Law Offices
HOLLAND & KNIGHT LLP

2099 Pennsylvania Avenue, N.W.
Suite 100
Washington, D.C. 20006-6801

202-955-3000
FAX 202-955-5564
www.hklaw.com

Annapolis
Atlanta
Bethesda
Boston
Bradenton
Chicago
Ft. Lauderdale
Jacksonville
Lakeland
Los Angeles
Melbourne
Miami
International Offices:
Caracas*
Helsinki
Mexico City
Rio de Janeiro
New York
Northern Virginia
Orlando
Portland
Providence
St. Petersburg
San Antonio
San Francisco
Seattle
Tallahassee
Tampa
West Palm Beach
São Paulo
Tel Aviv*
Tokyo
*Representative Office

January 6, 2002

WHAYNE S. QUIN
202-663-7274

Internet Address: wquin@hklaw.com

VIA HAND DELIVERY
Zoning Commission for the
District of Columbia
441 4th Street, N.W., Suite 210S
Washington, D.C. 20001

Re: 5401 Western Avenue, N.W.
Zoning Commission Case No. 02-17C
Post-Hearing Submission

Dear Members of the Commission:

Stonebridge Associates 5401, LLC, the applicant in the above-referenced case (the "Applicant"), files this Post-Hearing Submission as requested by the Zoning Commission.

I. CLOSING STATEMENT

This Planned Unit Development ("PUD") offers the Zoning Commission the opportunity to further the District of Columbia's planning goals by providing a highly desirable residential use in the Friendship Heights Regional Center. The appropriateness of this development is supported by three primary factors:

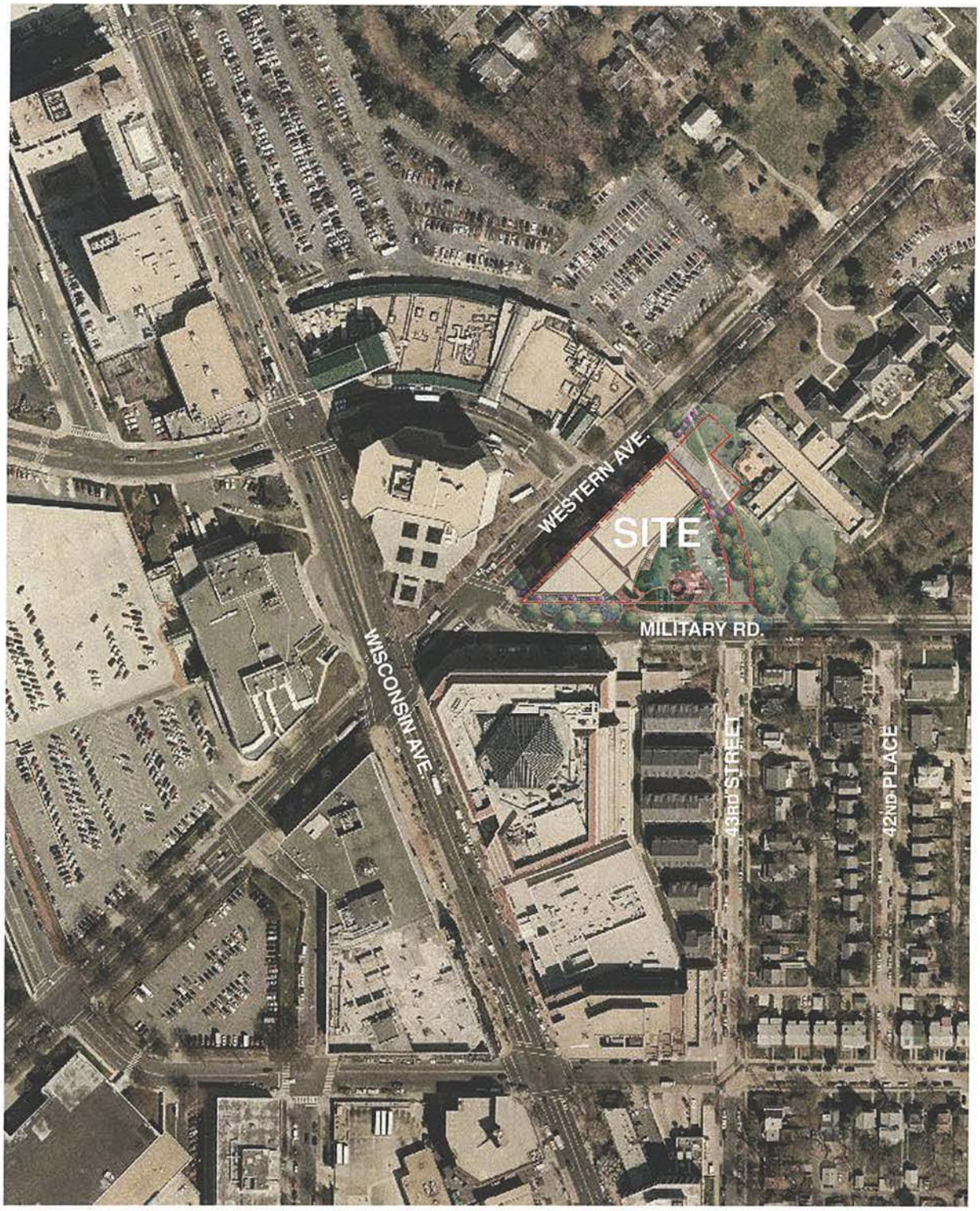
- ***Location of the Proposed Development***: The proposed project is located at the intersection of two major thoroughfares in the District of Columbia, approximately 250 feet away from the entrance to a four portal Metrorail Station and a Metrobus Station. The subject property (the "Site") is located in the heart of the Friendship Heights Regional Center, one of only two such designations in the entire city, and in an area designated as a Housing Opportunity Area by the Comprehensive Plan.

- ***Character of the Surrounding Development***: The proposed project reflects the same pattern of height and density as is seen in the surrounding area. To the south of the Site, immediately across Military Road, are mixed-use developments, including the Chevy Chase Pavilion, Friendship Center and the Chevy Chase Plaza. The height of the bottom of the mansard roof of the Embassy Suites hotel, which is part of the Pavilion, is the same elevation as the roof of the proposed building. To the southwest of the Site is the Mazza Galleria. To the north, immediately across Western Avenue in Montgomery County, Maryland, is a commercial office building with a height of 143 feet. Adjacent to that site is the Chevy Chase Center, approved for redevelopment with a maximum height of ninety feet. Open space with no development faces the Lisner Home and townhouses, which provide steps down before reaching the existing lower density residential uses found further to the east and southeast.

- ***Adopted Planning Goals that Guide Zoning in the District of Columbia***: The proposed project furthers a substantial number of goals and policies of the District, including focusing the greatest housing densities on those corridors that have the best access to transportation and shopping and giving zoning preference to projects which include housing near the Metrorail Station.

The result of these three factors is an ideal "pocket" for the proposed residential development. This pocket is created by the surrounding heights and densities as well as the sloping topography of the Site and the residential area further to the east. The appropriateness of development in this pocket can clearly be seen in the aerial photograph attached hereto as Attachment 1.

Not only does the proposed residential development serve as a transition zone for the lower density residential uses to the east, it also complements the more dense commercial development to the south, north and west and takes advantage of its proximity to public transportation. The Applicant has worked extensively – starting in September, 2001, more than seven months before even filing the application – with the community, the Advisory Neighborhood Commission, the Office of Planning and others to create a development that responds to the context of each side of the Site. The result of this work is an excellent site plan that situates the mass of the building along Western Avenue, with an overall FAR of 3.14, that provides all vehicular access from Western Avenue, and that permits over one-half acre (approximately 24,700 square feet) of open green space to be provided. Moreover, the massing of the building along



5401 WESTERN AVE.

WASHINGTON, D.C.

STONEBRIDGE

SHALOM BARANES ASSOCIATES

Western Avenue allows the Applicant to respond to the community's concern by requesting rezoning to R-5-C of only the Washington Clinic land and maintaining the R-2 zone designation on the Lisner Home property. The combination of these factors leads to the requested development incentives.

Although the Applicant requests development incentives, this request is more than offset by the significant Community Amenity and Benefits Package proposed, including housing in a Housing Opportunity Area, affordable housing units, expansion of day care facilities for the Chevy Chase Plaza Children's Center, improvements to the Chevy Chase Park, significant open space and tree preservation, pedestrian path and exceptional landscaping, additional residential parking and traffic mitigation and safety improvements. Each of these benefits was described in detail in the Applicant's submissions and the Applicant's presentation to the Commission. Furthermore, none of these benefits would be realized under a matter-of-right development. In fact, the impacts on the community could be significant under a matter-of-right development because no community and District review would be required, as is discussed in more detail in the Rebuttal (Section I, D).

Finally, as discussed above, the Project substantially furthers the policies and objectives of the Comprehensive Plan. The Site is designated as a Housing Opportunity Area, which is an where the District expects and encourages housing, especially through the conversion of existing nonresidential buildings. The Site is also designated as a Regional Center, one of only two designations in the entire city. As reviewed in detail in the Applicant's submission, the proposed project furthers the various elements of the Comprehensive Plan and the specific elements for Ward 3.

Accordingly, the Applicant requests that the Zoning Commission approve the application for a PUD and Zoning Map amendment. In his inauguration speech on January 2, 2003, Mayor Anthony Williams stated that "[e]xpanding homeownership is critical if we are to expand our tax base . . . Through a range of homeownership efforts, including attracting market rate housing, we can develop at least 15,000 new homes as part of our goal to bring 100,000 residents to the city within 10 years." The proposed project represents an important step in furthering this very important goal.

II. REBUTTAL

The opposition in this case argues that the proposed development should not be approved for the following reasons: (1) the rezoning to R-5-C and the

resulting development are not appropriate for the area; (2) the project has adverse traffic impacts; and (3) the project provides insufficient amenities. The rebuttal, attached hereto as Attachment 2, addresses these primary issues, as well as the opposition's more minor arguments related to economics and parking.

III. INFORMATION REQUESTED BY THE COMMISSION

A. Additional Details Regarding Design of the Day Care Center

Attached hereto as Attachment 3 are architectural plans and drawings showing additional details related to the design of the day care center. The design has been developed in accordance with the guiding design principals outlined in the Applicant's earlier submission of supplementary materials dated December 5, 2002 which were to minimize the visual impact of the structure and to blend in with the existing Lisner home. The drawings in the referenced attachment illustrate design strategies that are employed to accomplish these goals. These strategies include: cutting the proposed one story structure into the existing slope of the ground, thereby minimizing the visual impact of the structure; designing the enclosing walls of the proposed structure to mimic the form and articulation of the existing retaining walls around the adjacent Lisner Home patio; and matching the brick color, size, texture and pattern of the Lisner Home.

A. Additional Specificity Regarding Affordable Housing Program

Attached hereto as Attachment 4 is a revised and more detailed statement of the Applicant's proposed affordable housing program included as part of its Community Amenity and Benefits Package. This application appears to be the first in the District of Columbia to voluntarily include an affordable housing component whereby the units will be included in the building. Affordable housing is an important policy goal of the District, and the proposed project can serve as the foundation of a long term policy for the District.

The Applicant has spent considerable time with the Office of Planning and the Department of Housing and Community Development ("DHCD") refining its Affordable Housing Program to ensure success for this initial project and establish a strong model for future projects. The Office of Planning has stated that the projected four to six units are an excellent start for affordable housing components contained in a project of this size and nature. Working

with DHCD, the Applicant has evaluated the enforcement mechanism to ensure this program can be enforced. A combination of oversight commitments by DHCD and legal documentation (i.e. deed restrictions and covenants) provide assurance that the affordable units will create the intended benefits for the District and the unit owners.

C. Additional Information Regarding Construction Management Plan

The Zoning Commission requested additional information regarding the Construction Management Plan submitted as Exhibit L with the Applicant's Prehearing Submission on August 19, 2002. A further revised Construction Management Plan is attached hereto as Attachment 5. The Applicant's original proposed Construction Management Plan was derived from agreements executed and successfully implemented previously within the community. These prior agreements were entered into by Friendship Neighborhood Coalition with McCaffery Interests, Inc. & Eakin/Youngentob Associates, Inc., and the 41st Street Advisory Committee with P. N. Hoffman, Inc.

At the request of the Zoning Commission and in response to formal requests from the homeowners adjacent to the Site, the Applicant has revisited the Proposed Elements of Construction Management plan dated August 19,2002, and modified the document to address these concerns as well as incorporate recently approved construction management provisions from Zoning Commission Order No. 955/Case No.01-09C (Station Place).

The Applicant has modified the Proposed Elements of the Construction Management Plan to:

- Provide for the creation of a Community Advisory Committee;
- Extend the survey area to 300 feet for adjacent residential properties beyond the Site property line;
- Include the submittal of the scope of work to be performed in the pre-construction survey;
- Establish the requirement for construction monitoring services, most importantly as it relates to sheeting/shoring operation, dewatering, excavation and installation of foundation components;
- Implement a program to monitor the structural settlement of Surveyed Homes and mitigate potential impact;
- Prohibit driving of piles;

- Require monthly meetings of the Community Advisory Committee with representatives from the Developer and General Contractor in attendance;
- Provide for all subcontractors/material suppliers to be issued written instruction on truck routing and to prohibit repeat offenders from entering the Site; and
- Extend the allowable post-construction survey period up to thirteen months after Certificate of Occupancy has been issued.

The cost of implementing the items listed above shall be borne by the Applicant and carries an estimated value in excess of $100,000. This submission addresses responds to the general points of concern identified by the neighboring residents. It should be noted that the Applicant has provided in its previous submission:

- Significant remedies related to payment for damage caused by Developer;
- Pre-approved list of engineering survey firm, with final firm selected by Owners and paid by Developer, and
- Stringent jobsite rules including (but not limited to) site management, cleanliness, deliveries, work hours, traffic restrictions, parking and truck travel/queuing.

The Applicant believes that the revised Construction Management Plan will help establish mutually satisfactory parameters for the execution of work and effective communication with the neighboring residents.

We appreciate the Commission's consideration of this Post-Hearing Submission. Should you have any questions or need additional information, please do not hesitate to have the Office of Zoning staff contact us with copies to all parties.

Very truly yours,

Whayne S. Quin, Esq.

Christine Moseley Shiker

cc: Ellen McCarthy, Office of Planning (Via Hand Delivery)
Stephen Cochran, Office of Planning (Via Hand Delivery)
Ken Laden, District Department of Transportation (Via Hand Delivery)
Parties to the Case (*See Attached Proof of Service*)

PROOF OF SERVICE

I hereby certify that on January 6, 2003, a copy of the foregoing Post-Hearing Submission was served on the following persons or organizations as stated below:

Advisory Neighborhood Commission 3E (***Via U.S. Mail***)
PO Box 9953
Washington, D.C. 20016
(202) 244-0800
Fax (202) 362-0360 (ATTN: POLLY KING)

Advisory Neighborhood Commission 3E (***Via Hand Delivery***)
c/o Jill Diskan, Chair
5315 43rd Street, N.W.
Washington, D.C. 20016

Advisory Neighborhood Commission 3/4G (***Via Hand Delivery***)
5601 Connecticut Avenue, N.W.
Washington, D.C. 20015
(202) 363-5803
Fax (202) 686-4366

Andrea Ferster and Cornish Hitchcock (***Via Hand Delivery [5 copies]***)
1100 17th Street, N.W. 10th Floor
Washington, D.C. 20036
(202) 974-5142
Fax (202) 331-9680
Counsel for the following parties:
Friendship Heights Organization for Responsible Development
Hazel Rebold
Steve and Betsey Kuhn
Jackie Braitman
Martin Rojas

Friendship Heights Organization for Responsible Development
c/o Laurence Freedman (***Via Hand Delivery***)
4104 Legation Street, N.W.
Washington, D.C. 20015

Christine Moseley Shiker, Esq.
Holland & Knight

REBUTTAL
ATTACHMENT 2

The opposition in this case argues that the proposed development should not be approved for the following reasons: (1) the rezoning to R-5-C and the resulting development are not appropriate for the area; (2) the project has adverse traffic impacts; and (3) the project provides insufficient amenities. This rebuttal addresses these primary issues, as well as the opposition's more minor arguments related to economics and parking.

I. Current Zoning and Appropriateness of Rezoning

A. Brief Review of Zoning History of Site and Area

In 1958, the Site was originally zoned R-2. The Site was rezoned in 1963 to C-3-A, reflecting changes in the growing Friendship Heights area at that time. In 1974, the Site was downzoned from C-3-A to R-5-B. At this time, the Zoning Commission also changed the Zoning Map to zone the area around the core intersection of Wisconsin and Western Avenues with a band of C-2-B and C-2-A. The eastern portion of Square 1661, Square 1663 and Square 1657 (the bus garage) were zoned R-5-B. The residential areas to the east and west of the commercial strips were maintained in the R-2 Districts.

B. "Keep the Zoning" is Not Appropriate for this Site

Throughout this case, the opposition's mantra has been "Keep the Zoning." The opposition bases this argument almost entirely upon the notion that the neighborhood has some right to the maintenance of the zoning enacted in 1974. However, the 1974 zoning is based on an almost thirty year old analysis that is outdated and has been overtaken by changes in the area. Thus, the R-5-B zone designation is based on premises that are no longer valid and as result the current zoning is no longer appropriate.

1. *The 1974 Rezoning Was Based On Assumptions Related To Traffic That Are No Longer Valid*

The 1974 rezoning is not appropriate for the Site today because the Zoning Commission based the rezoning on assumptions that are no longer valid. Contrary to the opposition's position, the primary and basic consideration for the 1974 downzoning was the traffic capacity of the arterial streets.

Although the zoning was put in place after the adoption of the Metrorail system, the rezoning took place before the construction of the Friendship Heights Metrorail Station. Using projections of the use of this Metrorail station, the Zoning Commission based its traffic analysis of the carrying capacity of the arterial streets

on a thirty percent modal split, stating that the "the subway is expected to carry only 30% of all peak hour commuter trips in and out of the area." Zoning Commission Order No. 87, page 3. As a result of that analysis, the Zoning Commission downzoned the Site to R-5-B.

The Friendship Heights, Tenleytown and Bethesda Metrorail Stations were all opened in 1985. Since that time, it has become clear that the capacity and use of that Metrorail station has far exceeded what the Commission anticipated in 1974. The 1989 WMATA "Development Related Ridership Survey II Report" indicated that the transit modal split for suburban residential land uses within the Beltway were found to range from 48.5% to 73.7% with the average being 60.0%.

Since 1985, 2002 data provided by WMATA indicates that the average passenger boarding for this station has increased by approximately sixty-two percent. This trend is supported by media reports within recent years of significant increases in transit ridership on the WMATA Metrorail system. According to testimony by O.R. George & Associates, the appropriate modal split is sixty percent, or as high as sixty-five to seventy percent. The District Department of Transportation ("DDOT") conservatively estimates the modal split at fifty percent. In any event, there is far greater transit usage than that assumed by the Commission in 1974 when the area was downzoned. Therefore, the assumptions used by the Commission at the time of the 1974 rezoning are no longer valid.

2. *The Comprehensive Plan Was Adopted in 1984 and 1985*

The Comprehensive Plan, which sets forth the planning policies for the District, was not adopted until 1984. Similarly, the Land Use Element of the Comprehensive Plan, which designates the Site as a Regional Center and in a Housing Opportunity Area, was adopted in 1985. The Ward 3 Plan, which sets forth the more specific policies for the area, was also not in place at the time of the 1974 rezoning. Thus, the current planning policies did not exist at the time the Site was rezoned in 1974. Zoning is not static; instead, it is a dynamic process which reflects the current conditions and factors at the time it is put in place. Thus, the Commission has the opportunity to re-evaluate the zoning of the Site in light of these policies and the current conditions.

C. Appropriate Zoning For the Site

Because the R-5-B zoning is based on premises that are no longer valid in the context of the current application, the Zoning Commission must determine the appropriate zone designation for this Site. This process is similar to that undertaken by the Zoning Commission for those projects immediately to the south of the Site in which the Zoning Commission rezoned and approved three PUDs for Square 1661 in 1987 and 1997.

The Zoning Commission has the authority to amend the Zoning Map if a proposed rezoning is consistent with the purposes and objectives of zoning as set forth in the Zoning Enabling Act, Section 6-641.01 of the D.C. Code. As was discussed in the Applicant's submissions to the Commission and in its testimony during the public hearings, the proposed rezoning meets these criteria as follows:

- The proposed zone is not inconsistent with the Comprehensive Plan;
- The proposed zone will not produce objectionable traffic conditions;
- The requested rezoning will promote the health and general welfare by stabilizing land values and facilitating Metro ridership; and
- The proposed rezoning will not lead to the overcrowding of land.

In this case, the location of the Site, the character of the surrounding area and the District's planning goals and objectives support the request for R-5-C zoning on this Site. Each of the criteria for a rezoning have been thoroughly discussed in the Applicant's submissions and in its testimony to the Commission. Accordingly, this rebuttal addresses the primary issue raised by the opposition: namely, that the building is too big for the Site. Although the issue of traffic generation has been discussed extensively, the District Department of Transportation, as well as the Applicant's traffic engineer, find that the project creates no unacceptable traffic impact. A response to the opposition's traffic contentions can be found in Section II below.

As stated, the opposition argues that R-5-C zoning results in a building that is too big for the Site. However, when the development is reviewed in context and in relation to the existing and approved developments for the area, the Commission will find that the size of the building is entirely appropriate. First, the proposed project will not cast a shadow on any residential property or impact the light and air of any residential property. Furthermore, attached hereto as Exhibit A are sectional drawings illustrating the visual impact of the size of the development from the perspective of a person standing in front of the closest single family dwelling. These drawings illustrate the minimal impact on a person when viewing the project from the east. In fact, if townhouses with a height of fifty feet were constructed on the Site under the matter-of-right zoning as proposed by the opposition, the visual impact on the closest single family dwelling is more intrusive. *See* Exhibit A. Moreover, as the Office of Planning testified, the best buffer is no building at all. Thus, the proposed more than one-half acre of green, open space in conjunction with the setback of the proposed building, reduces the perceived visual impact on the area.

Additionally, as testified to by the Applicant's experts in urban planning, the appropriate zoning for this Site is a designation that places the highest residential density on the Site without creating adverse impacts. As discussed in detail in the

Applicant's submission and in its testimony, the project does not create adverse impacts on the nearby community. The proposed density of the project is less than that constructed or approved for nearby developments. Similarly, the height of the building is less than that approved by the Zoning Commission for Chevy Chase Pavilion, which has a height of one hundred feet (exclusive of the mansard roof and other architectural embellishments) adjacent to a residential townhouse development. This proposal reflects the same pattern of density and juxtaposition of height of this area and as is seen along Connecticut Avenue, while also respecting the specific site context and overall community.

D. Benefits of Approval of PUD Versus Matter-of-Right Development

Approval of the proposed project as part of a PUD results in many benefits that would not occur with development of the Site as a matter-of-right. First, development of the Site as a matter-of-right requires no review by the community or the District. Thus, the developer can proceed without consultation with the city or the community. For instance, a townhouse development as a matter-of-right could have multiple curb cuts and primary access could be from Military Road, generating more traffic on that street. Furthermore, development as a matter-of-right would allow more site coverage and less common open space. The R-5-B District permits a lot occupancy of sixty percent, as compared to the proposed development which has a lot occupancy of less than forty-five percent. As a result, the community would not have the open space that will be provided as part of the proposed development. The R-5-B zoning also permits projects as a matter-of-right, such as a much larger medical clinic, which would create significant negative impacts on the area, especially in terms of traffic and parking. Finally, development of the Site as a matter-of-right results in the loss to the community and the District of affordable housing, improvements to the Chevy Chase Park, expansion of the day care facilities, significant landscape improvements, economic benefits, traffic and pedestrian safety improvements, and any type of construction management plan. Accordingly, because there are no unacceptable adverse impacts, the community and the District are substantially benefited by development of the Site under a PUD when compared with development as a matter-of-right.

II. Traffic

The District Department of Transportations ("DDOT") in its supplemental memorandum to the Zoning Commission filed dated January 2, 2002, stated that "the project would generate approximately fifteen percent fewer AM and PM peak hour trips compared with the number of trips generated by the existing Clinic use." Thus, at the outset, the project has less of an impact on traffic than the existing use. The DDOT filed two reports with the Zoning Commission (dated October 8, 2002, and November 13, 2002) as well as testified at the December 12, 2002, public hearing in support of the PUD application. The DDOT concluded that vehicular

traffic generated by the proposed project can be accommodated with little or no negative impact on the area road network. This conclusion is the same as that found by the Applicant's traffic engineer, O.R. George & Associates.

The opposition presented expert testimony in an effort to establish potential adverse impacts on traffic related to this project. The memorandum from O.R. George & Associates, dated December 30, 2002, and attached hereto as Exhibit B, responds to each of the opposition's contentions and concludes that the project will have no adverse impact. The DDOT, as stated in its supplemental memorandum to the Zoning Commission on January 2, 2002, also reviewed Mr. Mehra's contentions and concluded that the proposed development will have no adverse impact on traffic.

III. Sufficiency of Amenities

The Zoning Regulations require the Zoning Commission to judge, balance and reconcile the relative value of the project amenities and public benefits offered, the degree of development incentives requested, and any potential adverse effects of a specific case. The Applicant proposes a substantial Community Amenity and Benefits Package for this proposal, which has been created and modified during this process in response to requests and issues raised by the community. The value of the package is in excess of $1,700,000, as set forth in detail in Exhibit C, for those items that have a quantifiable value.

The opposition claims that certain elements of the Community Amenity and Benefits Package do not constitute an amenity or benefit for the community. The following is a summary of each contention and why each is without merit:

A. Affordable Housing

The opposition argues that the affordable housing amenity, which many (including the Office of Planning) have called an exceptional and precedent-setting part of this development, does not constitute an amenity for the community because (1) the Applicant's submission did not include sufficient specificity as to the operation of the program and (2) the amenity is an "inefficient" means of providing affordable housing.

First, in response to questions and comments raised during the public hearing process, the Applicant has provided additional specificity regarding the operation of the affordable housing program after further work with the Office of Planning and the Department of Housing and Community Development. This information is made part of this Post-Hearing Submission as Attachment 4.

Second, the opposition contends that this amenity is an "inefficient" means of providing affordable housing, arguing that the inefficiency results from devoting larger, more expensive units to affordable housing. The Applicant has provided this amenity after significant work with the Office of Planning in accordance with the policies currently in place in the District. In fact, this application appears to be the first residential project to voluntarily include an affordable housing component. Furthermore, the Ward 3 element of the Comprehensive Plan specifically states that affordable housing is to be treated as an important public amenity. 10 DCMR § 1402.5(d). Thus, the proposed affordable housing units constitute an amenity entitled to consideration by the Zoning Commission.

B. Housing as an Amenity

The opposition argues that housing cannot be considered an element of the Community Amenity and Benefits Package because it could be provided as part of a development under the matter-of-right standards. First, Section 2403.9(f) of the Zoning Regulations specifically identifies housing as an amenity and does not differentiate this amenity on the basis of whether the same number of housing units could be provided under the matter-of-right zoning. The Zoning Commission has previously concluded that housing constitutes an amenity for development of residentially-zoned properties in the following recent cases: Zoning Commission Order No. 831 (3133 Connecticut Avenue, N.W. – The Kennedy-Warren) (*effective December 19, 1997*); Zoning Commission Order No. 870 (7th and G Streets, S.W.) (*effective February 26, 1999*); and Zoning Commission Order No. 945 (EYA Development Inc., Bryan School) (*effective September 28, 2001*).

Second, although residential uses are permitted under the matter-of-right zone, the opposition fails to acknowledge that there is no guarantee that housing would be provided. The R-5-B zone permits a broad range of institutional uses, including a medical clinic, hospital, museum, or church. Because the R-5-B District does not require residential uses, the Applicant could develop the Site with non-residential uses. Therefore, housing is a substantial and important amenity.

C. Day Care Center

The opposition argues that the proposed day care center is not an amenity because there is no guarantee that the center will benefit the community and because the day care center does not constitute "affordable" day care. First, the Applicant has committed to provide the day care as an extension of the existing Chevy Chase Plaza Children's Center (the "Children's Center"), created as part of the Planned Unit Development approved by the Zoning Commission in Zoning Commission Order No. 519 and will proffer conditions in its proposed Findings of Fact and Conclusions of Law to target the day care center's services to benefit the community.

Second, neither the Zoning Regulations nor the Comprehensive Plan require that a day care center must provide "affordable" or subsidized day care (as compared with market rate day care) in order for such facility to constitute an amenity for a PUD application. There is no basis for the proposition that a day care facility providing market rate services is not an amenity. Furthermore, the Children's Center is a not-for-profit organization with a mission to provide quality care for children between the ages of three months and five years of age.

D. Tree Preservation

In response to the community's concerns, the Applicant redesigned the project and its underground parking facilities, as described in the August 19, 2002, Prehearing Submission, in order to save twelve existing mature trees on the southeastern portion of the Site. Since that time, the project has undergone further revision, and the boundaries of the Site have changed such that six of the existing mature trees saved as part of the redesigned project are no longer within the boundaries of the Site. Exhibit D illustrates the changes in the boundaries of the Site and reflects the existing trees proposed to remain.

The opposition argues that, as a result of the boundary change, tree preservation no longer constitutes an amenity to the community. This argument is without merit. First, the six mature trees that are no longer on the Site will not be removed by the development. The Applicant still proposes to retain the remaining six mature trees within the boundaries of the Site. Furthermore, throughout the entire process, the Applicant has agreed to retain ten existing trees along Western Avenue and Military Road. Finally, the Applicant proposes significant new landscape improvements that will also serve as a benefit to the community.

E. Open Space

Section 2403.9(a) of the Zoning Regulations identifies the creation or preservation of open space as an amenity to be considered by the Zoning Commission. As part of its proposal, the Applicant has incorporated approximately 24,700 square feet (more than one-half acre) of landscaped green space. The opposition argues that because there is currently no building constructed on that portion of the Site, the Zoning Commission should not consider this proposed amenity. The Washington Clinic development includes a large-sized parking lot covering much of the eastern portion of the site. The Applicant proposes a green space with landscaping, pedestrian paths and a central meeting area in place of this parking area. Furthermore, Attachment 1 illustrates the beneficial impact that the green space will have on the development of the Site.

F. Traffic and Pedestrian Safety Improvements

As part of the Community Amenity and Benefits Package, the Applicant's traffic engineer, O.R. George & Associates, completed a study identifying modifications to traffic and pedestrian patters in the neighborhood to benefit the community. The Applicant proposes working with DDOT to refine and implement the proposed improvements and modifications to 43rd Street, Military Road, and Western Avenue.

The opposition argues that these improvements do not constitute an amenity because such improvements serve only to mitigate traffic impacts created by the project. This statement is incorrect. As presented in the Applicant's submissions and its testimony, these proposed improvements result in the mitigation of *existing* traffic operational and safety conditions and are not needed to mitigate traffic resulting from the proposed development. Therefore, the proposed improvements all serve to create a safer and more easily accessed community – a clear public benefit.

G. Excess Residential Parking

As part of the Community Amenity and Benefits Package, the Applicant proposes the provision of additional residential parking in response to the community's request. The Zoning Regulations require one parking space for every three apartments, while the project proposes a parking ratio of 1.1 space per residential unit. First, in its supplemental memorandum to the Zoning Commission dated January 2, 2003, the DDOT concluded that the proposed number of parking spaces is more than adequate for the proposed project. Furthermore, the testimony of O.R. George & Associates established that the market demand for parking is less than 1.0 space per unit; thus, any parking above that ratio is an additional benefit to the community. Moreover, the opposition's argument that sufficient parking is not provided is addressed in the rebuttal memorandum from O.R. George & Associates, attached hereto as Exhibit B.

IV. Economic Analysis

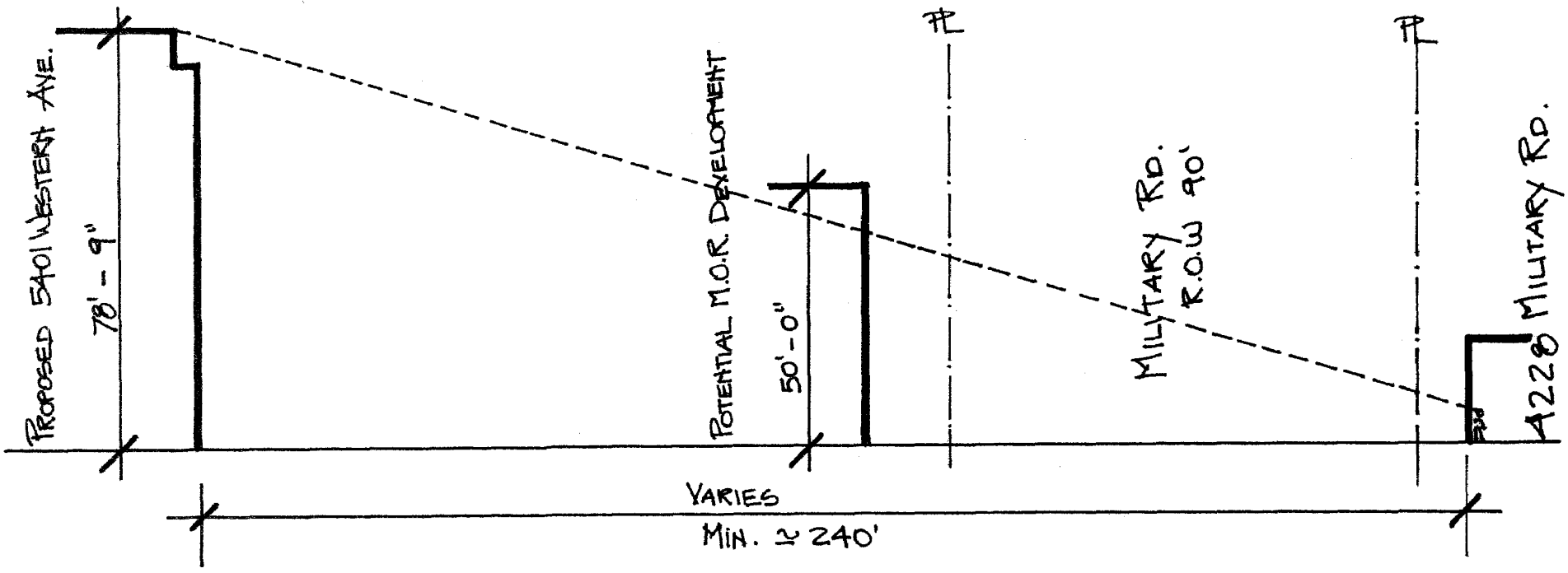
The detailed economic analysis presented by Dr. Marilyn Simon for the opposition concluded that the proposed project would provide approximately $400,000 to $500,000 in additional annual revenue over Dr. Simon's calculations for a project under the matter-of-right provisions. Bolan Smart Associates, the Applicant's expert in real estate economics, concluded that, even using Dr. Simon's inputs, the additional revenue would be approximately $600,000 to $800,000. Although the numbers are different, the premium is substantial under either set of numbers. Furthermore, this additional revenue is recurring and will likely increase

over time. According to Bolan Smart Associates, even under Dr. Simon's calculations, this annual increase in revenue would be sufficient to support upwards of $10,000,000 in expanded District bonding capability. Thus, under either the opposition's or the Applicant's analysis, the revenue created for the District is substantial.

V. Parking

The opposition asserts that the parking garage is physically incapable of providing a maximum of 142 parking spaces, which is the number of spaces the Applicant proposes should the project include 125 condominium units (1.1 ratio plus four spaces for the day care center). The Applicant has studied its plans and has determined that it can satisfy a condition that would require a parking ratio of 1.1 spaces for the maximum number of units within the criteria set forth in the architectural plans and drawings. In addition, the Applicant commits to provide a minimum number of bicycle parking spaces in an amount equal to twenty percent of the number of condominium units.

PROPOSED DEVELOPMENT AS COMPARED TO
POTENTIAL MATTER OF RIGHT DEVELOPMENT



5401 WESTERN AVE.

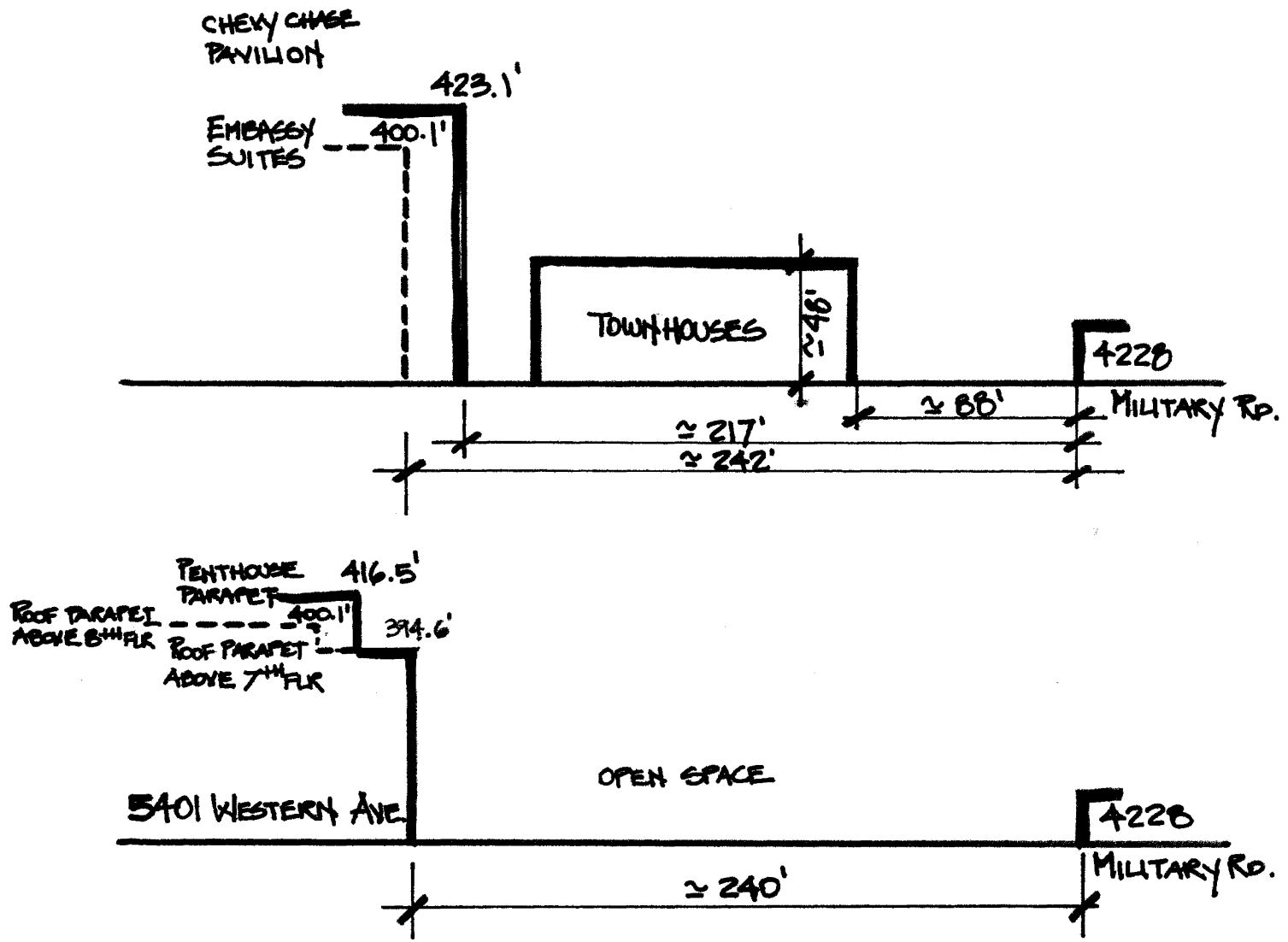
WASHINGTON, D.C.

12-31-02

STONEBRIDGE

SHALOM BARANES ASSOCIATES

1" = 30'



5401 WESTERN AVE. COMPARISON

WASHINGTON, DC.

STONEBRIDGE

SHALOM BARANES ASSOCIATES

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite 310 • Lanham MD 20706
Tel: (301) 794-7700 • Fax: (301) 794-4400
E-mail: orgassoc@aol.com

MEMORANDUM

DATE: December 30, 2002

TO: Mr. Douglas M. Firstenburg, Principal (SAI)
cc: Whayne S. Quin, Esquire (H&K)
Christy Moseley Shiker, Esquire (H&K)
Steven E. Sher (H&K)

FROM: Cullen E. Elias/Osborne R. George

RE: Rebuttal to Testimony of Mr. Joe Mehra (MCV Associates, Inc.)-
5401 Western Avenue Zoning Commission Hearing (Case No. 02-17C)

Further to your recent request, we have reviewed the written testimony and our notes of the oral testimony provided by Mr. Joe Mehra of MCV Associates, Inc., at the Zoning Commission Hearing on December 16, 2002. For ease of reference, a copy of Mr. Mehra's written testimony is included as Attachment 1. Our responses to Mr. Mehra's key statements are presented below, in the order of their presentation in his testimony:

A. Data Collection

(A1) MCV Comment: *"The traffic analysis utilized traffic data collected in August when the schools are not in session, many of the employees/families are on vacation and the traffic volumes are generally lower than the other times of the year"* (paragraph 2, page 1).

(A1) ORGA Response: The traffic counts forming the basis of the primary (weekday) studies, were conducted in January and February, 2002 (see Appendix B of Traffic Impact Analysis Report dated March 21, 2002) [This study is included as Exhibit F of the Applicant's PUD Statement dated March 22, 2002.]

The traffic data, analyzed in the secondary (weekend) study, were collected in August, 2002, right after concerns about weekend traffic impacts were raised by the Friendship Heights residential community. It is noted that these counts and the weekend traffic study were not required by the District Department of Transportation (DDOT). However, recognizing that the counts may have been affected by summer vacation activities, further traffic counts were undertaken in October 2002, in accordance with the DDOT guidelines.

The Fall traffic counts confirmed that the August counts were representative of typical weekend traffic conditions. This is primarily due to the location of the study intersections in the proximity of a major Metrorail station and significant retail/shopping center establishments that attract local and regional vehicular trips throughout the year, and the fact that the summer month may attract somewhat higher patronage.

(A2) MCV Comment: *"The weekend analysis excluded the intersection of Wisconsin Avenue and Jenifer Street."* (paragraph 3, page 1).

(A2) ORGA Response: Since the weekend analysis was not required by DDOT, only key intersections were analyzed, in order to address the concerns raised by the community. These intersections were determined by continuous/mechanical traffic counts conducted along the study area roadway segments over a four-day (Thursday – Sunday) period. The selected intersections were those observed to experience relatively significant weekend peak hour volumes, compared with the typical weekday peak hour traffic situation.

B. <u>Vehicle Trip Generation Rates</u>

(B1) MCV Comment: *"ORGA has used a much lower trip generation rate for retail use on the WMATA site than the other uses in the area."* (paragraph 4, page 1).

(B1) ORGA Response: The 65% factor applied to the WMATA site in the ORGA studies, refers to the use of transit and other alternative travel modes (walk, bike, etc.). This factor was based on the site's proximity to a portal of the Friendship Heights Metrorail Station, as well as the *"WMATA 1989 Development Related Ridership Survey Report."* This report indicates transit reduction factors in the range of 34.4 - 40.7% for suburban areas inside the Beltway, and 45.3 - 55.8% for CBD locations. The subject site is also located within easy walking distance of significant retail/shopping center developments (which provide considerable opportunity for multi-purpose trips). Based on the above consideration the 65% trip reduction factor is appropriate.

It should also be noted that Mr. Mehra's testimony did not indicate the trip rate used by the "other uses in the area," or the basis for such rates. In addition, the WMATA development referred to, is "pending," and is not the subject of a specific

development approval or proposal. DDOT requires that traffic studies include only approved, but unbuilt developments in projecting future traffic conditions. The development was included in the ORGA traffic studies, for planning purposes only, at the request of the Office of Planning.

(B2) MCV Comment: *"The apartment trip rates for the site trips have been reduced by 65% from the ITE rates..... In the latest report (October 21), this reduction was reduced to 50% ....."*

(B2) ORGA Response: The 65% factor used in the earlier ORGA studies was considered appropriate based on the following factors:

a) The 65% reduction factor represents a combination of transit and other alternative transportation modes (walk, bike, carpools, etc.)

b) The subject site is located just across Western Avenue from the Friendship Heights Metrorail/Metrobus Station. The site is also situated within easy walking distance of significant office and retail/shopping center developments.

c) The *"WMATA 1989 Development Related Ridership Survey Report"* indicates a transit modal split range of 48.5 to 73.7%, with an average of 60.0%, for residential land uses located near Metrorail stations within the Beltway. Both DDOT and WMATA still cite this source for planning purposes. However, anecdotal information in the media point to significant increases in transit ridership. The key characteristics of the surveyed residential developments, which were shown to have the highest transit usage percentages, are presented below:

Development	Distance to Station (Ft.)	Modal Split (%)		
		Auto	Transit	Other
• Crystal Square West (Crystal City, VA)	500	15.6	62.2	22.2
• Randolph Towers (Ballston, VA)	500	20.6	69.1	10.3
• Twin Towers (Silver Spring, MD)	900	10.5	73.7	15.8
Average	***633***	***15.6***	***68.3***	***16.1***

For ease of reference, relevant extracts from the WMATA reports are included as Attachment 2.

d) The data presented in Item (c) above indicates that the transit modal split for the subject development, based on its location within 250 feet of the Friendship Heights Station, should be significantly higher than 65.0%. This considers the fact that the WMATA report also indicates that transit usage, for residential uses, decreases by 0.66% with each 100 ft. increase in distance from a Metrorail station. Again the subject site is situated between 250 feet and 650 feet closer than the sites noted in Item (c) above.

e) The Friendship Heights Metrorail Station has experienced a 62% increase in average daily passenger boardings, since its opening in 1985.

f) Items (a) through (e) strongly justify the 65% trip reduction factor applied to the proposed residential uses, in the earlier traffic studies prepared by ORGA. However, the latest ORGA traffic study (dated October 21, 2002) considered a 50% trip reduction factor, in keeping with DDOT's report to the Office of Planning, dated October 8, 2002. This was presented only as further "buffering" analysis.

(B3) MCV Comment: *"ORG has reduced the daycare trip rate ..... by 65%, assuming that 65% of the trips to the daycare center will be walk and pass-by trips."* Mr. Mehra also stated that his firm conducted a survey at the daycare center on 43rd Street (which would be expanded to include the proposed daycare center). He also noted that during the peak hour of 8:00 - 9:00 AM, *"8 vehicles dropped off 8 children at the daycare center;"* and that the proposed daycare center would therefore generate *"as many vehicle trips or the total number of students enrolled."* (paragraph 6, pages 1 and 2).

(B3) ORGA Response: Testimony provided at the hearing by Ms. Lisa Danahy, indicates that the 43rd Street daycare center currently accommodates thirty-one (31) children who generally arrive between 7:30 and 10:00 AM. Mr. Mehra noted that only 8 vehicles arrived during the peak hour. Mr. Mehra's own data therefore indicates a trip generation rate of approximately 0.26 vehicles per child, during the peak hour. An extrapolation of this rate to the proposed daycare center would result in 11 peak hour vehicular trips for the 44 children to be accommodated.

ORGA also conducted a trip generation survey for the 43rd Street daycare center, subsequent to the last traffic study dated October 21, 2002. Trip projections based on the MCV and ORGA surveys are compared below with those analyzed in the ORGA traffic studies.

	AM Peak Hour Total
• Per MCV Survey	11 Vehicle Trips
• Per ORGA Survey	18 Vehicle Trips
• Per ORGA Study (Based on ITE & 65% trip reduction factor.)	13 Vehicle Trips

The above data shows that the MCV survey strongly supports the trip estimates analyzed in the ORGA traffic studies.

C. Levels of Service

(C1) MCV Comment: Mr. Mehra's testimony noted that the ORGA Level-of-Service (LOS) analyses utilized the Highway Capacity Manual (HCM)/Highway Capacity Software (HCS) procedures and thus do not reflect the close intersection spacing and queuing conditions of the study area. His testimony suggested that the SYNCHRO Model or the CORSIM Model should have been utilized in lieu of the HCM procedures. He further stated that the ORGA analyses did not appropriately consider the location of the study area roadway network within a Central Business District (CBD).

(C1) ORGA Response: The DDOT typically requires that the HCM procedure be utilized in evaluating the capacity and operational efficiency of roadway facilities. The SYNCHRO model, is generally considered as an "alternative" method of analyzing the capacity of a roadway network, having the characteristics noted by Mr. Mehra. SYNCHRO analyses, as well as revised HCM/HCS capacity analyses were conducted for the study intersections. These analyses assumed CBD traffic conditions. The results for the projected year 2006 total weekday traffic conditions are compared with the HCS results in Attachment 3. The capacity analysis worksheets for this analysis are presented as Attachment 4. The data shows that the SYNCHRO and HCS

results are quite comparable, and therefore support the conclusions of the ORGA traffic studies regarding the potential traffic impacts of the proposed development.

D. Future Traffic Volumes

(D1) MCV Comment: *"A growth rate of 2% per year was assumed for all roadways analyzed. Data for Wisconsin Avenue shows that the volumes have increased at an average annual rate of 3.2+ percent between 1990 and 1999. Therefore the future traffic has been underestimated by ORG."* (paragraph 1, page 3).

(D1) ORGA Response: Average Daily Traffic (ADT) data obtained from DDOT and the Maryland State Highway Administration (M-SHA) for the period 1974 - 2002, indicate the following average annual growth rates:

Location	Average Annual Growth Rate (1974 – 2002)
• Western Avenue (East of Wisconsin Circle)*	+0.1%
• Military Road (East of 43rd Street)*	+0.7%
• Wisconsin Avenue (North of Western Avenue)**	+3.4%
• Wisconsin Avenue (South of Western Avenue)	-0.3%

* Based on DDOT AADT Maps
** M-SHA ADT Traffic Volume Books

The above data clearly shows that traffic growth has been relatively stable within the study area, except for Wisconsin Avenue (north of Western Avenue) for which the growth rate appears to be an "anomaly." The growth rate of 2% used in the ORGA studies was therefore quite conservative, and is in accordance with DDOT's traffic forecasting procedures.

(D2) MCV Comment: Mr. Mehra indicated that the Chase Tower Development, representing 328 AM and PM peak hour vehicular trips, was not included in the ORGA studies.

(D2) ORGA Response: This development is located within Montgomery County, Maryland. Field observations and discussions with M-NCPPC staff indicate that this development was built-out and occupied at the time of the traffic turning movement counts (January - February, 2002). This development was therefore included in the existing traffic conditions analyzed in the traffic studies.

E. Future Levels of Service

(E1) MCV Comment: Mr. Mehra noted several comments which have a bearing on the future Level of Service results obtained by ORGA. These referred to the combined traffic assignment for the background trips (paragraph 3, page 3), as well as the trip distribution and assignment for the proposed development (paragraph 4, page 3).

(E1) ORGA Response: The projected future (year 2006) traffic volumes, reflecting the MCV comments, were re-evaluated using the HCM and SYNCHRO procedures. The results, which were presented earlier in Attachment 3, strongly support the findings of the submitted ORGA traffic studies.

F. Parking

(F1) MCV Comment: Mr. Mehra indicated that the current site plan proposes a parking ratio of 0.8 spaces per residential unit. Mr. Mehra further noted that the vehicle availability ratio for "the census tract in Friendship Heights area of Montgomery County, which is primarily apartments, is 1.1." Mr. Mehra further concluded that the projected parking demand, based on the 1.1 ratio, would result in a shortfall of 30 accessible parking spaces.

(F1) ORGA Response: Field observations, conducted as part of the ORGA studies, indicate that the primary residential land use, in the vicinity of the proposed development, is "single family dwellings," and not "apartments" as noted by Mr. Mehra. In addition, as noted on page 15 of the ORGA traffic study addendum (dated August 12, 2002), the census data records do not include the specific classification of vehicle availability by apartment units, apartments within varying distances of Metrorail stations, etc. As such, the data is very "broad" in scope, and does not specifically apply to the proposed development. Furthermore, as noted on pages 15 and 16 of the referenced ORGA study, parking supply and demand surveys conducted at three (3) comparable apartment developments show the following ratio ranges:

	Parking Spaces Per Apartment Unit
Parking Supply	0.63 – 0.80
Peak Parking Demand	0.55 – 0.75

Based on the above considerations, the proposed parking ratios of 1.1 spaces (total) and 0.8 spaces (accessible) per residential unit would be quite appropriate. This proposal would also be consistent with the Transit Oriented Development policies of the City, which call for reduced parking provisions, to promote greater transit usage.

G. Safety Issues (Access/Circulation)

(G1) MCV Comment: Mr. Mehra's testimony indicates that operational and safety deficiencies would occur at the main entrance to the proposed garage, as well as the entrance to the daycare center and loading area. In particular, Mr. Mehra noted that the proposed garage exit would be slightly offset from Wisconsin Circle, and this would result in operational and safety deficiencies.

(G1) ORGA Response: Egress from the proposed garage would occur at the signalized Western Avenue/Wisconsin Circle intersection; and would be provided with exclusive phasing and timing. This would be included in the signalization improvements to be provided at this location by the Applicant.

Regarding the entrance to the proposed day care center and loading docks, it was noted in the ORGA study of October 21, 2002, (page 6) that operational and safety deficiencies are not likely to be a significant issue. The primary reasons include the following:

a) The vehicular trip generation for the day care center would be concentrated during a total of 1.5 to 2.0 hours during the morning and afternoon peak periods.

b) Delivery and loading operations would occur primarily during off-peak daytime and nighttime periods, as well as on weekends, and would therefore not coincide with the peak access periods of the day care center.

c) Pedestrian activity along the adjacent sidewalk was observed to be quite low. However, a raised pedestrian crosswalk across the new curb cut, and a stop sign at the entrance approach to Western Avenue, would be provided to enhance operational efficiency and safety.

Based on the above, it is concluded that the testimony of Mr. Joe Mehra, has not identified any "fatal flaws" in the ORGA traffic engineering studies. The key issues identified by Mr. Mehra, are addressed in this submission; and the results further support the general conclusions of the ORGA studies.

The ORGA traffic studies have adequately demonstrated that the proposed development would have a minimal impact on the study area road network. The analyses have also shown that the future Level of Service situation, considering a conservative annual traffic growth rate, significant planned but unbuilt developments, and the net traffic assignment for the proposed development, would satisfy the requirements of DDOT as well as the Ward 3 Plan. The only exception would be the Wisconsin Avenue/Western Avenue intersection, and the signal operations of this location would be improved by the Applicant in collaboration with the City's Traffic Signals Division. In addition, the proposed parking would be more than adequate, and would prevent parking intrusions within the adjacent Friendship Heights neighborhoods. Access to the proposed parking as well as to the day care center and loading facilities would present no significant operational and safety deficiencies.

We trust that the above adequately responds to the comments presented by MCV Associates. Should you have any questions, or require additional information, please let us know. Thank you.

ORG/CEE

Attachments: As noted.

ATTACHMENT

1

TESTIMONY OF JOE MEHRA P. E.
TRAFFIC CONSULTANT MCV ASSOCIATES INC

TESTIMONY OF JOE MEHRA, P.E.
TRAFFIC CONSULTANT, MCV ASSOCIATES, INC.
IN OPPOSITION
TO 5401 Western Avenue APPLICATION

I am Joe Mehra, President of MCV Associates, Inc. I have over 30 years of experience in traffic engineering and transportation planning. I was the co-author of the first ever handbook on Site Impact Traffic Evaluation that was prepared for the U.S. Department of Transportation. I will present a review and critique of the Traffic Reports prepared for the applicant's submittal by O. R. George & Associates, Inc. (ORG). The review focuses on the errors in methodology and assumptions as documented in the various traffic reports and their impacts on the levels of service.

Data Collection

The traffic analysis utilized traffic data collected in August when the schools are not in session, many of the employees/families are on vacation and the traffic volumes are generally lower than the other times of the year. The capacity and levels of service analysis using data collected in August may not be representative of the actual traffic conditions.

The weekend analysis excluded the intersection of Wisconsin Avenue and Jenifer Street. This intersection should be included for weekend analysis since the retail activities have a significant impact on this intersection and retail activities are greater on weekends than weekdays.

Vehicle Trip Generation Rates

ORG has used a much lower trip generation rate for retail use on the WMATA site than the other retail uses in the area. Use of a consistent trip rate will result in doubling of the traffic volumes for the WMATA site during the PM peak hour.

The apartment trip rates for the site trips have been reduced by 65% from the ITE rates. This is a significant reduction in rates without a justification or substantiation of this reduction. In the latest report (October 21), this reduction was reduced to 50% with a trip rate of 0.25 per unit. This rate is low in comparison to the rates used in the Friendship Heights study area of 0.30 per unit.

ORG has reduced the Day care Trip rates from the ITE trip generation report by 65%, assuming that 65% of the trips to the daycare center will be walk and pass-by trips. We conducted a traffic survey on Wednesday, November 6, 2002 between the hours of 7:00 AM to 9:00 AM at the day care center on 43rd Street

1-A

and Jennifer Street. During the 8:00 to 9:00 peak hour, 8 vehicles dropped off 8 children at the day care center. No walk trips were observed. Assuming that the proposed day care center has similar travel patterns, then all children will be driven to the center and with one child per vehicle, resulting in as many vehicle trips as the total number of students enrolled. There will be pass-by trips, however, all trips have to access the site driveway, regardless of their origin. ITE Recommended Practice for Traffic Access and Impact Studies for Site Development recommends that pass-by trips be allocated to site driveways and adjacent intersections.

The use of these trip rates for the retail use on the WMATA site, the residential and day care uses on the Washington Clinic site will result in a much higher vehicle travel through the Friendship Heights area and all the intersections analyzed. Consequently, the levels of service will be worse than estimated by ORG.

Levels of Service

The levels of service analysis was conducted assuming that each intersection operates independently of the adjacent intersections. Due to the close proximity of the intersections analyzed and the definite impact of the intersections on each other, the Highway Capacity Manual (HCM) or the Highway Capacity Software (HCS) is not the correct technique to estimate delays and levels of service. Further, the traffic backs up from one intersection to the other in the peak direction. For example, traffic on Western Avenue backs up from Wisconsin Avenue all the way to 41st Street in the morning peak period. The SYNCHRO Model or the CORSIM model is the technique to use for such a road network analysis. The results based on the HCS analysis will not reflect real world conditions. These are simulation models that more correctly address roadway network assessment than the HCM. It should be noted that DDOT in their study of Palisades Traffic also utilized Synchro to conduct their analysis.

Assuming for a moment that the HCS is the correct technique for estimating levels of service, ORG conducted the analysis assuming that the study area is NOT in a CBD or similar area. The analysis is based on an urban or suburban area. The study area is in the Friendship Heights CBD as stated in the report on page 3 (March 21) and therefore the analysis should be based on CBD area. The CBD area analysis will result in worse levels of service than what has been shown in the traffic reports.

Future Traffic Volumes

The future traffic volumes consist of the existing volumes, normal growth in through traffic, traffic from other planned/approved developments and the site traffic.

A growth rate of 2% per year was assumed for all roadways analyzed. Data for Wisconsin Avenue shows that the volumes have increased at an average annual rate of 3.2 percent between 1990 and 1999. Therefore the future traffic has been underestimated by ORG. Using the correct growth rate and the CBD area type at the intersection of Wisconsin Avenue and Western Avenue during the AM and PM peak hours, the LOS is determined to be LOS F in the background conditions (worksheets included in this report). This LOS F is substantiated by the Friendship Heights Sector Plan prepared by Montgomery County which also shows a LOS F in the PM peak hour (AM peak hour analysis was not conducted by the County).

Table 3, Page 15 shows the background development included in the analysis. Some key developments have not been included in the analysis and these include the Chase Tower located in the northwest quadrant of Wisconsin Avenue and Wisconsin Circle. This property is estimated to generate an additional 328 vehicle trips during each of the AM and PM peak hours. These are approximately 10 to 13 percent of the background trips estimated by ORG. The addition of these trips to the intersections analyzed by ORG will result in worse conditions than estimated by ORG.

The traffic assignment numbers do not add up to the total numbers shown in Table 3, page 15. Approximately 25 to 30 percent of all trips will be arriving/departing to the south on Wisconsin Avenue. The Appendix Exhibit F-2 shows no traffic arriving/departing from the south on Wisconsin Avenue going to the Hecht's or the GEICO sites.

Future Levels of Service

On page 22 (March 21), the report notes, "Based on the above, it can be concluded the year 2006 total traffic situation, including the proposed development, would be the same as the background traffic situation shown in Exhibit 6. As such, this study has not identified the need to analyze the projected year 2006 total traffic situation, including the proposed development." This statement would be valid if the current use and the proposed uses had similar travel characteristics. This is certainly not the case. The current use is a clinic whose peaks are inbound in the AM peak period and outbound during the PM peak period. The proposed use is residential whose peaks are just the opposite of the clinic, i.e. the peak direction of travel is outbound during the AM peak period and inbound during the PM peak period. This is a critical difference, since the levels of service are based on conflicting movements. A right turn movement in to the site during the AM peak may not add to the intersection delay, but a left turn out of the site during the AM peak will certainly add to the intersection delay. Therefore, the total traffic impact and levels of service should be evaluated at each intersection. This is true for the original development proposal and for the current development proposal.

The August 12, 2002 Report states that the Ward 3 Plan recommends a LOS C as the minimum planning standard for the area intersections. Two intersections are projected to exceed the standards. The report adjusts the signal timing and cycle lengths to bring the overall LOS to C, but at the expense of individual movements (some movements drop to LOS E or F). It should be noted that these traffic signals are on a system and cycle lengths or individual timings or phases may not be changed without a study of the impacts on other intersections in the system.

Parking

The latest proposal calls for 137 parking spaces for the residential units and 4 parking spaces for the day care center. The plan requests approval for up to 25% tandem parking spaces or approximately 33 spaces, resulting in an availability of 108 accessible parking spaces. Therefore, the proposed parking ratio is 0.8 spaces per unit. ORG report presents vehicle availability ratios for occupied housing units in the census tracts in the Friendship Heights area. The vehicle availability ratio varied from a low of 1.1 to 1.4 with an average of 1.3. The census tract in Friendship Heights area of Montgomery County, which is primarily apartments, is 1.1. Based on this ratio, the proposed development will have 138 owned vehicles. Therefore, there will be a shortfall of 30 accessible parking spaces.

Safety Issues (Access/Circulation)

The proposed entranceway/exit to the parking garage on site is off-set by approximately 50 feet from the intersection of Wisconsin Circle and the traffic signal. Traffic exiting from the parking garage on to Wisconsin Circle will end up on the eastbound lane of Wisconsin Circle due to the offset. This condition can lead to safety problems and potential for head-on collisions.

The entranceway to the loading dock, the day care center and the visitor parking lot all occur on one driveway. Further, this driveway also crosses the pedestrian walkway. Day care children will be crossing this driveway with trucks and other vehicles. This is a safety problem due to truck/children conflicts.

Conclusions

As noted above, ORG has significantly under estimated the vehicle trip generation as shown in a comparison of trips by ORG and MCV:

	ORG	MCV	ORG	MCV
	AM Peak Hr	AM Peak Hr	PM Peak Hr	PM Peak Hr
WMATA	143	220	252	396
Wisconsin Place	887	887	1328	1328
Friendship Commons	1052	1052	1034	1034
Chevy Chase Center	372	372	630	630
Chase Tower	0	328	0	328
Residential-Site	31	38	31	38
Day Care-Site	13	38	14	40
Total	2498	2935	3289	3794

This shows that ORG has underestimated the AM and PM peak hour trips by as much as 14 to 15 percent.

ORG has used an incorrect methodology and assumptions to estimate capacity and levels of service at the critical intersections for the existing conditions and for the future conditions. Our analysis, using a growth rate of 3.2 percent per year and other traffic data from ORG report at the intersection of Wisconsin Avenue and Western Avenue shows that the levels of service is LOS F during the AM and PM peak hours. If all background development trips were included in the analysis, several other intersections will drop to a LOS F. DDOT's report is primarily based on the ORG reports and therefore the comments noted in this report are generally applicable to DDOT's report also.

The ingress and egress and on-site circulation plan shows that it leads to unsafe conditions for the motorists using the garage and the children walking to and from the day care center.

In conclusion, the traffic study conducted for the subject site is not complete, has used an incorrect methodology and has not provided mitigation measures for several intersections that would be operating at LOS F. The access plan has major safety problems associated with it and should be rejected.

HCS2000: Signalized Intersections Release 4.1

Analyst: Joe Mehra
Agency: MCV Associates,Inc
Date: 11/1/2002
Period: AM Peak
Project ID:
E/W St: Western Avenue

Inter.:
Area Type: CBD or Similar
Jurisd:
Year :
N/S St: MD355 Wisconsin Ave

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	3	0	0	3	0
LGConfig	L	TR			T	R		TR			LTR	
Volume	114	704	52		1169	522		1032	127	357	1389	164
Lane Width	11.0	11.0			11.0	11.0		11.0			11.0	
RTOR Vol			0			0			24			25

Duration 1.00 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P	P			NB Left				
Thru	P	P			Thru	P			
Right	P	P			Right	P			
Peds		X			Peds	X			
WB Left					SB Left		P		
Thru		P			Thru	P	P		
Right		P			Right	P	P		
Peds		X			Peds	X			
NB Right					EB Right				
SB Right					WB Right		P		
Green	6.0	35.0				32.0	19.0		
Yellow	4.0	4.0				4.0	4.0		
All Red	0.0	1.0				0.0	1.0		

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	162	1532	0.77	0.41	60.2	E		
TR	1241	3033	0.66	0.41	29.2	C	33.2	C
Westbound								
T	980	3079	1.22	0.32	438.8	F	315.0	F
R	638	1300	0.84	0.49	37.9	D		
Northbound								
TR	1263	4343	0.98	0.29	72.1	E	72.1	E
Southbound								
LTR	2159	4318	0.92	0.50	34.3	C	34.3	C

Intersection Delay = 124.3 (sec/veh) Intersection LOS = F

HCS2000: Signalized Intersections Release 4.1

Analyst: Joe Mehra
Agency: MCV Associates,Inc
Date: 11/1/2002
Period: PM Peak
Project ID:
E/W St: Western Avenue

Inter.:
Area Type: CBD or Similar
Jurisd:
Year :
N/S St: MD355 Wisconsin Ave

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	0	0	2	1	0	3	0	0	3	0
LGConfig	L	TR			T	R		TR			LTR	
Volume	215	1036	140		894	396		1157	168	397	944	246
Lane Width	11.0	11.0			11.0	11.0		11.0			11.0	
RTOR Vol			0			0			34			38

Duration 1.00 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P	P			NB Left				
Thru	P	P			Thru	P			
Right	P	P			Right	P			
Peds		X			Peds	X			
WB Left					SB Left		P		
Thru		P			Thru	P	P		
Right		P			Right	P	P		
Peds		X			Peds	X			
NB Right					EB Right				
SB Right					WB Right		P		
Green	6.0	35.0				32.0	19.0		
Yellow	4.0	4.0				4.0	4.0		
All Red	0.0	1.0				0.0	1.0		

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	162	1525	1.44	0.41	875.0	F		
TR	1227	3000	1.04	0.41	134.3	F	249.0	F
Westbound								
T	980	3079	0.93	0.32	57.4	E	47.6	D
R	638	1300	0.63	0.49	25.5	C		
Northbound								
TR	1260	4331	1.11	0.29	257.8	F	257.8	F
Southbound								
LTR	2125	4250	0.77	0.50	25.1	C	25.1	C

Intersection Delay = 143.6 (sec/veh) Intersection LOS = F

ATTACHMENT

2

RELEVANT EXTRACTS FROM
WMATA 1989 RIDERSHIP SURVEY REPORT

DEVELOPMENT-RELATED RIDERSHIP SURVEY II

Washington Metropolitan Area Transit Authority

DECEMBER 1989

2-A

SOURCE: WMATA (1989)

Table 19. Mode Share by Destination of Trip

Location	Mode	Within Half Mile	D.C.	Fairfax County	Arling. County	Alex.	Other Va.	Mont. County	P.G. County	Other Md.	Elsewhere	Total
Crystal Plaza	Auto	40.0	20.0	100.0	27.3	0.0	100.0	75.0	100.0	—	—	33.3%
	Transit	0.0	80.0	0.0	50.0	100.0	0.0	25.0	0.0	—	—	57.5
	Other	60.0	0.0	0.0	22.7	0.0	0.0	0.0	0.0	—	—	9.2
	Total	5.7	51.7	5.7	25.3	2.3	2.3	4.6	2.3	0.0	0.0	100.0
Crystal Park	Auto	0.0	9.1	100.0	14.3	50.0	—	50.0	100.0	—	—	24.2
	Transit	14.3	90.9	0.0	42.9	50.0	—	50.0	0.0	—	—	48.5
	Other	85.7	0.0	0.0	42.9	0.0	—	0.0	0.0	—	—	27.3
	Total	21.2	33.3	9.1	21.2	6.1	0.0	6.1	3.0	0.0	0.0	100.0
Crystal Square West	Auto	0.0	8.2	66.7	25.0	83.3	—	0.0	0.0	—	—	15.6
	Transit	16.7	91.8	33.3	41.7	16.7	—	100.0	0.0	—	—	62.2
	Other	83.3	0.0	0.0	33.3	0.0	—	0.0	100.0	—	—	22.2
	Total	20.0	54.4	3.3	13.3	6.7	0.0	1.1	1.1	0.0	0.0	100.0
Georg'n Towers	Auto	33.3	30.0	66.7	0.0	33.3	100.0	52.6	75.0	66.7	100.0	42.3
	Transit	33.3	70.0	33.3	100.0	66.7	0.0	31.6	25.0	33.3	0.0	52.6
	Other	33.3	0.0	0.0	0.0	0.0	0.0	15.8	0.0	0.0	0.0	5.1
	Total	3.8	51.3	3.8	1.3	3.8	1.3	24.4	5.1	3.8	1.3	100.0
Rand'ph Towers	Auto	0.0	9.8	50.0	9.1	100.0	100.0	80.0	—	—	—	20.6
	Transit	66.7	87.8	33.3	54.5	0.0	0.0	20.0	—	—	—	69.1
	Other	33.3	2.4	16.7	36.4	0.0	0.0	0.0	—	—	—	10.3
	Total	4.4	60.3	8.8	16.2	1.5	1.5	7.4	0.0	0.0	0.0	100.0

Note: For each jurisdiction, the percentage of trips by mode are indicated in the rows labeled "auto", "transit", and "other". The overall mode share for each location is given in the column labeled "total". For each residential location, the row labeled "total" indicates the percentage of trips from each jurisdiction.

SOURCE: WMATA (1989)

Table 19. Mode Share by Destination of Trip
(Continued)

Location	Mode	Within Half Mile	D.C.	Fairfax County	Arling. County	Alex.	Other Va.	Mont. County	P.G. County	Other Md.	Elsewhere	Total
Grosv'r	Auto	0.0	25.0	—	33.3	100.0	0.0	88.9	100.0	0.0	—	60.0%
House	Transit	0.0	75.0	—	33.3	0.0	100.0	11.1	0.0	100.0	—	35.0
	Other	100.0	0.0	—	33.3	0.0	0.0	0.0	0.0	0.0	—	5.0
	Total	2.5	30.0	0.0	7.5	2.5	2.5	45.0	7.5	2.5	0.0	100.0
Stoneybrook	Auto	—	30.0	100.0	0.0	—	0.0	66.7	100.0	100.0	—	57.6
	Transit	—	60.0	0.0	100.0	—	100.0	20.0	0.0	0.0	—	33.3
	Other	—	10.0	0.0	0.0	—	0.0	13.3	0.0	0.0	—	9.1
	Total	0.0	30.3	9.1	3.0	0.0	3.0	45.5	3.0	6.1	0.0	100.0
Beth'y	Auto	—	—	—	—	—	—	0.0	—	—	—	0.0
House	Transit	—	—	—	—	—	—	100.0	—	—	—	100.0
	Other	—	—	—	—	—	—	0.0	—	—	—	0.0
	Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Twin Towers	Auto	—	8.3	—	—	—	—	20.0	0.0	—	—	10.5
	Transit	—	91.7	—	—	—	—	40.0	50.0	—	—	73.7
	Other	—	0.0	—	—	—	—	40.0	50.0	—	—	15.8
	Total	0.0	63.2	0.0	0.0	0.0	0.0	26.3	10.5	0.0	0.0	100.0
Grosv'r	Auto	100.0	15.4	100.0	—	—	—	87.0	100.0	100.0	—	67.4
Park I	Transit	0.0	84.6	0.0	—	—	—	8.7	0.0	0.0	—	30.2
	Other	0.0	0.0	0.0	—	—	—	4.3	0.0	0.0	—	2.3
	Total	4.7	30.2	7.0	0.0	0.0	0.0	53.5	2.3	2.3	0.0	100.0

Note: For each jurisdiction, the percentage of trips by mode are indicated in the rows labeled "auto", "transit", and "other". The overall mode share for each location is given in the column labeled "total". For each residential location, the row labeled "total" indicates the percentage of trips from each jurisdiction.

Table 20. Summary of Transit Mode Share - Residential

	Number of Sites	Percent Transit Range	Percent Transit Average
CBD Locations	---	---	---
Suburban Locations Inside Beltway	6	48.5% - 73.7%	60.0%
Suburban Locations Outside Beltway	3	30.2% - 35.0%	32.8%
All Residential Locations	9	30.2% - 73.7%	46.2%

Note: Bethany House excluded from table because sample size = 1.

SOURCE: WMATA (1989)

2-D

Residential Buildings

A high percentage of trips to and from multi-family residential buildings near Metrorail stations are via transit. The transit mode share for this study ranged from 30 to over 70 percent. The ten sites studied included both rental and owner occupied developments over a range of income levels. Relationships based on the type and cost of the unit could not be correlated with transit mode shares probably due to the limitations of the sample size.

Auto ownership was found to be significantly lower at all sites surveyed, as compared to the regional average and even when compared to areas with similar development located away from a Metrorail station. The implication is that convenient connections to Metrorail influence the tendency to purchase second or third cars. With fewer cars available overall trip generation will be lower, as many trips will simply not be taken.

The percentage of trips by transit decreases by approximately 0.66% for each 100 foot increase in distance of a residential site from a station portal.

Retail Uses

All of the retail sites surveyed had significant transit mode shares. Those sites repeated from the first study showed significant increases in the transit mode share. The transit mode share, particularly at the suburban sites, varies by time of day. For instance at Ballston Common Mall transit mode share drops to less than a third of its midday value in the evenings.

The percentage of trips by transit decreases by approximately 2.0% for each 100 feet of distance from a station portal.

Hotels

Like the retail areas, hotels showed a significant increase in the transit mode share when compared to the first study. Conference attendees are more likely to take transit than overnight guests but there is no correlation with distance from a Metrorail station. Hotel trip generation rates vary from day to day more so than other land uses. Data should be collected for several days at a site to establish an average trip generation rate.

2-E

SOURCE: WMATA (1989)

ATTACHMENT

3

SYNCHRO AND HCS CAPACITY ANALYSIS RESULTS

SHORT REPORT

General Information		Site Information	
Analyst	ORGA	Intersection	Jenifer St @ Wisconsin Ave
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	1/24/02	Jurisdiction	District of Columbia
Time Period	AM Peak (Projected - 2006)	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	0	0	3	0	0	3	0
Lane group		LTR			LTR			LTR			LTR	
Volume (vph)	21	79	188	42	24	19	311	963	26	23	1245	20
% Heavy veh	28	4	7	0	0	15	7	1	7	0	2	0
PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.92	0.90	0.90	0.90
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		20	0		5	0		13	0		8
Lane Width		11.0			11.0			11.0			11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0			0			0	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	NB Only	07	08
Timing	G = 35.0	G =	G =	G =	G = 53.0	G = 10.0	G =	G =
	Y = 4.5	Y =	Y =	Y =	Y = 4.5	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	298	90	1399	1422
Lane group cap.	436	363	1963	1871
v/c ratio	0.68	0.25	0.71	0.76
Green ratio	0.32	0.32	0.61	0.48
Unif. delay d1	32.7	27.8	14.6	23.3
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	8.4	1.6	2.2	3.0
PF factor	1.000	1.000	1.000	1.000
Control delay	41.1	29.4	16.8	26.3
Lane group LOS	D	C	B	C
Apprch. delay	41.1	29.4	16.8	26.3
Approach LOS	D	C	B	C
Intersec. delay	23.6	Intersection LOS		C

4-A

SHORT REPORT

General Information		Site Information	
Analyst	ORGA	Intersection	Jenifer St @ Wisconsin Ave
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	1/24/02	Jurisdiction	District of Columbia
Time Period	PM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	1	0	0	3	0	0	3	0
Lane group	L	T	R		LTR			LTR			LTR	
Volume (vph)	67	54	396	51	66	50	238	1128	41	8	906	30
% Heavy veh	3	0	0	2	0	2	0	1	0	0	0	0
PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.93	0.93	0.93	0.93	0.93	0.93
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	2.0	2.0	2.0		2.0			2.0			2.0	
Ext. eff. green	2.0	2.0	2.0		2.0			2.0			2.0	
Arrival type	3	3	3		3			3			3	
Unit Extension	3.0	3.0	3.0		3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		262	0		27	0		22	0		19
Lane Width	12.0	11.0	12.0		11.0			11.0			11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0		0			0			0	
Unit Extension	3.0	3.0	3.0		3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	NB Only	07	08
Timing	G = 40.0	G =	G =	G =	G = 46.0	G = 12.0	G =	G =
	Y = 4.5	Y =	Y =	Y =	Y = 4.5	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	74	60	149		157			1489			995	
Lane group cap.	384	601	727		511			1878			1731	
v/c ratio	0.19	0.10	0.20		0.31			0.79			0.57	
Green ratio	0.36	0.36	0.50		0.36			0.57			0.42	
Unif. delay d1	24.0	23.1	15.3		25.1			18.7			24.5	
Delay factor k	0.50	0.50	0.50		0.50			0.50			0.50	
Increm. delay d2	1.1	0.3	0.6		1.6			3.5			1.4	
PF factor	1.000	1.000	1.000		1.000			1.000			1.000	
Control delay	25.1	23.4	16.0		26.6			22.2			25.9	
Lane group LOS	C	C	B		C			C			C	
Apprch. delay	19.9			26.6			22.2			25.9		
Approach LOS	B			C			C			C		
Intersec. delay	23.5			Intersection LOS			C					

4-B

SHORT REPORT

General Information		Site Information	
Analyst	ORGA	Intersection	Wisconsin Ave @ Western Ave
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	AM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	1	0	3	0	0	3	0
Lane group	L	TR			T	R		TR			LTR	
Volume (vph)	92	668	50		1067	446		917	115	342	1334	149
% Heavy veh	1	2	0		3	3		1	1	2	2	2
PHF	0.92	0.92	0.92		0.98	0.98		0.95	0.95	0.92	0.92	0.92
Actuated (P/A)	P	P	P		P	P		P	P	P	P	P
Startup lost time	2.0	2.0			2.0	2.0		2.0			2.0	
Ext. eff. green	2.0	2.0			2.0	2.0		2.0			2.0	
Arrival type	4	4			4	4		4			4	
Unit Extension	3.0	3.0			3.0	3.0		3.0			3.0	
Ped/Bike/RTOR Volume	60		0	60		0	90		51	70		66
Lane Width	11.0	11.0			11.0	11.0		11.0			11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0		8			0	
Unit Extension	3.0	3.0			3.0	3.0		3.0			3.0	

Phasing	EB Only	EW Perm	03	04	Thru & RT	SB Only	07	08
Timing	G = 6.0	G = 43.0	G =	G =	G = 36.0	G = 10.0	G =	G =
	Y = 3	Y = 5	Y =	Y =	Y = 4	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	100	780			1093	457		1037			1906	
Lane group cap.	164	1442			1192	657		1432			1977	
v/c ratio	0.61	0.54			0.92	0.70		0.72			0.96	
Green ratio	0.47	0.47			0.39	0.48		0.33			0.45	
Unif. delay d1	21.4	20.5			31.8	22.2		32.6			29.1	
Delay factor k	0.50	0.50			0.50	0.50		0.50			0.50	
Increm. delay d2	15.7	1.5			12.5	6.0		3.2			13.4	
PF factor	0.806	0.806			0.904	0.794		0.964			0.831	
Control delay	33.0	18.0			41.2	23.6		34.6			37.6	
Lane group LOS	C	B			D	C		C			D	
Apprch. delay	19.7			36.1			34.6			37.6		
Approach LOS	B			D			C			D		
Intersec. delay	33.6			Intersection LOS						C		

4-C

SHORT REPORT

General Information		Site Information	
Analyst	ORGA	Intersection	Wisconsin Ave @ Western Ave
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	PM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	1	0	3	0	0	3	0
Lane group	L	TR			T	R		TR			LTR	
Volume (vph)	203	1002	133		807	352		1110	158	381	909	220
% Heavy veh	0	2	0		1	1		1	2	0	0	0
PHF	0.94	0.94	0.94		0.91	0.91		0.92	0.92	0.96	0.96	0.96
Actuated (P/A)	P	P	P		P	P		P	P	P	P	P
Startup lost time	2.0	2.0			2.0	2.0		2.0			2.0	
Ext. eff. green	2.0	2.0			2.0	2.0		2.0			2.0	
Arrival type	4	4			4	4		4			4	
Unit Extension	3.0	3.0			3.0	3.0		3.0			3.0	
Ped/Bike/RTOR Volume	60	0	59	60	0	156	90	0	66	70	0	92
Lane Width	11.0	11.0			11.0	11.0		11.0			11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0		8			0	
Unit Extension	3.0	3.0			3.0	3.0		3.0			3.0	

Phasing	EW Perm	EB Only	03	04	SB Only	NS Perm	07	08
Timing	G = 36.0	G = 10.0	G =	G = 0.0	G = 8.0	G = 41.0	G = 0.0	G = 0.0
	Y = 5	Y = 3	Y =	Y =	Y = 3	Y = 4	Y = 0	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	216	1144			883	214		1305			1481	
Lane group cap.	348	1415			1018	556		1625			1524	
v/c ratio	0.62	0.81			0.87	0.38		0.80			0.97	
Green ratio	0.46	0.46			0.33	0.40		0.37			0.47	
Unif. delay d1	38.1	25.3			34.8	23.4		30.9			28.3	
Delay factor k	0.50	0.50			0.50	0.50		0.50			0.50	
Increm. delay d2	8.1	5.1			9.9	2.0		4.3			17.2	
PF factor	0.819	0.819			0.964	0.894		0.922			0.806	
Control delay	39.3	25.8			43.4	22.9		32.8			40.1	
Lane group LOS	D	C			D	C		C			D	
Apprch. delay	27.9			39.4			32.8			40.1		
Approach LOS	C			D			C			D		
Intersec. delay	35.0-			Intersection LOS						C		

4-D

SHORT REPORT

General Information		Site Information	
Analyst	ORGA	Intersection	Wisconsin Ave @ Wisconsin Cir
Agency or Co.	Chevy Chase, Maryland	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	AM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	2	0	1	3	0	1	3	0
Lane group	L	TR			LTR		L	TR		L	TR	
Volume (vph)	168	186	69	55	390	263	158	1248	92	153	1687	161
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.94	0.94	0.94	0.93	0.93	0.93
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3			3		3	3		3	3	
Unit Extension	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	9	0	0	23
Lane Width	12.0	12.0			12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0		0	0		0	0	
Unit Extension	3.0	3.0			3.0		3.0	3.0		3.0	3.0	

Phasing	EW Perm	02	03	04	NB Only	NS Perm	SB Only	08
Timing	G = 30.0	G =	G =	G =	G = 6.0	G = 20.0	G = 6.0	G =
	Y = 5	Y =	Y =	Y =	Y = 4	Y = 5	Y = 4	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	181	274			764		168	1418		165	1962	
Lane group cap.	159	615			1038		232	1734		334	1788	
v/c ratio	1.14	0.45			0.74		0.72	0.82		0.49	1.10	
Green ratio	0.38	0.38			0.38		0.38	0.38		0.39	0.39	
Unif. delay d1	25.0	18.8			21.6		19.9	22.5		26.1	24.5	
Delay factor k	0.50	0.50			0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	113.4	2.3			4.7		17.8	4.4		5.1	53.1	
PF factor	1.000	1.000			1.000		1.000	1.000		1.000	1.000	
Control delay	138.4	21.1			26.2		37.7	27.0		31.2	77.6	
Lane group LOS	F	C			C		D	C		C	E	
Apprch. delay	67.8			26.2			28.1			74.0		
Approach LOS	E			C			C			E		
Intersec. delay	51.3			Intersection LOS						D		

4-E

PM

SHORT REPORT

General Information		Site Information	
Analyst	ORGA/KM	Intersection	Wisconsin Ave @ Wisconsin Cir
Agency or Co.	Chevy Chase, Maryland	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	AM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	2	0	1	3	0	1	3	0
Lane group	L	TR			LTR		L	TR		L	TR	
Volume (vph)	202	215	129	42	253	159	234	1377	54	145	1398	144
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.92	0.92	0.92	0.96	0.96	0.96
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0			2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3			3		3	3		3	3	
Unit Extension	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	5	0	0	5
Lane Width	12.0	12.0			12.0		12.0	12.0		11.0	11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0		0	0		0	0	
Unit Extension	3.0	3.0			3.0		3.0	3.0		3.0	3.0	

Phasing	EW Perm	02	03	04	NB Only	NS Perm	SB Only	08
Timing	G = 30.0	G =	G =	G =	G = 6.0	G = 20.0	G = 6.0	G =
	Y = 5	Y =	Y =	Y =	Y = 4	Y = 5	Y = 4	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	212	362			497		255	1555		151	1601	
Lane group cap.	266	605			1019		232	1742		326	1725	
v/c ratio	0.80	0.60			0.49		1.10	0.89		0.46	0.93	
Green ratio	0.38	0.38			0.38		0.38	0.38		0.39	0.39	
Unif. delay d1	22.3	20.1			19.1		22.6	23.5		26.6	23.4	
Delay factor k	0.50	0.50			0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	21.5	4.3			1.7		88.1	7.4		4.7	10.2	
PF factor	1.000	1.000			1.000		1.000	1.000		1.000	1.000	
Control delay	43.8	24.5			20.8		110.8	30.9		31.3	33.7	
Lane group LOS	D	C			C		F	C		C	C	
Apprch. delay	31.6			20.8			42.2			33.5		
Approach LOS	C			C			D			C		
Intersec. delay	35.3			Intersection LOS						D		

4-F

SHORT REPORT

General Information		Site Information	
Analyst	ORGA/KM	Intersection	Western Ave @ Military Road
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	AM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	0	0	2	0	1	3	0
Lane group				L	LR			TR		L	T	
Volume (vph)				705		55		490	587	108	914	
% Heavy veh				0		0		0	0	0	0	
PHF				0.93		0.93		0.92	0.92	0.95	0.95	
Actuated (P/A)				P		P		P	P	P	P	
Startup lost time				2.0	2.0			2.0		2.0	2.0	
Ext. eff. green				2.0	2.0			2.0		2.0	2.0	
Arrival type				3	3			3		3	3	
Unit Extension				3.0	3.0			3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0			120	0	12	18		150			
Lane Width				11.0	11.0			11.0		11.0	11.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				2	2			0		0	5	
Unit Extension				3.0	3.0			3.0		3.0	3.0	

Phasing	WB Only	02	03	04	Thru & RT	SB Only	07	08
Timing	G = 32.0	G =	G =	G =	G = 45.0	G = 20.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				379	425			1008		114	962	
Lane group cap.				453	448			1194		282	2853	
v/c ratio				0.84	0.95			0.84		0.40	0.34	
Green ratio				0.29	0.29			0.41		0.18	0.64	
Unif. delay d1				36.6	38.2			29.3		39.7	9.3	
Delay factor k				0.50	0.50			0.50		0.50	0.50	
Increm. delay d2				16.6	31.4			7.4		4.3	0.3	
PF factor				1.000	1.000			1.000		1.000	1.000	
Control delay				53.2	69.6			36.7		44.0	9.6	
Lane group LOS				D	E			D		D	A	
Apprch. delay				61.9			36.7			13.2		
Approach LOS				E			D			B		
Intersec. delay	35.0-			Intersection LOS						C		

4-6

SHORT REPORT

General Information		Site Information	
Analyst	ORGA	Intersection	Western Ave @ Military Road
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	12/18/02	Jurisdiction	District of Columbia
Time Period	PM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	0	0	2	0	1	3	0
Lane group				L	LR			TR		L	T	
Volume (vph)				580		63		889	616	109	717	
% Heavy veh				0		0		0	0	0	0	
PHF				0.87		0.87		0.95	0.95	0.93	0.93	
Actuated (P/A)				P		P		P	P	P	P	
Startup lost time				1.0	1.0			1.0		1.0	1.0	
Ext. eff. green				2.0	2.0			2.0		2.0	2.0	
Arrival type				3	3			3		3	3	
Unit Extension				3.0	3.0			3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0			120	0	12	18	0	315			
Lane Width				11.0	11.0			11.0		11.0	11.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0			0		0	0	
Unit Extension				3.0	3.0			3.0		3.0	3.0	

Phasing	WB Only	02	03	04	Thru & RT	SB Only	07	08
Timing	G = 38.0	G =	G =	G =	G = 47.0	G = 12.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 3	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				400	326			1253		117	771	
Lane group cap.				557	546			1317		183	2667	
v/c ratio				0.72	0.60			0.95		0.64	0.29	
Green ratio				0.35	0.35			0.44		0.12	0.59	
Unif. delay d1				30.7	29.1			29.9		46.3	11.1	
Delay factor k				0.50	0.50			0.50		0.50	0.50	
Increm. delay d2				7.8	4.8			15.6		15.9	0.3	
PF factor				1.000	1.000			1.000		1.000	1.000	
Control delay				38.5	33.8			45.5		62.1	11.4	
Lane group LOS				D	C			D		E	B	
Apprch. delay				36.4			45.5			18.1		
Approach LOS				D			D			B		
Intersec. delay	34.7			Intersection LOS						C		

4-H

SHORT REPORT

General Information		Site Information	
Analyst	ORGA/KM	Intersection	Western Avenue @ Wisconsin Cir
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	AM Peak	Analysis Year	2006 (Projected)

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	1	0	1	2	0	0	2	0
Lane group	L	LTR			LTR		L	TR			LTR	
Volume (vph)	202	4	22	16	12	4	47	500	6	2	956	486
% Heavy veh	10	0	12	0	0	0	65	2	0	0	3	4
PHF	0.84	0.84	0.84	0.58	0.58	0.58	0.90	0.90	0.90	0.96	0.96	0.96
Actuated (P/A)	P	P	P	A	A	A	P	P	P	P	P	P
Startup lost time	2.0	2.0			2.0		2.0	2.0			2.0	
Ext. eff. green	2.0	2.0			2.0		2.0	2.0			2.0	
Arrival type	3	3			3		3	3			3	
Unit Extension	3.0	3.0			3.0		3.0	3.0			3.0	
Ped/Bike/RTOR Volume	3	0	0	30		3	20	0	4	80	0	125
Lane Width	12.0	12.0			15.0		11.0	11.0			11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0		0	0			0	
Unit Extension	3.0	3.0			3.0		3.0	3.0			3.0	

Phasing	EB Only	WB Only	03	04	NS Perm	06	07	08
Timing	G = 27.0	G = 10.0	G =	G =	G = 60.0	G =	G =	G =
	Y = 5	Y = 3	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	240	31			51		52	558			1374	
Lane group cap.	342	333			166		65	1679			1511	
v/c ratio	0.70	0.09			0.31		0.80	0.33			0.91	
Green ratio	0.25	0.25			0.09		0.55	0.55			0.55	
Unif. delay d1	37.8	32.0			46.8		20.2	13.9			22.5	
Delay factor k	0.50	0.50			0.11		0.50	0.50			0.50	
Increm. delay d2	11.4	0.6			1.1		64.5	0.5			9.7	
PF factor	1.000	1.000			1.000		1.000	1.000			1.000	
Control delay	49.2	32.6			47.8		84.7	14.4			32.2	
Lane group LOS	D	C			D		F	B			C	
Apprch. delay	47.3			47.8			20.4			32.2		
Approach LOS	D			D			C			C		
Intersec. delay	31.2			Intersection LOS						C		

4-I

SHORT REPORT

General Information		Site Information	
Analyst	ORGA/KM	Intersection	Western Avenue @ Wisconsin Cir
Agency or Co.	Washington, D.C.	Area Type	CBD or Similar
Date Performed	3/1/02	Jurisdiction	District of Columbia
Time Period	PM Peak	Analysis Year	2006 Projected

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	1	0	1	2	0	0	2	0
Lane group	L	LTR			LTR		L	TR			LTR	
Volume (vph)	475	10	114	9	6	2	58	873	14	4	666	344
% Heavy veh	5	0	5	0	0	0	48	1	0	0	3	2
PHF	0.86	0.86	0.86	0.79	0.79	0.79	0.92	0.92	0.92	0.95	0.95	0.95
Actuated (P/A)	P	P	P	A	A	A	P	P	P	P	P	P
Startup lost time	1.0	1.0			1.0		1.0	1.0			1.0	
Ext. eff. green	2.0	2.0			2.0		2.0	2.0			2.0	
Arrival type	3	3			3		3	3			3	
Unit Extension	3.0	3.0			3.0		3.0	3.0			3.0	
Ped/Bike/RTOR Volume	3	0	0	30		0	20	0	2	80	0	90
Lane Width	12.0	12.0			15.0		11.0	11.0			11.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0		0	0			0	
Unit Extension	3.0	3.0			3.0		3.0	3.0			3.0	

Phasing	EB Only	WB Only	03	04	NS Perm	06	07	08
Timing	G = 45.0	G = 7.0	G =	G =	G = 45.0	G =	G =	G =
	Y = 5	Y = 3	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 110.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	304	393			22		63	962			972	
Lane group cap.	625	614			131		72	1298			1159	
v/c ratio	0.49	0.64			0.17		0.88	0.74			0.84	
Green ratio	0.42	0.42			0.07		0.42	0.42			0.42	
Unif. delay d1	23.4	25.4			47.9		29.4	27.0			28.7	
Delay factor k	0.50	0.50			0.11		0.50	0.50			0.50	
Increm. delay d2	2.7	5.1			0.6		75.0	3.8			7.3	
PF factor	1.000	1.000			1.000		1.000	1.000			1.000	
Control delay	26.1	30.5			48.5		104.4	30.8			36.0	
Lane group LOS	C	C			D		F	C			D	
Apprch. delay	28.6			48.5			35.3			36.0		
Approach LOS	C			D			D			D		
Intersec. delay	33.9			Intersection LOS						C		

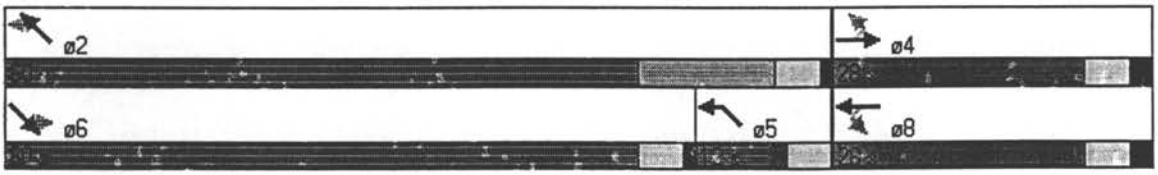
4-J

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2862	0	0	1587	0	0	4563	0	0	4508	0
Flt Permitted		0.930			0.732			0.882			0.648	
Satd. Flow (perm)	0	2672	0	0	1190	0	0	4029	0	0	2957	0
Satd. Flow (RTOR)		158			13			4			6	
Volume (vph)	21	79	188	42	24	19	23	1245	20	311	963	26
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90	0.92	0.92	0.92
Lane Group Flow (vph)	0	320	0	0	95	0	0	1431	0	0	1413	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			2		
Minimum Split (s)	22.0	22.0		22.0	22.0		21.0	21.0		10.0	21.0	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	60.0	60.0	0.0	12.0	60.0	0.0
Total Split (%)	28%	28%	0%	28%	28%	0%	60%	60%	0%	12%	60%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		0.0	1.0	
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Act Effct Green (s)		24.0			24.0			56.0			68.0	
Actuated g/C Ratio		0.24			0.24			0.56			0.68	
v/c Ratio		0.42			0.32			0.63			1.28dl	
Uniform Delay, d1		15.6			26.8			14.9			9.7	
Delay		16.0			27.6			8.6			10.1	
LOS		B			C			A			B	
Approach Delay		16.0			27.6			8.6			10.1	
Approach LOS		B			C			A			B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 40 (40%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 10.5 Intersection LOS: B
Intersection Capacity Utilization 85.8% ICU Level of Service D
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 4: Jenifer St & Wisconsin Ave

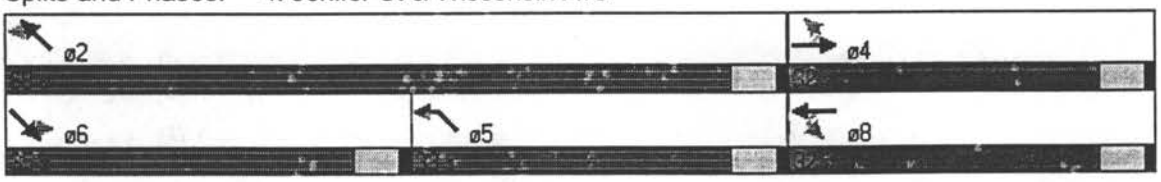


	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↰↑↱			↰↑↱			↰↑↑↱			↰↑↑↱	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2802	0	0	1584	0	0	4554	0	0	4522	0
Flt Permitted		0.860			0.593			0.917			0.653	
Satd. Flow (perm)	0	2424	0	0	953	0	0	4176	0	0	2977	0
Satd. Flow (RTOR)		440			22			5			9	
Volume (vph)	67	54	396	50	66	51	8	906	30	238	1128	41
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.93	0.93	0.93	0.93	0.93	0.93
Lane Group Flow (vph)	0	574	0	0	187	0	0	1015	0	0	1513	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			2		
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		10.0	21.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	35.0	35.0	0.0	33.0	68.0	0.0
Total Split (%)	32%	32%	0%	32%	32%	0%	35%	35%	0%	33%	68%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Act Effct Green (s)		28.0			28.0			31.0			64.0	
Actuated g/C Ratio		0.28			0.28			0.31			0.64	
v/c Ratio		0.58			0.66			0.78			0.64	
Uniform Delay, d1		6.5			27.8			31.2			13.0	
Delay		7.4			30.5			21.8			13.4	
LOS		A			C			C			B	
Approach Delay		7.4			30.5			21.8			13.4	
Approach LOS		A			C			C			B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 23 (23%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 99.9% ICU Level of Service E

Splits and Phases: 4: Jenifer St & Wisconsin Ave

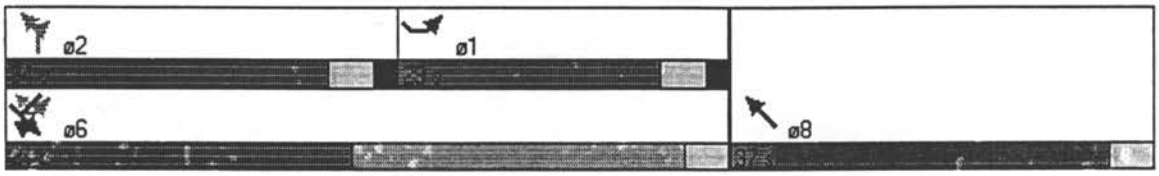


Lane Group	NBL	NBR	NBR2	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations											
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1593	2508	0	0	4423	0	0	4438	0	3090	1425
Flt Permitted	0.138				0.689					0.950	
Satd. Flow (perm)	229	2238	0	0	3075	0	0	4438	0	3090	1274
Satd. Flow (RTOR)		7			25			23			12
Volume (vph)	92	668	50	342	1334	149	0	917	115	1067	446
Confl. Peds. (#/hr)	51		52	60		80			60		51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98
Lane Group Flow (vph)	100	780	0	0	1984	0	0	1086	0	1089	455
Turn Type	custom			pm+pt							Perm
Protected Phases				1!	6!			8		6!	
Permitted Phases	2!	2!		6!							6
Minimum Split (s)	22.0	22.0		11.0	21.0			21.0		21.0	21.0
Total Split (s)	34.0	34.0	0.0	29.0	34.0	0.0	0.0	37.0	0.0	34.0	34.0
Total Split (%)	34%	34%	0%	29%	34%	0%	0%	37%	0%	34%	34%
Yellow Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	0.0			0.0		0.0	0.0
Lead/Lag	Lead	Lead		Lag							
Lead-Lag Optimize?	Yes	Yes		Yes							
Act Effct Green (s)	30.0	30.0			59.0			33.0		59.0	59.0
Actuated g/C Ratio	0.30	0.30			0.59			0.33		0.59	0.59
v/c Ratio	1.45	1.15			0.92			0.73		0.60	0.60
Uniform Delay, d1	35.1	34.6			20.8			28.9		13.0	12.6
Delay	194.2	101.0			8.0			20.0		11.7	11.4
LOS	F	F			A			C		B	B
Approach Delay	111.5				8.0			20.0		11.6	
Approach LOS	F				A			C		B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 5 (5%), Referenced to phase 2:NBL and 6:SESW, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 1.45
Intersection Signal Delay: 28.0 Intersection LOS: C
Intersection Capacity Utilization 129.4% ICU Level of Service H
! Phase conflict between lane groups.

Splits and Phases: 3: Western Ave & Wisconsin Ave

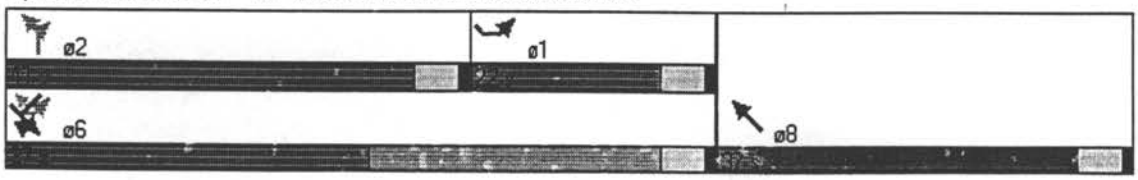


Lane Group	NBL	NBR	NBR2	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations											
Total Lost Time (s)	3.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	1593	2508	0	0	4320	0	0	4421	0	3090	1425
Flt Permitted	0.235				0.706					0.950	
Satd. Flow (perm)	387	2238	0	0	3087	0	0	4421	0	3090	1274
Satd. Flow (RTOR)		15			59			28			5
Volume (vph)	203	1002	133	381	909	220	0	1110	158	807	352
Confl. Peds. (#/hr)	51		52	60		80			60		51
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.92	0.92	0.92	0.91	0.91
Lane Group Flow (vph)	216	1207	0	0	1573	0	0	1379	0	887	387
Turn Type	custom			pm+pt							Perm
Protected Phases				1!	6!			8		6!	
Permitted Phases	2!	2!		6!							6
Minimum Split (s)	21.0	21.0		10.0	21.0			21.0		21.0	21.0
Total Split (s)	41.0	41.0	0.0	22.0	37.0	0.0	0.0	37.0	0.0	37.0	37.0
Total Split (%)	41%	41%	0%	22%	37%	0%	0%	37%	0%	37%	37%
Yellow Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0			1.0		1.0	1.0
Lead/Lag	Lead	Lead		Lag							
Lead-Lag Optimize?	Yes	Yes		Yes							
Act Effct Green (s)	38.0	38.0			60.0			34.0		60.0	60.0
Actuated g/C Ratio	0.38	0.38			0.60			0.34		0.60	0.60
v/c Ratio	1.47	1.40			1.01dl			0.91		0.48	0.51
Uniform Delay, d1	31.0	30.5			15.4			30.8		11.2	11.3
Delay	185.3	166.6			5.8			24.8		12.8	13.2
LOS	F	F			A			C		B	B
Approach Delay	169.4				5.8			24.8		12.9	
Approach LOS	F				A			C		B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 5 (5%), Referenced to phase 2:NBL and 6:SESW, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 1.47
Intersection Signal Delay: 53.2 Intersection LOS: D
Intersection Capacity Utilization 123.4% ICU Level of Service H
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
! Phase conflict between lane groups.

Splits and Phases: 3: Western Ave & Wisconsin Ave

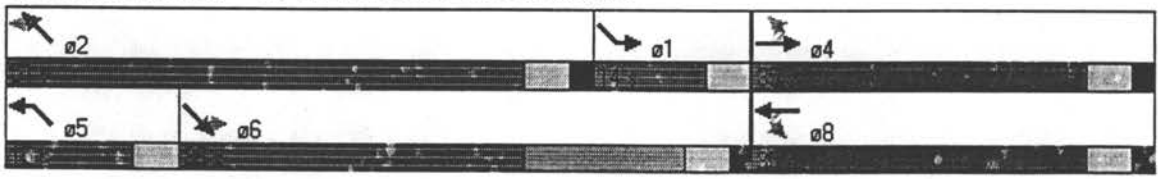


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↱			↑↑↱		↰	↑↑↑↱		↰	↑↑↑↱	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2942	0	0	2801	0	1593	4377	0	1593	4452	0
Flt Permitted		0.543			0.830		0.162			0.111		
Satd. Flow (perm)	0	1610	0	0	2320	0	263	4377	0	186	4452	0
Satd. Flow (RTOR)		23			125			21			16	
Volume (vph)	168	186	69	55	390	263	153	1687	161	158	1248	92
Confl. Peds. (#/hr)	88		108	108		88	132		300	300		132
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94
Lane Group Flow (vph)	0	471	0	0	761	0	166	2009	0	168	1426	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8			6			2		
Minimum Split (s)	35.0	35.0		35.0	35.0		10.0	22.0		10.0	22.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	14.0	36.0	0.0	15.0	51.0	0.0
Total Split (%)	35%	35%	0%	35%	35%	0%	14%	36%	0%	15%	51%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Act Effct Green (s)		31.0			31.0		46.0	46.0		47.0	47.0	
Actuated g/C Ratio		0.31			0.31		0.46	0.46		0.47	0.47	
v/c Ratio		1.76dl			0.95		0.65	0.99		0.69	0.68	
Uniform Delay, d1		31.5			28.0		30.9	26.5		15.7	20.3	
Delay		46.3			23.5		33.8	40.4		14.9	14.6	
LOS		D			C		C	D		B	B	
Approach Delay		46.3			23.5			39.9			14.6	
Approach LOS		D			C			D			B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 29.9 Intersection LOS: C
Intersection Capacity Utilization 111.2% ICU Level of Service G
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 2: Willard Ave & Wisconsin Ave

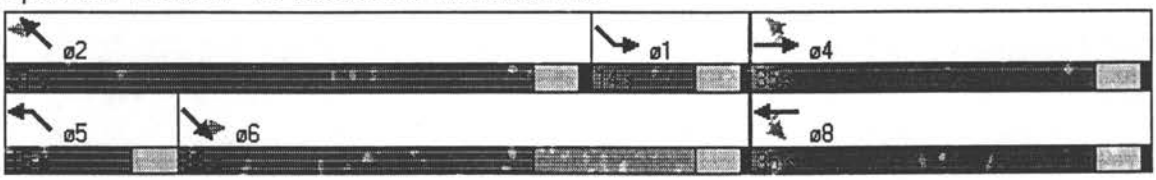


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↱			↑↑↱		↰	↑↑↑↱		↰	↑↑↑↱	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2868	0	0	2819	0	1593	4362	0	1593	4505	0
Flt Permitted		0.598			0.806		0.129			0.111		
Satd. Flow (perm)	0	1706	0	0	2270	0	211	4362	0	186	4505	0
Satd. Flow (RTOR)		42			104			23			8	
Volume (vph)	202	215	129	42	253	159	145	1398	144	234	1377	54
Confl. Peds. (#/hr)	88		108	108		88	132		300	300		132
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.96	0.96	0.96	0.92	0.92	0.92
Lane Group Flow (vph)	0	575	0	0	499	0	151	1606	0	254	1556	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8			6			2		
Minimum Split (s)	35.0	35.0		35.0	35.0		10.0	21.0		10.0	21.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	14.0	36.0	0.0	15.0	51.0	0.0
Total Split (%)	35%	35%	0%	35%	35%	0%	14%	36%	0%	15%	51%	0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Act Effct Green (s)		31.0			31.0		46.0	46.0		47.0	47.0	
Actuated g/C Ratio		0.31			0.31		0.46	0.46		0.47	0.47	
v/c Ratio		1.06dl			0.64		0.64	0.80		1.05	0.73	
Uniform Delay, d1		31.9			23.0		32.3	22.6		23.3	21.3	
Delay		68.4			3.0		35.3	23.0		57.7	12.9	
LOS		E			A		D	C		E	B	
Approach Delay		68.4			3.0			24.0			19.2	
Approach LOS		E			A			C			B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 103.1% ICU Level of Service F
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

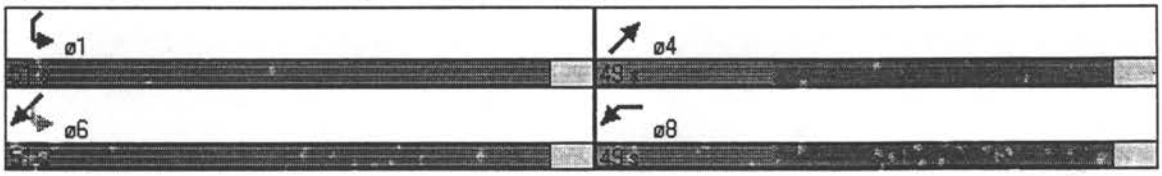
Splits and Phases: 2: Willard St & Wisconsin Ave



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Total Lost Time (s)	8.0	8.0	8.0	8.0	8.0	8.0
Satd. Flow (prot)	3023	0	2829	0	0	3169
Flt Permitted	0.956					0.455
Satd. Flow (perm)	3023	0	2829	0	0	1448
Satd. Flow (RTOR)	10		367			
Volume (vph)	705	55	490	587	108	914
Confl. Peds. (#/hr)		120		13	13	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.95	0.95
Lane Group Flow (vph)	817	0	1171	0	0	1076
Turn Type					pm+pt	
Protected Phases	8!		4!		1	6
Permitted Phases					6	
Minimum Split (s)	21.0		21.0		10.0	21.0
Total Split (s)	49.0	0.0	49.0	0.0	51.0	51.0
Total Split (%)	49%	0%	49%	0%	51%	51%
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	0.0		0.0		0.0	0.0
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	41.0		41.0			43.0
Actuated g/C Ratio	0.41		0.41			0.43
v/c Ratio	0.66		0.85			0.79
Uniform Delay, d1	23.5		17.7			24.6
Delay	23.9		38.3			22.8
LOS	C		D			C
Approach Delay	23.9		38.3			22.8
Approach LOS	C		D			C

Intersection Summary		
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 20 (20%), Referenced to phase 2: and 6:SWTL, Start of Green		
Natural Cycle: 45		
Control Type: Pretimed		
Maximum v/c Ratio: 0.85		
Intersection Signal Delay: 29.0	Intersection LOS: C	
Intersection Capacity Utilization 119.7%	ICU Level of Service G	
! Phase conflict between lane groups.		

Splits and Phases: 6: Military Rd & Western Ave

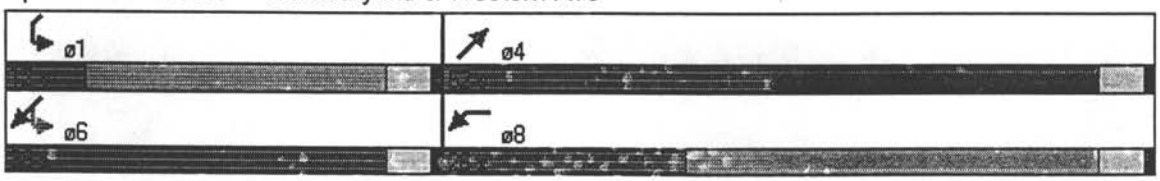


Lane Group	WBL	WBR	NBT	NBR	SWL	SWT
Lane Configurations						
Total Lost Time (s)	12.0	12.0	12.0	12.0	12.0	12.0
Satd. Flow (prot)	2996	0	2918	0	0	3163
Flt Permitted	0.957					0.455
Satd. Flow (perm)	2996	0	2918	0	0	1448
Satd. Flow (RTOR)	17		249			
Volume (vph)	580	63	889	616	109	717
Confl. Peds. (#/hr)		120		13	13	
Peak Hour Factor	0.87	0.87	0.95	0.95	0.93	0.93
Lane Group Flow (vph)	739	0	1584	0	0	888
Turn Type					pm+pt	
Protected Phases	8!		4!		1	6
Permitted Phases					6	
Minimum Split (s)	21.0		21.0		10.0	21.0
Total Split (s)	26.0	0.0	62.0	0.0	12.0	38.0
Total Split (%)	26%	0%	62%	0%	12%	38%
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	50.0		50.0			26.0
Actuated g/C Ratio	0.50		0.50			0.26
v/c Ratio	0.49		1.00			1.08
Uniform Delay, d1	16.1		21.1			37.0
Delay	16.4		24.7			63.9
LOS	B		C			E
Approach Delay	16.4		24.7			63.9
Approach LOS	B		C			E

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 43 (43%), Referenced to phase 2: and 6:SWTL, Start of Green
Natural Cycle: 100
Control Type: Pretimed
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 33.6 Intersection LOS: C
Intersection Capacity Utilization 134.1% ICU Level of Service H
! Phase conflict between lane groups.

Splits and Phases: 6: Military Rd & Western Ave



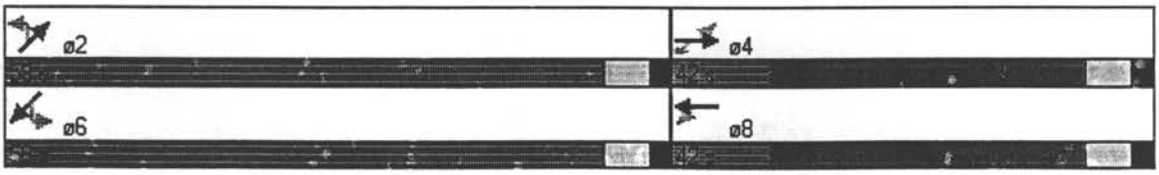
4-R

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SWL	SWT	SWR
Lane Configurations		↑	↱		↑↑↱		↰	↑↑↱			↑↑↱	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1598	1425	0	3026	0	1593	3176	0	0	2855	0
Flt Permitted		0.687			0.804		0.074				0.955	
Satd. Flow (perm)	0	1099	1400	0	2489	0	124	3176	0	0	2726	0
Satd. Flow (RTOR)			26		7			2			138	
Volume (vph)	202	4	22	16	12	4	47	500	6	2	956	486
Confl. Peds. (#/hr)	27		3	3		27	85		20	20		85
Peak Hour Factor	0.84	0.84	0.84	0.58	0.58	0.58	0.90	0.90	0.90	0.96	0.96	0.96
Lane Group Flow (vph)	0	245	26	0	56	0	52	563	0	0	1504	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Total Split (s)	42.0	42.0	42.0	42.0	42.0	0.0	58.0	58.0	0.0	58.0	58.0	0.0
Total Split (%)	42%	42%	42%	42%	42%	0%	58%	58%	0%	58%	58%	0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		38.0	38.0		38.0		54.0	54.0			54.0	
Actuated g/C Ratio		0.38	0.38		0.38		0.54	0.54			0.54	
v/c Ratio		0.59	0.05		0.06		0.78	0.33			0.98	
Uniform Delay, d1		24.7	0.0		17.1		18.2	12.8			20.3	
Delay		26.5	8.1		17.8		41.3	26.0			34.1	
LOS		C	A		B		D	C			C	
Approach Delay		24.7			17.8			27.3			34.1	
Approach LOS		C			B			C			C	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 28 (28%), Referenced to phase 2:NETL, Start of Green
Natural Cycle: 40
Control Type: Pretimed
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 31.0 Intersection LOS: C
Intersection Capacity Utilization 87.2% ICU Level of Service D

Splits and Phases: 7: Wisconsin Cir & Western Ave

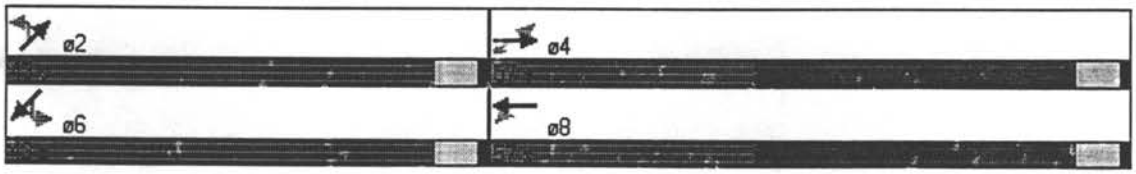


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1598	1425	0	3021	0	1593	3175	0	0	2850	0
Flt Permitted		0.711			0.832		0.105				0.952	
Satd. Flow (perm)	0	1134	1400	0	2575	0	176	3175	0	0	2714	0
Satd. Flow (RTOR)			54		3			2			107	
Volume (vph)	475	4	114	9	6	2	58	873	14	4	666	344
Confl. Peds. (#/hr)	27		3	3		27	85		20	20		85
Peak Hour Factor	0.86	0.86	0.86	0.79	0.79	0.79	0.92	0.92	0.92	0.95	0.95	0.95
Lane Group Flow (vph)	0	557	133	0	22	0	63	964	0	0	1067	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Total Split (s)	57.0	57.0	57.0	57.0	57.0	0.0	43.0	43.0	0.0	43.0	43.0	0.0
Total Split (%)	57%	57%	57%	57%	57%	0%	43%	43%	0%	43%	43%	0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		53.0	53.0		53.0		39.0	39.0			39.0	
Actuated g/C Ratio		0.53	0.53		0.53		0.39	0.39			0.39	
v/c Ratio		0.93	0.17		0.02		0.91	0.78			0.95	
Uniform Delay, d1		21.7	7.0		9.6		29.0	26.6			26.5	
Delay		30.6	7.3		10.1		42.0	34.3			37.6	
LOS		C	A		B		D	C			D	
Approach Delay		26.1			10.1			34.8			37.6	
Approach LOS		C			B			C			D	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 31 (31%), Referenced to phase 2:NETL, Start of Green
Natural Cycle: 50
Control Type: Pretimed
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 33.5 Intersection LOS: C
Intersection Capacity Utilization 117.1% ICU Level of Service G

Splits and Phases: 7: Wisconsin Cir & Western Ave



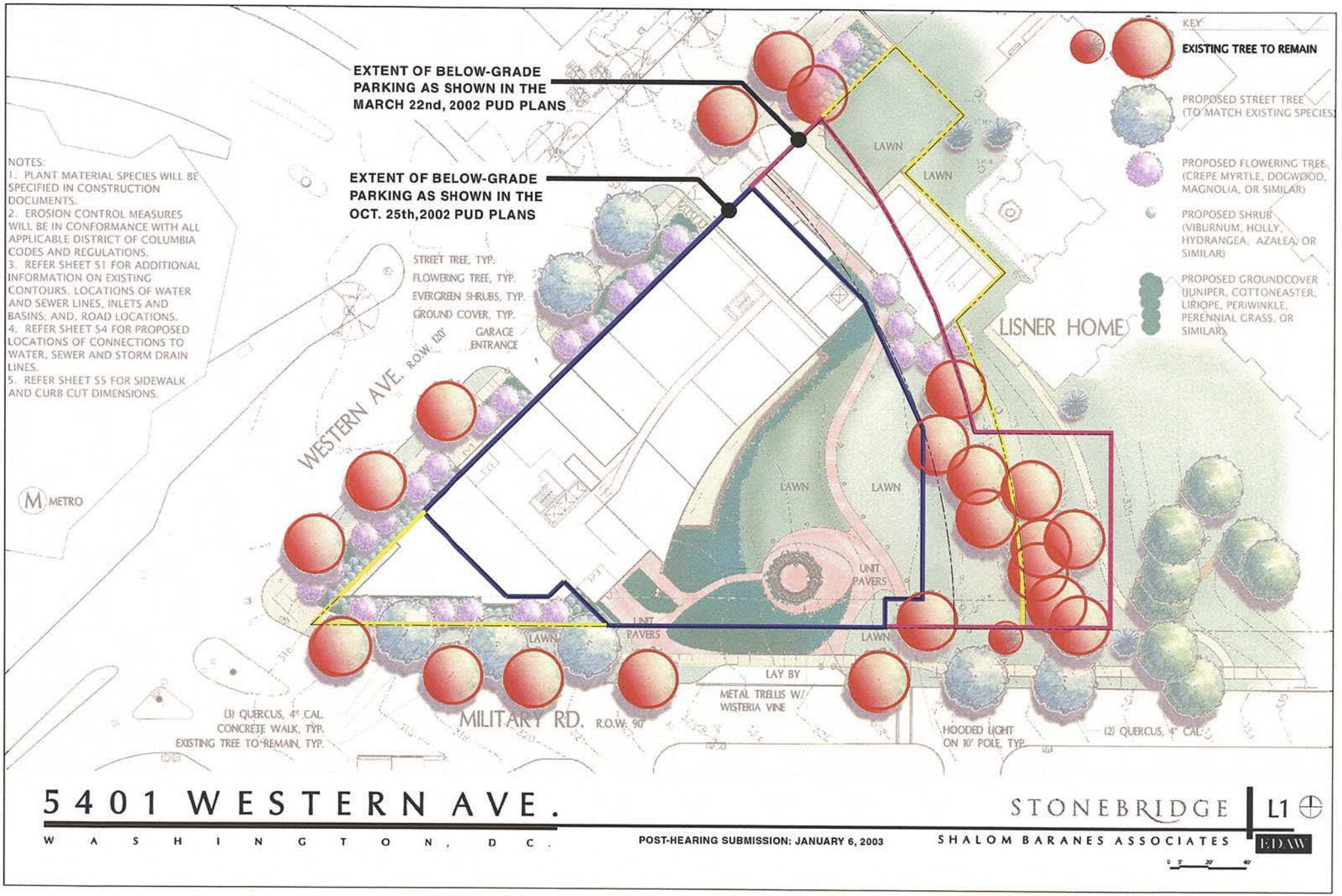
4-T

5401 Western Avenue, NW
Washington, DC

Estimated Value of Public Benefits and Project Amenities

ITEM	VALUE
New Residential Development in Housing Opportunity Area	n/d
Affordable Housing	600,000
Landscaped Walkway Military Rd. to Western Ave. Note: Includes retaining wall for pedestrian cut-through to Western	65,000
Significant Additional Open Space and Tree Preservation	n/d
Creation of "Green" and Additional Landscaping in Open Space	50,000
Landscaping Enhancements to Public Space	25,000
Traffic Enhancements Note: Signal modification Wisconsin @ Western	18,000
Neighborhood Traffic Control Enhancements Note: 8/15/02 Neighborhood Traffic Mitigation Study 1. Signage improvements on Military @ Western 2. Signage improvements on Military @ 43rd St. 3. Signage improvements on Military @ 42nd St. 4. Signal modification improvements Military @ Reno Rd. & 41st 5. Pedestrian crosswalk improvements Military @43rd St 6. Traffic calming measures on 43rd ST from Military to Jennifer St.	46,000
Pedestrian Safety Enhancments 1. Pedestrian crosswalk improvements Western @ building entry 2. Pedestrian crosswalk improvements Western @ Wisc. Circle 3. Signal modification improvements Western @ Wisc. Circle 4. Pedestrian crosswalk improvements Western @ Military	170,000
Excess Resident Parking	250,000
Provision of Visitor Parking	25,000
Day Care Center (Children's Plaza)	300,000
Chevy Chase Park Improvements	75,000
Construction Management Plan	100,000
Total Value of Determinable Benefits and Amenities	1,724,000

Notes:
(1) n/d denotes that value is not determinable from a monetary standpoint.



5401 WESTERN AVE.

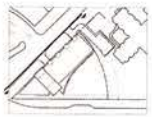
WASHINGTON, D.C.

POST-HEARING SUBMISSION: JANUARY 6, 2003

STONEBRIDGE | L1

SHALOM BARANES ASSOCIATES | EDAW

NORTHWEST ELEVATION
WESTERN AVENUE



5401 WESTERN AVE.

WASHINGTON, DC.

DECEMBER 5, 2002
REVISED JAN. 6, 2003

STONEBRIDGE

SHALOM BARANES ASSOCIATES

0 10' 20' 40'

DAY-CARE ELEVATION
SECTION THROUGH VISITOR PARKING

5401 WESTERN AVE.

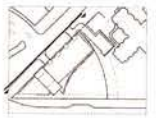
WASHINGTON, DC.

DECEMBER 5, 2002
REVISED JAN. 6, 2003

STONEBRIDGE

SHALOM BARANES ASSOCIATES

NORTHWEST DAY-CARE ELEVATION
WESTERN AVENUE



5401 WESTERN AVE.

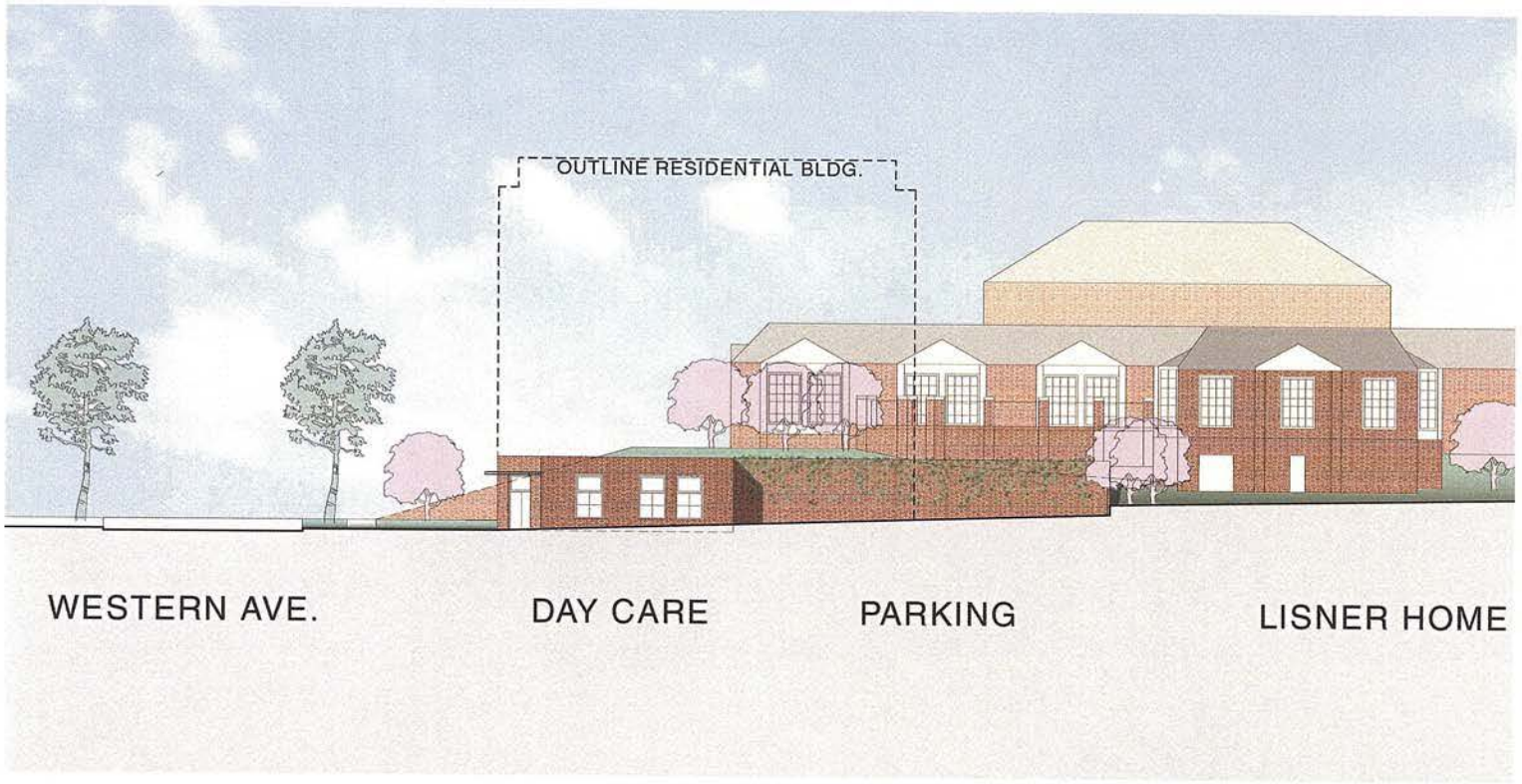
WASHINGTON, DC.

POST-HEARING SUBMISSION: JANUARY 6, 2003

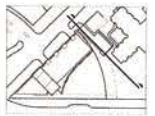
STONEBRIDGE

SHALOM BARANES ASSOCIATES

0 10' 20' 40'



DAY-CARE ELEVATION
SECTION THROUGH VISITOR PARKING



5401 WESTERN AVE.

WASHINGTON, DC.

POST-HEARING SUBMISSION: JANUARY 6, 2003

STONEBRIDGE

SHALOM BARANES ASSOCIATES

0 10' 20' 40'

DAY-CARE ELEVATION

5401 WESTERN AVE.

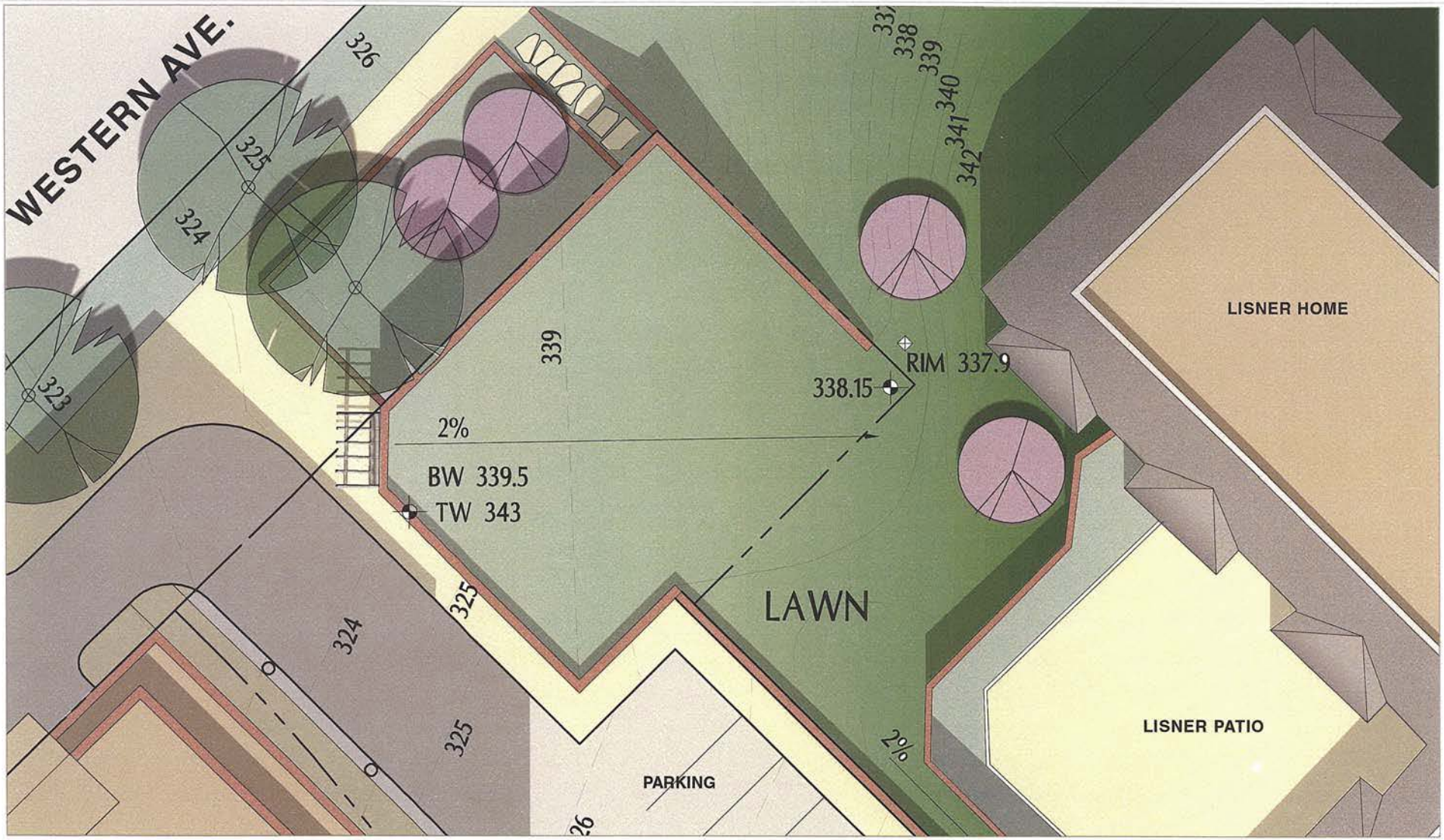
WASHINGTON, DC.

POST-HEARING SUBMISSION: JANUARY 6, 2003

STONEBRIDGE

SHALOM BARANES ASSOCIATES

0' 5' 10' 20'



DAY-CARE ROOF PLAN

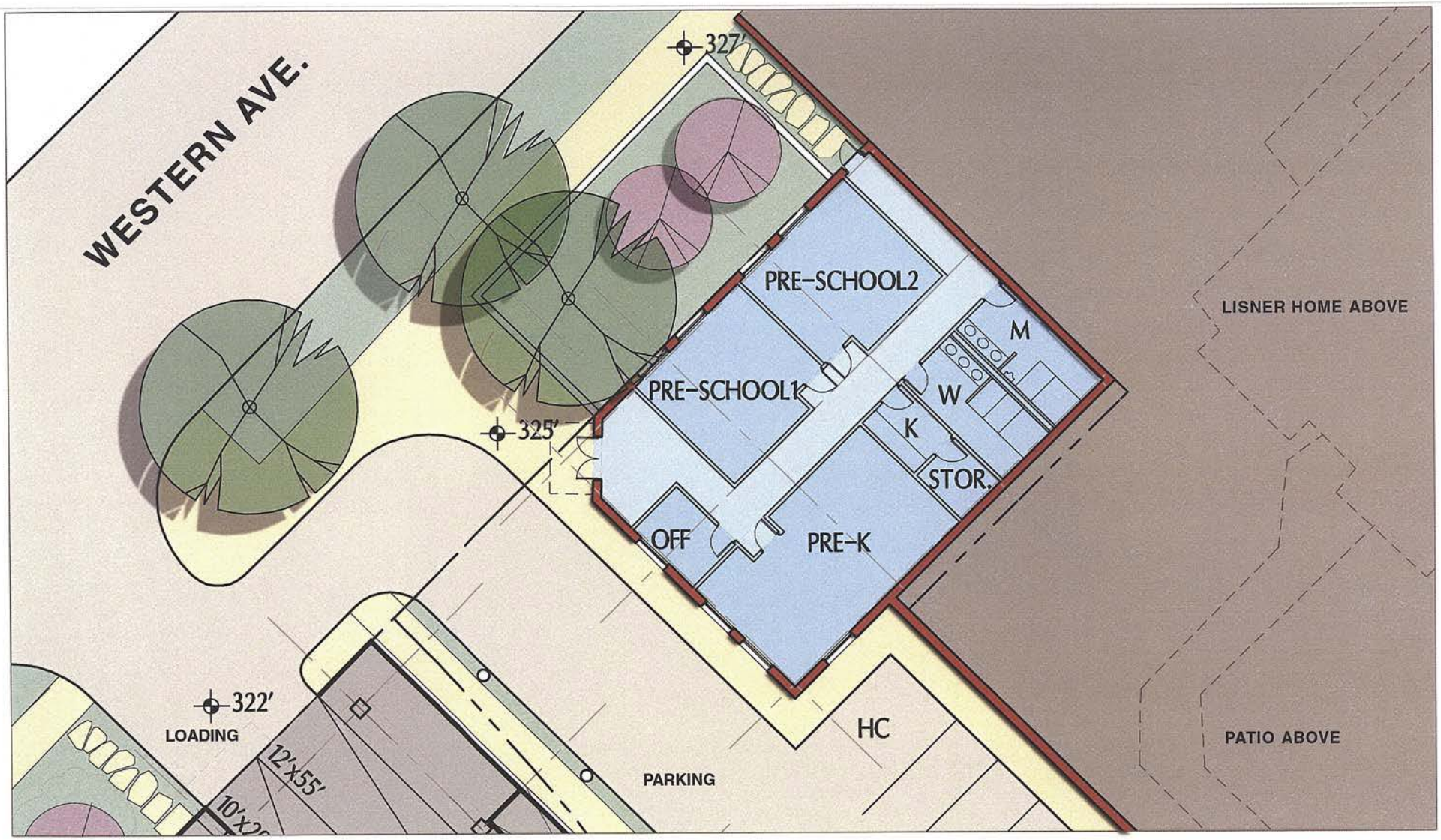
5401 WESTERN AVE.

WASHINGTON, D.C.

POST-HEARING SUBMISSION: JANUARY 6, 2003

STONEBRIDGE

SHALOM BARANES ASSOCIATES



DAY-CARE FLOOR PLAN

NOTES:

1. INTERIOR PLAN LAYOUTS ARE CONCEPTUAL AND SHOWN FOR ILLUSTRATIVE PURPOSES. THE FINAL LAYOUT MAY VARY.
2. ADDITIONAL DOORS ON THE EXT. FACADE MAYBE ADDED IF REQUIRED BY APPLICABLE CODES.

5401 WESTERN AVE.

WASHINGTON, DC.

POST-HEARING SUBMISSION: JANUARY 6, 2003

STONEBRIDGE

SHALOM BARANES ASSOCIATES

0' 5' 10' 20'

5401 Western Avenue, N.W.
Washington, D.C.
Summary of Affordable Housing Program
Revised January 6, 2002

Size:	Applicant has committed to provide 5% of the FAR approved for the residential building in excess of the matter of right development, or 5,514 gross square feet (5% of 103,088 FAR square feet representing the difference between the requested 182,000 FAR square feet less 79,912 matter-of-right FAR square feet).
Unit Configuration:	The size and configuration of the units shall be determined in the final floor plan for the Project. It is expected that the units will be approximately 900 – 930 "saleable" square feet, contain two bedrooms and will be located on the first floor above the "ground" level.
Initial Unit Price:	The price will be determined by the average affordable housing for four person households as illustrated on Exhibit A.
Certification of Eligibility:	Eligible buyers – for both initial purchases and for resale - are defined as those households that meet the following criteria:

- Having household income not exceeding the "low income" limit by household size allowed by the U.S. Department of Housing and Urban Development for the Section 8 Program, or the appropriate successor program, for the Washington, D.C. Metropolitan Statistical Area (attached is a copy of the Fiscal Year 2002 Income Limits Summary);
- Purchasing their primary residence;
- Have no ownership interest in any other housing;
- Commit to continuous owner occupancy; and
- Purchasers must also qualify for the necessary home mortgage and fund the required down payment.

Potential homebuyers can be certified for income-eligibility by making application to the home purchase assistance programs of the Department of Housing and Community Development (DHCD).

Certification shall make households eligible for selection by lottery (see below).

Selection of Buyers:

Applicant shall hold a lottery of all qualified families to be selected as the Initial Unit Purchasers. Applicant will provide notice of the lottery through advertisements in local newspapers and other reasonable vehicles to ensure broad exposure to potentially eligible purchasers. The Department of Housing and Community Development will also advise existing applicants to its home purchase assistance programs of this affordable housing opportunity. The Initial Unit Purchasers and the Initial Unit Price shall be determined six months prior to the projected completion of the Affordable Units.

Restriction on Sale Affordable Units:

The Affordable Units will be restricted (through a deed restriction, covenant and/or other legal means) in their resale for a period of 20 years to: (1) income-eligible homebuyers (a list of whom may be obtained from the Department of Housing and Community Development's applicant pool for home purchase assistance programs); (2) a maximum Purchase Price equal to the Initial Unit Price plus the cumulative change in the consumer price index and the cost of permanent improvements to the Unit; and (3) Sale within a given 20 year affordability restriction period shall create a new 20 year affordability restriction period.

Sale After Restriction Period:

Upon the expiration of the 20-year restricted selling period, the then current owner of the Unit may sell the Unit without restriction but the sales proceeds shall be allocated as follows:

First, to the seller in the amount of their original sales price plus the cumulative change in the consumer price index, the cost of permanent improvements to the Unit and a reasonable sales commission.

The remainder shall be split equally between the seller and a District of Columbia government fund dedicated to the provision of affordable housing.

Wc\dmf\affordablehousingprogramjanuary62003

5401 Western Avenue
Affordable Housing Financial Analysis

No. of Units	5	
Unit Size	920	
Bedrooms	2	
Interest Rate	7.00%	
Debt Constant	7.98%	
Taxes	1,300	(annual)
Condo Fee	200	(monthly)
Down Payment	5.00%	

Household Size	4
Low Income Limit	
Section 8 Program	
Washington, DC MSA	54,400
Available	30.00%

Available Annually for Mortgage Payment, Taxes, Condo Fee	16,320
	12
Available Monthly	1,360
Taxes	(108)
Condo Fee	(200)
Mortgage Payment	1,052
Debt Constant	7.98%
Loan Amount	158,073
Down Payment	8,320
Sales Price	166,393

U.S. Department of Housing and Urban Development
District of Columbia Office
Union Center Plaza, Suite 300
820 First St., N.E.,
Washington, D.C. 20002-4205

January 31, 2002

MEMORANDUM FOR: ALL HUD WASHINGTON, D.C. FIELD OFFICE CLIENTS

FROM: Rafiq A. Munir, Economist, 3GRA

SUBJECT: **FY 2002 Income Limits and Median Family Income (MFI)**
Washington, D.C. Metropolitan Statistical Area (MSA)

Listed below are the Fiscal Year 2002 Income Limits for the Section 8, Section 236, Section 235 and Section 221(d)(3) BMIR programs for the Washington, D.C. MSA, **effective today, January 31, 2002.** The Washington, D.C. MSA estimated MFI increased by 6.9% to **$91,500.**

	Number of Persons							
Program	1	2	3	4	5	6	7	8
Sec 8 @ 30% MFI	16250	20900	23500	26100	28200	30300	32350	34450
Section 8 Very Low Income	30450	34800	39150	43500	47000	50450	53950	57400
Sec 8 Low Income	38100	43500	48950	54400	58750	63100	67450	71800
Section 236	38100	43500	48950	54400	58750	63100	67450	71800
Section 221 BMIR	45200	51700	58150	64600	69750	74950	80100	85250
Section 235	45200	51700	58150	64600	69750	74950	80100	85250

The estimated MFI level for the United States increased by 3.6% to **$54,400.** The four person "very low income" limit increased to **$43,500.** It was adjusted downward (for areas of unusually high median family income) to a level at which 80% of it equates to the U.S. median family income level. The four person "low income" limit is capped at $54,400 because it is not allowed to exceed the U.S. MFI level. The Section 8 "30% of MFI" is defined as 60% of the very low-income limit. All estimates are adjusted for family size and rounded to the nearest $50.

Jurisdictions covered by these income limits include the following: Washington, D.C, Calvert, Charles, Frederick, Montgomery, and Prince George's County in the State of Maryland; Arlington, Fairfax, Fauquier, Loudoun, Prince William, Spotsylvania, and Stafford County, and the Cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, and Manassas Park in the State of Virginia.

The use of the HUD median family income estimates and income limits is subject to individual program guidelines covering definitions of income and family, family size, effective dates, and other factors. Data for other areas and a detailed explanation of these estimates may be obtained from the following Web address: *"www.huduser.org/datasets/fil.html"*. If you have any questions or concerns, I may be contacted at (202) 275-9200 extension 3073 or *rafiq_a._munir@hud.gov.*

Proposed Elements of Construction Management Plan
5401 Western Avenue, N.W.
January 6, 2003

Stonebridge Associates, 5401 LLC (the "Developer") proposes the following Construction Management Plan, including the creation of a Community Advisory Committee, to minimize impacts from construction on the adjacent communities. The purpose of the Community Advisory Committee will be to oversee, coordinate and dispose of community concerns/issues during the construction of 5401 Western Avenue, N.W. The bylaws of the Community Advisory Committee shall be drafted upon its convocation and the duties/responsibilities of the Committee will be defined during the process of creating bylaws. Elements of this construction plan will include the following:

1. Pre-Construction. Prior to the start of construction, the Developer agrees to undertake certain pre-construction surveys, testing and subsurface exploration programs, including the following:

a. Pre-Construction Survey. Prior to any grading or excavation, the Developer will perform a survey to document the current condition of adjacent residential properties within 300 feet of the Site property line. Prior to undertaking the survey, the Developer shall submit to the Community Advisory Committee the names of the three surveyors deemed appropriate for the pre-construction survey as well as the scope of work to be performed. Within five (5) business days of receiving the complete list of candidates and scope of the survey, the Community Advisory Committee shall determine the surveyor who will perform

the pre-construction survey as well as a list of homes to be surveyed (the "Surveyed Homes"). The Developer will pay for these surveys, which will be completed within a reasonable time prior to any grading, excavation or other construction activity being performed on the Site. Owners of the Surveyed Homes (the "Owners") are entitled to provide evidence of the existing condition of their homes which shall be included in the survey. The Developer will furnish to each of the Owners a copy of the survey relating to their home when it is completed and prior to the beginning of any grading, excavation or other construction activity, and will furnish copies of the surveys to the Community Advisory Committee, unless the Owner objects. In the event that an Owner does not provide reasonable access to its property or does not reasonably cooperate with the surveyor during the survey process, the Owner will not be permitted to use the processes and procedures set forth herein. The Developer or the surveyor will notify the Owners by Federal Express of the opportunity to have a pre-construction survey conducted by the surveyor. The Owners shall be provided a reasonable period of time to respond to such notice, to respond to the surveyor's reasonable request for access to the Owner's property, and to respond to other reasonable requests of the surveyor.

b. <u>Other Surveys and Testing</u>. In addition, prior to the start of construction, the Developer will perform other survey work, exploration and testing programs, as necessary. These may include: (i) geotechnical investigation to determine the structural strength of the existing soils, (ii) utility investigations to determine the location of water, sewer, electricity and gas systems, and (iii) water

pressure investigations to determine the water pressures provided by the local utility, and (iv) studies to determine the necessity of blasting. The Developer will provide the Community Advisory Committee copies of all surveys and reports that are prepared, to be held in confidence by the Community Advisory Committee.

c. Communication. The sitting ANC 3E Commissioners shall establish jointly with the Developer a Community Advisory Committee with broad representation from the affected area. The Developer shall designate a representative ("Representative") to be the key contact for interaction with the Community Advisory Committee. The Representative will be accessible during all business hours. In turn, the Community Advisory Committee will designate a contact person ("Contact Person"), whose identity the Community Advisory Committee shall report to the Developer, to represent the Community Advisory Committee. The Contact Person will receive and disseminate information from the Developer. At any time construction activity is occurring on the Site, the Representative or designee shall be available to receive complaints or other communications from the Community Advisory Committee's Contact Person. The name and work telephone number of the Representative or his/her appointed designee shall be conspicuously posted at the Site and shall be readily available to members of the community. In addition, a name and telephone number of a person designated by the Developer to contact in case of emergency during hours in which no construction activity is occurring shall be readily available to members of the community. The Developer shall provide to the Contact Person, and keep updated,

the names of and pertinent information about the Representative, the designee and emergency contact, including their home phone numbers and beeper numbers, as appropriate. The Representative, designee and emergency contact shall: (i) receive notice of violations of the Construction Management Plan; (ii) respond as soon as possible to the person who has reported the violation; and (iii) act to remedy the violation as soon as possible. The Representative and his/her designee will be able to answer questions and receive comments about the site activities, address any concerns the Community Advisory Committee and members of the community might have throughout the construction process, and have authority to remedy promptly violations of the Construction Management Plan and enforce its provisions. The Community Advisory Committee shall meet monthly and the meetings shall include the Representative (or designee) and a spokesperson for the General Contractor.

2. Construction. It is anticipated that construction activities will start at the Site on or about the fourth quarter of 2003. The following is a discussion of construction-related issues and shall be binding on the Developer, its subcontractors and any successors and/or assigns of the Developer.

a. Permits. The Developer will secure all permits that are required to complete the project. The Developer will provide the Community Advisory Committee and the Contact Person with notification of permits that require partial or total closures of streets or sidewalks, except in emergency situations.

b. Site Management

i. The Developer will contract for construction monitoring services during the course of sheeting/shoring, dewatering, excavation, installation of building foundations and below-grade walls. Additionally, the Developer will monitor vibrations during its operations and implement a program to evaluate the structural settlement of Surveyed Homes to assure that potentially damaging impacts do not extend to the adjacent residential properties. Driving of piles shall be prohibited.

ii. The Developer will erect and maintain construction fencing and barricades along all streets that border the Site in order to screen and secure the site during the construction process. In addition, to the extent it does not interfere with construction, the Developer will erect either solid fencing or chain-link fencing with screening along Military Road, as necessary for dirt control. The Developer will provide the Contact Person with all permits obtained from the District of Columbia Department of Consumer and Regulatory Affairs regarding soil erosion control and shall strictly adhere to the requirements of such permits.

iii. Construction or rental offices will be located in trailers on the Site or on adjacent public spaces with public space permits. Such trailers will be kept in a clean and orderly condition.

iv. A minimum amount of lighting will be provided at the Site at night. These lights will be sufficient to provide necessary security and to

comply with federal and municipal safety standards. The lights will be directed at the areas to be lighted within the Site and, when possible, away from the residences on Military Road.

c. Cleanliness. The Developer will remove rubbish and construction debris continuously during the construction period during the normal construction workday and during periods of overtime and weekend construction work. In addition, the Developer will monitor and police the construction site daily or more often as required to ensure cleanliness.

i. Dumpsters will be placed on the Site. In no event will dumpsters be placed at or near the corner of Military Road and 43rd Street, N.W. Hauling and replacing dumpsters is under no circumstances to be done except between the hours of 8:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on Saturday.

ii. Trucks carrying excavation material and debris from the Site will be covered with tarps. Trucks shall enter/exit the Site on Western Avenue. All subcontractors and/or material suppliers will be provided with written instruction that establishes the approved truck routing to and from the Site. Violators will be issued notice that a repeat offense will result in that driver not being allowed to enter the Site in the future. Violations may be reported by the public to the Site office of the General Contractor by providing the license plate number and state as well as the truck company identification.

iii. The Developer will leave the streets clean at the end of each construction day, including sweeping up any soil spread by vehicles.

iv. The Developer will wash the outside of the windows of the Surveyed Homes at least three times during the construction period, including a washing promptly after completion of construction.

v. The Developer will undertake a program of pest control to ensure additional monitoring of pest activity during the construction period.

vi. Portable latrines, if any, will be placed on the Site as far as possible, considering proper safety, sanitary and construction activity requirements, from Military Road, 42nd Place, and 43rd Street portions of the Site.

d. Work Hours. The normal construction work week will be Monday through Friday from 7:00 a.m. until 7:00 p.m., and Saturday from 8:00 a.m. until 4:00 p.m. All trucks for delivery of all materials, construction or otherwise, will arrive, depart and operate on the Site only during the foregoing hours. During certain phases of the construction, overtime hours after 7:00 p.m., but not later than 11:00 p.m. or before 7:00 a.m., except for emergency situations, will be necessary. Whenever overtime hours will be necessary, the Developer will provide notification to the Contact Person, at least 24 hours prior to implementation of the overtime hours (unless an emergency situation occurs or an unforeseen and urgent construction situation occurs, in which instance the Developer will provide notice to the Contact Person, as soon as possible, that construction work will be performed on the Site during overtime hours and describe the nature of the emergency or

unforeseen and urgent situation). Such notification shall include the proposed overtime hours, a description of the type of work to be done in those hours, and the potential impact of the work on noise, dirt and traffic in the area. In order to perform work during overtime hours, the Developer will be required to obtain an after hours construction permit from the District of Columbia. There will be no Sunday construction work permitted. (In addition, if the District of Columbia has more stringent regulations, the Developer will comply with the applicable work hour rules). In consultation with the Community Advisory Committee, the frequency of overtime work will be determined based on consideration of the beneficial effects to the neighborhood of completing construction of the project in the shortest amount of time, and the effects on the neighborhood of construction activity on the Site during overtime hours.

e. Subcontractors. The general contractor for the project will have full responsibility for all subcontractors employed by them to work on the project. They will ensure that the subcontractors follow the terms of their agreements with the Developer and comply with the policies set forth in the Construction Management Plan.

i. The Developer will not permit or tolerate off-site picnicking by workers employed by either the general contractor or subcontractors (the "Workers") on residential streets. Those Workers who bring their meals and snacks to the site will be required to eat inside the fenced Site. Those Workers who

go off-site to eat will be required to eat the meal at the premises where it is purchased or, within the fenced Site.

ii. The Developer will monitor the site daily for cleanliness and will remove picnicking trash resulting from the Workers on all public roads and adjacent property abutting the Site.

iii. In addition, Workers shall not drink alcoholic beverages either openly or from paper bags in the foregoing residential areas before, during or after work hours.

f. <u>Traffic, Parking and Loading</u>.

i. All construction related vehicular access to the Site shall be via Western Avenue.

ii. The Developer will ensure that queuing of trucks for the project will occur on the Subject Site to the extent possible. Trucks will not park in front of the residences on Military Road. When queuing on the streets is required, it will be for the minimum amount of time possible. Trucks in the queue will turn their engines off, until ready to move. To the extent possible, trucks on the Site will turn their engines off, except when powering equipment actively in use.

iii. Flagmen will be employed by the responsible subcontractors to ensure the safety of cars and pedestrians as trucks enter and leave the Site. Trucks leaving the Site will move from Western Avenue and then on to their destination, and will not use Military Road. The final routing of trucks is subject to the approval of the Department of Public Works.

iv. Parking for Workers and visitors to the sales trailers will either be provided for on the Site, or in off-street parking structures. The Developer will notify Workers on a regular basis of the parking restrictions set forth herein. During the weekend overtime periods, the Developer will require that Workers will not park in areas for which only weekday restrictions apply. The Developer will monitor compliance by Workers with the parking restrictions and, if Workers' vehicles are in violation of that restriction, the Developer will require Workers to move their vehicles. The Developer will use its best efforts to enforce these restrictions.

3. Post-Construction.

a. Damage to Surveyed Homes. The Developer agrees that, in the event that any of the Surveyed Homes sustains damage due to excavation, construction or any other activities related to this project, repairs will be arranged by the Owners and paid for by the Developer, pursuant to procedures outlined in herein. The Construction Management Plan sets forth post-construction procedures that apply to the Developer and the Surveyed Homes only, and not homeowners of other neighboring houses.

b. Post-Construction Survey. No later than thirteen months after construction is completed, (evidenced by the issuance of a Certificate of Occupancy for the Site) upon written request of any Owner, the Developer shall order, carry out and pay for a post-construction survey to be completed within four weeks of the request. The post-construction survey will determine if any damage

has occurred to the Surveyed Homes. The Developer will seek to use the same surveyor as employed for the pre-construction survey (discussed above). To determine the validity of a damage claim, in addition to a post-construction survey ordered by and paid for by the Developer, an Owner may order his/her own survey to be performed. The cost of such survey shall be borne by the Owner.

c. Dispute Resolution. Any dispute concerning the extent of construction-related damage or cost of property repair may, at the option of the Owner, be resolved by litigation or arbitration in accordance with the Rules of Procedure of the American Arbitration Association. All costs in connection with the survey, arbitration proceedings and related expenses shall be borne in the following manner: If the Plaintiff substantially prevails, the Developer shall pay all the Plaintiff's cost and expenses including reasonable attorneys fees; if the arbitrator or court determines that the Plaintiff's claims are frivolous, the Plaintiff shall pay its own costs and expenses and the arbitrator or court shall determine the portion of the Developer's attorney fees, if any, the Plaintiff will be required to pay. If the Developer prevails but the arbitrator or court does not determine that the Plaintiff's claim is frivolous, the Developer shall be responsible for their own expenses and the costs of arbitration or litigation, and the Plaintiff will be responsible for its expenses. Damages include, but are not limited to damages to the structure, its contents and loss of use (if caused by damage to the structure).

d. Post-Construction Residential Contact Person. The Developer will notify the Committee Advisory Committee and each Owner of the

name, address, and telephone number of the property manager who takes over the operation of the project. When the project is substantially completed, as evidenced by the issuance of a Certificate of Occupancy, the property manager will become the contact for all post-construction communication, not including damage claims by any Owner against the Developer.

4. Condition of PUD Approval. The Construction Management Plan shall be submitted as part of the PUD and Zoning Map Amendment application to the Zoning Commission and shall be incorporated in and become a condition of any Zoning Commission approval of the applications of the Developer.

5. Complaint Procedure; Establishment of Fines. The following complaint procedure is provided to facilitate resolution of complaints by Owners and other persons. In accordance with Paragraph 6, this claims procedure is permissive and should not preclude other legal actions by Owners or other persons.

a. Complaint Process. Any complaint by an Owner or other person of any violation of the Construction Management Plan is to be made in accordance with the following:

i. Initial complaint of a violation shall be made to the Developer Representative for resolution.

ii. If the problem is not resolved within 14 days from the date of complaint, or a second violation of the same event or of a similar nature occurs within ninety (90) days of the initial complaint, then the complaint shall be presented for resolution to the Liaison Committee, which is comprised of four

members: one representing the Developer, one representing Shalom Baranes Associates (the "Architect"), and two representing the Community Advisory Committee. A resolution of the Liaison Committee requires unanimous consent. A Liaison Committee Advisor (the "LCA") shall be chosen by the Developer from a list of at least three (3) candidates provided by the Community Advisory Committee. The role of the LCA is to advise the Liaison Committee and to provide a final determination on whether or not a violation of the Construction Agreement occurred, pursuant to paragraph 7.b.

b. Liaison Committee; Liaison Committee Advisor Authority. If the problem is not resolved by the above procedure within 14 days from the date of the Liaison Committee meeting or a third or subsequent violation of a similar nature occurs within ninety (90) days of the initial complaint, the Liaison Committee and the LCA shall meet to discuss whether the alleged violation(s) occurred or the degree of the violation. If resolution still cannot be reached within 14 days of the Liaison Committee and the LCA meeting to discuss the violation, the LCA shall determine whether a violation or violations of the Construction Management Plan have occurred. Any determination that one or more violations have occurred shall further include a determination as to whether the violation(s) are major or minor, as defined in the schedule of fines attached hereto and incorporated herein as Exhibit A. The Developer shall then pay the appropriate fine amount. The term "fine" is meant to be money paid not as a penalty, but as liquidated damages. The fines are not a penalty, it being agreed by

the Developer and the Advisory Committee that the exact amount of damages is impractical or impossible to ascertain, and the established amounts are reasonable estimates of the damages that the Advisory Committee and its members will incur as a result of such violations. The fines shall be paid by check delivered to the Contact Person within thirty (30) days of the Liaison Committee or the LCA's giving notice of the violation(s) and amount of fine(s) to the escrow account designee (as described in Paragraph 5c), and the Developer. Such check shall be made payable to an organization to be determined in the name of the Community Advisory Committee. Any determination by the Liaison Committee or the LCA shall be binding on all parties. Failure of the Developer to pay such fines within the thirty-day (30-day) time period will cause the amount of fines to double.

c. Escrow Account. The Developer shall establish an escrow account in the amount of $5,000.00 and shall at all times maintain that balance, replenishing the account immediately when any draw on the account reduces the balance below $5,000.00. The payment of any fines, pursuant to Paragraph 5b, shall be made from this escrow account. The escrow account shall be held by a mutually agreed upon designee. The fines shall be paid by the escrow account designee to an organization to be determined within thirty (30) days of receiving written notification of the decision of the Liaison Committee and/or LCA.

6. Remedies. The Construction Management Plan does not limit any common law or statutory rights or remedies available to any Owner or person

relating to damages sustained to person or property attributable to activities of the Developer. The Construction Management Plan does provide additional rights.

Exhibit A
Schedule of Fines

	Infractions	Fines
A.	Failure to Provide Property Owners with Preconstruction Survey	$10,000
B.	Major Infractions	$1,000/perviolation as Determined by the LCA

These would be actions which adversely impact the area surrounding the Property and include a pattern of continued violations of the conditions contained in the Construction Agreement. Such violations would include frequent violations of the permitted construction activity periods, and/or delivery periods, and/or repeated inattention to the concerns of the liaison committee.

C.	Minor Infractions	$100-$250

These would be actions that adversely impact the neighborhood but are deemed to be minor by the liaison committee and the Liaison Committee Advisor. These actions include non recurrent time period and/or delivery period violations, and an isolated instance of failure to respond to the Advisory Committee or neighborhood concerns in a timely manner.