

AGENDA ITEM #5

April 28, 2015

**Action**

## MEMORANDUM

April 25, 2015

TO: County Council

FROM:  Glenn Orlin, Deputy Council Administrator

SUBJECT: **Action**--Supplemental appropriation to the FY15 Capital Budget and amendment to the FY15-20 Capital Improvements Program, White Oak Science Gateway Infrastructure Development, \$200,000 (Current Revenue);

On March 16 the Executive transmitted a supplemental appropriation and CIP amendment request for \$200,000 to fund the study called for in the White Oak Science Gateway (WOSG) Master Plan that would identify and cost out the transportation improvements necessary to implement the planned development (©1-4). Some of these projects would form the White Oak Local Area Transportation Improvement Program and serve as the cost-basis for the proposed LATR fee.

On April 14 the Council postponed action on this appropriation until it had the opportunity to review the scope of work for the study. The Department of Transportation (DOT) has forwarded its latest working draft of the scope of work (©5-8), and it has been circulated to many White Oak civic and business stakeholders. The scope is still a work in progress; for example, the list of intersections proposed for study is somewhat longer than the list and map circulated to Councilmembers on April 14 as discussions between DOT and the State Highway Administration (SHA) continue. SHA's concurrence in the scope is important, because ultimately it must concur with any intersection improvements involving US 29 (Colesville Road/Columbia Pike) or MD 650 (New Hampshire Avenue).

**Council staff recommends approving the appropriation and CIP amendment if DOT agrees to include the following revisions to the scope of work:**

**1. Include the US 29 (Colesville Road)/University Boulevard (MD 193) intersection in the list to be evaluated.** On April 14 Executive staff noted that it wanted to study all the key intersections within the White Oak Policy Area, and also two signalized intersections in each direction beyond the policy area boundary. South of the boundary along US 29, the first such intersection is with Southwood Avenue. The next intersection south on the list is with Lorain Avenue (although it is not currently

signalized), only about 1,500' north of University Boulevard. Much of the debate in the White Oak Science Gateway Master Plan (WOSGMP) and the Countywide Transit Corridors Functional Master Plan (CTCFMP) was about how US 29 would accommodate traffic and bus rapid transit (BRT) through Four Corners. The study area has been brought to the very doorstep of Four Corners; an understanding of how traffic and transit would function on much of US 29—including at Southwood Avenue and Lorain Avenue—cannot be known without including the Four Corners intersection.

Recall, however, that studying traffic impacts and designing improvements for this and other intersections beyond the White Oak boundary does not necessarily mean they would be funded by the White Oak Local Area Transportation fee. The program of improvements to be funded by the fee, and the fee itself, will be established by the Council (after a public hearing) once this study is completed.

**2. Base the traffic analysis on the full-buildout land use in the adopted WOSGMP and on the bus rapid transit cross-sections in the adopted (CTCFMP).** The Planning Board drafts of these plans were based on traffic forecasts that had somewhat different assumptions than the plans adopted by the Council. For the “future” runs of the model, the consultant should use an updated White Oak Sub Area Model that reflects the land use and BRT cross-sections in these adopted plans.

**3. In all “future” model runs, include all master-planned BRT routes and assume the WOSGMP’s non-auto-driver mode shares (NADMS).** The draft scope indicates that the initial model run would include the BRT on US 29 but exclude BRT on MD 650 and Randolph Road. But to understand the travel demand in each corridor—as well as what intersection designs are possible along MD 650, especially in Hillandale—all three lines need to be included in these runs. Furthermore, since the “future” runs examine the effect of the planned build-out, they should explicitly assume the plan’s 25% NADMS goal for new development in the Hillandale and White Oak Shopping Center areas and the 30% NADMS goal for new development in the Life Science Village area.

Bud, Fin +  
Econ Dev



OFFICE OF THE COUNTY EXECUTIVE  
ROCKVILLE, MARYLAND 20850

GO  
CC  
SBF  
LK  
MM

Isiah Leggett  
County Executive

**MEMORANDUM**

March 16, 2015

RECEIVED  
MONTGOMERY COUNTY  
COUNCIL

2015 MAR 16 PM 2:50

**TO:** George Leventhal, President, County Council  
**FROM:** Isiah Leggett, County Executive   
**SUBJECT:** Amendment to the FY15-20 Capital Improvements Program and Supplemental Appropriation #19-S15-CMCG-11 to the FY15 Capital Budget  
Montgomery County Government  
Department of Transportation  
White Oak Science Gateway Infrastructure Development (No. P501540), \$200,000

I am recommending a supplemental appropriation to the FY15 Capital Budget and amendment to the FY15-20 Capital Improvements Program in the amount of \$200,000 for White Oak Science Gateway Infrastructure Development (No. P501540). Appropriation for this project will fund the development of cost estimates and traffic studies associated with transportation infrastructure in the White Oak area to support future development activities planned under the White Oak Gateway Master Plan.

This increase is needed to fund the estimation of costs associated with transportation infrastructure identified in the White Oak Science Gateway Master Plan and to conduct a traffic study analysis related to the Local Area Transportation Review (LATR) for planned development in the area. The recommended amendment is consistent with the criteria for amending the CIP because the project supports significant economic development initiatives.

I recommend that the County Council approve this supplemental appropriation and amendment to the FY15-20 Capital Improvements Program in the amount of \$200,000 and specify the source of funds as Current Revenue: General.

I appreciate your prompt consideration of this action.

IL: nm

Attachment: Amendment to the FY15-20 Capital Improvements Program and Supplemental Appropriation #19-S15-CMCG-11

cc: Al Roshdich, Acting Director, Department of Transportation  
Jennifer Hughes, Director, Office of Management and Budget



Resolution: \_\_\_\_\_  
Introduced: \_\_\_\_\_  
Adopted: \_\_\_\_\_

COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND

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By: Council President at the Request of the County Executive

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SUBJECT: Amendment to the FY15-20 Capital Improvements Program and Supplemental Appropriation #19-S15-CMCG-11 to the FY15 Capital Budget  
Montgomery County Government  
Department of Transportation  
White Oak Science Gateway Infrastructure Development (No. P501540),  
\$200,000

Background

1. Section 307 of the Montgomery County Charter provides that any supplemental appropriation shall be recommended by the County Executive who shall specify the source of funds to finance it. The Council shall hold a public hearing on each proposed supplemental appropriation after at least one week's notice. A supplemental appropriation that would comply with, avail the County of, or put into effect a grant or a Federal, State or County law or regulation, or one that is approved after January 1 of any fiscal year, requires an affirmative vote of five Councilmembers. A supplemental appropriation for any other purpose that is approved before January 1 of any fiscal year requires an affirmative vote of six Councilmembers. The Council may, in a single action, approve more than one supplemental appropriation. The Executive may disapprove or reduce a supplemental appropriation, and the Council may reapprove the appropriation, as if it were an item in the annual budget.
2. Section 302 of the Montgomery County Charter provides that the Council may amend an approved capital improvements program at any time by an affirmative vote of no fewer than six members of the Council.
3. The County Executive recommends the following capital project appropriation increases:

<u>Project Name</u>	<u>Project Number</u>	<u>Cost Element</u>	<u>Amount</u>	<u>Source of Funds</u>
White Oak Science Gateway Infrastructure Development	501540	PDS	\$200,000	Current Revenue: General
TOTAL			\$100,000	

Amendment to the FY15-20 Capital Improvements Program and Supplemental Appropriation  
#19-S15-CMCG-11

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4. This increase is needed to fund the estimation of costs associated with transportation infrastructure identified in the White Oak Science Gateway Master Plan and to conduct a traffic study analysis related to the Local Area Transportation Review (LATR) for planned development in the area. The recommended amendment is consistent with the criteria for amending the CIP because the project supports significant economic development initiatives.
5. The County Executive recommends an amendment to the FY15-20 Capital Improvements Program and a supplemental appropriation in the amount of \$200,000 for White Oak Science Gateway Infrastructure Development (No. 501540), and specifies that the source of funds will be Current Revenue: General.
6. Notice of public hearing was given and a public hearing was held.

Action

The County Council for Montgomery County, Maryland, approves the following action:

The FY15-20 Capital Improvements Program of the Montgomery County Government is amended as reflected on the attached project description form and a supplemental appropriation is approved as follows:

<u>Project Name</u>	<u>Project Number</u>	<u>Cost Element</u>	<u>Amount</u>	<u>Source of Funds</u>
White Oak Science Gateway Infrastructure Development	501540	PDS	\$200,000	Current Revenue: General
TOTAL			\$200,000	

This is a correct copy of Council action.

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Linda M. Lauer, Clerk of the Council

## White Oak Science Gateway Infrastructure Development (P501540)

Category	Transportation	Date Last Modified	11/17/14
Sub Category	Traffic Improvements	Required Adequate Public Facility	No
Administering Agency	Transportation (AAGE30)	Relocation Impact	None
Planning Area	Colesville-White Oak	Status	Planning Stage

	Total	Thru FY14	Rem FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
<b>EXPENDITURE SCHEDULE (\$000s)</b>											
Planning, Design and Supervision	200	0	0	200	100	100	0	0	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>FUNDING SCHEDULE (\$000s)</b>											
Current Revenue: General	200	0	0	200	100	100	0	0	0	0	0
<b>Total</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**APPROPRIATION AND EXPENDITURE DATA (000s)**

Appropriation Request	FY 15	0
Appropriation Request Est.	FY 16	0
Supplemental Appropriation Request		200
Transfer		0
Cumulative Appropriation		0
Expenditure / Encumbrances		0
Unencumbered Balance		200

Date First Appropriation	FY 15
First Cost Estimate	
Current Scope	FY 15      200
Last FY's Cost Estimate	0

**Description**

This project provides for the development of cost estimates associated with the transportation recommendations contained in the White Oak Science Gateway Master Plan. The cost estimate will include the appropriate elements of the US29, MD650 and Randolph Road Rapid Transit System projects as well as roads, interchanges, bikeways, and sidewalks in the White Oak Planning Area. This project will also fund a traffic study analysis related to the required Local Area Transportation Review (LATR) associated with planned development. It is expected that the timing of implementation of the different elements will be coordinated in the future with specific proposed subdivision activity and the communities adjacent to and affected by the new development. In addition to the traffic improvements, significant mass transit, roads, and pedestrian/bikeway facility components will be an integrated part of this project.

**Location**

White Oak Planning Area

**Estimated Schedule**

All activities will begin in late FY15 and be completed during FY16.

**Justification**

The Council Resolution (17-1204) adopting the Master Plan called for the development of one or more options that could fund the full buildout of the Plan's transportation infrastructure within the 24 months following adoption of the Plan (before July 29, 2016). This project will fund all of the activities necessary to comply with the Council's Resolution. Additionally, a new proposal for LATR has been introduced at Council; this study will identify the necessary local intersection improvements needed, conceptual solutions, and preliminary cost estimates for those improvements, as well as the cost associated with independent sidewalks, bikeways, and the provision of bus service in the area. These studies will provide the basis for future strategies to fund detailed engineering design and construction costs.

**Other**

The project will address the pedestrian impact analysis associated with future implementation of the infrastructure. A pedestrian impact analysis will be performed during design or is in progress.

**Disclosures**

A pedestrian impact analysis will be performed during design or is in progress.

**Coordination**

Maryland State Highway Administration (MSHA), Maryland Mass Transit Administration (MTA), Maryland National-Capital Park and Planning Commission



# SABRA, WANG & ASSOCIATES, INC.

Engineers • Planners • Analysts

April 15, 2015

Mr. Andrew Bossi, P.E., Senior Engineer  
Montgomery County Department of Transportation  
Office of the Director  
101 Monroe Street, 10<sup>th</sup> Floor  
Rockville, MD 20850

**WORKING  
DRAFT**

Subject: On-Call Traffic Engineering Services Contract No. 1005284

Reference: White Oak Master Plan Local Area Transportation Review Intersection Improvement  
Cost Evaluation Technical Support  
SWA Project No.: 12-10, Task 26

Dear Mr. Bossi:

We are submitting this task proposal to provide professional engineering services for the development of traffic operations analysis and preliminary engineering concepts and costs for intersections affected by the White Oak Master Plan implementation. The proposed study intersections are as follows:

Intersection	Owner	In Plan Area?	Existing Count Available?	Forecasted Volumes Available?	Comments
MD 650 / Adelphi	SHA	No	Yes		SHA Fund 87 Study
MD 650 / Oakview	SHA	No	Yes		SHA Fund 87 Study
MD 650 / Elton/ 495 Ramps	SHA	Yes	Yes		SHA Fund 87 Study
MD 650 / Powder Mill	SHA	Yes	Yes	Yes (Master Plan)	SHA Fund 87 Study
MD 650 / Chalmers	SHA	Yes	Yes		SHA Fund 87 Study
MD 650 / Mahan/ Schindler	SHA	Yes	Yes	Yes (Master Plan)	SHA Fund 87 Study
MD 650 / Michelson/ Northwest	SHA	Yes	Yes		SHA Fund 87 Study
MD 650 / Lockwood	SHA	Yes	Yes	Yes (Master Plan)	SHA Fund 87 Study
Lockwood Dr / White Oak Shopping Ctr	MCDOT	Yes	No		SHA Fund 87 Study (?)
MD 650 / US 29 SB Ramps	SHA	No	Yes		SHA Fund 87 Study
MD 650 / Milestone	SHA	No	Yes		SHA Fund 87 Study
MD 650 / Quaint Acres/ Heartfields	SHA	No	Yes		SHA Fund 87 Study
MD 650 / Jackson	SHA	No	Yes		SHA Fund 87 Study
US 29 / Lorain	SHA	No	Yes	Yes (BRT Study?)	SHA BRT Study
US 29 / Southwood/ Eastwood	SHA	No	Yes	Yes (BRT Study?)	SHA BRT Study
US 29 / Burnt Mills Shopping Ctr	SHA	Yes	Yes	Yes (BRT Study?)	SHA BRT Study
US 29 / Lockwood	SHA	Yes	Yes	Yes (BRT Study?)	SHA BRT Study
US 29 / Burnt Mills	SHA	Yes	No	Yes (BRT Study?)	SHA BRT Study
US 29 / Prelude	SHA	Yes	No	Yes (BRT Study?)	SHA BRT Study
US 29 / Stewart Lane	SHA	Yes	Yes	n/a interim only	SHA BRT Study
Stewart Lane / US 29 Ramps	SHA	Yes	n/a	Yes (BRT Study?)	SHA BRT Study
US 29 / Industrial	SHA	Yes	No	n/a interim only	SHA BRT Study
Industrial / US 29 Ramps	SHA	Yes	n/a	Yes (BRT Study?)	SHA BRT Study

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Mr. Andrew Bossi, P.E.

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US 29 / Tech	SHA	Yes	Yes	n/a interim only	SHA BRT Study
Tech / US 29 Ramps	SHA	Yes	n/a	Yes (BRT Study?)	SHA BRT Study
Randolph / Cherry Hill / US 29 Ramps	SHA	Yes	No	Yes (BRT Study?)	SHA BRT Study
US 29 / Musgrove	SHA	No	Yes	Yes (BRT Study?)	SHA BRT / Interchange Study
Musgrove / US 29 Ramps	SHA	No	n/a	Yes (BRT Study?)	SHA BRT / Interchange Study
US 29 / Fairland	SHA	No	Yes	Yes (BRT Study?)	SHA BRT / Interchange Study
Fairland / US 29 Ramps	SHA	No	n/a	Yes (BRT Study?)	SHA BRT / Interchange Study
Fairland / US 29 SB Ramp	SHA	No	Yes	Yes (BRT Study?)	SHA BRT / Interchange Study
Fairland / Old Columbia Pike	MCDOT	No	Yes	Yes (Master Plan)	SHA BRT / Interchange Study
Fairland / Brahms	MCDOT	No	Yes	Yes (BRT Study?)	SHA BRT / Interchange Study
Fairland / Musgrove	MCDOT	No	Yes	No	
Old Columbia Pike / Stewart Ln	MCDOT	Yes	No	No	
Old Columbia Pike / Industrial	MCDOT	Yes	No	No	
Old Columbia Pike / Tech	MCDOT	Yes	No	No	
Old Columbia Pike / Randolph	MCDOT	No	Yes	No	
Randolph / Serpentine	MCDOT	No	No	No	
Cherry Hill / Prosperity	MCDOT	Yes	Yes	No	
Cherry Hill / Broadbirch	MCDOT	Yes	No	Yes (Master Plan)	
Cherry Hill / Plum Orchard	MCDOT	Yes	No	No	
Cherry Hill / FDA Blvd	MCDOT	Yes	No	No	
Calverton / Galway	MCDOT	No	No	No	
Tech Road / Prosperity	MCDOT	Yes	No	No	
Tech Road / Broadbirch	MCDOT	Yes	No	No	
Tech Road / Industrial	MCDOT	Yes	No	No	
212 / Powder Mill	SHA	No	No	Yes (Master Plan)	
212 / Cherry Hill	SHA	No	No	Yes (Master Plan)	
212 / Beltsville	SHA	No	No	Yes (Master Plan)	
Beltsville / Shopping Center	PGDPWT	No	No		Data collection only; no mitigation will be identified
Beltsville / Calverton	PGDPWT	No	No		Data collection only; no mitigation will be identified
FDA Blvd / Industrial Pkwy Extended	MCDOT	Yes	n/a		
FDA Blvd / Plum Orchard Extended	MCDOT	Yes	n/a		
Plum Orchard / Broadbirch	MCDOT	Yes	No		
Plum Orchard Extended at Prosperity	MCDOT	Yes	n/a		

The proposed scope of services is as follows:

**1. Meetings and Coordination:**

Coordinate with County DOT, Maryland SHA, and Park and Planning to finalize list of intersections.

**2. Traffic Data Collection:**

Collect traffic data for existing conditions (including pedestrian data) up to 25 locations, peak period counts only (6-10 AM and 4-7 PM)

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### 3. Project Traffic Data Development:

As part of the development of horizon year (approved Master Plan Build Out), SWA will develop intersection level traffic data (e.g. directional approach volumes and intersection turning movements). For existing conditions, SWA will review available SWA, County and SHA Synchro libraries and traffic count databases to appropriately populate existing conditions.

For future conditions, SWA will use the land use forecasts provided by the Planning Department and run the County's White Oak Sub Area Model using inputs from the County's Travel 4 model for the White Oak area, to extract existing and projected daily traffic volumes. SWA will develop and apply associated NCHRP 255/765 post-processing scripts to develop future year local traffic/ intersection level data.

As necessary, SWA will review the Sub Area Model for necessary zone and network detail, and as needed, code additional zone and network detail to enable the accurate development of local area traffic forecasts for all roadway elements.

**This scope of work assumes SWA can obtain the recently updated/ validated Travel 4 model and Sub Area processes from Park and Planning. This will provide the vehicle trips and traffic assignments in and out of the Sub Area model for year 2015 (base) and 2040 (horizon).**

As part of the model manipulation, full Sub Area model runs will be executed **including** the following transportation elements:

- BRT along US 29
- Old Columbia Pike Bridge
- New roadways including A-105 (Old Columbia Pike Extended through White Oak Shopping Center), A-106 (Industrial Parkway Extended), B-5 (Plum Orchard-FDA Blvd Connector), B-6 (Plum Orchard Extended), B-7 (Cherry Hill-Plum Orchard Extended)

Initial model run will **exclude**:

- Interchanges along US 29 at Stewart Lane, Tech Road/ Industrial Parkway, Fairland/ Musgrove Road, Greencastle/ Blackburn Road
- BRT along Randolph Road and MD 650
- Widening of M-12 (MD 650), A-94 (Powder Mill Road), A-105 (Old Columbia Pike), A-106 (Industrial Parkway), A-107 (Tech Road north of Industrial Parkway), A-108 (Prosperity Drive), A-286 (Lockwood Drive/ Stewart Lane), P-16 (Elton Road), B-9 (Broadbirch Road), B-10 (FDA Blvd), B-11 (Tech Road south of Industrial Parkway)

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Mr. Andrew Bossi, P.E.  
April 15, 2015  
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#### 4. Capacity Analysis

The analysis will be based on the CLV and HCM methodologies. The HCM methodologies will be employed using Synchro software. The following scenarios will be evaluated for the AM and PM peak hours:

- base year existing conditions
- future year with Adopted Plan land use, without US 29 Interchange Improvements
- future year with Adopted Plan land use, with US 29 Interchange Improvements
- future year with Adopted Plan land use, with US 29 Interchange Improvements, and LATR Improvements\*.

\*If the County's Local Area Transportation Review intersection congestion Policy Area standards are exceeded, we will identify physical (e.g. mainline, side street widening or added turn lanes) or operational treatments (e.g. lane reassignment, turn restrictions, signal phasing, traffic control changes) to meet the LATR standards.

Micro-simulation will utilize SimTraffic and will be applied to specific cases where HCM is determined to be unable to adequately evaluate conditions. It is anticipated that SimTraffic analyses may be necessary for up to 10 locations.

The draft list of identified roadway improvements will determine the need for widening of existing roadways which are not part of LATR minor intersection improvements, as minor intersection improvements (including new traffic signals) that would be required.

#### 5. Develop conceptual sketches and Planning-level cost estimates for the remaining stand-alone projects

Conceptual sketches of proposed intersection improvements identifying new pavement and right of way needs on GIS mapping/ aerial imagery will be developed for each improvement.

Planning level construction costs based on the SHA 2014 Cost Estimating Manual, Major Quantities methodology will be estimated. The estimates will include contingencies for utilities, and identify ROW needs (total SF), and if the ROW could be dedicated as part of a redevelopment of an existing property.

We kindly ask that you review and approve this task at your earliest convenience. Please do not hesitate to call me if you have any questions, or need additional information.

Sincerely,  
**SABRA, WANG & ASSOCIATES, INC.**

Paul Silberman, P.E. PTOE  
Director, Transportation Planning

**WORKING  
DRAFT**