

## MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue Silver Spring, Maryland 20910-3760

May 26, 2004

# **MEMORANDUM**

TO:

Richard Weaver, Planner

Development Review Division

VIA:

Ronald C. Welke, Supervisor Transportation Planning

FROM:

Ki H. Kim, Planner Transportation Planning

SUBJECT:

Preliminary Plan No. 1-03110

Cabin Branch Clarksburg

This memorandum is Transportation Planning staff's adequate public facilities (APF) review of the subject preliminary plan application. The application includes the Phase 1 development of the Cabin Branch project located on the west side of I-270, south of Clarksburg Road (MD 121) and north of West Old Baltimore Road in the Clarksburg Policy Area. The subject site has been recently rezoned to Mixed-Use Planned Development Zone in order to develop the mixed-use development.

#### RECOMMENDATIONS

Based on our review of the submitted traffic analysis, Transportation Planning staff recommends the following conditions as part of the APF test for transportation requirements related to approval of this preliminary plan application.

- 1. Total development under this preliminary plan application is limited to the following uses and density:
  - 1,600 residential dwelling units
  - 1,538,000 square feet of commercial space
  - 500 dwelling units of elderly housing

- 2. To satisfy Policy Area Transportation Review, the applicant shall:
  - a. Construct Newcut Road as a four-lane divided arterial roadway between West Old Baltimore Road and the eastern business district roadway parallel to I-270.
  - b. Upgrade West Old Baltimore Road to two-lane arterial roadway standards acceptable to the Department of Public Works and Transportation (DPWT) and Transportation Planning staff between Newcut Road and Clarksburg Road (MD 121).
  - c. In accordance with the Clarksburg Master Plan, construct two parallel two-lane business district roadways between Newcut Road and MD 121 in lieu of a four-lane divided arterial roadway.
  - d. In accordance with the Clarksburg Master Plan, upgrade MD 121 to arterial roadway standards between West Old Baltimore Road and I-270 and upgrade the interchange ramps of MD 121 and I-270.
- 3. To satisfy Local Area Transportation Review (LATR), the applicant shall:
  - a. Provide the following improvements at the MD 121/I-270 Northbound on/off ramp:
    - Add northbound left-turn movement to provide dual left turn lanes
    - Add separate westbound left-turn lane
    - Signalize the intersection
    - Widen Clarksburg Road bridge over I-270 to accommodate one additional through lane and a median island, subject to State Highway Administration's (SHA) requirements
  - b. Provide the following improvements at the MD 121/I-270 Southbound on/off ramp:
    - Add a westbound through lane
    - Signalize the intersection
    - Add eastbound on-ramp to southbound I-270
  - c. Provide the following improvements along the MD 121 frontage:
    - Six-lane roadway section from the I-270 southbound on/off ramp intersection to the first site entrance (Street "A"/Whelan Lane). The entrance would include a two-lane roundabout with right-turn bypass lanes to add and drop the third lane for Clarksburg Road

- Four-lane roadway between Street "A"/Whelan Lane and First Avenue
- Two-lane section from First Avenue to West Old Baltimore Road and roundabout at West Old Baltimore Road to accommodate traffic safely and efficiently at this intersection
- d. Participate in providing the following improvements at the MD 121/Gateway Center Drive intersection:
  - Stripe westbound approach of MD 121 to include a separate left-turn lane and through lane
  - Stripe northbound approach of Gateway Center Drive to activate dual left-turn lanes
  - Install traffic signal
  - Construct westbound through lane on MD 121 to accept dual left-turn movements and join existing westbound lanes at I-270/Northbound on/off ramp intersection
- e. Participate in providing the following improvements at the MD 121/Frederick Road (MD 355) intersection:
  - Widen eastbound approach of MD 121 and stripe additional left-turn lane (dual left)
  - Construct northbound through lane on MD 355 to accept dual left with transition to join existing conditions
  - Modify traffic signal
- f. Participate in providing the following improvements at the MD 355/West Old Baltimore Road intersection:
  - Widen eastbound approach of West Old Baltimore Road to provide separate right-turn lane
  - Widen northbound approach of MD 355 to provide separate left-turn lane. A three-lane section will be provided on MD 355 between West Old Baltimore Road and Brink Road
  - Widen southbound approach of MD 355 to provide separate right-turn lane
- g. Participate in widening the southbound approach of MD 355 to add an additional through lane at the MD 355/Newcut Road intersection.

- h. Participate in widening MD 355 south of Brink Road to provide a four-lane divided section. The four-lane section would join the existing four-lane section at Willstone Manor Lane.
- 4. The applicant shall agree that roadway improvements, "2a" through "2d" are sequenced for construction along with sub-phases of Phase I as contained in Christopher Turnbull's letter to Ronald C. Welke, dated February 12, 2004, and Ronald C. Welke's letter to Christopher Turnbull, dated March 8, 2004. (Copies of these two letters are attached.)
- 5. At the time of Site Plan of Phase I, the applicants, Maryland-National Capital Park and Planning Commission Transportation Planning staff, and Department of Public Works and Transportation staff will finalize mutually acceptable trip reduction measures. Also, the parking ratios for non-residential uses in the Cabin Branch Community will be determined at Site Plan, considering trip reduction goals.

### **DISCUSSION**

### Site Access and Circulation

The access to the site is proposed from MD 121, West Old Baltimore Road, and the future I-270/Newcut Road interchange. The site access and internal vehicular/pedestrian circulation system shown on the development plan is safe and adequate. The following is a general description of the master plan roadway network in the vicinity of the site.

- 1. Clarksburg Road (MD 121): Classified as an arterial roadway with six lanes from I-270 to A-304, four lanes from A-302 to A-304, two lanes from A-302 to West Old Baltimore road and a master plan right-of-way of 150, 120, and 80 feet, respectively. This roadway provides access from the I-270 interchange to the site and western boundary of the site.
- 2. West Old Baltimore Road: Classified as an arterial roadway with two lanes and a master plan right-of-way of 80 feet. This roadway provides access from MD 355 and the southern boundary of the site.
- 3. Newcut Road: Classified as an arterial roadway with four lanes and a master plan right-of-way of 120 feet. This roadway provides access from the future I-270 interchange and MD 355. Due to the impact to the stream valley, this roadway is proposed to be terminated east of the Cabin Branch stream valley with a series of traffic circles as shown on the development plan. Staff supports this proposal.
- 4. A-304: Classified as an arterial roadway with four lanes from Newcut Road Extended (A-302) to MD 121 and a master plan right-of-way of 120 feet. This four-lane roadway is proposed to be replaced with two two-lane mixed-use roads with on street parallel parking. Staff supports this proposal.

5. I-270: Classified as a freeway with eight lanes and a master plan right-of-way of 350 feet. This freeway is the eastern boundary of the site and currently is under review as part of the Major Investment Study by the Maryland State Highway Administration.

# Congestion Levels at Nearby Intersections

Ten local intersections were identified as critical intersections to be affected by the development of the subject site and were examined in the traffic analysis to determine whether they meet the applicable congestion standard of 1,500 Critical Lane Volume (CLV) for the Clarksburg Policy Area. The CLV impacts of the proposed development on these intersections were analyzed and are summarized in Table I.

Table I
Intersection Capacity Analysis with CLV
Under Various Development Schemes During the Peak Hour

Intersections Analyzed	Existing		Background		Total - Phase 1 **	
Analyzed	AM	PM	AM	PM	AM	PM
MD 121/I-270 NB off- ramp	423	417	913	1,043	1,401	1,499
MD 121/I-270 SB off- ramp	309	181	561	530	1,081	863
MD 121/Whelan Road (Street "A")	231	237	273	315	1,165	1,163
MD 121/West Old Baltimore Road	253	302	329	420	407	493
MD 121/Gateway Center Drive	791	974	1,778	2562	1,780	2,252
MD 121/MD 355	1,569	1,525	2,173	1,729	2,137	1,536
MD 355/Stringtown Road	1,448	1,055	1,692	1,475	1,481	1,482
MD 355/Newcut Road	1,319	1,133	1,677	1,562	1,000	993
MD 355/West Old Baltimore Road	1,426	1,328	2,056	2,165	1,993	1,687
MD 355/Brink Road	1,599	1,441	1,681	1,997	1,111	1,277

<sup>\*\*</sup> Roadway improvements to be provided by the applicant as a part of Phase1 are included in this total traffic condition analysis.

As shown in the above table, all existing intersections analyzed are currently operating at acceptable CLVs (CLV standard is 1,500) except at the intersection of MD 121 and MD 355 during both the AM and PM peak hours and at the intersection of MD 355 and Brink Road during the AM peak hour. Under the background development (developments approved but not built) condition, MD 355 intersections with MD 121, Stringtown Road, Newcut Road, West Old Baltimore Road, and Brink Road, and the MD 121/Gateway Center Drive intersection exceed the acceptable congestion standard. Under the total Phase 1 development conditions with the roadway improvements to be provided as part of Phase 1 development, all examined intersections will operate at either acceptable condition or at a better level than the background condition except at the intersection of MD 121 and Gateway Center Drive during the AM peak hour. The bike/bus shelter program to be provided by the applicant in the Cabin Branch Neighborhood will offset the marginal increase of CLVs at this location. Also, the improvement to be provided at this intersection will significantly improve the total traffic condition compared to the background condition during the PM peak hour.

## Staging Ceiling and Phasing Program

Based on the FY 2004 AGP staging ceiling capacity, there is insufficient capacity available for both the housing and employment developments (-811 jobs and -5,028 housing units, as of April 30, 2004) in the Clarksburg Policy Area. In August 2002, Transportation Planning staff analyzed phases of roadway infrastructure that will support certain levels of development in Clarksburg and developed the phasing program. The detailed phasing program is described in our letter to Terry Miller dated August 23, 2002. (A copy of this letter is attached.) The proposed Phase 1 development of the Cabin Branch project is consistent with the phasing program "Phase 2A" in the staff's letter. Therefore, the Cabin Branch Neighborhood development would be adequately accommodated in the Clarksburg Policy Area by the proposed roadway improvement package from a Policy Area Transportation Review perspective.

The applicant proposed the sub-phasing program which includes the sequenced sub-phased roadway improvement and development density of the overall Phase 1 development. Staff supports the proposed sub-phasing program and recommends this sub-phasing program as a condition of approval of the subject preliminary plan, "Condition No. 4".

The size and mixed-use character of the development proposed for this site lends itself to traffic mitigation efforts that will reduce dependence on the single-occupant automobile and encourage the use of public transit and ride sharing. Therefore, Transportation Planning staff recommends that the applicant include mutually acceptable trip reduction measures to be determined at Site Plan of Subdivision.

# **CONCLUSION**

Staff concludes that the subject preliminary plan satisfies the APF requirements since all nearby intersections are anticipated to operate within the acceptable congestion standard or the site trips are mitigated by the trip mitigation measures and the applicant proposes the roadway improvements to adequately address the staging ceiling issue.

KHK:gw Attachments

mmo to weaver re pp #1-03110 Cabin Branch Ph 1



TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

February 12, 2004

Ronald C. Welke Transportation Coordinator Maryland-National Capital Park and Planning Commission 8787 Georgia Avenue Silver Spring, Maryland 20910

Re:

Cabin Branch -

Ceiling Capacity Road Improvement Phasing

Clarksburg, Maryland

Dear Ron:

This letter provides a proposal to stage the improvements identified for Phase I of the Cabin Branch project for your consideration. The improvements are those staging ceiling improvements identified in your letter to Terry Miller, dated August 23, 2002.

The Phase I development program consists of a mixture of 1,600 residential units, 500 senior units, and approximately 1,538,000 square feet of commercial space (or 4,050 Jobs).

The improvements identified with this proposal were selected to add policy area ceiling capacity incrementally with the development of Phase I in addition to providing common access to each of the property owners.

The following table identifies each sub-phase, the improvements to be completed, and the corresponding development proposed:

Sub-Phase	Policy Area Improvement	Development
	2 <sup>nd</sup> Ave (A-304 West) – from MD 121 to Street	
1.1	Q, two-lane business district roadway.	210 Units
	1	190,000 S.F.
	MD 121 – from Street Z to the I-270	
1.2	interchange, two-lane to four-lane to six-lane	210 Units
•	arterial.	125 Senior Units
		190,000 S.F.
	MD 121 - I-270 inter-change and bridge	
1.3	improvements.	210 Units
		125 Senior Units
		190,000 S.F.
	2 <sup>nd</sup> Ave (A-304 West) – from Street Q to W.	
1.4	Old Baltimore Road, two-lane business district	
	roadway.	194 Units
	Newcut Rd (A-302) – from 2 <sup>rd</sup> Ave to I st Ave,	125 Senior Units
	four-lane divided roadway.	190,000 S.F.
	Ist Ave (A-304 East) – from MD 121 to Street I,	
1.5	two-lane business district roadway.	194 Units
		190,000 S.F.
	Ist Ave (A-304 East) — from Street I to Newcut	
1.6	Rd (A-302), two-lane business district roadway.	194 Units
		125 Senior Units 190,000
		S.F.
1	MD 121 – from W. Old Baltimore Rd to Street	
1.7	Z, upgrade to two-lane arterial.	194 Units
	N/ CILB II	190,000 S.F.
1.0	West Old Baltimore (A-7) – MD 121 to Newcut	•
1.8	Road, upgrade to two-lane arterial.	194 Units
		208,000 S.F.

Figure 1 graphically summarizes the policy area improvements described above.

We look forward to hearing from you and should you have any questions, comments, and/or require additional information, please feel free to contact Terry Miller or me at (703)917-6620.

Sincerely,

Christopher Turnbull Principal Associate

Copy: Cabin Branch Team

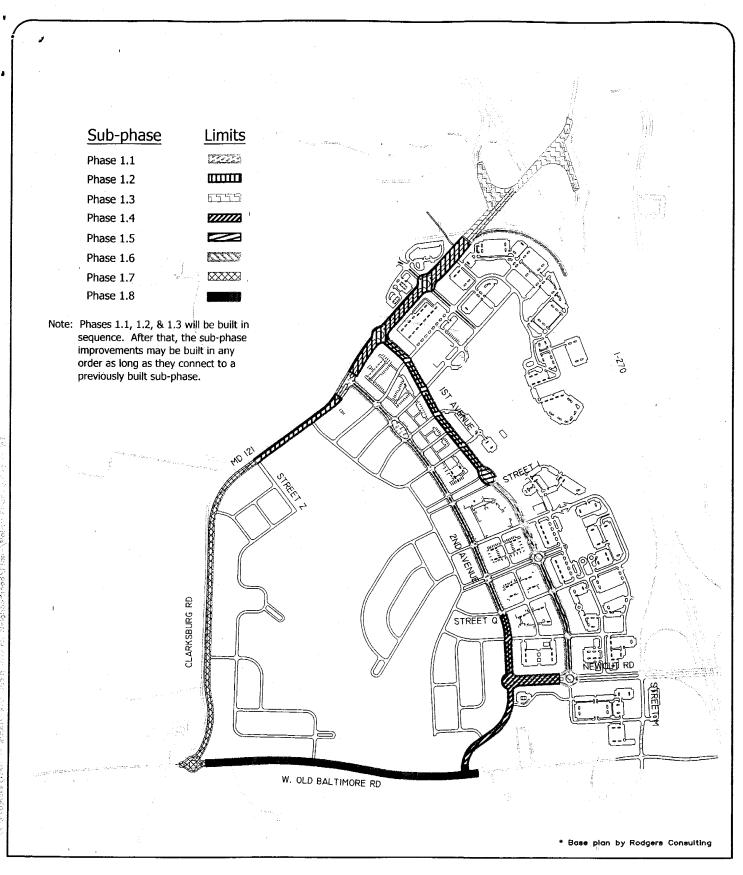


Figure 1
Phase 1 Policy Area Improvement Sub-phasing



North Schematic

## MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue Silver Spring, Maryland 20910-3760

March 8, 2004

Mr. Christopher Turnbull Wells & Associates 1420 Spring Hill Road, Suite 600 McLean, Virginia 22102

RE: Cabin Branch

Ceiling Capacity Road Improvement Phasing

Dear Mr. Turhbull:

I am writing in reply to your February 12, 2004 letter, confirming the proposed phasing of road improvements for Phase 1 of the Cabin Branch development. We generally support the phasing of road improvements as described in your February 12, 2004, letter with the following comments:

- 1. We agree that the proposed overall improvements identified for Phase 1 are consistent with those staging ceiling improvements identified in our letter to Terry Miller, dated August 23, 2002.
- 2. The proposed sequence of phases 1.1, 1.2, and 1.3 is reasonable and acceptable. We agree that the first on-site improvement (Phase 1.1) will be 2<sup>nd</sup> Avenue (formerly referred as A-304 west) from MD 121 to Street Q, as a two-lane business district roadway. We also agree that the sequential off-site improvements will be MD 121 from Street Z to the I-270 interchange (Phase 1.2) and the MD 121/I-270 interchange and bridge improvements (Phase 1.3). These initially identified sequential roadway improvements would be a critical element in creating regional staging ceiling capacity.
- 3. We agree that the subsequent sub-phase improvements may be built in any order, as long as they connect to a previously built sub-phase. However, we request that after phases 1.1, 1.2, and 1.3, the MD 121 improvement from West Old Baltimore Road to Street Z, identified as "Phase 1.7" in your letter, be considered for construction in an earlier phase from the remaining phases since this roadway would provide a more regional transportation improvement.
- 4. We agree with the findings of your supplemental Local Area Sub-Phase Intersection Analysis dated February 27, 2004, that the local roadway system provides adequate roadway capacity during each sub-phase from the Local Area Transportation Review perspective.

Mr. Christopher Turnbull March 8, 2004 Page 2 of 2

Should you have any questions or need any clarification on our comments, please call either Ki Kim or me at (301) 495-4525.

Sincerely,

Ronald C. Welke, Supervisor

Transportation Planning

RCW:KHK:gw

Ltr to Turnbull re Cabin Branch Ph A Phasing