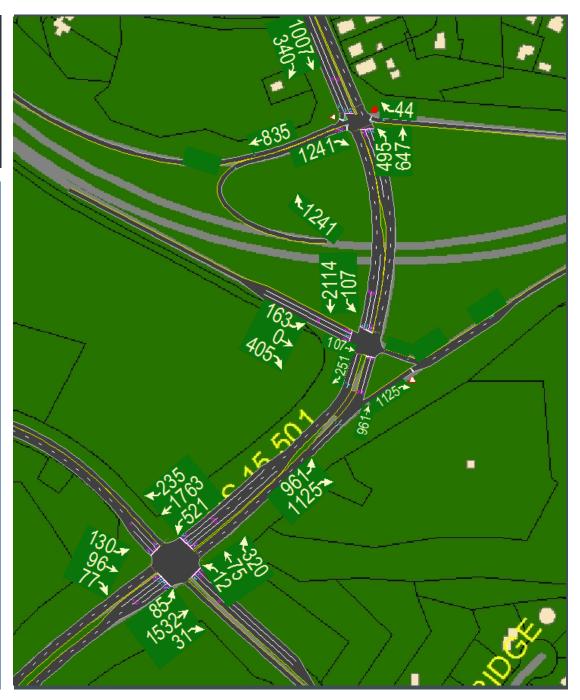




Updated Traffic Analysis

Toole Design Alternative #1 Changes





Updated Traffic Analysis Synchro Network

2022 PM Peak Hour Projected Traffic Volumes (with Obey Creek)



Original Concept Toole Design Group Concept Modified Concept (Dual RT Ramp) 95th % 95th % 95th % Average Oueue Average Oueue Average Oueue ID Intersections / Movements LOS Delay Storage LOS Delay Storage LOS Delay Queue Storage Oueue Oueue # (sec/veh) (ft) (sec/veh) (ft) (sec/veh) (ft) (ft) (ft) (ft) 8 NC 86 (S. Columbia St) & NC 54 С F С 21.6 91.1 25.6 Byp (Fordham Blvd) WB Ramps 600* A* 5.0* 0* F 183.2 1750 D 38.3 675 800 EB RT 800 WB RT** 8.9 25 1350 Α 1350 8.9 A 25 1350 A 8.9 25 NB LT Ε 70.9 475 200 С 21.7 400 200 Α 8.9 275 200 NB TH 0.4 725 0.4 725 0.4 725 A 0 Α 0 0 A SB TH С 34.2 1175 F 112.3 725 D 47.5 550 SB RT в 13.3 225 350 0.3 A 0.3 0 350 Α 0 350 US 15-501 & NC 54 Bypass 9 С С 22.0D 42.3 31.1 (Fordham Blvd) EB Ramps EB LT E 57.9 225 250 Ε 57.9 225 250 Ε 57.9 225 250 79.3 325 79.3 325 325 EB LTTH Ε 900 E 900 Ε 79.3 900 78.9 325 250 Ε 78.9 325 250 78.9 325 250 EB RT E Ε 4.7 NB TH 150 800 Α 4.7 150 800 Α 4.9 175 800 Α SB LT 10.3 50 150 5.1 25 150 С 26.6 75 150 в Α в 16.0 575 625 D 52.9 575++ 625 С 31.5 850 625 SB TH US 15-501 & Culbreth Road / 10 D 40.9 D 42.0 D 42.4 Mt. Carmel Church Road EB LT F 97.2 200 900 F 97.2 200 900 F 97.2 200 900 Ε 56.1 150 Ε 56.1 150 Ε 56.1 150 EB TH _ _ -EB RT 75 75 75 E 56.6 125 Ε 56.6 125 Ε 56.6 125 WB LTTH 200 F 113.8 F 113.8 200 F 113.8 200 32.8 200 350 32.8 200 С 32.8 200 350 С С WB RT 350 F 101.8 200 125 F 102.9 200 125 F 101.8 200 125 NB LT NB TH D 54.0 975 975 Ε 56.2 975 Ε 55.8 ---NB RT в 10.9 50 75 в 11.6 25 75 В 12.3 25 75 F 83.4 675 525 F 84.7 675 F 675 SBLT 300 84.1 300 SB TH в 11.6 650 800 в 12.8 650 800 в 13.6 650 800 2.0 50 250 2.2 50 2.2 SB RT 250 50 250 А А А

Table 1. 2022 PM Peak Hour Intersection Capacity and Queue Analysis Results

RED LOS/DELAY VALUES – Movement or Overall Intersection is over capacity per Town of Chapel Hill TIS Guidelines ++ - Queue is Metered by Upstream Signal RED QUEUE LENGTH/STORAGE VALUES – Synchro Estimated Queue Length Potentially Exceeds Existing/Future Storage

"-" = Queue Storage Calculation Not Relevant for Specified Movement

* - Free Flow Movement *

^{** -} Unsignalized (Stop-Controlled) Movement

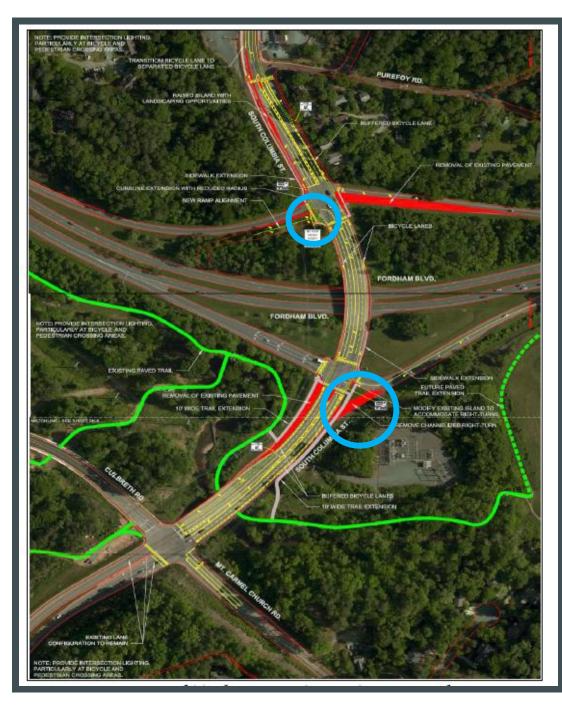
Updated Traffic Analysis

2022 PM Peak Hour Synopsis

Alternative #1



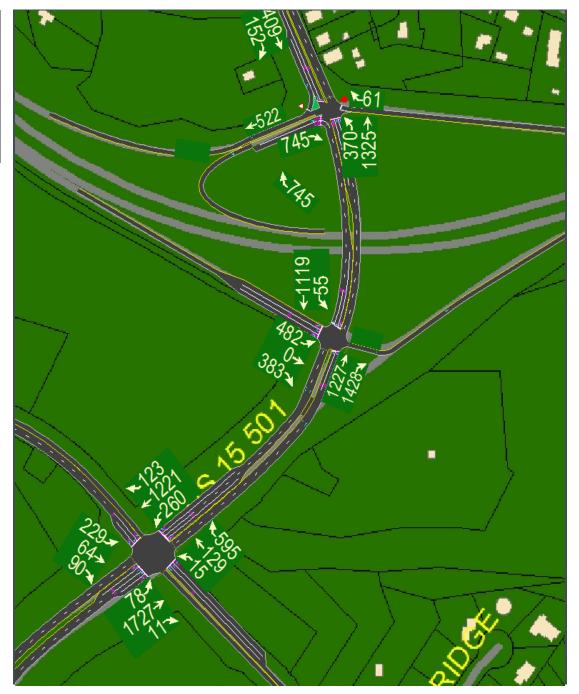
- Single Lane Signalized Loop Ramp Fails to Provide Adequate Traffic Operations
- Dual Lane Signalized Loop Ramp May Provide Adequate Traffic Operations <u>IF</u> Design Can Provide Enough Storage Off Of NC 54
- Shortening of Left-Turn Lane to Mt. Carmel Church Not Recommended
- No Data Available for Peds/Bikes Any Interactions May Marginally Worsen Traffic Operations (see Simulation



Updated Traffic Analysis

Toole Design Alternative #2 Changes





Updated Traffic Analysis Synchro Network

2022 AM Peak Hour Projected Traffic Volumes (with Obey Creek)



Table 1. 2022 AM Peak Hour Intersection Capacity and Queue Analysis Results

		Original Concept				Toole Design Group Concept – Alternative 2				
ID #	Intersections / Movements	LOS	Average Delay (sec/veh)	95 th % Queue (ft)	Queue Storage (ft)	LOS	Average Delay (sec/veh)	95 th % Queue (ft)	Queue Storage (ft)	
8	NC 86 (S. Columbia St) & NC 54	Α	2.2			В	10.6			
	Byp (Fordham Blvd) WB Ramps						10.0		<u> </u>	
		. *	1.0*	*	075*		22.6	276	676	
	EB RT	A*	1.2*	0*	375*	C	28.6	375	575	
	WB RT**	B**	10.4**	25	1350	B**	10.4**	25	1350	
	NB LT	A	1.3	0	200	A	1.0	0	175	
	NB TH	A	2.6	0	725	A	0.6	0	725	
	SB TH SB RT	A	2.3	75 25	- 350	C A**	26.2 0.2**	200 0	- 175	
		A			10			0	175	
9	US 15-501 & NC 54 Bypass (Fordham Blvd) EB Ram	С	30.2			F	151.0			
	EB LT	D	38.8	275	250	E	72.5	375	250	
	EBLTTH	D	38.8	275	900	E	72.8	400	900	
	EB RT	E	58.6	475	250	F	236.5	725	250	
	NB TH	С	25.2	525	800	_				
	NB THRT		10.0	CO		F	221.8	1800	800	
	SB LT	B	19.3	50	200	D	37.4	50	200	
	SB TH	С	21.8	500	625	Α	4.0	75	625	
10	US 15-501 & Culbreth Road /Mt. Carmel Church Road	D	40.7			D	42.6			
	EB LT	F	119.1	350	900	F	116.1	350	900	
	EB TH	D	42.2	100	-	D	42.2	100	-	
	EB RT	D	44.4	125	75	D	44.3	125	75	
	WB LTTH	E	73.8	225	-	E	72.7	225	-	
	WB RT	E	58.7	375	350	E	56.3	400	350	
	NB LT	С	25.0	50	125	В	18.9	50	125	
	NB TH	D	35.1	1050	-	D	38.5	1050	-	
	NB RT	В	14.9	25	75	В	14.9	25	75	
	SBLT	F	107.5	400	525	F	118.4	325	250	
	SB TH	Α	9.6	175	800	В	12.3	300	800	
	SB RT OS/DELAY VALUES – Movement or Overall Intersection is over co	Α	2.3	25	250	Α	1.9	25	250	

RED LOS/DELAY VALUES - Movement or Overall Intersection is over capacity per Town of Chapel Hill TIS Guidelines

RED QUEUE LENGTH/STORAGE VALUES - Synchro Estimated Queue Length Potentially Exceeds Existing/Future Storage

"-" = Queue Storage Calculation Not Relevant for Specified Movement

* - Free Flow Movement ** - Unsignalized (Stop-Controlled or Yield-Controlled) Movement

Updated Traffic Analysis

2022 AM Peak Hour Synopsis

Alternative #2

HNTB

- Removal of Free-Flow Right-Turn Lane to Eastbound NC 54 Bypass On-Ramp Not Recommended Due to Safety/Congestion Issues
- No Other Operational Issues Expected for AM Peak
- No Data Available for Peds/Bikes Any Interactions May Marginally Worsen Traffic Operations







Obey Creek Mixed-Use Development Traffic Impact Study

QUESTIONS AND DISCUSSION





Staff Recommendations

- Recommend Alternate 1 for review and comment by NCDOT
 - Provides a balance between bicycles, pedestrians, and vehicles
 - Provides connections to greenway network
- Recommend investigating the options for greenway connections to the Morgan Creek neighborhood and crossing at Oteys Road

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Review of Past Discussions

Roger Stancil, Town Manager

Overview of Past Discussions

- Affordable housing
- Bicycle connections
- Open space
- Pedestrian bridge
- Traffic
- Uses

DRAFT – DRAFT

DEVELOPMENT AGREEMENT

BY AND BETWEEN OBEY CREEK VENTURES, LLC. C/O EAST WEST PARTNERS MANAGEMENT COMPANY, INC.

AND

THE TOWN OF CHAPEL HILL, NORTH CAROLINA

Effective Date: _____, 2015

Orange County Parcel Identifier Numbers: 9787-13-6437; 8787-14-0366; 9787-14-8639; [OBEY CREEK: Insert additional PINS, as necessary] Development Agreement Template

Modeled on the Glen Lennox development agreement

DRAFT Obey Creek Development Agreement Template Page 2

Next Steps

Roger Stancil, Town Manager

Upcoming Meetings

Monday, January 12th – Business Meeting

• Opportunity for public comment

Thursday, January 22nd – Special Meeting

• Facilitated Discussion with Victor Dover

Friday, January 23rd – Special Meeting

• Facilitated Discussion with Victor Dover

Thursday, February 12th – Special Meeting

• To be determined

Attachment: Overview of Facilitated Meetings with Victor Dover – January 22 and 23, 2015

(The following information was shared via email to the Council on Friday, December 12, 2014.)

The overview of the next steps leading to the Council's facilitated meetings with Dover/Kohl on January 22-23 is in three sections:

- 1. Activities prior to January 22-23 meetings
- 2. Agenda proposed by Dover Kohl for January 22-23
- 3. Framework assumptions and questions for January 22-23

Section 1: Activities prior to January 22-23 meetings

Immediately, Town staff provides to Council and Dover/Kohl:

Guiding framework for the southern area/Southern Village Park and Ride Lot meeting/charrette

- Obey Creek background materials
- Council's list of interests for the park and ride lot (from work session/RFP discussion – November 24, 2014 Council meeting)
- · List of assumptions and questions (at end of this email)

Obey Creek-related information

- · Outline of Council's interests and discussion points to-date
- All new information submitted by the applicant (design guidelines)

By January 8th Staff provides Council with a summary of discussion points to-date for reference

By January 8th (next Obey work session) Dover/Kohl provides:

- Questions/follow up with Council, for Dover/Kohl to use in developing scenarios for the meeting/charrette
- Optional: Survey/other way of checking-in with Council prior to January 22-23

On January 8th Council holds scheduled negotiation session with topics as discussed at December 8th meeting:

- Update on fiscal analysis
- Update on transportation information including traffic analysis and bicycle information
- Review of discussion points
- Review of assumptions/questions/follow up from Dover Kohl

Overview of Facilitated Meetings with Victor Dover – January 22 and 23, 2015 Page 1

Facilitated Sessions by Victor Dover January 22nd & 23rd

Attachment 4 in packet

Agenda for the Special Meeting

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