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

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March 25, 2003

CHRISTINE MOSELEY SHIKER
202-457-7167

Internet Address: cmshiker@hklaw.com

VIA HAND DELIVERY
Members of the Board of Zoning Adjustment
District of Columbia Office of Zoning
441 4th Street, N.W., Suite 210S
Washington, D.C. 20001

RECEIVED
D.C. OFFICE OF ZONING
2003 MAR 25 PM 3:18

Re: Board of Zoning Adjustment Case No. 17001
Victory Housing – 14th and Irving Streets, N.W.
Prehearing Submission

Dear Board Members:

On behalf of the applicant in the above-referenced case, enclosed please find twenty copies of its prehearing submission in support of the above-referenced application for special exception and variance relief.

Should you have any questions regarding this matter, please do not hesitate to contact me at (202) 457-7167.

Sincerely,

Christy Shiker

Christine Moseley Shiker

Enclosures

cc: Stephen Cochran, Office of Planning (Via Hand Delivery; w/enclosure)
Ken Laden, District Department of Transportation (Via Hand; w/enc)
Abdoulaye Bah, District Department of Transportation (Via Hand; w/enc)

BZA
Case No. 17001
Exhibit No. 23

Board of Zoning Adjustment
District of Columbia
CASE NO. 17001
EXHIBIT NO. 23A1

BEFORE THE BOARD
OF ZONING ADJUSTMENT
FOR THE DISTRICT OF COLUMBIA

APPLICATION OF	**BZA APPLICATION NO. 17001**
RLA REVITALIZATION CORP.	**HEARING DATE: APRIL 8, 2003**
AND VICTORY HOUSING	**ANC 1A**

STATEMENT OF THE APPLICANT

I.
NATURE OF RELIEF SOUGHT

This statement is submitted on behalf of RLA Revitalization Corporation, the owner of property located near the intersection of Irving and 14th Streets, N.W. (Square 2848, all or potions of Lots 71, 867, and 824) (the "Site"), and Victory Housing, the contract purchaser of the Site, (collectively, the "Applicant") in support of the application to the Board of Zoning Adjustment for the following variance and special exception relief from the requirements of the Zoning Regulations pursuant to 11 DCMR §§ 3103.2 and 3104.1: (i) variances from the parking requirements in Section 2101, 2115 and 2117; (ii) a variance from the loading requirements of Section 2201; (iii) a special exception for a zone boundary district boundary crossing a lot as provided for in Section 2514.2; and (iv) a special exception from the roof structure requirements of Section 411. The relief is requested in order to permit the construction of a seventy-five unit apartment house for low-income, elderly residents.

II.
JURISDICTION OF THE BOARD

The Board of Zoning Adjustment (the "Board") has jurisdiction to grant the variance and special exception relief requested herein pursuant to Sections 3103, and 3104 of the District of Columbia Municipal Regulations (the "Zoning Regulations"). 11 DCMR §§ 3103 and 3104.

III.
BACKGROUND

A. Description of the Site and Surrounding Area

The Site is located on the north side of Irving Street, N.W., just east of 14th Street, N.W., adjacent to the entrance to the Columbia Heights Metrorail Station, and consists of all or portions of Lots 71, 867, and 824 in Square 2848. Square 2848 is bounded by Irving Street to the south, 14th Street to the west, Kenyon Street to the north, and 13th Street to east. The Site is in the southwest corner of Square 2848 and is part of the RLA Revitalization Corporation's property known as Parcel 15. The remainder of Parcel 15 is being developed by Donatelli & Klein with retail and residential uses. The Site is currently vacant and is zoned C-3-A/R-4.

The Site is located in the heart of the redeveloping Columbia Heights neighborhood. The area contains a number of properties currently in the process of redevelopment, with emphasis on the development of residential and retail uses. The RLA Revitalization Corporation is the owner of a significant number of these properties and is in the process of selling these parcels for redevelopment to developers whose projects have been selected and approved after an RFP process, which included input from local community groups.

B. Project Description

The Applicant proposes to construct an apartment house for low-income, elderly residents with approximately seventy-five units (the "Project"). The Project will have a height of sixty-five feet and an FAR of 3.18. The Project includes approximately 9,182 square feet of residential recreation space (an amount equal to at least fifteen percent of the area devoted to residential gross floor area), broken down as follows: 1,485 square feet devoted to an exterior courtyard; 3,368 square feet devoted to an exterior landscaped area at the front of the Project; and 4,329 square feet devoted to interior recreation space on the first level, including community and activity rooms. The Project provides nine parking spaces on the ground level as well as a service delivery space. The Applicant intends to share a loading berth and platform to be provided on the adjacent Donatelli & Klein development, as permitted by Section 2203.4 of the Zoning Regulations.

IV.
THE APPLICANT MEETS THE BURDEN OF PROOF FOR VARIANCES

A. Standards for Granting Area Variances

Under D.C. Code §6-641.07(g)(3) and 11 DCMR 3103.2, the Board is authorized to grant an area variance where it finds that three conditions exist:

(1) the property is unique because of its size, shape or topography or other extraordinary or exceptional situation or condition;

(2) the owner would encounter practical difficulties if the zoning regulations were strictly applied; and

(3) the variance would not cause substantial detriment to the public good and would not substantially impair the intent, purpose and

integrity of the zone plan as embodied in the Zoning Regulations and Map

See French v. District of Columbia Board of Zoning Adjustment, 658 A.2d 1023, 1035 (D.C. 1995) (*quoting Roumel v. District of Columbia Board of Zoning Adjustment*, 417 A.2d 405, 408 (D.C. 1980)); *see also, Capitol Hill Restoration Society, Inc. v. District of Columbia Board of Zoning Adjustment*, 534 A.2d 939 (D.C. 1987). As discussed below, the Project and the variances requested for the same meet all three prongs of this test.

B. Variance Relief from Parking and Screening Requirement

1. Basis for Variance

The Site has several exceptional and extraordinary conditions that create a practical difficulty in developing this Project within the confines of the parking requirements set forth in Section 2101, 2115 and 2117 of the Zoning Regulations. Section 2101.1 of the Zoning Regulations requires that parking be provided for a publicly assisted apartment house serving the elderly in an amount of one parking space per six units. Based on the proposed seventy-five units, the Project requires thirteen parking spaces. The Project proposes nine parking spaces in an open area at the rear of the building, including five standard spaces and four compact spaces. The Applicant, therefore, requests a variance from Section 2101.1 to reduce the parking requirement by approximately twenty-five percent and variances from the compact car provisions set forth in 2115.2 and 2115.4.

The exceptional situations and conditions affecting this Site and creating the practical difficulty include the inability to reasonably access a below-grade parking

garage for the Project, the Site's close proximity to the Columbia Heights Metrorail Station, and the impact of the existing below-grade facilities on construction costs. This unique site and location for elderly housing has a significantly reduced parking demand from that of a facility located farther from the Metro and readily available shopping facilities, either existing or soon to be developed.

2. A Strict Application of the Zoning Regulations Would Impose a Peculiar and Exceptional Practical Difficulty on the Applicant

A strict application of the Zoning Regulations would impose a peculiar and exceptional practical difficulty based on the exceptional conditions discussed above. Specifically, the significant costs associated with below-grade excavation at this Site create an exceptional condition for this Project devoted to affordable housing for the elderly. These additional costs, which potentially reduce the number of units to be provided and possible jeopardize the viability of the Project, result in little, if any benefit. Moreover, the shape and size of the Site prevent on-site access to a below-grade parking facility. In order for such access to be provided on-site, the configuration of the Project would need to be modified, resulting in a reduction of the number of units that can be provided within the facility.

The nine surface parking spaces provided, including five standard spaces and four compact parking spaces, will sufficiently accommodate the demand for parking at this Project, which is located adjacent to the entrance to the Columbia Heights Metrorail Station. According to the traffic study prepared by O.R. George & Associates (the "Traffic Report"), the nine spaces are adequate to accommodate the parking demand associated for an apartment house for the elderly, low-income

residents. The Project generates an extremely low number of trips, due in part to the type of facility as well as the Site's location relative to public transportation facilities. According to a parking supply survey of comparable elderly housing facilities prepared by O.R. George & Associates, the average parking ratio for this type of facility is 9.5 units per space, as compared to six units per space as required by the Zoning Regulations. Applying that survey ratio, the Project only requires eight parking spaces. The traffic consultant also notes that the Site is more favorably situated with respect to public transportation as compared to the surveyed sites.

No additional above-grade or below-grade parking can be provided on-site. First, any below-grade parking with on-site access requires costly excavation which could reduce the number of units that can be provided by the Project and potentially jeopardizes the viability of the Project. Second, no additional above-grade parking can be provided. All space in the rear of the building is devoted either to parking or to the exterior residential recreation space patio. The architects have reviewed re-locating the patio to above-grade space (for example, a deck above the parking spaces); however, this relocation would have significant adverse implications. Specifically, the community room which opens onto this patio would need to be relocated to the second level. By relocating this assembly space that caters primarily to the elderly, evacuation in the event of an emergency becomes much more difficult. Furthermore, the relocation of the community room would result in the loss of up to three residential units and the loss of usable space on the first level due to the elimination of exterior access and light and air.

Furthermore, if the Applicant is required to provide parking spaces in accordance with Sections 2115.2 and 2115.4, the surface parking facility could only accommodate eight cars. Although eight spaces would satisfy the demand for parking at the Project, the provision of an additional space will further benefit the Project and the community.

3. Relief Can Be Granted Without Substantial Detriment to the Public and Without Substantially Impairing the Intent, Purpose and Integrity of the Zone Plan as Embodied in the Zoning Regulations and Map

The variances from the parking requirements can be granted without substantial detriment to the public and without substantially impairing the intent, purpose and integrity of the Zoning Regulations. First, as discussed in detail in the Traffic Report, the nine spaces provided are sufficient for the demand created by the Project. The Project's location adjacent to the entrance to the Columbia Heights Metrorail Station and in close proximity to neighborhood-serving retail permit the reduction in parking to be accomplished with no adverse impact. The Traffic Report also concludes that the use of four compact spaces, although not permitted as a matter-of-right, will not have an adverse impact on the development. According to the traffic consultant, the compact and standard sized parking spaces will adequately serve the anticipated types of vehicles.

The Project as a whole will not adversely impact the area. The Traffic Report concludes that the proposed parking will be sufficient for the anticipated demand, and the Project will not cause adverse impact on the roadway network based on the Project's expected trip generation. Thus, the development of the Site will have a

significant positive effect on the area and further the goals of the District of providing affordable housing for the elderly.

C. Variance Relief from Loading Requirements

Section 2201 of the Zoning Regulations requires that the Project include one fifty-five foot loading berth, a two hundred square foot platform and a twenty foot service-delivery space. The Project provides a twenty foot service-delivery space on-site; however, the Project does not include the required fifty-five foot loading berth and two hundred square foot platform.

The Site's small size and proposed configuration give rise to an exceptional condition. If a fifty-five foot loading berth was provided along with the required loading platform, the exterior residential recreation space and surface parking would be significantly reduced, if not eliminated. Therefore, it is practically difficulty to incorporate the loading berth on-site. The Applicant intends, however, to share a thirty foot loading berth and platform with the adjacent development, once constructed, as permitted by Section 2203.4.

Relief can be granted without substantial detriment to the public and without substantially impairing the intent, purpose and integrity of the zone plan as embodied in the Zoning Regulations and Map. According to the Traffic Report, the on-site service/delivery space should adequately satisfy all of the loading needs for the Project based on the type of residents being served by this Project and the relatively low population of residents based on the seventy-five units. Furthermore, the shared thirty foot loading berth in the adjacent development will provide additional loading facilities should they become necessary. Thus, the proposed

loading facilities are more than sufficient, and the requested relief will not have an adverse impact on the public or the zone plan.

V.
THE APPLICANT MEETS THE TEST FOR SPECIAL EXCEPTION RELIEF FOR A ZONE BOUNDARY LINE CROSSING A LOT LINE UNDER 11 DCMR § 2514.

Section 2514.2 of the Zoning Regulations provides that if approved by the Board, the regulations applicable to that portion of a lot located in a lesser restrictive use zone district that control the use, height, and bulk of structures and the use of land may be extended to that portion of the lot in a more restrictive zone provided that certain criteria are satisfied. In the present case, the vast majority of the Site is zoned C-3-A; however, the eastern-most eighteen feet of the property is zoned R-4. That portion of the Site will be devoted to an alley easement and will not include any above-grade improvements. The Applicant requests this special exception to allow vehicular use of the alley easement to access the apartment building project located in the C-3-A zone.

The criteria set forth in Section 2514.2 are satisfied as follows:

A. The extension shall be limited to that portion of the lot in the more restrictive use zone district but not exceeding thirty-five feet.

The proposed extension is approximately eighteen feet, less than the permitted thirty-five feet.

B. In authorizing the extension, the Board shall require compliance with Section 2514.1(d), which states that for computation purposes, any portion of the lot located in an R-4 District shall be deemed to be limited to a floor area ratio of 0.9 FAR.

No FAR from the R-4 portion of the Site has been used. In fact, the Project has not used all permitted FAR generated from the C-3-A portion of the Site.

C. The extension shall have no adverse effect upon the present character and future development of the neighborhood.

The extension of the C-3-A zone into the small portion of the R-4 zone will have no adverse impact on the present character and future development of the neighborhood. The adjacent development to the east is a residential development and will benefit from the additional light and air provided by the easement. This additional light and air is a benefit because a building in the R-4 District is not required to provide a side yard.

D. The Board may impose requirements pertaining to design, appearance, screening, location of structures, lighting, or any other requirement it deems necessary to protect adjacent or nearby properties.

Because there will be no above-grade improvements located within the R-4 area, there will be no adverse impact on adjacent or nearby properties.

Finally, the special exception will be in harmony with the general purpose and intent of the Zoning Regulations and Zoning Map and will not tend to affect adversely the use of neighboring properties. The Project provides an important development of new residential units for low-income, elderly residents in a growing residential area. The Project also results in the development of vacant, under-utilized property. This

Project will not adversely affect adjacent or nearby property and will serve to benefit this redeveloping area.

VI.
THE APPLICANT MEETS THE TEST FOR SPECIAL EXCEPTION RELIEF TO ALLOW ADJUSTMENTS TO THE ROOF STRUCTURE REQUIREMENTS UNDER 11 DCMR § 411.

A. Standard for Approving Special Exception Relief

Due to the exceptional conditions of the Site, the Project cannot comply with the setback requirements relating to roof structures set forth in Sections 411.2 and 770.6(b) of the Zoning Regulations. Thus, the Applicant requests special exception relief to deviate from the strict compliance of those requirements as permitted under Sections 411.11 and 3104.1 of the Zoning Regulations.

Relief granted through a special exception is presumed appropriate, reasonable and compatible with other uses in the same zoning classification, provided the specific regulatory requirements for the relief requested are met. In reviewing an application for special exception relief, "[t]he Board's discretion ... is limited to a determination of whether the exception sought meets the requirements of the regulations." *First Baptist Church of Washington v. District of Columbia Board of Zoning Adjustment*, 423 A.2d 695, 701 (D.C. 1981) (*quoting Stewart v. District of Columbia Board of Zoning Adjustment*, 305 A.2d 516, 518 (D.C. 1973)). If the applicant meets its burden, the Board must ordinarily grant the application. *Id.*

B. Standard of Review for Roof Structure Special Exceptions

Under Section 411.11, the Board may grant special exception relief from the strict requirements for a roof structure where full compliance is "impracticable

because of operating difficulties, size of building lot, or other conditions relating to the building or surrounding area" and would be "unduly restrictive, prohibitively costly, or unreasonable." 11 DCMR §411.11. The Board may approve deviations from the roof structure requirements provided the intent and purpose of Chapter 400 and the Zoning Regulations are not "materially impaired by the structure, and the light and air of adjacent buildings shall not be affected adversely." *Id.*

C. Relief from Sections 411.2 and 770.6(b) to Deviate from Roof Structure Setback Requirement

The Applicant requests relief from Sections 411.2 and 770.6(b) of the Zoning Regulations for the northern face of the roof structure. That section requires roof structures to be set back in accordance with the provisions of the zone district in which the Project is located. 11 DCMR §411.2. The C-3-A District requires a roof structure to be set back from the building's walls a distance at least equal to the roof structure's height. 11 DCMR §770.6(b).

The proposed roof structure is eighteen feet, six inches in height and meets the setback on all sides with the exception of the northeast corner. At this point, the setback is approximately one foot, six inches. The insufficient setback results from the requirements of the International Building Code ("IBC") proposed to be adopted in the District in Spring, 2003. The IBC requires that all residential elevator lobbies be separated by doors from the corridor system. Due to the relatively small floor plate of the Project, this separate elevator lobby may only be located in the location proposed, resulting in an insufficient roof structure setback on the northwestern corner.

The proposed roof structure does comply, however, with the spirit and intent of the roof structure provisions and the Zoning Regulations. The purpose of the setback requirement is to ensure adequate light and air to adjacent property and abutting streets. This purpose is achieved despite the requested special exception. The building abuts Irving Street, the Columbia Heights Metrorail Station entrance, and two proposed alley easements. Based on the building's placement on the site, the roof structure is at least twenty-one feet from the adjacent development being developed by Donatelli & Klein. The roof structure is approximately ninety-four feet from the Irving Station Condominiums and 101 feet from the apartment on Kenyon Street. Thus, the location of the roof structure will not adversely impact the light and air of adjacent buildings. Accordingly, the proposed penthouse is in harmony with the purpose and intent of the Zoning Regulations and meets the test for special exception relief under Section 411.2.

VII.
COMMUNITY SUPPORT

The Applicant has worked with the community and obtained support for the Project. Specifically, Advisory Neighborhood Commission ("ANC") 1A, the ANC in which the Project is located, voted to support the Project at its meeting on March 12, 2003. In addition, ANC 1B, its boundary line being located just a few blocks from the Site, also voted to support this project at its February 6, 2003, meeting. A copy of the ANC 1B letter is attached hereto as Exhibit F. The letter from the ANC 1A will be provided to the Board as soon as it is available.

VIII.
EXHIBITS SUBMITTED IN SUPPORT OF THE APPLICATION

Exhibit A: Portion of the Sanborn Atlas showing the Site highlighted in yellow;

Exhibit B: A portion of the Zoning Map showing the Site highlighted in yellow;

Exhibit C: Surveyor's Plat of the Subject Property;

Exhibit D: Revised Architectural Plans and Drawings;

Exhibit E: Traffic Report dated March 24, 2003, from O.R. George & Associates;

Exhibit F: Letter of Support from Advisory Neighborhood Commission 1B;

Exhibit G: Letter of Support and Agreement Regarding Shared Loading Facilities from Adjacent Developer;

Exhibit H: Outline of Testimony of Representative of Victory Housing;

Exhibit I: Outline of Testimony of Representative of RLA Revitalization Corporation;

Exhibit J: Outline of Testimony of Torti Gallas and Partners – CHK, project architect;

Exhibit K: Outline of Testimony of O.R. George & Associates, Traffic Consultant; and

Exhibit L: Outline of Testimony of Steven E. Sher, Land Planner.

IX.
WITNESSES

A. Representative of Victory Housing.

B. Representative of RLA Revitalization Corporation.

C. Representative of Torti Gallas and Partners – CHK, Project Architects.

D. Representative of O.R. George & Associates, Traffic Consultant.

E. Steven E. Sher, Land Planner.

X.
CONCLUSION

For the reasons stated above, the requested relief meets the applicable standards for area variances and special exception relief under the Zoning Regulations. Accordingly, the Applicant respectfully requests the Board to grant the application.

Respectfully submitted,

HOLLAND & KNIGHT, LLP

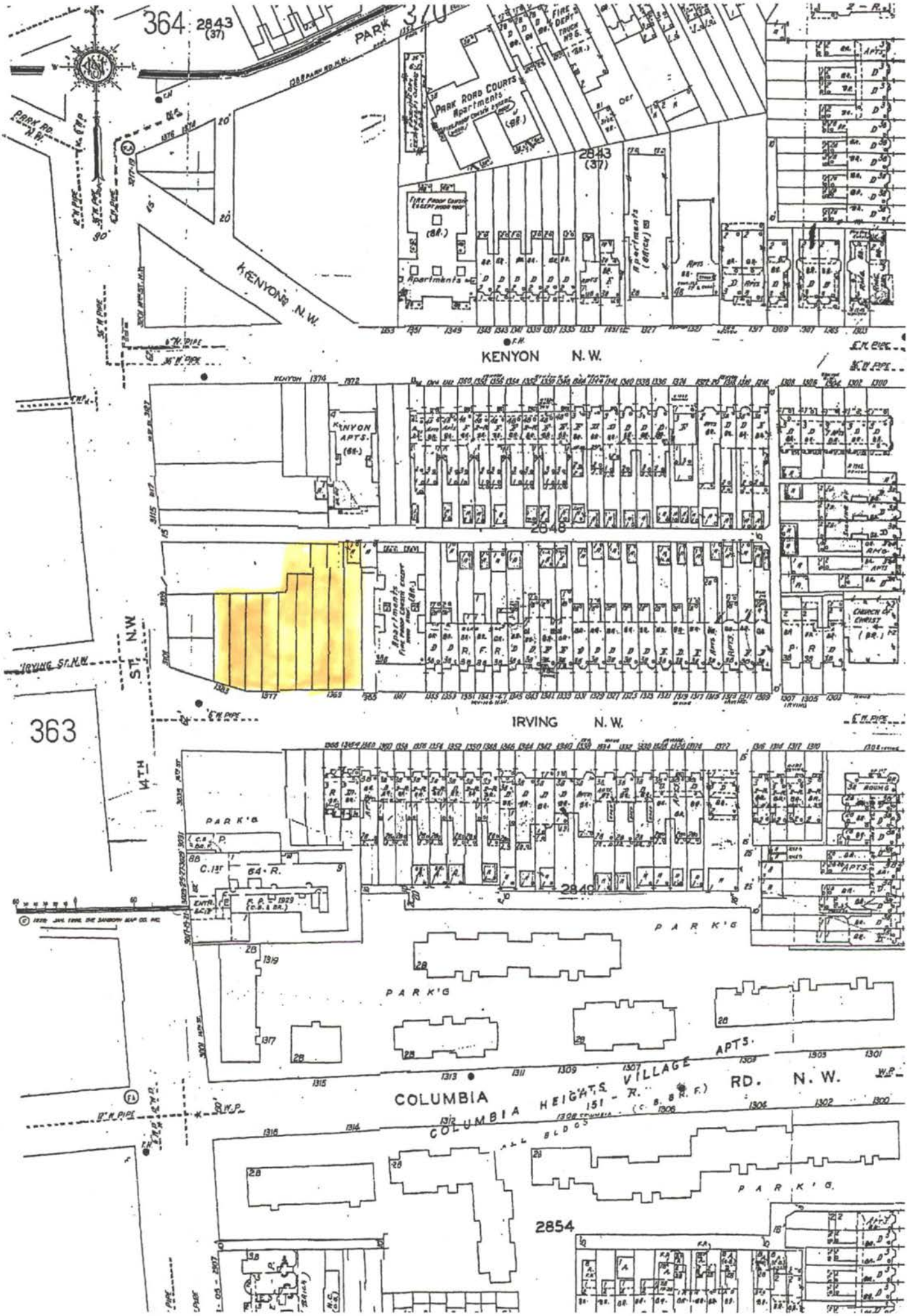
By: _____
Norman M. Glasgow, Jr., Esq.

By: _____
Christine Moseley Shiker, Esq.

2099 Pennsylvania Avenue, N.W.
Suite 100
Washington, D.C. 20006
(202) 955-3000

WAS1 #1168422 v1




364
2843
(37)
PARK
PARK ROAD COURTS Apartments
FIRE DEPT. TRUCK No. 6.
Apartments
KENYON N.W.
KENYON
KENYON APTS.
2848
IRVING ST. N.W.
IRVING
N. W.
363
14TH ST. N.W.
PARK'G
64 - R.
2840
APTS.
COLUMBIA HEIGHTS VILLAGE APTS.
COLUMBIA RD. N. W.
2854




MICHIGAN
McMillan
GEORGIA
AVENUE
SHERMAN
SPRING
R-4
C-2-A
C-2-B
R-5-D
R-5-B
R-5
C-3-A
D/R-5-B
C-M-2
I
HOBART
IRVING
COLUMBIA
HARVARD
FAIRMONT
EUCLID
CLIFTON
CHAPIN
BELMONT
FLORIDA
MERIDIAN HILL PARK
POWELL REC. CENTER
CENTRAL N. SCH & CENTER
BANNEKER REC. CENTER & JR. H. SCH
195

C

DISTRICT OF COLUMBIA GOVERNMENT
OFFICE OF THE SURVEYOR

Washington, D.C., December 18, 2002

Plat for Building Permit of SQUARE 2848 LOTS 824, 867 & 71

Scale: 1 Inch = 30 feet Recorded in A & T Book Page 81 (LOT 824); A & T Book Page 3778-U (LOT 867); Book 181 Page 10 (LOT 71)

Receipt No. 02210

Furnished to: HOLLAND & KNIGHT

Surveyor, D.C.

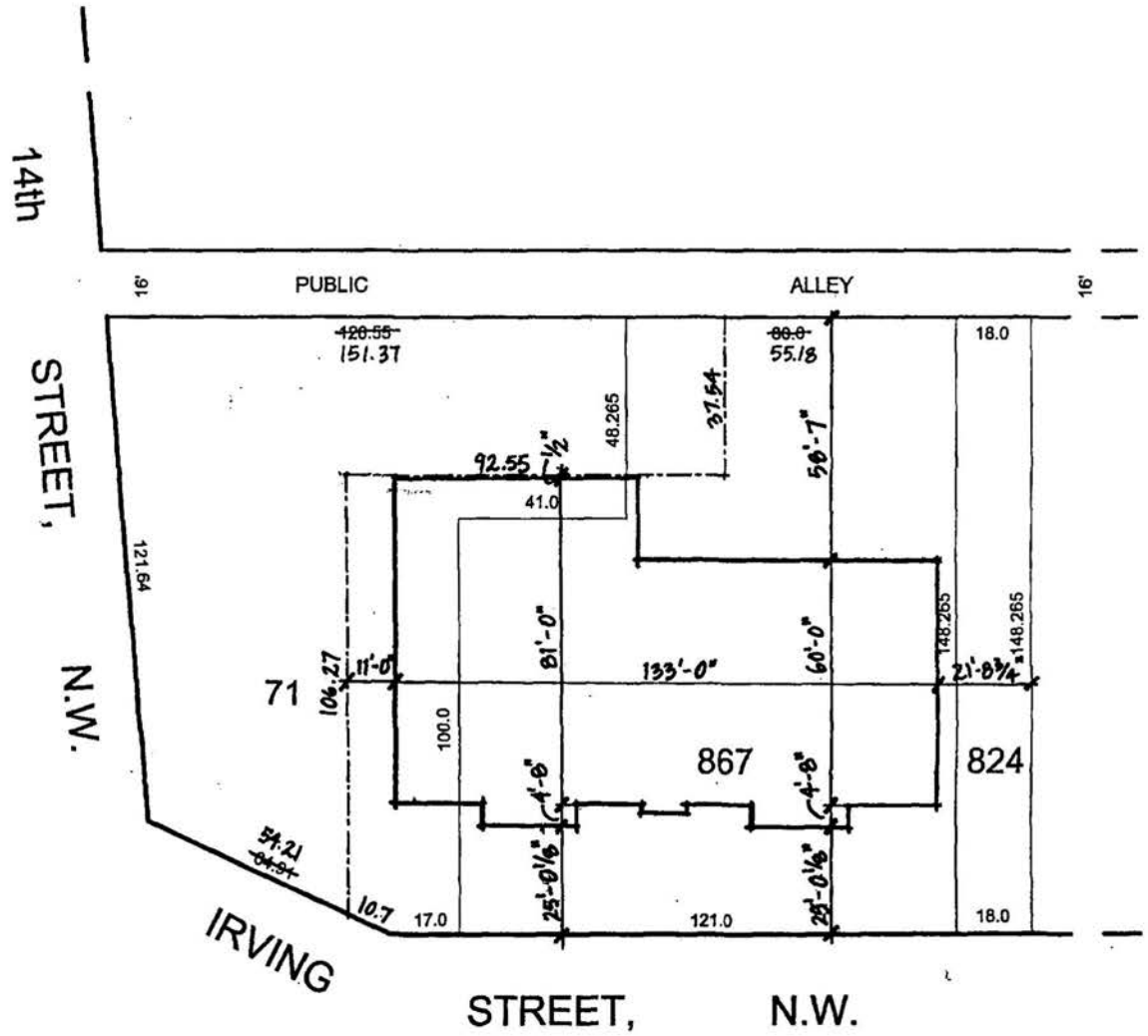
By: L.E.S.

I hereby certify that all existing improvements shown hereon, are completely dimensioned, and are correctly platted; that all proposed buildings or construction, or parts thereof, including covered porches, are correctly dimensioned and platted and agree with plans accompanying the application; that the foundation plans as shown hereon is drawn, and dimensioned accurately to the same scale as the property lines shown on this plat;and that by reason of the proposed improvements to be erected as shown hereon the size of any adjoining lot or premises is not decreased to an area less than is required by the Zoning Regulations for light and ventilation; and it is further certified and agreed that accessible parking area where required by the Zoning Regulations will be reserved in accordance with the Zoning Regulations, and that this area has been correctly drawn and dimensioned hereon. It is further agreed that the elevation of the accessible parking area with respect to the Highway Department approved curb and alley grade will not result in a rate of grade along centerline of driveway at any point on private property in excess of 20% for single-family dwellings or flats, or in excess of 12% at any point for other buildings. (The policy of the Highway Department permits a maximum driveway grade of 12% across the public parking and the private restricted property.)

Date: 1/15/03

(Signature of owner or his authorized agent)

NOTE: Data shown for Assessment and Taxation Lots or Parcels are in accordance with the records of the Department of Finance and Revenue, Assessment Administration, and do not necessarily agree with deed description.



SO-02210(2002)



VICTORY HEIGHTS

14th and Irving Streets, NW
Washington, DC 20009





SITE MAP

OWNER
VICTORY HOUSING
3626 GREENWICH LANE, SUITE 210
BETHESDA, MD., 20814-3142
PH: (301) 495-3506 FAX: (301) 495-9708
E-MAIL: bhoward@victoryhousing.org
CONTACT: BONNIE THOMSON
SIGNATURE: _____

ZONING ATTORNEY
HOLLAND & KNIGHT LLP
2099 PENNSYLVANIA AVENUE, N.W. SUITE 100
WASHINGTON, D.C. 20006-6801
PH: (202) 955-3000 FAX: (202) 955-5564
E-MAIL: aglasgow@hklaw.com
CONTACT: NORMAN M. GLASGOW, JR., ESQ.
SIGNATURE: _____

ARCHITECT
TORTI GALLAS AND PARTNERS, CHK
1300 SPRING STREET, 6th FLOOR
SILVER SPRING, MD., 20910
PH: (301) 588-4800 FAX: (301) 495-2255
E-MAIL: bbennett@torti.com
CONTACT: MAURICE WALTERS, AIA
SIGNATURE: _____

Torti Gallas and Partners

Preliminary Zoning Analysis
Victory Heights
March 21, 2003

Zoning: C-3-A, R-4 (for R24 only)

	C-3-A ZONING REG'T'S	R-4 ZONING REG'T'S	PROPOSED PROJECT
FAR:	4.0 per 11 DCMR (771.2)	N/A**	3.58
Max. Lot Occ.:	75% per 11 DCMR (771.1)	N/A**	46.5%
Site Area:	N/A, 18,408 sf (proposed subdivision)	N/A, 2,668 sf	21,076 sf total site area
Allow. Devel. Footprint:	18,408 x .75 = 13,806 sf.	N/A**	9,812 sf (footprint occurs on C-3-A lot only)
Allow. Bldg. Area:	18,408 x 4 = 73,632 sf		67,102 sf (including elev. penthouse)
Bldg. Height:	65 ft. per 11 DCMR (770.1) Stories, w/ limit	N/A**	65'-0" ht. 7 stories
Side Yard:	N/A unless provided, 2" /ft. of ht. where provided per 11 DCMR (775.5)	N/A**	65' at side x 2"/ft=10'-10" 11' provided @ east side yard 11.7' provided @ east side yard
Open Courtyard:	4"/ft. of ht. at court per 11 DCMR (776.1)	N/A**	66' at court x 4"/ft=22'-0" 94.7' wide court provided
Rear Yard:	2 ½"/ft. of ht. from grade at middle of the rear of the structure per 11 DCMR (774.1)	N/A**	65' at rear x 2 ½"/ft=-15'-0 ½" 97.4' deep rear yard provided
Reg'd. Bus. Ser. Space:	15% of building area (assembling to -ss, etc. space = (15 x 59,028 sf =8,944 sf minimum) 50% (4,472sf)open to sky	N/A**	1,681 sf (interior courtyard) 3,268 sf (R. yard) 4,225 sf (1st floor ext. sec.) 9,182 sf total 4,053 sf open to sky = 52.0%
Dwelling Units:			71 units
Parking Req'd:	1 space / 4 dwelling units Per 11 DCMR (2101.1) 71 x .167 = 13		9 spaces: 5 full size, 4 compact (Variance required)
Loading:	1 berth @ 55 ft. deep, 1 platform @ 200 s.f., and 1 service/delivery area @ 10' x 20' per 11 DCMR (2201.1)		1 service/delivery @ 10' x 20' on site (Variance required)
Penthouse:	One continuous structure (1) Setback* Less than 4' high screens wall for other enclosures.		*Will require zoning relief for setback to comply with new IBC elevator lobby requirements

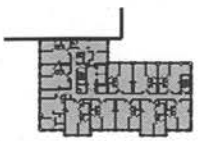
* some where zoning relief is required
** Allowable FAR is generated by C-3-A lot only; building on C-3-A lot only

3/21/03 ZONING SUBMISSION



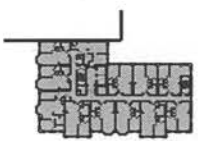
2,648 S.F.

1st Floor



9,462 S.F./FLOOR

2nd & 7th Floors



9,364 S.F./FLOOR

3rd-6th Floors

Area Contributing To Required Residential Recreation Space

59,628 S.F. Total



Residential Recreation Space

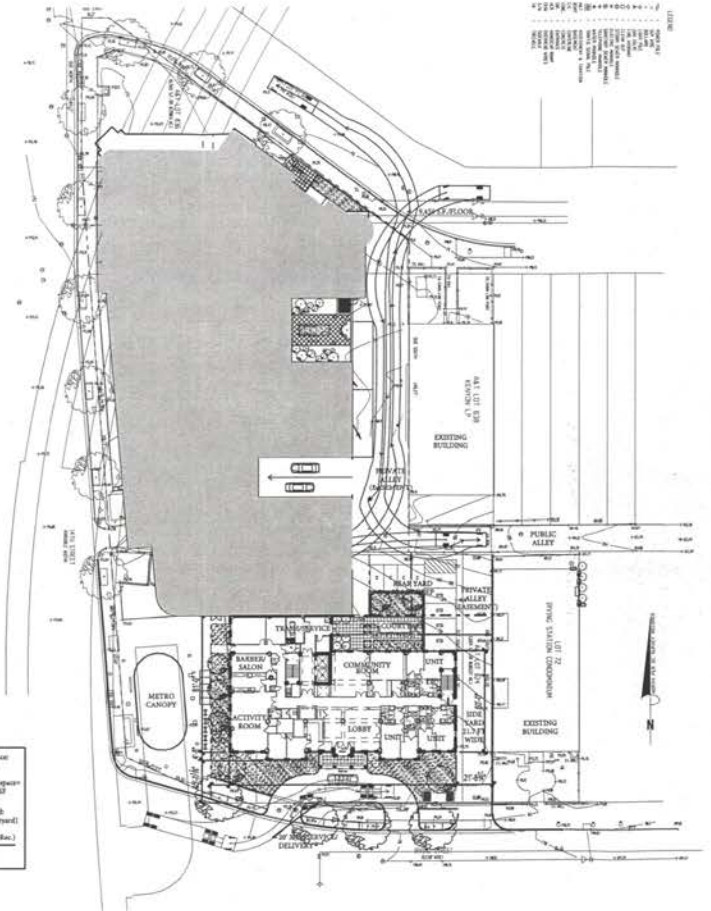
9,182 S.F. Total

Required Res. / Rec. Space:

15% of building area contributing to res. rec. space= .15 x 59,628 SF = 8,944 SF

Res. Rec. Space Provided:
1,485 SF (Exterior Courtyard)
3,368 SF (Front Yard)
4,329 SF (1st Floor Res. Rec.)

9,182 SF (Total)



Site Plan

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

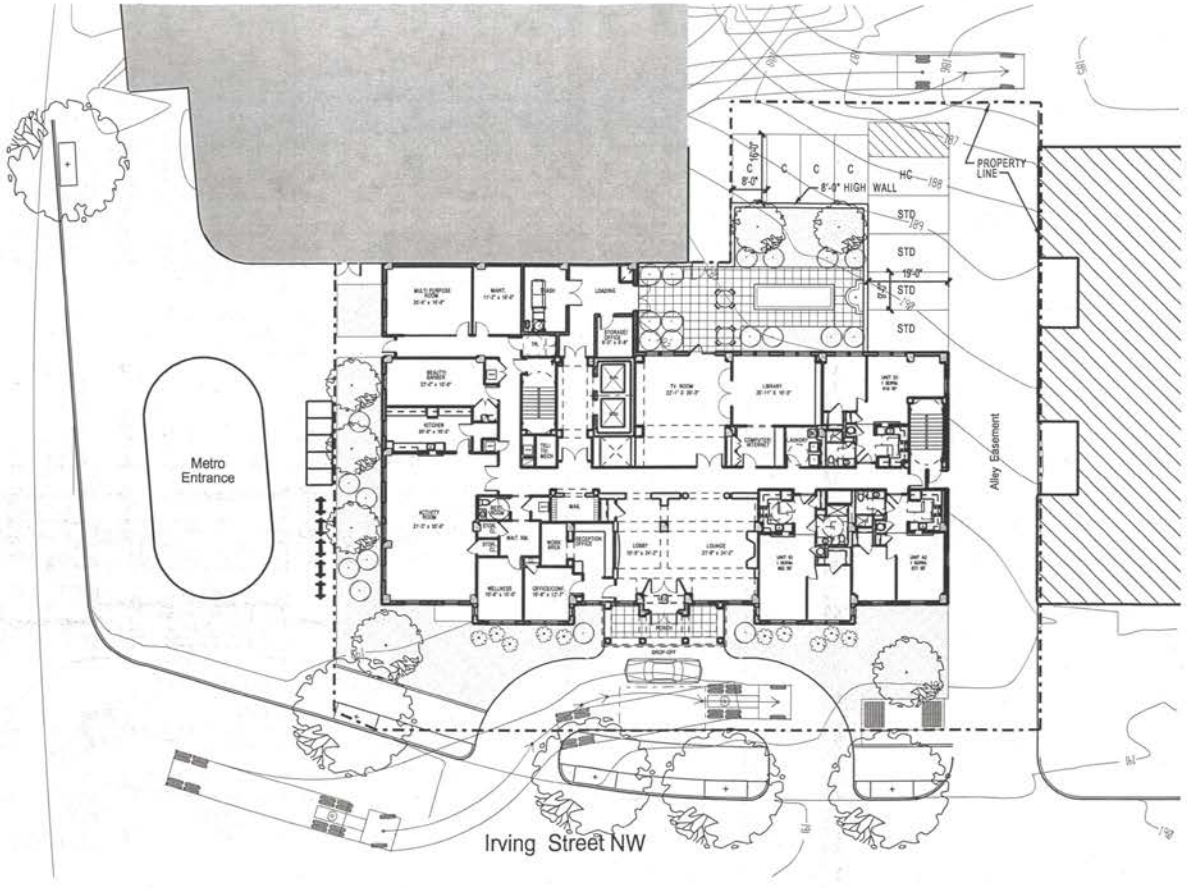
Revisions

Site Plan

A100

TORTI GALLAS AND PARTNERS / CHK

VICTORY HEIGHTS



First Floor Plan

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

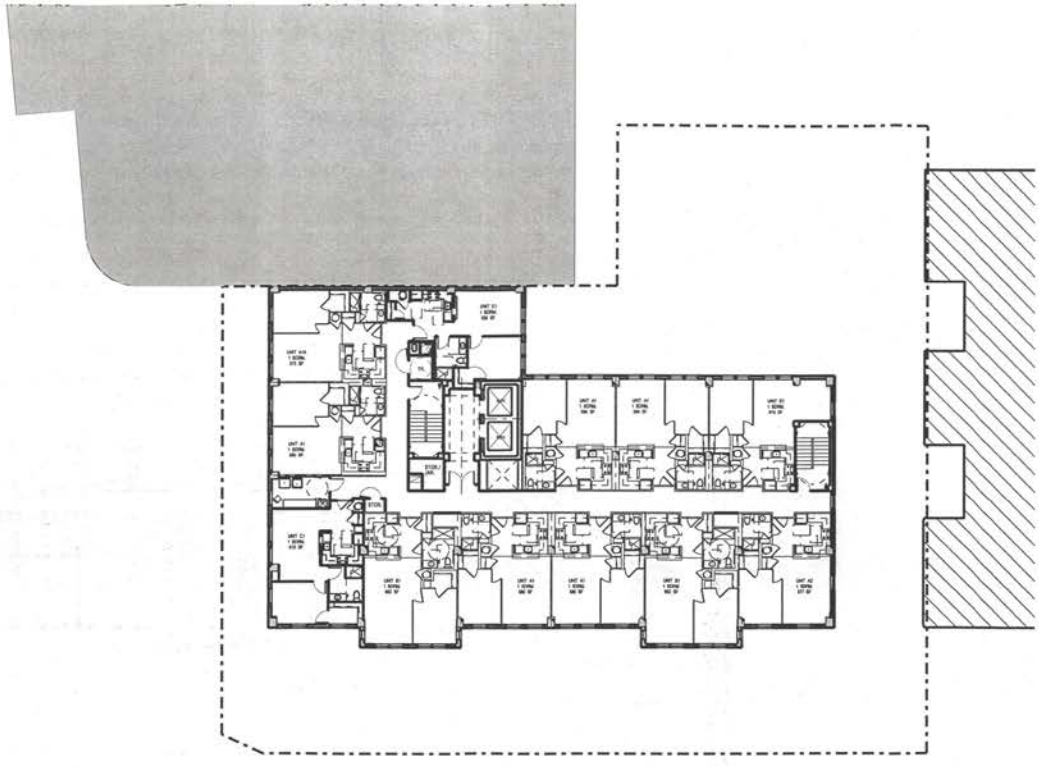
Revisions

Floor Plans

A200

TORTI GALLAS AND PARTNERS · CHK

VICTORY HEIGHTS



Second / Seventh (sim.) Floor Plan

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

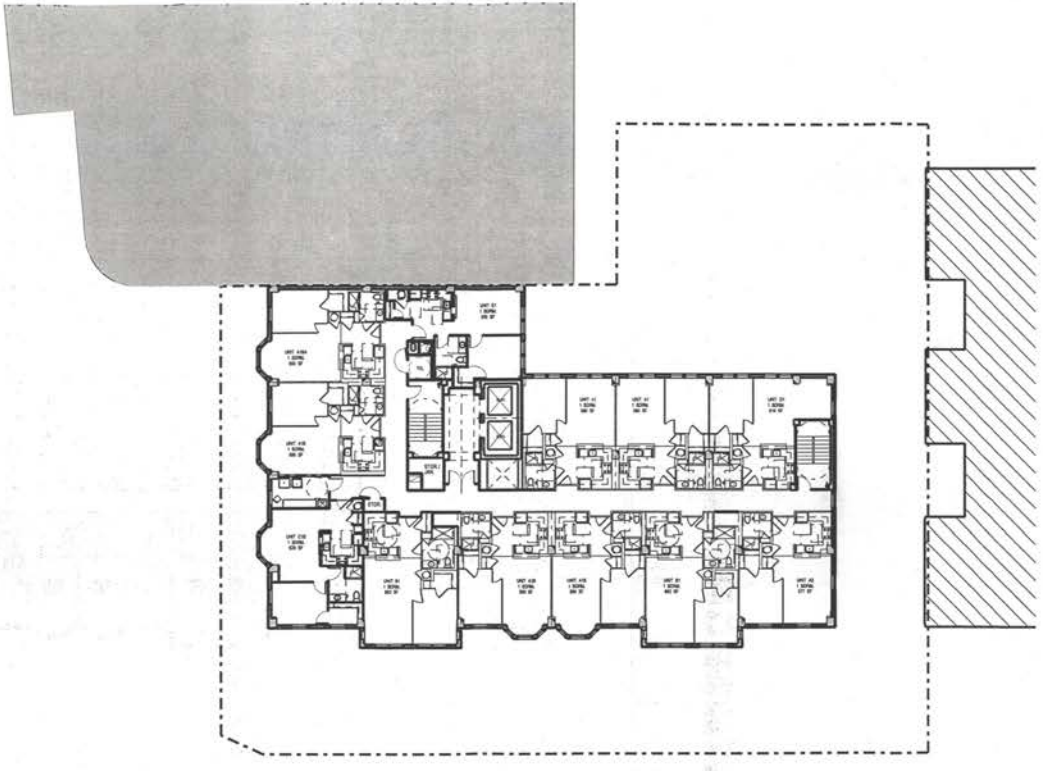
Revisions

Floor Plans

A201

VICTORY HEIGHTS

TORTI GALLAS AND PARTNERS CHK



Typical Floor Plan

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

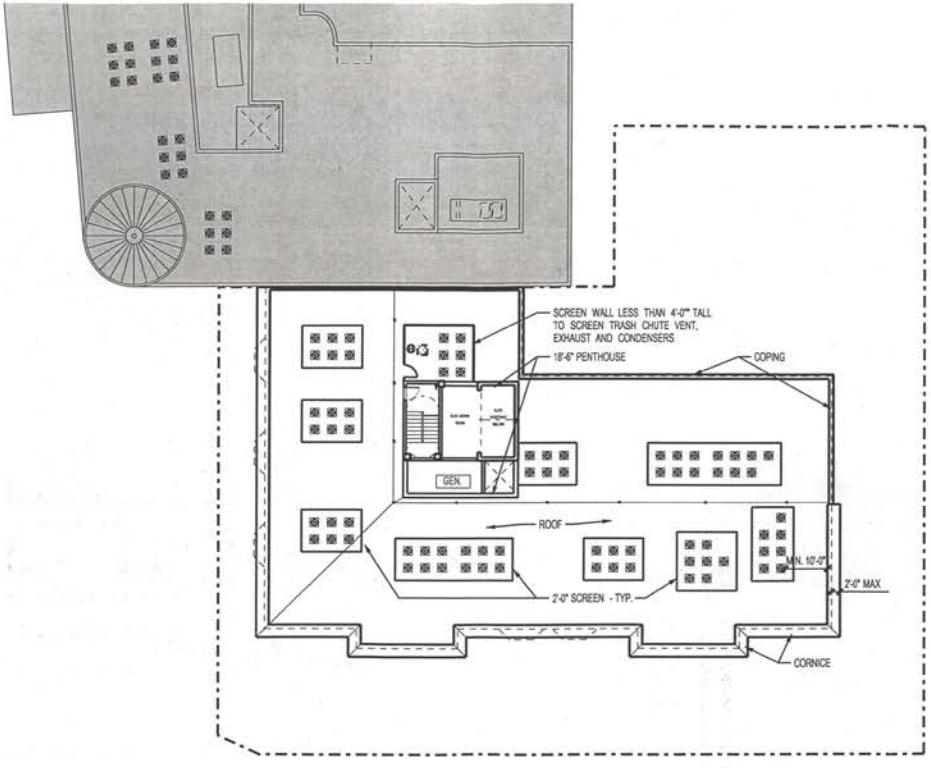
Revisions

Floor Plans

A202

VICTORY HEIGHTS

TORTI GALLAS AND PARTNERS : CHK



Roof Plan

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

Revisions

Roof Plan

A203

VICTORY HEIGHTS

TORTI GALLAS AND PARTNERS · CHK



01 BUILDING SECTION

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

Revisions

Building Sections

Drawing No. A401

VICTORY HEIGHTS

TORTI GALLAS AND PARTNERS · CHK



Irving Street (South) Elevation

Adjacent Building

Victory Heights



Alley (East) Elevation



Garden (North) Elevation



14th Street (West) Elevation

Adjacent Building

Victory Heights

3/21/03 ZONING SUBMISSION

Victory Heights

Key Plan

Revisions

Building Elevations

A501

VICTORY HEIGHTS

TORTI GALLAS AND PARTNERS · CHK



Technical Memorandum:

TRAFFIC IMPACT ASSESSMENT – BOARD OF ZONING ADJUSTMENT APPLICATION, VICTORY HEIGHTS RESIDENTIAL DEVELOPMENT, NORTHWEST, WASHINGTON, D.C.

(Application No. 17001)

Prepared for:

VICTORY HOUSING
5430 Grosvenor Lane, Suite 210
Bethesda, MD 20814-2142

- Bonnie E. Thomson, Project Developer

Land Use Counsel:

HOLLAND & KNIGHT, LLP
2099 Pennsylvania Avenue, N.W. Suite 100
Washington, DC 20006-6801

- Norman M. Glasgow, Jr., Esquire
- Christine M. Shiker, Esquire

Prepared by:

O. R. GEORGE & ASSOCIATES, INC.
10210 Greenbelt Rd, Suite 310
Lanham, Maryland 20706-2218
Tel: (301) 794-7700

March 24, 2003

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite 310 • Lanham, MD 20706-2218
Tel: (301) 794-7700 • Fax: (301) 794-4400
E-mail: orgassoc@aol.com

MEMORANDUM

DATE: March 24, 2003

TO: Bonnie E. Thompson, Project Developer
Victory Housing

FROM: Osborne R. George/Robert C. Young

RE: Traffic Impact Assessment – Board of Zoning Adjustment Application for Victory Heights Residential Development, Northwest, Washington, D.C.

INTRODUCTION

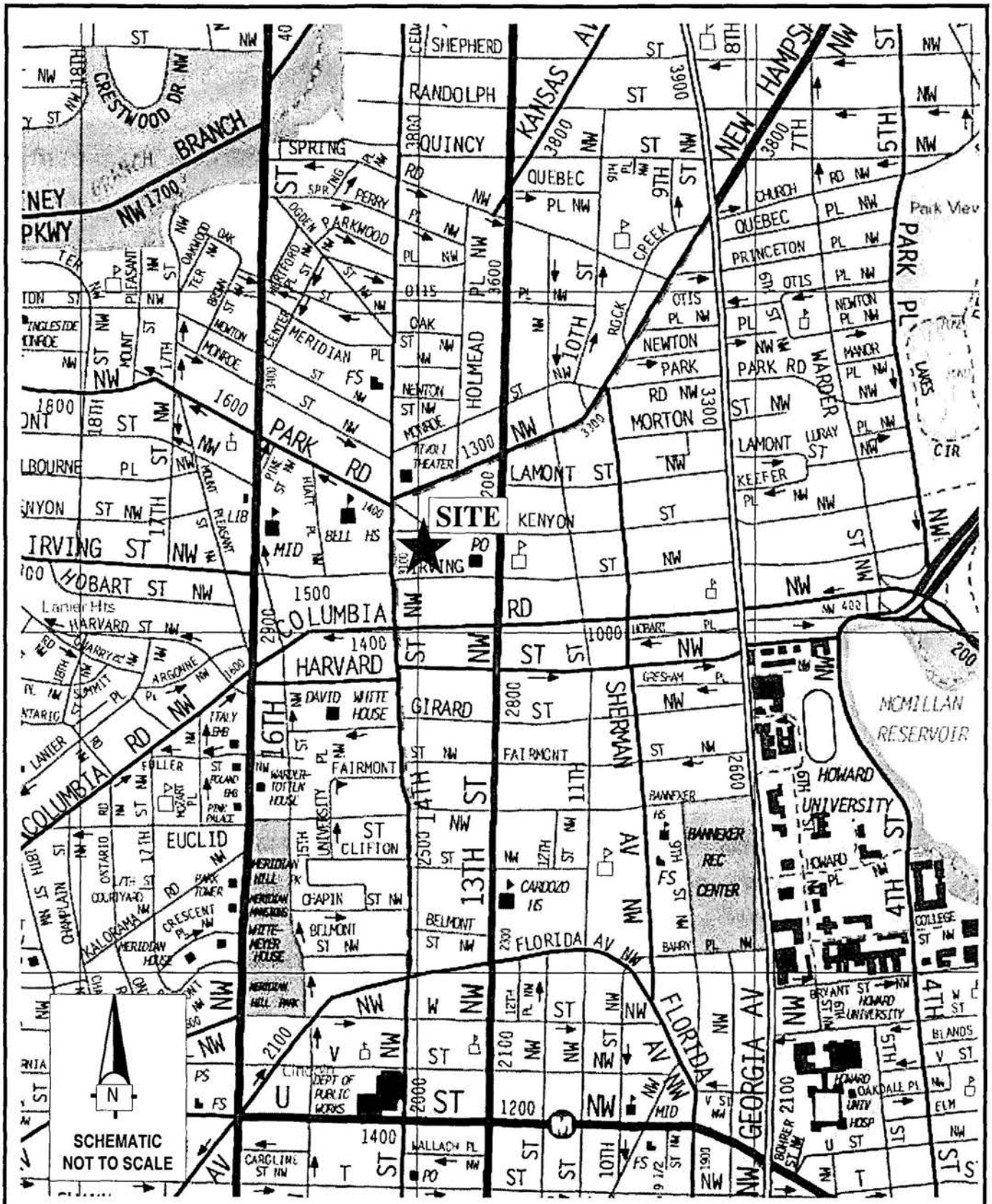
Victory Housing plans to develop Publicly Assisted housing on a site located within Square 2848 in the Columbia Heights area of Northwest, Washington, DC. The square is bounded by Thirteenth, Fourteenth, Irving, and Kenyon Streets, N.W, and the subject property is situated within the southwest corner (of the square), adjacent to the 14TH/Irving Street intersection. The subject property occupies lots 71, 867 and 824 within the Square; and the proposed development will consist of a seven-story seventy-five (75) unit residential apartment building supported by nine (9) off-street parking spaces and other site amenities. The project includes a private alley easement on the eastern portion of the property, providing access to the site and the remainder of the square. Exhibit 1 shows the location and setting of the subject site.

The proposed project is funded by the Federal Department of Housing and Urban Development, and will be designated for "Section 202" users [i.e., for tenants of very low income, no more than fifty percent (50%) of the Area Median Income]. As will be discussed later in the report, this factor has a strong bearing on vehicle ownership, trip generation and parking requirements of the proposed development, which will require certain variances and Special Exception approvals from the City. The development process requires the applicant to demonstrate that the proposed use will not have adverse or objectionable impacts on neighboring properties based on traffic and parking considerations, among other factors. This memorandum addresses this requirement.

As part of the study, discussions were held with the Policy and Planning Administration staff of the District Department of Transportation (DDOT). The study involved the following key tasks:

- Site visit and reconnaissance of the adjacent roadway network;
- Traffic counts and field observations of usage on the adjacent roadway network;
- Consideration of other developments planned for the area;
- Parking surveys and observations of comparable housing sites; and
- Analyses and general assessments of the information and perspectives gained from the above tasks, relative to the subject application.

This study concludes that the proposed development will not adversely impact traffic, access, parking, such that it will affect quality of life in the surrounding neighborhood. As such, it satisfies the stated requirements of the City's Zoning Regulations.



O. R. GEORGE & ASSOCIATES, INC. Transportation Engineers & Traffic Planners	**EXHIBIT 1:** SITE LOCATION MAP Victory Heights 14th St and Irving St, NW, Washington, DC

SITE ZONING, LOCATION AND ACCESS

The subject site is located within the northeast quadrant of the intersection of 14TH and Irving Streets, adjacent to the Washington Metropolitan Area Transit Authority (WMATA) Columbia Heights Station. The property is zoned C-3-A (*Medium Bulk Major Business and Employment Center*), with a small section on its eastern edge zoned R-4 (*Row Dwellings, Conversions, and* Apartments). The site is currently vacant. Land uses in the more general area are largely mixed, with residential (R-4) zoning dominating the area to the east along Irving Street, and commercial (C-3-A) zoning along 14th Street. The area is largely developed in accordance with the zoning categories.

The location of the subject property is well suited for high-density residential development including the elderly and low-income persons who are transit dependent. For the subject development, the elderly are defined as persons of age sixty-two (62) and above. The advantages of this location include the following:

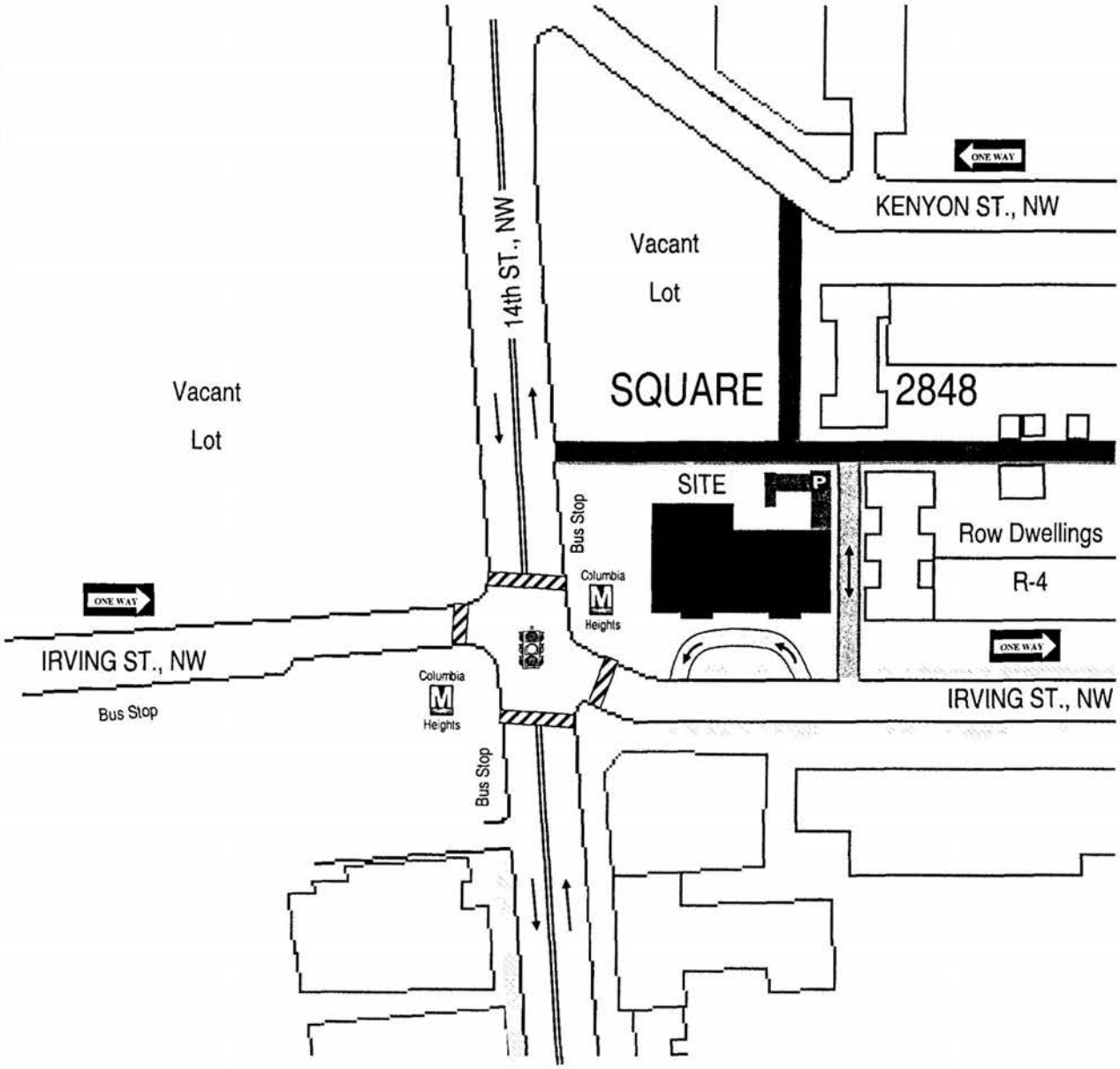
- Setting within the Columbia Heights neighborhood, in proximity to shopping, services, restaurants, churches and other institutional and community uses.
- Proximity to the WMATA Columbia Heights Metro Station on the Green Line
- Easy access to a number of Metrobus routes along both 14TH and Irving Streets, with stops conveniently located adjacent to the intersection of these two (2) roadways.

These factors indicate that vehicle trips generated by the proposed development will be extremely low, even for typical elderly housing. As discussed in later sections of the report, these trip-making characteristics also have a bearing on potential parking demand by the proposed use.

Immediate vehicular access to the site is provided from Irving Street, just east of its (signalized) intersection with 14th Street. These roadways have the following characteristics:

- **Fourteenth Street, N.W.** is designated a Minor Arterial on the City's Functional Classification map. This facility generally provides for four (4) travel lanes with parking along both sides. This roadway serves significant regional/commuter traffic, and carries approximately 20,000 vehicles per day. The posted speed limit is 25 MPH.
- **Irving Street, N.W.** is a Minor Arterial per the City's Functional Classification map. This facility is one-way eastbound with two (2) travel lanes. This roadway carries approximately 8,500 vehicles per day. Within the local area, parking is allowed east of 14TH Street. The posted speed limit is 25 MPH.

Sidewalks are provided along each street in the vicinity of the subject site, and there are high volumes of pedestrians due to the proximity of the Metro Station. Crosswalks and pedestrian signals are provided at the adjacent intersection, as well al other intersections along 14TH Street within the local area. Exhibit 2 shows the configuration of the subject intersection as well the general site layout, access situation and parking for the subject property and the proposed use.



LEGEND

- Site Parking
- On-Street Parking
- Driveway to Front Entrance
- Public Alley
- Proposed Alley Easement

N

SCHEMATIC
NOT TO SCALE

Source: Torti Gallas and Partners, Architects

O. R. GEORGE &ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 2:
PROPOSED SITE LAYOUT AND ACCESS SITUATION
Victory Heights
14th St & Irving St NW, Washington, DC

EXISTING TRAFFIC SITUATION

In order to assess the existing traffic situation, field observations were made of typical weekday traffic flow conditions within the study area during the morning and afternoon peak periods. Additionally, peak period traffic turning movement counts were conducted on two typical weekdays, during March, 2003 at the 14TH/Irving Street intersection. Based on these counts, the morning and afternoon peak hours for the study intersection were determined to be 8:00 - 9:00 AM and 5:15 - 6:15 PM.

Exhibit 3 shows the existing peak hour turning movement volumes. The count summaries are presented in Appendix A. In accordance with DDOT requirements, the peak hour volumes were analyzed using the Highway Capacity Manual (HCM) procedures for signalized intersections. The capacity analysis results are presented in Table 1 below. These results show that the adjacent intersection currently operates at quite acceptable levels of service[1] (LOS) during both morning and afternoon peak periods. Capacity analysis worksheets are also presented in Appendix B.

TABLE 1

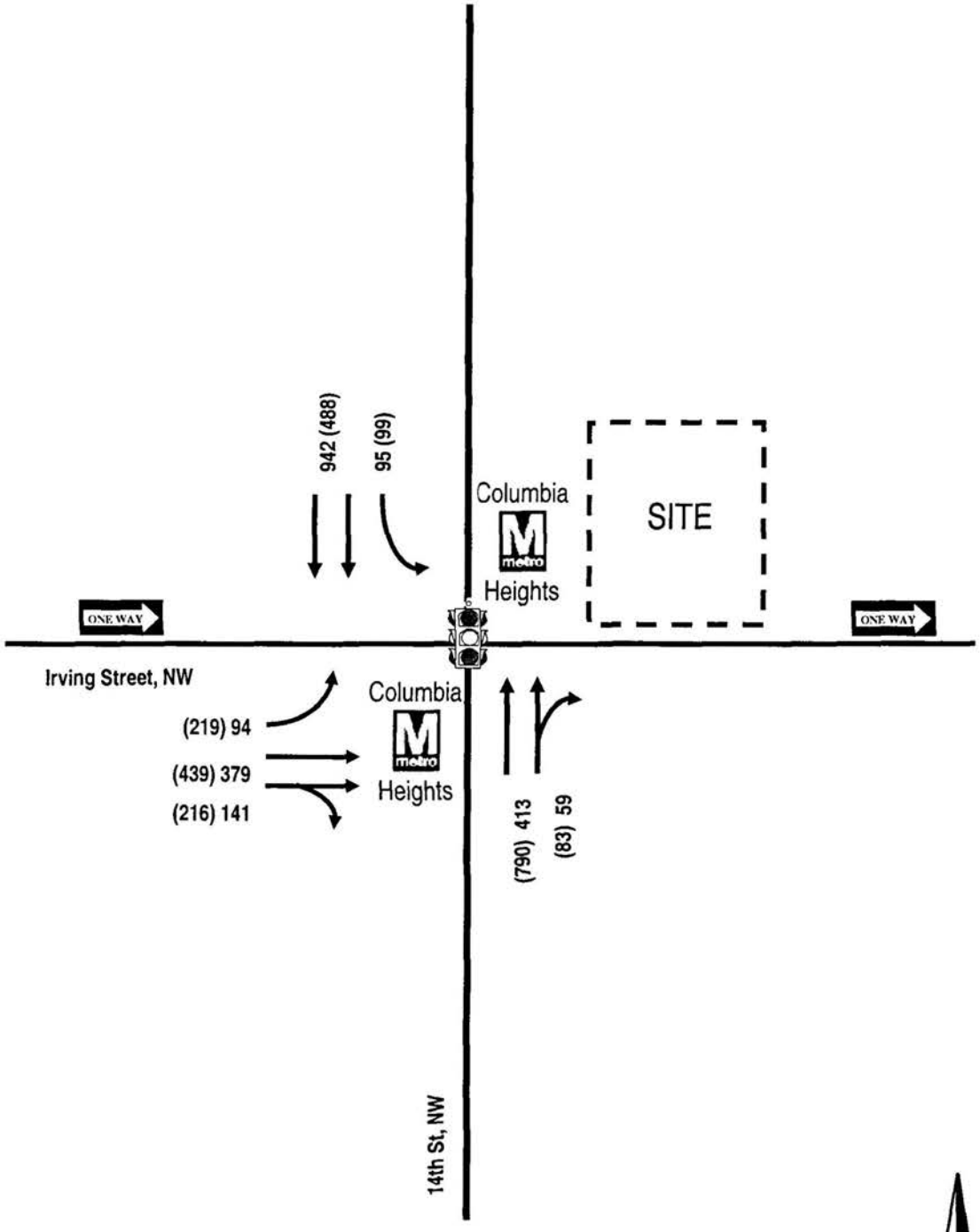
SUMMARY OF CAPACITY ANALYSIS RESULTS – EXISTING WEEKDAY PEAK HOUR TRAFFIC SITUATION*

Intersection	AM Peak Hour (8:00 – 9:00)		PM Peak Hour (5:15 – 6:15)	
	Level of Service	Average Delay	Level of Service	Average Delay
14th St. @ Irving St., N.W.	B	18.3 sec.	C	23.6 sec.

Source: O. R. George & Associates.

The computed levels of service are in keeping with field observations made during the data collection and field reconnaissance phases of the study. These observations showed no significant queuing, delays, or other situations indicating safety deficiencies for either pedestrian or vehicular traffic. Accordingly, this analysis concludes that the study area roadway network currently operates without any significant operational, capacity or safety deficiencies with respect to the City's planning standards.

[1] Level of Service is a qualitative measure describing operational conditions within a traffic stream or at an intersection, and their perception by road users. Principal considerations are factors such as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort, convenience and safety. Current engineering practice defines six (6) levels of service ranging from A to F. Level of Service A represents the best (free flow) conditions where drivers are unaffected by the presence of others in the traffic stream, and are free to change speeds and maneuver, etc., at will. Level of Service F represents the worst (forced flow) conditions where road users experience considerable delay and inconvenience. The District of Columbia has adopted Level of Service D as the minimum acceptable standard for planning purposes.



Note:

00 (00) AM PEAK (PM PEAK)

SCHEMATIC
NOT TO SCALE

O. R. GEORGE &ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 3:
EXISTING PEAK HOUR TRAFFIC VOLUMES
Victory Heights
14th St and Irving St, NW, Washington, DC

FUTURE TRAFFIC SITUATION

As noted earlier, the Applicant proposes to develop a seventy-five (75) unit rental apartment building for low-income elderly in the Columbia Heights neighborhood. In accordance with DDOT's guidelines, trip generation estimates were developed for the site using rates recommended by the Institute of Transportation Engineers (ITE) *"Trip Generation Manual"*. The ITE data is representative of sites within suburban stand-alone uses. The trip rates and projected vehicle trips are shown in Table 2 below. For comparison and perspective, a survey was conducted of two (2) low-income elderly apartments in Northwest, Washington, DC, to determine trip rates reflecting local factors. On average, these sites were found to have values comparable than those recommended by ITE. The results of the survey are presented in Appendix C. Considering the location of the development relative to numerous public transportation facilities, as well as retail and institutional activity within the area, there is the potential for further reduction in vehicle trip generation. This factor is assumed to be fifty percent (50%), and is also reflected in Table 2.

TABLE 2

Victory Heights – Projected Weekday Peak Hour Vehicle Trip Generation

	AM Peak Hour			PM Peak Hour		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates • Trips/Dwelling Unit (Per ITE)	0.05	0.02	0.07	0.06	0.04	0.10
Trip Generation • Trips/75 Dwelling Units	4	2	6	5	3	8
Adjustments for transit and other mode usage	*2*	*1*	*3*	*3*	*2*	*5*

The above table shows that the proposed development is likely to have very low impact in terms of its level of trip generation. This is to be expected considering the type of use (elderly housing). The location and the trip making characteristics are also in keeping with the City's policies regarding the desirability of Transit Oriented Development (TOD).

Review of historical Average Daily Traffic (ADT) data provided by DDOT indicates that traffic volumes on the study area roadways have remained stable or decreased marginally over the period 1996 – 2000. However, a growth factor of two percent (2%) was applied to the existing traffic volumes, unto year 2006, in keeping with DDOT general recommendations. The year 2006 "base" traffic volumes are included in the Appendix C.

The Applicant's statement notes that the subject property is located within an area that is currently undergoing considerable revitalization and redevelopment activity. This is confirmed by the *"Economic Development Map"* of the DC Office the Deputy Mayor of Planning and Economic Development, which shows that several developments are planned for the general Columbia Heights area.

Area developments include the "DC USA" project, Trinity Towers, Columbia Heights Plaza and Columbia Heights Station all situated near the intersection of 14th and Irving Streets, as well as the Tivoli Theater revitalization project north of the site. These projects involve a mix of uses, dominated by retail and entertainment, as well as community-serving and residential uses similar to the Victory Heights development. While the uses proposed for the area are quite significant in terms of land use mix and densities, they further the objectives of the City regarding Transit Oriented Development, and general economic revitalization.

Preliminary review of these development proposals show that they are generally self sufficient with respect to parking; and that some projects include proposals for mitigating roadway capacity constraints that may be created. A prime illustration of this is the DC USA project, which has identified basic pavement marking modifications that could be provided at the 16TH Street/Irving Street intersection (generally known to be one of the most "challenging" within the local area. Similar effects were identified for the intersection of 14TH Street at Kenyon Street/Park Road. That study also determined that the 14TH Street/Irving Street intersection would operate quite acceptably upon build out of that DC USA development. It is also expected that the City would make some needed investments in transportation infrastructure, in order support the on-going revitalization of the area.

Based upon the level of vehicle trip generation shown in Table 2, the Victory Heights development will have no appreciable impact on the local transportation system. Accordingly, the above information was presented only as background and for perspective to the application. However, in order to provide some quantitative basis to this analysis (particularly for DDOT's review purposes) this assessment considered the growth factors applied to existing trips, and the site trip generation, which was assigned to the study area as shown in Exhibits 4 and 5. The resulting total intersection turning movement volumes were analyzed using the same procedures as for the existing traffic situation. Table 3 presents these capacity analysis results for the total traffic situation, and the capacity analysis worksheets are presented in Appendix D.

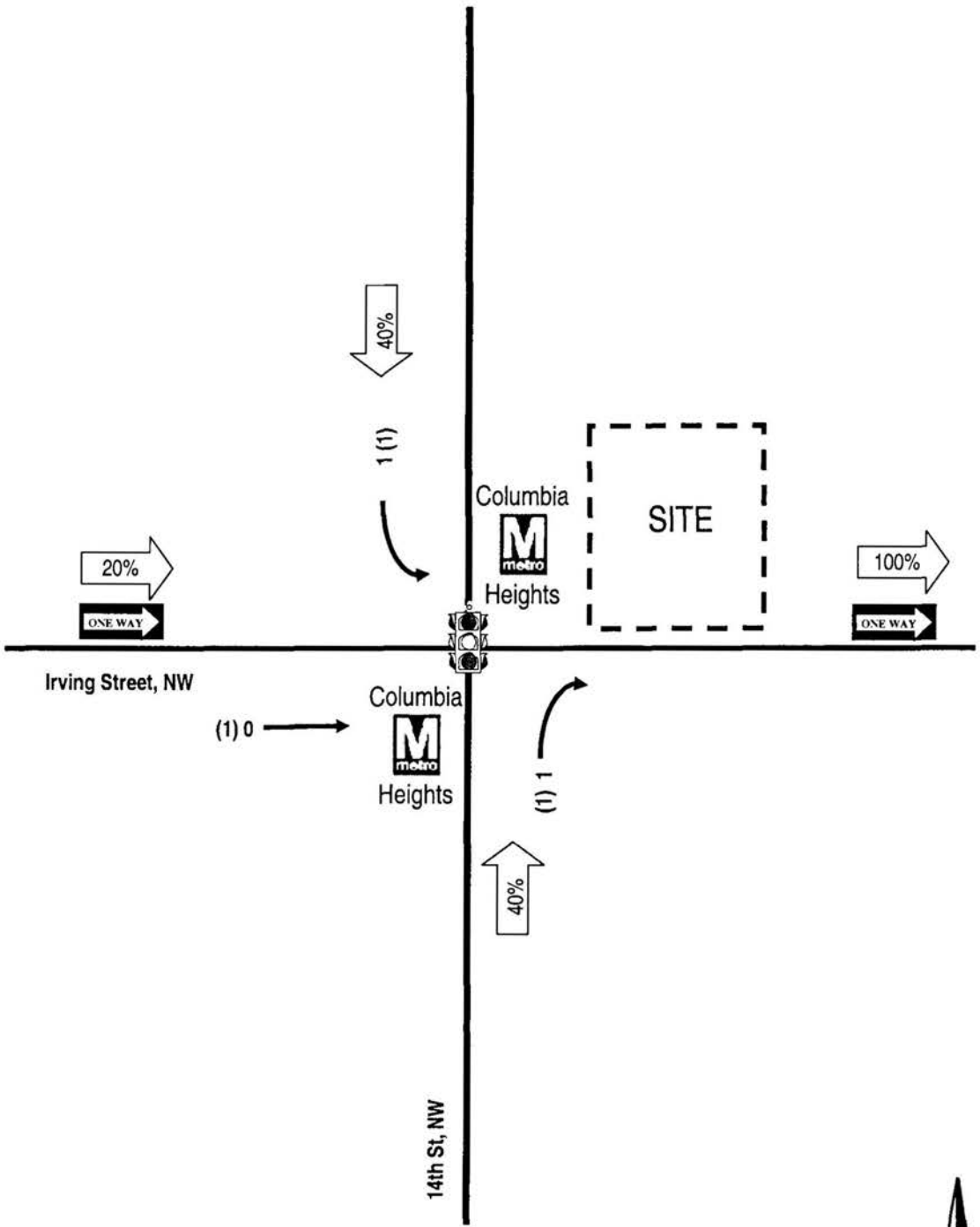
TABLE 3

SUMMARY OF CAPACITY ANALYSIS RESULTS – TOTAL 2006 TRAFFIC SITUATION*

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Average Delay	Level of Service	Average Delay
19th St. @ Irving St., N.W.	B	18.9 sec	C	25.1 sec

Source: O. R. George & Associates.

The traffic impact of the subject development can readily be seen by comparing Table 1 (Existing Traffic Situation) on page 5 with Table 3 (Total Projected 2006 Traffic Situation) above. The comparison shows that delays experienced at the subject intersection will remain substantially the same as currently; and the intersection will continue to operate well within the standards stipulated by the DDOT.



LEGEND

100% Traffic Distribution (Direction and Percentage)

Red - Inbound Traffic

Blue - Outbound Traffic

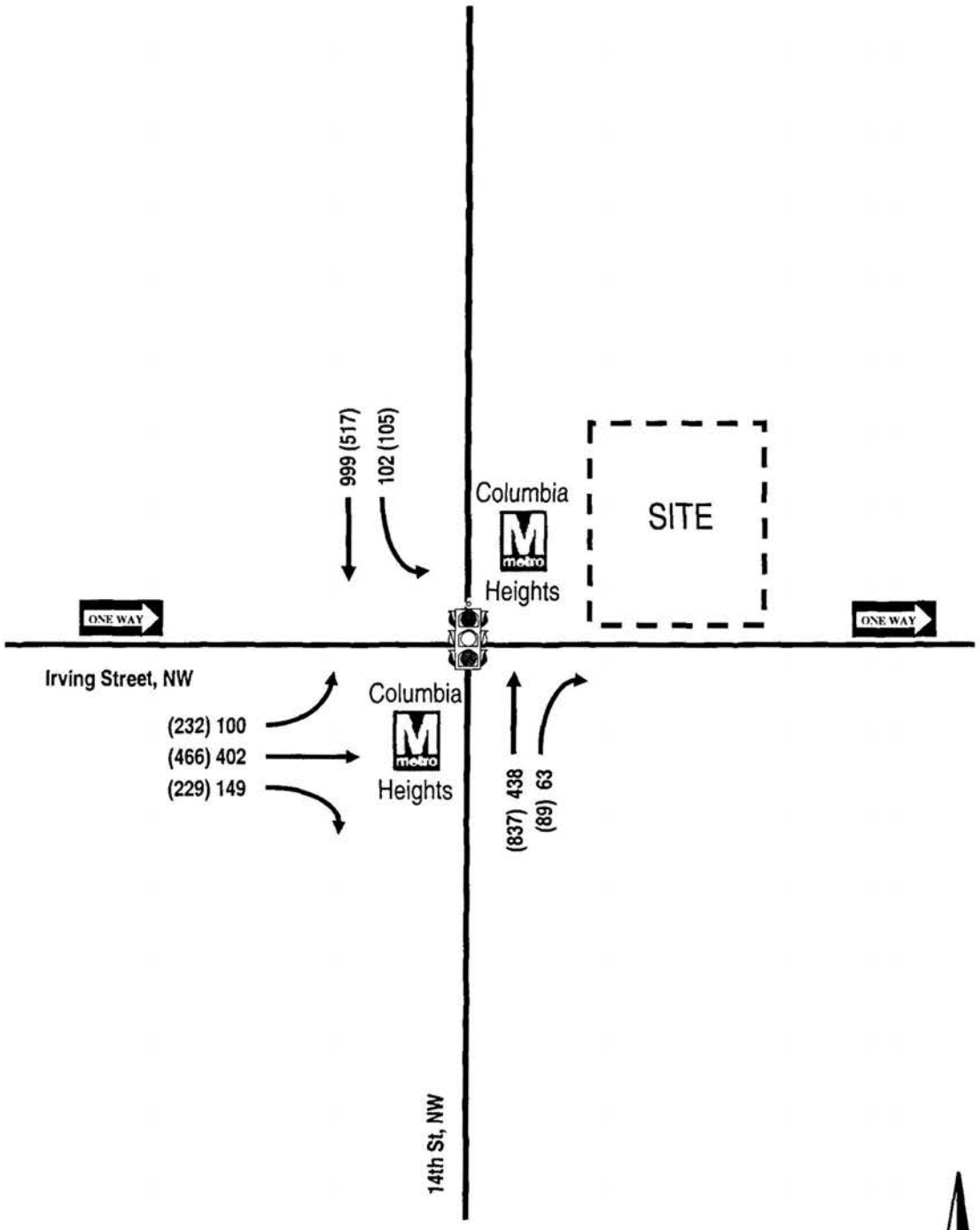
00 (00) AM PEAK (PM PEAK)

N

SCHEMATIC
NOT TO SCALE

O. R. GEORGE &ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 4:
PROJECTED TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT
Victory Heights
14th St and Irving St, NW, Washington, DC



Note:

00 (00) AM PEAK (PM PEAK)

SCHEMATIC
NOT TO SCALE

O. R. GEORGE &ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 5:
YEAR 2006 TOTAL PEAK HOUR TRAFFIC VOLUMES
Victory Heights
14th St and Irving St, NW, Washington, DC

SITE ACCESS, PARKING AND LOADING EVALUATION

The proposed site plan calls for two (2) points of vehicular access from Irving Street to the facility. This access is illustrated in Exhibit 2 on page 4. One access point is via a circular driveway that runs in front of the building in a counter-clockwise manner. The counter-clockwise flow allows for the appropriate drop-off and pick-up arrangement, considering the safety of users. This driveway will also provide access to a 10' x 20' service/loading space. The second point of access is provided through the proposed alley easement on the eastern border of the property. This approximately twenty (20) foot wide alley will run from Irving Street to the rear of the building, where it will intersect with an existing fifteen (15) foot alley, which runs east-west through the square. This alley easement will provide access to nine (9) off-street parking spaces in a surface lot to the rear of the building. The current concept for the site-parking layout is illustrated in Appendix E.

Section 2101.1 of the DC Zoning Regulations requires a parking supply of one (1) space per six (6) units for elderly housing. This would compute to a requirement of thirteen (13) spaces for the proposed use. The current application requests a variance to allow for a reduction of twenty-five percent (25%) similar to the allowance provided for in Section 2401.1 of the Zoning Regulations. The Applicant's request notes the practical difficulties of the site, and considers the fact that the site is located within fifty (50) feet of the Columbia Heights Metrorail Station, as well as to a number of bus routes along the adjacent streets. With this adjustment, a parking supply of nine (9) spaces would be required and is provided for in the site plan.

The extremely low level of trip generation documented earlier in this memorandum, as well as the favorable location of the site relative to public transportation facilities, points to a low level of parking demand. In order to further support this assumption, surveys were performed of two (2) existing elderly housing developments located in Northwest Washington, DC. The results of this survey are presented in Table 4 below.

TABLE 4

PARKING SUPPLY SURVEY FOR ELDERLY HOUSING DEVELOPMENTS IN NORTHWEST WASHINGTON, D.C.

Development Name and Location	Number of Units	Parking Supply (spaces)	Parking Ratio (units/space)	Proximity to Metro
Friendship Terrace • 4201 Butterworth Pl, NW	120	20	9.5	Yes. Two Blocks away
Colony House • 930 Farragut Street, NW	58	6	9.67	No

This survey shows average parking ratios in excess of 9.5 units per space as compared to six (6) units per space as required for the subject site. Applying the above ratios to the proposed subject site would indicate a requirement of only eight (8) parking spaces whereas the current design proposes nine (9). It is also important to note that the subject site is more favorably situated with respect to public transportation than the two (2) sites referred to above.

Surveys of the sites also showed less than full usage (with a maximum of about 70%) during the period of the surveys. It is also relevant to note that the proposed use is not intended for use as a "Congregate Care" facility, which typically attracts heavy parking demands during weekend visitation periods. While some such activity will occur, it is noted that a significant percentage of such visitors can reasonably be expected to use transit and ridesharing.

ITE and the American Association of Highway and Transportation Officials (AASHTO) publication have pointed the increase in smaller size vehicles within the general "population". While it is known that the larger Sport Utility Vehicle are a growing phenomenon, the age group and economic class of the future residents of Victory Heights do not point to this type of vehicle being an "issue" at this community. Surveys of typical vehicle sizes (i.e., standard vs. compact) at comparable housing sites are in progress, and relevant data will be available by the hearing date.

With respect to loading facilities, the zoning regulation requires that the following be provided:

- One 12'x55' loading birth;
- One 200 square foot loading platform; and
- One 10' x 20' service delivery space.

The application requests zoning relief under which the first two (2) elements of the loading requirements would be provided through a shared arrangement with an adjacent property by covenant, as well as under a temporary variance. As noted earlier, the 10'x20' service delivery space is provided as illustrated in the site plan.

The applicant's statement notes that the apartment unit sizes will range from 560 to 660 Sq. Ft. with the average being around 600 Sq. Ft. Practical considerations would indicate that use of tractor-trailer type vehicles for servicing apartments of this size would be extremely rare, if used at all. Servicing of such units would more typically require use of vans or light trucks. The Applicant also proposes to also share a 10' x 30' loading space under a covenanted arrangement with an adjacent residential development. This study finds that provision of a 55 Ft. long loading berth and platform is not necessary for the typical use of the building as proposed. Furthermore, providing excessive paved driveway space (that would typically not be used for the intended purpose) may have undesirable consequences as far as traffic usage.

SUMMARY AND CONCLUSION

The foregoing data, discussion and analysis have shown that development of the Victory Heights apartment complex as currently proposed would have no appreciable adverse impacts on the operational efficiency or safety of the study area roadways. More specifically, the analysis has determined the following:

a) Current traffic operational conditions at the adjacent intersection are quite acceptable, and are well within the City's standards.
b) The proposed development is favorably situated relative to public transportation facilities as well as retail and institutional facilities.
c) The development will generate very low vehicular traffic volumes during weekday morning and afternoon peak hours.
d) Analysis of the future total traffic situation shows very little change compared with the existing situation.
e) The proposed parking, loading and access elements of the site development plan should quite adequately meet the needs of the subject site based on practical considerations and the trip making characteristics of the facility.

This study concludes that development of the subject per the submitted application would satisfy the requirements of the Zoning Regulations from the perspective of impacts associated with transportation (i.e., vehicular access, parking, and loading). The applicant has indicated that there is likely to be minor adjustments to some elements of the site plan. Any changes, which impact the findings of this memorandum, will be evaluated and documented as part of the final submission for this application.

We trust that the above satisfies your requirements. If we can be of further assistance in this matter, pleas let us know. *Thank you!*

ORG/RCY/phl

APPENDIX

A

TURNING MOVEMENT COUNT SUMMARIES –
EXISTING TRAFFIC SITUATION

O.R. George & Associates, Inc.
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted by:ORGA-AL
Board :D4-1908
City/County:Washington DC
Weather :Cold/Clear/Dry

File Name : IRV@14
Site Code : 12341908
Start Date : 03/05/2003
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

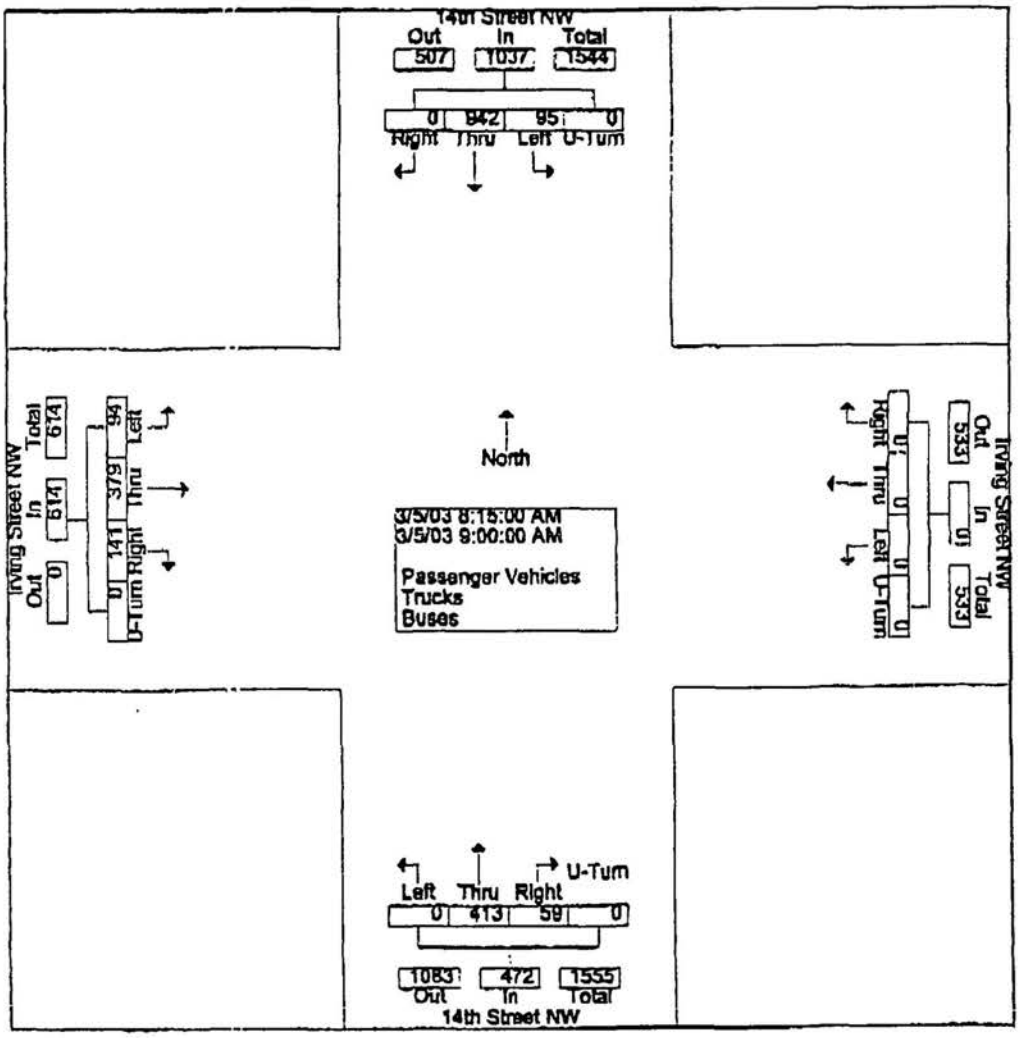
	14th Street NW From North					14th Street NW From South					Irving Street NW From East					Irving Street NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	12	139	0	0	151	0	89	9	0	98	0	0	0	0	0	5	70	24	0	99	348
07:30 AM	20	130	0	0	150	0	94	7	0	101	0	0	0	0	0	7	68	24	0	99	350
07:45 AM	18	155	0	0	173	0	105	9	0	115	0	0	0	0	0	18	97	24	0	139	427
08:00 AM	21	183	0	0	204	0	110	7	0	117	0	0	0	0	0	26	105	20	0	151	472
Total	71	607	0	0	678	0	399	32	0	431	0	0	0	0	0	56	340	92	0	488	1597
08:15 AM	26	215	0	0	241	0	86	13	0	99	0	0	0	0	0	23	95	34	0	152	492
08:30 AM	21	249	0	0	270	0	97	20	0	117	0	0	0	0	0	32	89	31	0	152	539
08:45 AM	24	250	0	0	274	0	122	12	0	134	0	0	0	0	0	24	89	35	0	148	556
09:00 AM	24	228	0	0	252	0	108	14	0	122	0	0	0	0	0	15	106	41	0	162	536
Total	95	942	0	0	1037	0	413	59	0	472	0	0	0	0	0	94	379	141	0	614	2123
04:15 PM	23	135	0	0	158	0	168	13	0	201	0	0	0	0	0	37	91	38	0	166	525
04:30 PM	16	130	0	0	146	0	165	16	0	181	0	0	0	0	0	28	105	54	0	187	514
04:45 PM	19	107	0	0	126	0	171	19	0	190	0	0	0	0	0	50	95	39	0	184	500
05:00 PM	17	113	0	0	130	0	183	21	0	204	0	0	0	0	0	36	92	42	0	170	504
Total	75	485	0	0	560	0	707	69	0	776	0	0	0	0	0	151	383	173	0	707	2043
05:15 PM	21	144	0	0	165	0	171	19	0	190	0	0	0	0	0	38	96	54	0	188	543
05:30 PM	22	113	0	0	135	0	179	20	0	199	0	0	0	0	0	65	107	60	0	232	566
05:45 PM	24	145	0	0	169	0	208	27	0	235	0	0	0	0	0	62	118	50	0	230	634
06:00 PM	29	97	0	0	126	0	208	18	0	226	0	0	0	0	0	45	96	58	0	199	551
Total	96	499	0	0	595	0	766	84	0	850	0	0	0	0	0	210	417	222	0	849	2294
06:15 PM	24	133	0	0	157	0	195	18	0	213	0	0	0	0	0	47	118	48	0	213	583
06:30 PM	27	86	0	0	113	0	180	16	0	196	0	0	0	0	0	31	109	44	0	184	493
Grand Total	388	2752	0	0	3140	0	2660	278	0	2938	0	0	0	0	0	589	1748	720	0	3055	9133
Apprch %	12.4	87.6	0.0	0.0		0.0	90.5	9.5	0.0		0.0	0.0	0.0	0.0		19.3	57.2	23.6	0.0		
Total %	4.2	30.1	0.0	0.0	34.4	0.0	29.1	3.0	0.0	32.2	0.0	0.0	0.0	0.0	0.0	6.4	19.1	7.9	0.0	33.5	

O.R. George & Associates, Inc.
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted by:ORGA-AL
Board :D4-1908
City/County:Washington DC
Weather :Cold/Clear/Dry

File Name : IRV@14
Site Code : 12341908
Start Date : 03/05/2003

	14th Street NW From North					14th Street NW From South					Irving Street NW From East					Irving Street NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:00 AM - Peak 1 of 1																					
Intersection	08:15 AM																				
Volume	95	942	0	0	1037	0	413	59	0	472	0	0	0	0	0	94	379	141	0	614	2123
Percent	9.2	90.8	0.0	0.0		0.0	87.5	12.5	0.0		0.0	0.0	0.0	0.0		15.3	61.7	23.0	0.0		
08:45 Volume	24	250	0	0	274	0	122	12	0	134	0	0	0	0	0	24	89	35	0	148	656
Peak Factor																					0.955
High Int.	08:45 AM					08:45 AM					7:00:00 AM					09:00 AM					
Volume	24	250	0	0	274	0	122	12	0	134	0	0	0	0	0	15	106	41	0	162	
Peak Factor					0.946					0.881										0.948	

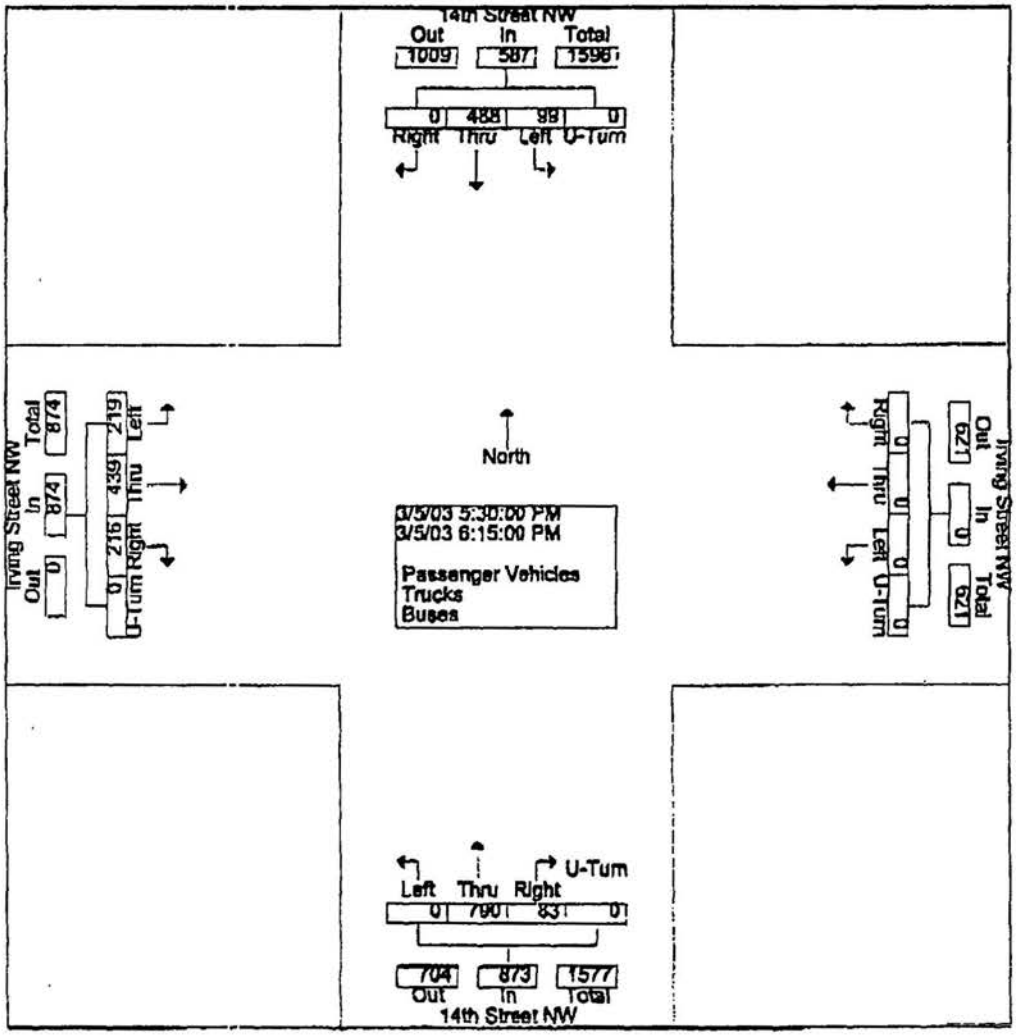


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File Name : IRV@14
Site Code : 12341908
Start Date : 03/05/2003
Page No : 3

	14th Street NW From North					14th Street NW From South					Irving Street NW From East					Irving Street NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 04:15 PM to 06:30 PM - Peak 1 of 1																					
Intersection 05:30 PM																					
Volume	99	488	0	0	587	0	790	83	0	873	0	0	0	0	0	219	439	216	0	874	2334
Percent	16.9	83.1	0.0	0.0		0.0	90.5	9.5	0.0		0.0	0.0	0.0	0.0		25.1	50.2	24.7	0.0		
05:45 Volume	24	145	0	0	169	0	208	27	0	235	0	0	0	0	0	62	118	50	0	230	834
Peak Factor																					0.920
High Int. 05:45 PM						05:45 PM										05:30 PM					
Volume	24	145	0	0	169	0	208	27	0	235	0	0	0	0	0	65	107	60	0	232	
Peak Factor					0.868					0.929										0.942	



APPENDIX

B

CAPACITY ANALYSIS WORKSHEETS – EXISTING TRAFFIC SITUATION

SHORT REPORT

General Information		Site Information	
Analyst	Robert C. Young	Intersection	14th St. and Irving St.
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	3/13/03	Jurisdiction	Washington, DC
Time Period	PM Peak (5:15-6:15)	Analysis Year	2003

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	0	0	0	2	0	1	2	0
Lane group	L	TR						TR		L	T	
Volume (vph)	207	419	212					762	82	97	473	
% Heavy Veh	2	2	2					2	2	2	2	
PHF	0.92	0.92	0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	P	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	200	0	0	200			200	0	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr							20					
Bus stops/hr	0	5						10		0	10	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 35.0	G =	G =	G =	G = 46.0	G = 5.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	225	685					917			105	514	
Lane group cap.	513	1098					1366			340	1907	
v/c ratio	0.44	0.62					0.67			0.31	0.27	
Green ratio	0.35	0.35					0.45			0.55	0.55	
Unif. delay d1	26.0	27.0					21.7			22.2	11.9	
Delay factor k	0.50	0.50					0.50			0.50	0.50	
Increm. delay d2	2.7	2.7					2.6			2.3	0.3	
PF factor	1.000	1.000					1.000			1.000	1.000	
Control delay	27.7	29.7					24.3			24.6	12.2	
Lane group LOS	C	C					C			C	B	
Apprch. delay	29.2						24.3			14.3		
Approach LOS	C						C			B		
Intersec. delay	23.6			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	Robert C. Young	Intersection	14th St. and Irving St.
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	3/13/03	Jurisdiction	Washington, DC
Time Period	AM Peak (8:00-9:00)	Analysis Year	2003

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	0	0	0	2	0	1	2	0
Lane group	L	TR						TR		L	T	
Volume (vph)	94	379	141					113	59	95	942	
% Heavy veh	2	2	2					2	2	2	2	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	P	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	200	0	0	200			200	0	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr							20					
Bus stops/hr	0	5						10		0	10	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 25.0	G =	G =	G =	G = 55.0	G = 5.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB		SB		
Adj. flow rate	99	547					497		100	992	
Lane group cap.	330	786					1662		607	2254	
v/c ratio	0.29	0.70					0.30		0.16	0.44	
Green ratio	0.25	0.25					0.55		0.65	0.65	
Unif. delay d1	30.4	34.0					12.1		8.1	8.8	
Delay factor k	0.50	0.50					0.50		0.50	0.50	
Increm. delay d2	2.2	5.1					0.5		0.6	0.6	
PF factor	1.000	1.000					1.000		1.000	1.000	
Control delay	32.6	39.1					12.6		8.6	9.2	
Lane group LOS	C	D					B		A	A	
Apprch. delay	38.1						12.6		9.2		
Approach LOS	D						B		A		
Intersec. delay	18.3			Intersection LOS					B		

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APPENDIX

C

YEAR 2006 BASE TRAFFIC VOLUMES AND
TRIP GENERATION DATA

EXISTING VOLUMES AND PROJECTED 2006 VOLUMES AT FOURTEENTH AND IRVING STREETS
CONSIDERING 2% GROWTH PER YEAR

		From North			From South			From West	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2003									
AM	95	942	0	0	413	59	94	379	141
PM	99	488	0	0	790	83	219	439	216
2006									
AM	101	999	0	0	438	63	100	402	149
PM	105	517	0	0	837	88	232	465	229

Land Use: 253
Elderly Housing — Attached

Description

Elderly housing (attached) — restricted to senior citizens — contains residential units similar to apartments and condominiums, and it is sometimes a self-contained village. They may also contain special services such as medical facilities; dining facilities; and some limited, supporting retail facilities.

Additional Data

The sites were surveyed in the 1980s and the 1990s.

Source Numbers

237, 272, 412

Land Use: 253
Elderly Housing — Attached
Independent Variables with One Observation

The following trip generation data are for independent variables with only one observation. This information is shown in this table only; there are no related plots for these data.

Users are cautioned to use these data with care because of the small sample size.

Day/Time Period	Trip Generation Rate	Size of Independent Variable	Number of Studies	Directional Distribution
Occupied Dwelling Units				
Weekday	3.48	67	1	50% entering, 50% exiting
Saturday	2.51	67	1	50% entering, 50% exiting
Saturday Peak Hour of Generator	0.30	67	1	Not Available
Sunday	2.70	67	1	50% entering, 50% exiting
Sunday Peak Hour of Generator	0.55	67	1	Not Available

Elderly Housing - Attached
(253)

Average Vehicle Trip Ends vs: **Occupied Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

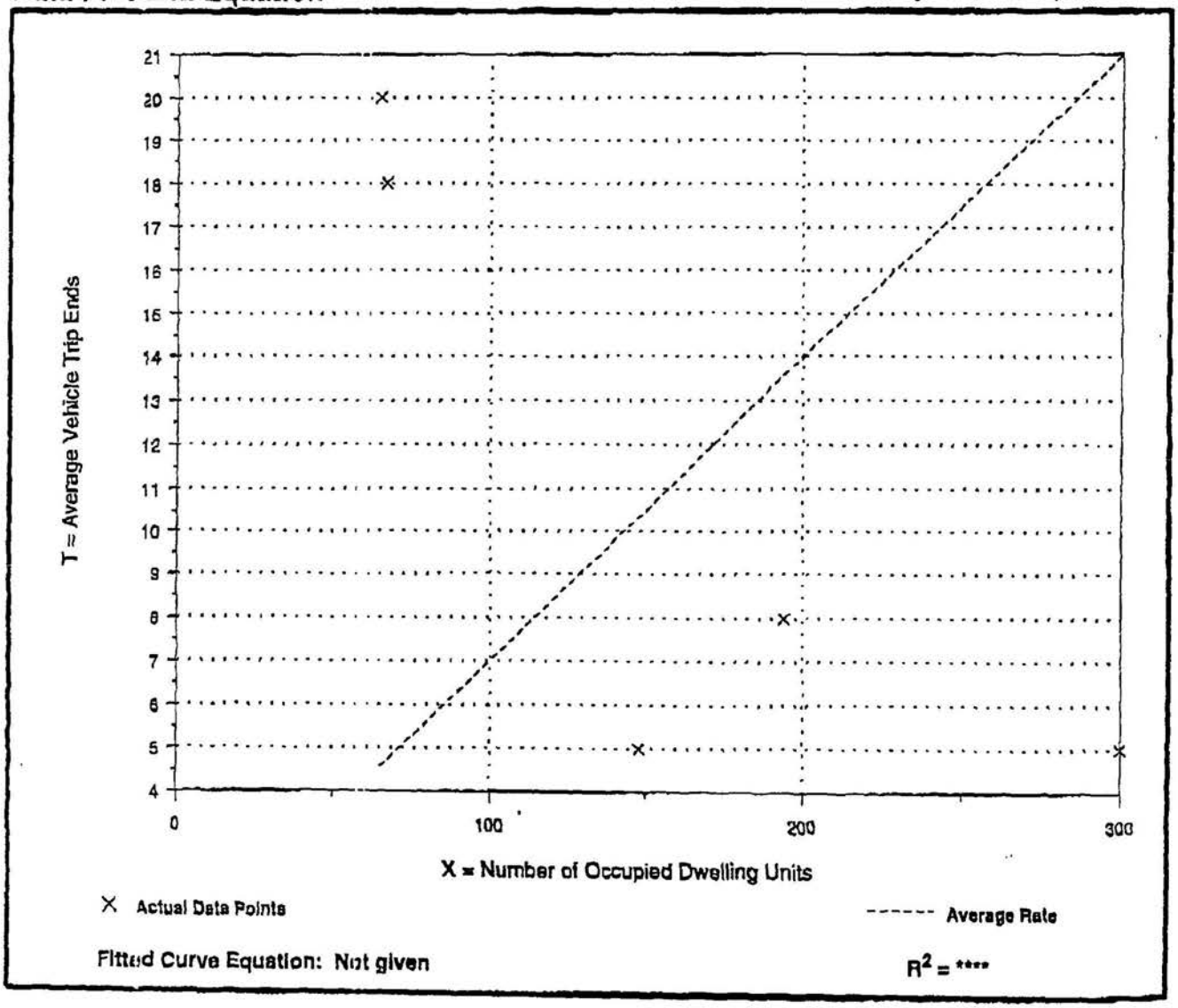
Number of Studies: 5
Avg. Num. of Occupied Dwelling Units: 155
Directional Distribution: 63% entering, 37% exiting

Trip Generation per Occupied Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.07	0.02 - 0.31	0.29

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Not given

R^2 = ****

Elderly Housing - Attached
(253)

Average Vehicle Trip Ends vs: **Occupied Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

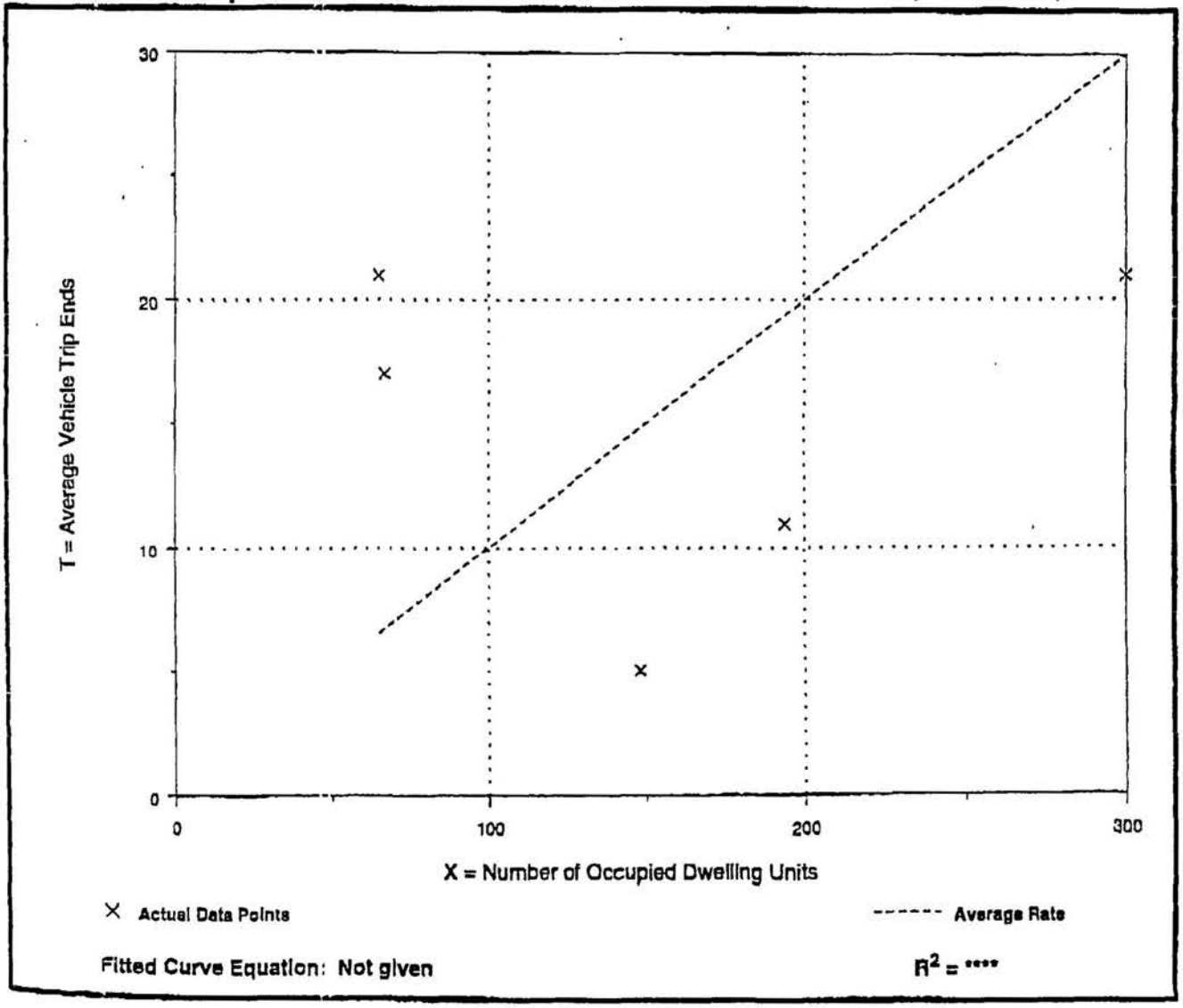
Number of Studies: 5
Avg. Num. of Occupied Dwelling Units: 155
Directional Distribution: 59% entering, 41% exiting

Trip Generation per Occupied Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.10	0.03 - 0.32	0.32

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Not given

R^2 = ****

TABLE C-1

Vehicle Trip Generation Survey
Representative Housing Sites, Northwest Washington, D.C.

Site Survey Details	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Friendship Terrace (190 units) 4201 Butterworth Place, NW – 2 blocks from Tinleytown Metro Station						
- Observed Trip Ends	8	6	15	6	6	12
- Computed Trip Rates (trips/unit)	0.04	0.03	0.07	0.03	0.03	0.06
Colony House (58 units) 930 Farragut Street, NW – 1 block from Georgia Ave. Metrobus stops						
- Observed Trip Ends	8	8	16	12	13	25
- Computed Trip Rates (trips/unit)	0.14	0.14	0.28	0.21	0.22	0.43

Source: O. R. George & Associates

APPENDIX

D

CAPACITY ANALYSIS WORKSHEETS –
YEAR 2006 PROJECTED TRAFFIC SITUATION

SHORT REPORT

General Information		Site Information	
Analyst	Robert C. Young	Intersection	14th St. and Irving St.
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	3/13/03	Jurisdiction	Washington, DC
Time Period	AM Peak (8:00-9:00)	Analysis Year	2006 - Total Traffic Situation

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	0	0	0	2	0	1	2	0
Lane group	L	TR						TR		L	T	
Volume (vph)	100	402	149					438	64	102	999	
% Heavy veh	2	2	2					2	2	2	2	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	P	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	200	0	0	200			200	0	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr							20					
Bus stops/hr	0	5						10		0	10	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 25.0	G =	G =	G =	G = 55.0	G = 5.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	105	580					528			107	1052	
Lane group cap.	336	786					1661			590	2254	
v/c ratio	0.31	0.74					0.32			0.18	0.47	
Green ratio	0.25	0.25					0.55			0.65	0.65	
Unif. delay d1	30.5	34.5					12.3			8.4	8.8	
Delay factor k	0.50	0.50					0.50			0.50	0.50	
Increm. delay d2	2.4	6.1					0.5			0.7	0.7	
PF factor	1.000	1.000					1.000			1.000	1.000	
Control delay	32.9	40.6					12.8			9.1	9.5	
Lane group LOS	C	D					B			A	A	
Apprch. delay	39.4						12.8			9.5		
Approach LOS	D						B			A		
Intersec. delay	18.9			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	Robert C. Young	Intersection	14th St. and Irving St.
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	3/13/03	Jurisdiction	Washington, DC
Time Period	PM Peak (5:15-6:15)	Analysis Year	2006 - Total Traffic Situation

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	0	0	0	2	0	1	2	0
Lane group	L	TR						TR		L	T	
Volume (vph)	232	466	229					837	89	106	517	
% Heavy veh	2	2	2					2	2	2	2	
PHF	0.92	0.92	0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	P	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	200	0	0	200			200	0	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr							20					
Bus stops/hr	0	5						10		0	10	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 35.0	G =	G =	G =	G = 45.0	G = 5.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

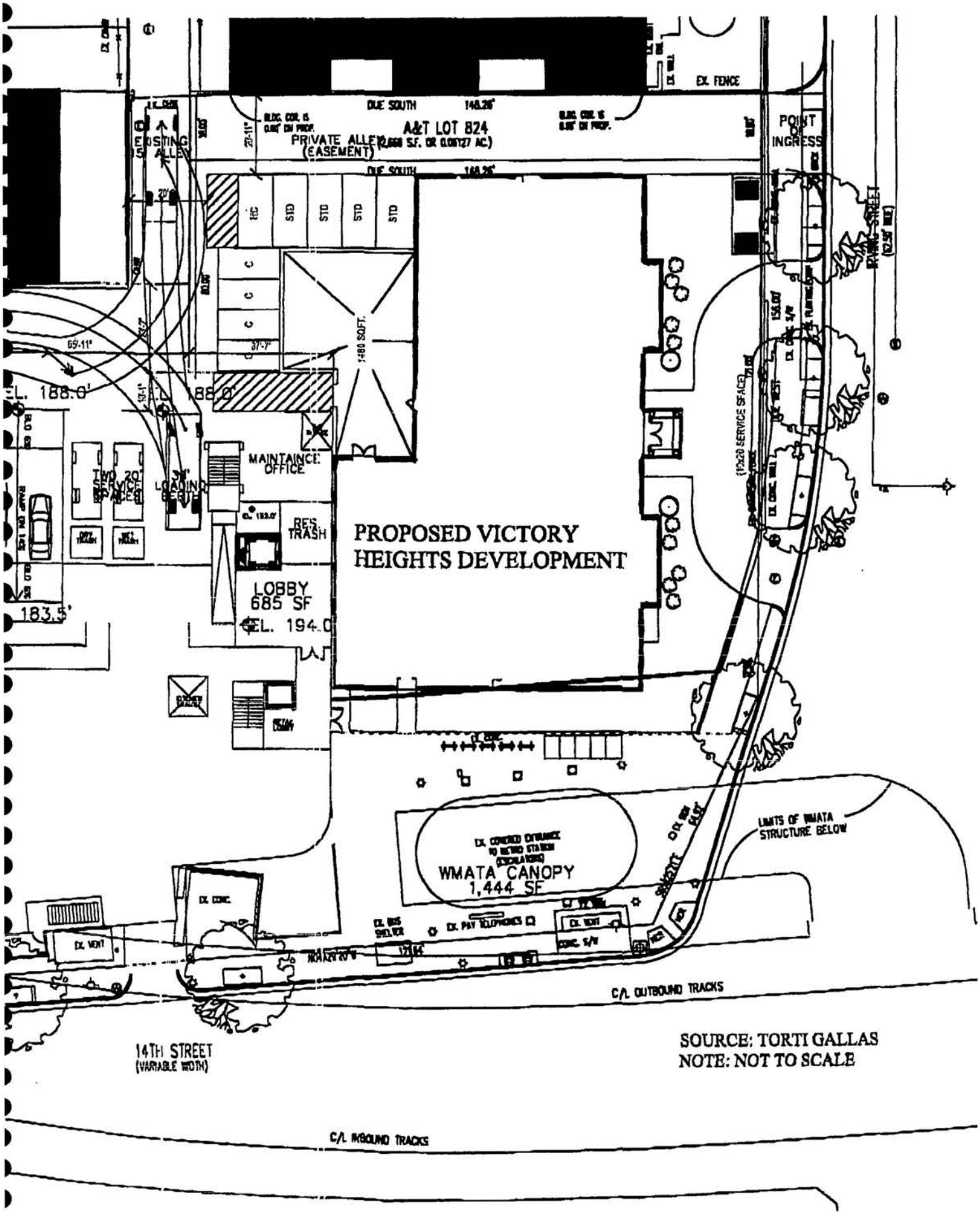
	EB			WB			NB		SB		
Adj. flow rate	252	756					1007		115	562	
Lane group cap.	513	1100					1367		313	1907	
v/c ratio	0.49	0.69					0.74		0.37	0.29	
Green ratio	0.35	0.35					0.45		0.55	0.55	
Unif. delay d1	25.5	27.8					22.6		25.5	12.1	
Delay factor k	0.50	0.50					0.50		0.50	0.50	
Increm. delay d2	3.3	3.5					3.6		3.3	0.4	
PF factor	1.000	1.000					1.000		1.000	1.000	
Control delay	28.9	31.3					26.2		28.8	12.5	
Lane group LOS	C	C					C		C	B	
Apprch. delay	30.7						26.2		15.2		
Approach LOS	C						C		B		
Intersec. delay	25.1			Intersection LOS			C				

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APPENDIX

E

SITE/PARKING LAYOUT


PROPOSED VICTORY HEIGHTS DEVELOPMENT
A&T LOT 824
PRIVATE ALLEY (EASEMENT)
EXISTING ALLEY
POINT OF INGRESS
EX. FENCE
DUE SOUTH 148.26'
MAINTAINCE OFFICE
RES. TRASH
LOBBY 685 SF
EL. 194.0
EL. 188.0'
183.5'
1480 SQFT.
WMATA CANOPY 1,444 SF
LIMITS OF WMATA STRUCTURE BELOW
C/L OUTBOUND TRACKS
C/L INBOUND TRACKS
14TH STREET (VARIABLE WIDTH)
SOURCE: TORTI GALLAS
NOTE: NOT TO SCALE