Township of Abington

Wayne C. Luker, *President*
Steven N. Kline, *Vice President*
Richard J. Manfredi, *Manager*
Jay W. Blumenthal, *Treasurer*

Public Informational Meeting

Dear Neighbors,

In response to the Board of Commissioners requiring an open and public comment process, BET Investments, Inc. has scheduled an informational neighborhood meeting to be held on **Monday, January 29, 2018** at the Abington Township Administration Building, located at 1176 Old York Road, Abington, Pa. 19001. The Public Informational Meeting will be held in the second floor board room beginning promptly at 7:00 p.m. If necessary a second community public informational meeting has been tentatively scheduled for Monday, February 12, 2018 at 7:00 p.m. in the Abington Township Administration Building.

The purpose of the meeting is for BET Investment, Inc. to present the proposed development plan for the property that is commonly referred to as the YMCA Site with street frontage on both Old York Road and Susquehanna Road and to provide the public and especially the neighbors, the opportunity to provide comment and to have ample time for questions and answers. Anyone who is unable to attend, but would like to submit question(s) in advance, please feel free to communicate those question(s) to Ward #7 Commissioner, Ben Sanchez at bensanchez.ward7@gmail.com.

BET Investment, Inc. proposes to build a 225 unit age restricted apartment building on the 4.66 acre site, as per the plan submitted. The proposed development requires map and text amendments to the Zoning Ordinance of the Township of Abington. In the event that BET Investments, Inc. is able to obtain the revisions to the Zoning Ordinance and the Zoning Map, they seek, they would then have to submit the required reverse subdivision and land development plans.

Please be aware that this is not a formal meeting of the Township of Abington. No action will be taken by the Board of Commissioners on this proposal at this time. In the event that the Board of Commissioners of the Township of Abington elect to hold a formal public hearing on zoning map amendment and zoning text amendment applications filed by BET Investments, Inc., notices of the Formal Hearing date(s) will be sent to you.

Thank You,

Benjamin V. Sanchez
Commissioner Ward #7

BET Investments

Map and Text Zoning Amendments

Requested of

Abington Township Board of Commissioners

KUHLS LAW PLLC

Joseph C. Kuhls
Attorney at Law

November 22, 2017

Richard Manfredi
Abington Township Manager
1176 Old York Road
Abington, PA 19001

Re: Re-Zone Application of BET Investments, Inc.

Mr. Manfredi,

I write on behalf of BET Investments, Inc. requesting the rezoning to AO Apartment-Office District of certain real property along Old York Road designated as Montgomery County Tax Parcels 30-00-49720-002; 30-00-49724-007; and 30-00-49728-003. The property is approximately 4.7acres in area, and is depicted by the red outline on the enclosed tax map.

The Applicant proposes development of that tract as age-qualified Senior Apartment Units pursuant to a draft Plan enclosed.

Also enclosed are two proposed Ordinances effectuating the requested re-zoning: 1) an Ordinance providing for a map change placing the entire X acre parcel wholly within the AO Apartment-Office District; and 2) an Ordinance proposing modification of the regulations applicable in the AO Apartment-Office District.

As the Township does not have a standardized formal application form for re-zoning, please allow this letter to serve as a request to commence the re-zoning process pursuant to the procedures set forth in the Abington Township Code, and the Pennsylvania Municipalities Planning Code which, among other things, requires a properly advertised public hearing. A check made payable to Abington Township in the amount of $2,000 is also enclosed in payment of the Application Fee.

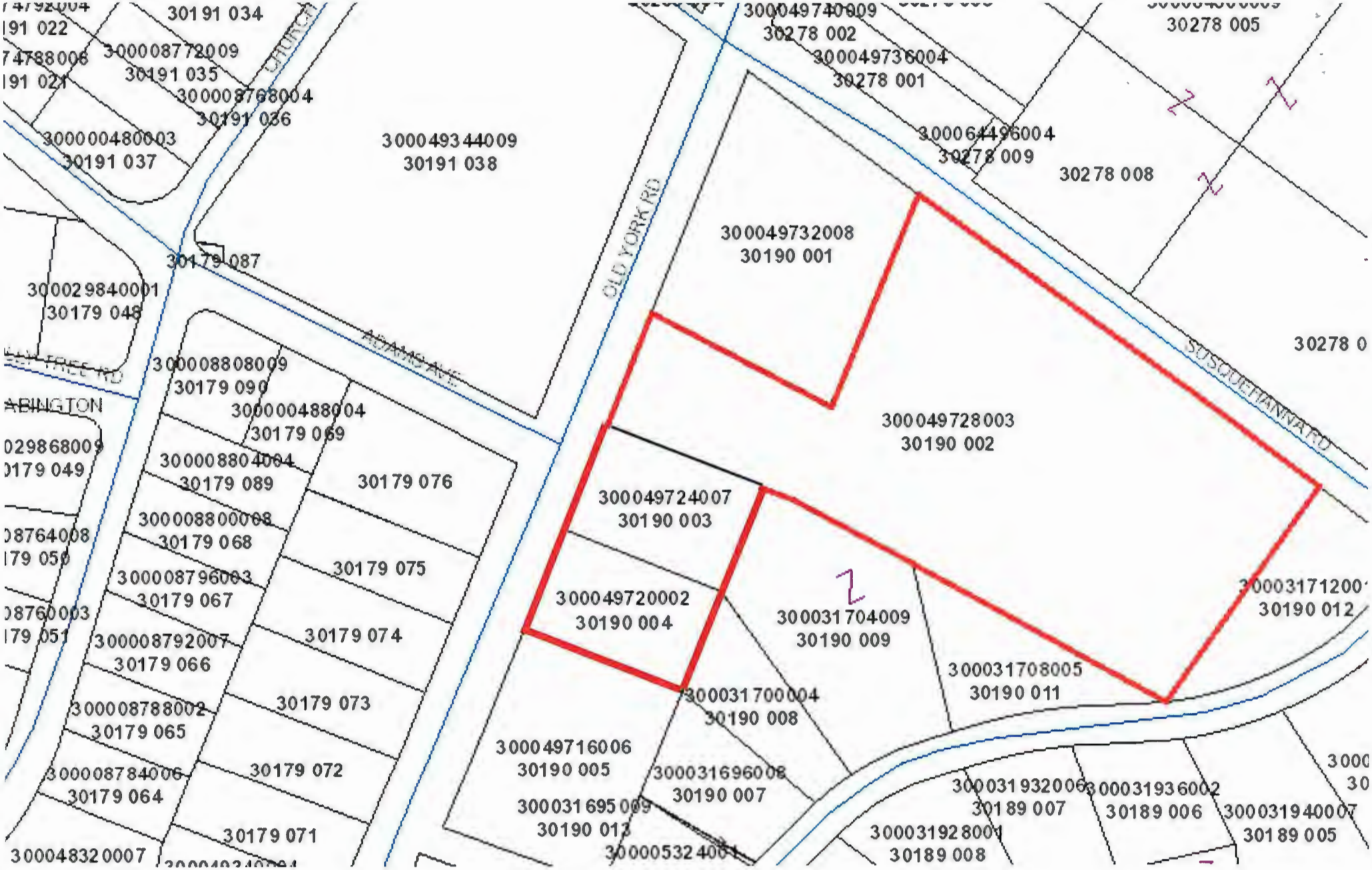
500 Office Center Drive, Suite 400 | Fort Washington, PA 19034 | 215.277.5536 | jckuhls@kuhlslaw.com

Please let me know when you can meet with me to discuss specifics of moving forward. I will bring to that meeting an executed Professional Services Agreement and a check to fund the $10,000 Professional Services Escrow, for payment of any Township Consultant charges arising from review of this Application and attendance at requested meetings.

Thanks very much for your attention. I look forward to working with you and the rest of the Abington Township team on this exciting project. Have a wonderful Thanksgiving.

Sincerely,

Joseph C. Kuhls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ORDINANCE NO.___

ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

AN ORDINANCE OF ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, AMENDING THE ABINGTON TOWNSHIP ZONING ORDINANCE OF 2017, AS AMENDED, BY AMENDING ARTICLE VII AO APARTMENT-OFFICE DISTRICT, ADDING H-12 SENIOR APARTMENT UNITS AS A USE PERMITTED BY CONDITIONAL USE IN AO APARTMENT-OFFICE DISTRICT; BY AMENDING ARTICLE XXI USE REGUALTIONS, ADDING H-12 SENIOR APARTMENT UNITS AS A USE; AND BY AMENDING ARTICLE XXIII PARKING AND TRANSPORTATION TO INCLUDE USE H-12 SENIOR APARTMENT UNITS

BE IT ORDAINED AND ENACTED by the Board of Commissioners of Abington Township, Montgomery County, as follows:

SECTION I. ZONING TEXT AMENDMENT. The Abington Township Zoning Ordinance, as heretofore amended, is hereby amended to add the following to the AO Apartment-Office District (Article VII):

Use H-12 Senior Apartment Units

A. Section 700. Intent: E. –To provide a wider range of housing options for senior citizens at locations in the Township where medical facilities, access to arterial highways and public transportation options are readily available.

B. Section 703. Other District Regulations: H. – Special Regulations for **H-12 Senior Apartment Units.**

1. A hospital shall be located within 2,000 feet.
2. The tract shall have frontage on two roads.
3. Access to public transportation shall be within 400 feet.

C. Figure 7.5. AO Apartment-Office District: Dimensional Requirements

Type	Density	Tract	Lot		
		Minimum Area	Minimum Area	Minimum Width	Minimum Depth
H-12 Senior Apartment Units	50 DU/Ac.	4 Ac.	4 Ac.	100 ft.	100ft.

Setbacks				Lot Coverage		
Front Yard Minimum	Side Yard Minimum	Rear Yard Minimum	Parking	Building Coverage Maximum	Impervious Coverage Maximum	Green Area Minimum
15 ft.	15 ft. From a Residential Zoned Property: 25 ft.	15 ft. From a Residential Zoned Property: 25 ft.	From Tract Boundary: 10 ft.	75%	80%	20%

Building		
Maximum Height	Maximum Separation	Maximum Length
65 ft.	50 ft.	600 ft.

SECTION II. ZONING TEXT AMENDMENT. The Abington Township Zoning Ordinance, as heretofore amended, is hereby amended to add the following to the Use Regulations (Article XXI):

Use H-12: Senior Apartment Units: A senior apartment/condominium building is a single, detached, residential building containing at least three, separate dwelling units, with units arranged in a variety of combinations, including side-by-side, over and under, or back-to-back with another dwelling unit. The regulations for this use category do not apply to townhouses or duplexes with a condominium form of ownership. The units shall be age restricted in compliance with the Federal Fair Housing Act. For the purpose of this Ordinance, the use of each unit of condominium real estate shall require a use permit and is subject to other regulations of the Township.

1. The dwelling units may share outside access and internal hallways, lobbies and similar facilities.
2. Each dwelling unit shall be contained on one floor of the building.
3. The dwelling units cannot be individually lotted, but must share a lot or parcel on which the building is located; except under condominium law.
4. The building and grounds shall be under one operating unit, such as a rental or condominium management service.
5. Parking spaces shall be located as conveniently as possible to the dwelling units and may be common or shared areas. All parking must be designed so that cars may enter and leave without the need to move other parked vehicles.
6. Dimensional requirements unless specified differently in the zoning district containing the use:
   a. The minimum lot area per Senior Apartment Unit development shall be 4 acres.
   b. The minimum floor area per dwelling unit shall be calculated according to the following ratios:

Figure 21.11

Minimum Floor Area/Dwelling Unit

Unit Size	Minimum Floor Area/DU
Efficiency	400 s.f.
1 Bedroom	500 s.f.
2 Bedroom	650 s.f.
3 Bedroom	800 s.f.

7. Use of an apartment/condominium unit for any business activity are not permitted, except as expressly permitted by Use A-15: No-Impact Home-Based Business.
8. On a parcel(s) proposed to be re-developed which contain man-made steep slopes, up to 50% of precautionary slopes may be disturbed and up to 50% of prohibitive slopes may be disturbed provided, the Applicant demonstrates there is no increased erosion potential.
9. Accessory Uses:
   a. Use A-3: Car Share.
   b. Use A-15: No-Impact Home Based Business.
   c. Use C-10: Convenience Store (when limited to 2,000 s.f.).
   d. Use C-11: Dry Cleaners (Drop-Off).
   e. Use C-16: Laundry (Self-Service).
   f. Use C-20: Personal Care Business.
   g. Use C-21: Professional Service Business.
   h. Use C-26: Restaurant, Sit-Down.
   i. Use C-29: Retail Store (when limited to 2,000 s.f.).
   j. Use C-35: Supermarket or Grocery (when limited to 2,000 s.f.).
   k. Use G-11: Studio, Artist.

SECTION III. ZONING TEXT AMENDMENT. The Abington Township Zoning Ordinance, as heretofore amended, is hereby amended to add the following to the Parking and Transportation (Article XXIII):

Use H-12 Senior Apartment Units

Section 2304. Parking Use Requirements: H. 12. – Use H-12: Senior Apartment Units: 1.33 Space per dwelling unit. Up to 10 percent of required parking for Senior Apartment Units Uses may be held in reserve, provided the reserve parking complies with all other zoning provisions.**SECTION IV. EFFECTIVE DATE.** This Ordinance shall become effective five (5) days from enactment.

ENACTED AND ORDAINED this _____ day of _____, 2017 by the Board of Commissioners of Abington Township.

BOARD OF COMMISSIONERS
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANINA

ATTEST: By:_____

By: _____
, Manager

ORDINANCE NO.___

ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

AN ORDINANCE OF ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, ENACTED PURSUANT TO THE FIRST CLASS TOWNSHIP CODE AND THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE AMENDING THE ABINGTON TOWNSHIP CODE (the "Code") AND THE OFFICIAL ZONING MAP OF ABINGTON TOWNSHIP TO REZONE A CERTAIN TRACT OF REAL PROPERTY FROM CS COMMUNITY SERVICE DISTRICT AND R-3 MEDIUM-DENSITY RESIDENTIAL DISTRICT TO AO APARTMENT-OFFICE DISTRICT

BE IT ORDAINED AND ENACTED by the Board of Commissioners of Abington Township, Montgomery County, as follows:

SECTION I. **ZONING MAP AMENDMENT.** The Code and the Abington Township Zoning Map enacted pursuant to Abington Township Ordinance 2136, as amended, are hereby further amended to rezone that certain tract of real property described on Exhibit "A" attached hereto and designated as Montgomery County Tax Parcels 30-00-49720-002; 30-00-49724-007; and 30-00-49728-003 from respective zoning district designations of CS Community Service District or R-3 Medium-Density Residential District to henceforth be included wholly within the AO Apartment-Office District.

SECTION II. **REPEALER.** All other Ordinances, portions of Ordinances, or any section of the Code expressly inconsistent with this Ordinance are hereby repealed.

SECTION III. **EFFECTIVE DATE.** This Ordinance shall be become effective five (5) days after its enactment.

ENACTED AND ORDAINED this _____ day of _____, 2017 by the Board of Commissioners of Abington Township.

BOARD OF COMMISSIONERS
ABINGTON TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANINA

ATTEST:

By:_____

By: _____

BLUE MARSH ASSOCIATES, INC.
LAND SURVEYORS AND PLANNERS

EXHIBIT "A"

November 22, 2017
BMA 17-A058-160

METES & BOUNDS DESCRIPTION
PROPOSED RE-ZONING AREA FOR ABINGTON TERRACE, LP
BLOCK 90, UNITS 1, 3 & 4
ABINGTON TOWNSHIP
MONTGOMERY COUNTY
COMMONWEALTH OF PENNSYLVANIA

BEGINNING AT A POINT ON THE SOUTHEASTERLY TITLE LINE AND RIGHT OF WAY LINE OF OLD YORK ROAD (AKA S.R. 611, L.R. 151 – VARIABLE WIDTH RIGHT OF WAY) AT THE INTESECTION WITH THE COMMON DIVIDING LINE BETWEEN BLOCK 90, UNIT 5, LANDS NOW OR FORMERLY TEMPENNS ASSOCIATES AND BLOCK 90, UNIT 4, LANDS NOW OR FORMERLY DIANA HELWEG NEWTON, ET AL, AND FROM SAID POINT OF BEGINNING; THENCE,

1- ALONG THE SOUTHEASTERLY RIGHT OF WAY LINE OF OLD YORK ROAD, NORTH 25°24'00" EAST A DISTANCE OF 115.46 FEET TO A POINT; THENCE,
2- ALONG A LINE THROUGH THE BED OF OLD YORK ROAD, NORTH 64°36'00" WEST A DISTANCE OF 40.10 FEET TO A POINT; THENCE,

THE FOLLOWING TWO (2) COURSES AND DISTANCES ALONG THE TITLE LINE IN THE BED OF OLD YORK ROAD:

3- NORTH 25°24'00" EAST A DISTANCE OF 115.49 FEET TO A POINT; THENCE,
4- NORTH 25°27'00" EAST A DISTANCE OF 127.16 FEET TO A POINT; THENCE,
5- ALONG A THE DIVIDING LINE BETWEEN BLOCK 90, UNIT 1, LANDS NOW OR FORMERLY PHILADELPHIA FREEDOM VALLEY YOUNG MEN'S CHRISTIAN ASSOCIATION AND BLOCK 90, UNIT 1, LANDS NOW OR FORMERLY ABINGTON PRESBYTERIAN CHURCH, SOUTH 58°10'00" EAST A DISTANCE OF 247.12 FEET TO A POINT; THENCE,
6- ALONG THE SAME NORTH 27°06'00" EAST A DISTANCE OF 255.02 FEET TO A POINT ON THE TITLE LINE IN THE BED OF SUSQUEHANNA ROAD (AKA S.R. 2017- 33 FEET WIDE RIGHT OF WAY), SOUTH 50°31'00" EAST A DISTANCE OF 506.32 FEET TO A POINT; THENCE,
7- ALONG THE DIVIDING LINE BETWEEN BLOCK 90, UNIT 1 AND BLOCK 90, UNIT 12, LANDS NOW OR FORMERLY CHRISTOPHER GERMAIN, SOUTH 39°29'00" WEST A DISTANCE OF 288.70 FEET TO A POINT; THENCE,
8- ALONG THE COMMON DIVIDING LINE BETWEEN BLOCK 90, UNIT 1, BLOCK 90, UNIT 11, LANDS NOW OR FORMERLY BRIAN JAMES AND BLOCK 90, UNIT 9, LANDS NOW OR FORMERLY BETHANY M. LIPA, NORTH 58°10'00" WEST A DISTANCE OF 434.11 FEET TO A POINT; THENCE,
9- ALONG THE DIVIDING LINE BETWEEN BLOCK 90, UNIT 1 AND BLOCK 90, UNIT 9, NORTH 64°36'00" WEST A DISTANCE OF 33.97 FEET TO A POINT; THENCE,
10- ALONG THE DIVIDING LINE BETWEEN BLOCK 90, UNIT 3, LANDS NOW OR FORMERLY DIANA HELWEG NEWTON, ET AL AND BLOCK 90, UNIT 9, SOUTH 25°24'00" WEST A DISTANCE OF 115.43 FEET TO A POINT; THENCE,
11- ALONG THE DIVIDING LINE BETWEEN BLOCK 90, UNIT 4 AND BLOCK 90, UNIT 9, SOUTH 25°24'00" WEST A DISTANCE OF 115.46 FEET TO A POINT; THENCE,
12- ALONG THE DIVIDING LINE BETWEEN BLOCK 90, UNIT 4 AND BLOCK 90, UNIT 5, NORTH 64°33'00" WEST A DISTANCE OF 168.75 FEET TO A POINT; BEING THE FIRST MENTIONED POINT AND PLACE OF BEGINNING.

P.O. Box 563 - Tabatha Drive
Warrington, PA 18976-2370
215-622-1002 FX 215-343-0218

1541 Route 37 East, Suite B
Toms River, NJ 08753
848-448-3964 FX 732-793-3389

www.BlueMarshAssociates.com

CONTAINING 221,116 QUARE FEET OR 5.076 ACRES

THIS DESCRIPTION PREPARED WITH REFERENCE TO A PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, ABINGTON TERRACE, LLC, #1059, 1067 & 1073 OLD YORK ROAD, BLOCK 90, UNITS 1,3 & 4, ABINGTON TOWNSHIP, MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA", PREPARED BY BLUE MARSH ASSOCIATES, INC., DATED 7/7/2017, REVISION #4, DATED 11/7/2017.

JOSEPH J. WRIGHT
PENNSYLVANIA PROFESSIONAL LAND SURVEYOR
LICENSE #SU-37826-E

P.O. Box 563 - Tabatha Drive
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ADDINGTON TERRACE
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FISCAL IMPACT ANALYSIS
Proposed Abington Terrace Development
Abington Township, Montgomery County

November 19, 2017

Prepared for:
BET Investments
200 Witmer Road, Suite 200
Horsham, PA 19044

Prepared by:
David C. Babbitt, AICP
David C. Babbitt & Associates, LLC
P.O. Box 922
Frazer, PA 19355-0922
Phone 610-651-5717
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www.babbittplanning.com
david@babbittplanning.com

Fiscal Impact Analysis

Proposed Abington Terrace Development
Abington Township
Montgomery County

November 19, 2017

This report examines the annual fiscal impact to Abington Township and the Abington School District (ASD) of the Abington Terrace development proposed by BET Investments. The report examines the fiscal impact to the Township and School District during any given year after the completion of the proposed project and full occupancy, based on 2017 levels of revenue, expenditures, and taxation.

The proposed age qualified development consists of the following elements:

- 56 one bedroom apartment units, to be rented for an average of approximately $2,400 per month.
- 169 two bedroom apartment units, to be rented for an average of approximately $2,600 per month.
- 428 structured parking spaces. The remainder of the parking will be surface parking.

In all, the proposed development includes 225 multifamily apartment units and 428 structured parking spaces.

According to federal law, each unit in an age qualified development must house at least one person who is 55 years old or older, and no resident can be under the age of 18. Therefore, no school age children are projected to reside in the proposed development.

The table below shows the annual net fiscal impact (revenue minus expenditures) to the Township and School District of each proposed dwelling type and use. Below the table are sections on assessments and demographics, Township expenditures and revenue, and School District expenditures and revenue. At the end of this report are the spreadsheets for the Township and School District impact, which show the major expenditure and revenue categories for each entity. All cell addresses in the text refer to these spreadsheets.

Proposed Use	Number of Units/ Spaces	Annual Net Township Impact	Annual Net School District Impact	**Annual Net Combined Impact**	Annual Net Combined Impact per Unit/Space
1 BR Apartments	56	$25,438	$145,467	**$170,905**	$3,052
2 BR Apartments	169	$88,572	$495,728	**$584,300**	$3,457
Structured Parking	428	$10,906	$81,639	**$92,545**	$216
Total Proposed	**225 /428**	**$124,916**	**$722,834**	**$847,750**	--

The annual net fiscal impact of the proposed project is projected to be highly favorable for the Township and School District, creating annual surpluses for each entity. **The annual net combined fiscal impact for the proposed development is projected to total positive (or surplus) $847,750.** The annual combined revenue is projected to exceed the annual combined expenditures by 1,461.9 percent.

There are three important reasons for the positive annual net fiscal impacts projected here:

- First, the proposed development is comprised of smaller apartment units, which house fewer persons than four bedroom single family detached dwellings, the predominant dwelling type in the Township. The lower number of persons results in lower expenditures for the Township, which leads to annual surpluses.

- Second, the age restriction itself also results in fewer persons and no school age children at all, eliminating all School District expenditures. The only impact of the proposed development on the School District is significant annual revenue.

- Third, the proposed apartments are high end, which generate higher revenue in the real estate tax, earned income tax, and business privilege tax categories.

Projected Assessments

The projected assessed value of the proposed age qualified apartments is based on a comparable high end age qualified apartment complex recently constructed nearby, called Dublin Terrace on Limekiln Pike in Upper Dublin Township. That development has an overall assessed value of $15,619,450 in 192 units, for an average assessment of $81,351 per unit. The proposed apartments at Abington Terrace are projected to have assessments of $75,000 for the one bedroom units and $85,000 for the two bedroom units (cells C6-C7). The assessed value of the structured parking is projected to be $6,000 per space (cell C8), which is comparable to the assessment per space of the Abington Hospital garage along Old York Road.

The total projected assessed value of the entire proposed project is determined by multiplying the number of units and parking spaces (cells B6-B8) by the assessment per unit or space (cells C6-C8). The assessed value of the proposed development at buildout is projected to total $21,133,000 (cells D6-D9). This projected assessed value represents 0.5 percent of the entire assessed value of all properties in Abington Township ($4,000,412,104, from the Montgomery County Board of Assessment Appeals). Please note that the County Board of Assessment Appeals will determine the actual assessments only when the proposed development is constructed and inspected.

Demographics

The number of persons per unit is projected to be 1.20 for all one and two bedroom units (cells E6-E7). This figure is from *Who Lives in New Jersey Housing?*, by David Listokin, Ioan Voicu, William Dolphin and Matthew Camp of the Rutgers University Center for Urban Policy Research (CUPR), published in November, 2006 (available at pppolicy.rutgers.edu/cupr/otherreports/njDemos.pdf).

In addition to the demographic multipliers for different dwelling types in the state of New Jersey (which were not used in this report), this document also presents demographic multipliers for age qualified developments in the northeastern United States, from the 2003 American Housing Survey of the U.S. Census Bureau. The multipliers are 1.57 persons per unit for all single family detached dwellings, 1.39 persons per unit for all attached dwellings (including townhouses), and 1.20 persons per unit for all multifamily dwellings (including apartments). Please note that these multipliers do not differentiate by dwelling size or value, only by dwelling type for age qualified developments.

The number of persons projected to reside in the proposed development is determined by multiplying the number of units (cells B6-B7) by the number of persons per unit for each dwelling type (cells E6-E7). The number of persons projected to reside in the proposed development at buildout and full occupancy totals 270 (cells F6-F9). No persons are projected to reside in the proposed structured parking.

The number of school age children per unit is projected to be 0.00 for all units, given the age restriction of the proposed development (cells E39-E40 of the School District spreadsheet). The number of public school students is determined by multiplying the number of units (cells B39-B40) by the number of school age children per unit for each dwelling type (cells E39-E40), and by 83.3 percent (cell D61), to account for those children who will attend private schools or be schooled at home. The figure of 83.3 percent is from the 2015 American Community Survey, a function of the U.S. Census, specifically for Abington Township, which reported 7,072 public school students out of 8,489 school age children (ages 5-18). The number of ASD students projected to reside in the proposed development at buildout and full occupancy is 0 (cells F39-F42).

Annual Abington Township Expenditures

The Abington Township budget includes the following funds, shown in the table below with their respective 2017 expenditure totals:

Fund	Budgeted Expenditure
General Fund	$38,026,723
Sewer Operations Fund	$8,844,000
Highway Aid Fund	$1,534,178
Tuition Reimbursement Fund	$15,000
Workers Compensation Fund	$1,007,280
Refuse Fund	$5,782,381
Retiree Medical Fund	$1,397,290
TOTAL 2017 EXPENDITURES	**$56,606,852**

The total Township budgeted expenditures in 2017 are $56,606,852, which includes all seven Township funds. In order to find a more accurate measure of the average annual expenditures for the proposed development, this analysis focuses on the regular, ongoing operating expenditures of the Township. Such operations are quantified in the following two funds, shown in the table below with their respective sums in the 2017 budget.

Operating Fund	Budgeted Expenditure
General Fund	$38,026,723
Highway Aid Fund	$1,534,178
TOTAL 2017 EXPENDITURES	**$39,560,901**

The two operating funds total $39,560,901 in expenditures for 2017 (cell D28). These two funds cover nearly all Township expenditures, including Board of Commissioners, administration, legal fees, economic development, computer expenses, municipal buildings, tax collection, police protection (including police administration, patrol, communications, traffic safety, K-9 unit, juvenile, detectives, records, training, emergency management, community policing, crime prevention, public safety facility, etc.), finance, code enforcement, engineering, public works (including lights, administration, labor and materials, vehicle maintenance, etc.), fire prevention, library, parks and recreation, contributions to retirement and health care funds, insurance, debt service, and road maintenance.

The following funds are excluded because they are capital funds which fluctuate significantly year to year, represent transfers between funds (and therefore double counting), and/or are not associated with ongoing

operations:

- Sewer Operations Fund is a proprietary fund where revenue from sewer rents equals expenditures for sewage conveyance and treatment. In general, the revenue from all developments in the Township, whether new or existing, roughly equal the expenditures, making this a break even fund.

- Tuition Reimbursement Fund pays for Township employee tuition, and is not anticipated to rise with the proposed development.

- Workers Compensation and Retiree Medical Funds use transfers from the other funds to pay for future expenditures. The General Fund transfers of $500,000 to the Workers Compensation Fund and $1,065,290 to the Retiree Medical Fund are included in this report, but the expenditures from these two funds are not, in order to avoid double counting the same money.

- The Refuse Fund is another proprietary fund, which is excluded because refuse collection and disposal will be handled privately at the proposed development.

In order to find a more accurate measure of the average annual expenditures for future residents of the proposed development, four categories of funds are subtracted from the total 2017 operating expenditures of $39,560,901 (cell D28):

1. Pass-Through Funds. Pass-through funds are excluded because the proposed development will have no net impact on these funds, since revenue always equals expenditures. Pass-through funds that are excluded are as follows, shown in the table below with their respective sums in the Township's 2017 budget.

Source	Fund	Budgeted Amount
Fire Inspection Fees	General	$25,000
Beverage Licenses	General	$12,000
Rent of Property	General	$715,000
Public Utility Realty Tax	General	$35,000
State & County Snow Reimbursement	General	$90,000
Recyclable Materials	General	$5,000
DEA Task Force	General	$153,273
Police Reimbursable Overtime	General	$160,000
Video Arraignment Process	General	$110,000
Training Center Rental	General	$5,000
SRO Reimbursement	General	$100,900
Recreational Facilities	General	$290,000
Swimming Pools	General	$330,000
Parks & Recreation Special Programs	General	$320,000
State Reimbursement Pension Plan	General	$1,363,000
State Liquid Fuels Revenue	Highway Aid	$1,516,178
TOTAL		**$5,230,351**

The State Liquid Fuels revenue of $1,516,178 is excluded because the proposed development is on two State roads (Old York Road and Susquehanna Road), and there will be no additional Township maintenance of local roads from the proposed development.

2. Development Related Funds. The other pass-through category is charges related to the processing and administration of proposed subdivisions and land developments in the Township, shown in the table below with their respective sums in the Township's 2017 budget (all are in the General Fund). Such charges for services and departmental earnings are excluded because they are in essence one-time pass-through funds for specific functions normally associated with new development. For example, the Township is budgeted to receive $800,000 in building and zoning revenue (mostly permit fees), which will be expended on the building inspections and the administration of those permits while a development is under construction, not on other functions associated with the time after a development is completed. Once a development is completed, the revenue and expenditures for such permits and application fees decreases significantly, but not completely.

Source	Budgeted Amount
Building and Zoning	$800,000
Plumbing Licenses and Permit Fees	$70,000
Engineering Permit Fees	$125,000
TOTAL	**$995,000**

Ninety percent of the development related pass-through funds of $995,000 (or $895,500) is excluded from the total expenditures. Only 90 percent of the development related funds is excluded from the expenditure analysis, in acknowledgment that there will still be some expenditures on subdivisions and land developments once they are complete, for things like building renovations and inspections for violations. Please note that in the revenue analysis, below, only 10 percent of the revenue from development related funds (or $99,500) is included in the category of miscellaneous revenue.

The excluded pass-through and development related funds total $6,125,851 (cell D29). The 2017 net Township operating expenditures (minus pass-through and development related funds) are $33,435,050 (cell D30). Please note that just as the expenditures for the above funds are not included in the expenditure calculations of this section, the revenue from these sources is also not included in the revenue analysis, below.

Then, the Township expenditures associated with existing nonresidential development are subtracted from the net expenditures using the "proportional valuation method" of *The New Practitioner's Guide to Fiscal Impact Analysis*. First, a portion of the total Township expenditures is assigned to existing nonresidential development, based on the average value of property. According to the Montgomery County Board of Assessment's January, 2017 Land Use Classification Report, the total assessed value of the 20,165 properties in Abington Township was $4,000,412,104, yielding an average assessed value of $198,384. Of those properties, 1,037 were nonresidential (commercial, industrial, institutional, utility, etc., whether taxable or exempt), with a total assessed value of $1,126,322,900 (representing 28.2 percent of the Township total), and an average assessed value of $1,086,136. The proportion of average nonresidential assessed value to average Township assessed value (residential and nonresidential combined) is 5.47, which is then used to determine the refinement coefficient of 1.07 from a graph in the *New Practitioner's Guide*. The refinement coefficient is based on empirical research by the Rutgers University CUPR, and is necessary to adjust the costs of existing nonresidential development in communities without extensive nonresidential development of very high average assessed value, such as Abington Township. By comparison, in communities where the ratio between the average nonresidential assessment and the average overall assessment is above 6, an economy of scale reduces the nonresidential expenditures on a

per square foot basis, and the refinement coefficient is below 1.00.

The proportion of Township assessed value in nonresidential uses (28.2 percent) is then multiplied by the refinement coefficient of 1.07, and by the 2017 net Township operating expenditures of $33,435,050 (cell D30). The result of this calculation is that $10,072,654 of the net Township operating expenditures (representing 30.1 percent) is attributable to existing nonresidential development (cell D31). This sum is subtracted from the 2017 net Township operating expenditures ($33,435,050, cell D30), and the remainder ($23,362,396 in expenditures attributable to existing residential development) is divided by the estimated number of Township residents in 2017, which is 55,773 (cell I28). The estimated number of Township residents is determined by taking the U.S. Census estimate for 2015 (the most recent estimate available) of 55,641, and adding two year's worth of the average annual increase between 2010 and 2015 (331 over those five years, or 66 additional residents per year and 132 over two years) to find the current estimate of 55,773.

The per capita Township operating expenditures attributable to existing standard residential development are $418.88 (cell D32).

On average, residents of an age qualified development generate far lower Township expenditures when compared to residents of standard housing. A study by the Del Webb corporation (the industry leader in age qualified development) estimated that its Sun City Grand development in Surprise, Arizona near Phoenix imposed lower demands on most municipal services when compared to standard housing, in numerous demand categories (as cited in *Developing Active Adult Retirement Communities*, by Diane R. Schuman, et. al., The Urban Land Institute, 2001, pp. 21-26). The table below shows each of the eight demand categories studied; for each category, the table shows the 2017 Abington Township expenditure (if any), and the modified expenditure, which is the Township expenditure multiplied by the percent of level of demand imposed by age qualified developments.

Demand Category	Level of Demand	2017 Expenditure	Modified Expenditure
Traffic volume	33%	$0	$0
Street maintenance	35%	$3,920,585	$1,372,205
Water consumption	60%	$0	$0
Wastewater generation	74%	$0	$0
Solid waste generation	67%	$0	$0
Police protection	25%	$18,041,104	$4,510,276
Fire protection services	33%	$2,549,216	$841,241
Emergency medical	110%	$0	$0
Total		$24,510,905	$6,723,722
Difference			$17,787,183
Minus Pass-Thru (15.5%)			$15,032,907
Residential Share (69.9%)			$10,504,088
Difference per Capita			$188.34

Other than emergency medical services (for which the Abington Township budget has no direct expenditures), an age qualified facility has far lower expenditure impacts than other housing. The area of greatest expenditure in Abington Township –police protection – is the precise area in which an age qualified development's expenditure is significantly lower than that of standard housing. Please note that

all public works expenditures are in the Street Maintenance category, instead of the Traffic Volume category, since the former is slightly higher, resulting in a more conservative (and higher) annual expenditure. Also, please note that the Solid Waste Generation expenditures are not included in this table because the proposed development will have this function handled privately, and there will be no Township expenditures at all.

The difference between the total Township expenditures for the listed demand categories ($24,510,905) and the modified Township expenditures ($6,723,722) is $17,787,183. This figure is then further modified to account for the pass-through funds by subtracting 15.5 percent, similar to the total Township expenditures. Of the remaining $15,032,907 in expenditures, only 69.9 percent is attributable to residential development. The resulting $10,504,088 represents the difference between the Township expenditures for these Township functions for standard housing versus age qualified housing. This figure is then divided by the estimated 2017 Township population of 55,773 (cell I28) to find a per capita difference of $188.34. This figure is then subtracted from the Township per capita expenditure for standard development ($418.88, cell D32) to find the Township per capita expenditure for age qualified development ($230.55, cell I27). This per capita figure is then multiplied by the number of persons projected to reside in the proposed age qualified development at buildout (270, cells F6-F7) to find the total annual residential expenditures for the proposed age qualified development of $62,247 (cells G6-G9). The annual expenditures per unit are projected to be $277 (cells H6-H7).

No Township expenditures are associated with the proposed structured parking (cell G8). Instead, all expenditures are associated with the dwelling units themselves.

Annual Abington Township Revenue

The annual Township revenue is determined by adding the following sources:

- Real estate tax revenue, based on the Township tax rate of 4.203 mills (cell I29) applied to the projected assessed value of the proposed development (totaling $21,133,000, cells D6-D9). The annual real estate tax revenue is projected to total $88,822 (cells B14-B17). Please note that the projected real estate tax revenue exceeds the annual Township expenditures ($62,247, cells G6-G9) by $26,575 or 42.7 percent.

- Earned income tax revenue, based on the tax rate of 0.5 percent applied to the household income of residents. Household income is calculated by multiplying the monthly rent for each dwelling type (averaging $2,400 for the one bedroom units and $2,600 for the two bedroom units, see the introduction, above) by twelve months and dividing by 25 percent, which is the industry standard for maximum percentage of household income used for rent for prospective tenants of a proposed multifamily development. The minimum annual household income for each unit is projected to be $115,200 for the one bedroom units and $124,800 for the two bedroom units. These minimum annual income levels are then multiplied by the number of units in each category (cells B6-B7) and by the tax rate of 0.5 percent, to determine the tax revenue. The revenue is then reduced by 50 percent to reflect the likelihood that many residents will be retired and have no earned income, though they may have interest or dividend income, which is not subject to the earned income tax. The revenue is then further reduced by 25.9 percent to account for those residents who will work in the City of Philadelphia, and therefore pay the City's wage tax instead of Abington Township's earned income tax. The 2015 American Community Survey of the U. S. Census Bureau reports 7,358 resident workers living in the Township and working in the City out of a total of 28,366 resident workers, or 25.9 percent. The annual earned income tax revenue is projected to total $50,995 (cells C14-C17). No earned income tax revenue is projected from the proposed structured parking spaces.

- Business privilege tax revenue, determined by applying the tax rate of 4 mills to the projected total annual rents of $6,885,600 (56 one bedroom units at $2,400 per month plus 169 two bedroom units ast

$2,600 per month). The annual business privilege tax revenue is projected to total $27,542 (cells D14-D17).

- Franchise fees and miscellaneous revenue, based on the Township's budgeted revenue from these sources ($1,379,500 comprised of $1,280,000 in franchise fee revenue and $99,500 in development related revenue, representing 10 percent of the total revenue in this category associated with existing and not new development, which is $995,000; see the expenditure analysis, above) divided by the estimated number of units in the Township (22,290, cell I30), and that per unit revenue of $61.89 (cell I31) is applied to the units in the proposed development (totaling 225, cells B6-B7). The annual franchise fee and miscellaneous revenue is projected to total $13,925 (cells E14-E17). The estimated number of 22,290 units in the Township (cell I30) is from the 2015 American Community Survey of the U.S. Census Bureau.

- Liquid Fuels revenue, based on PennDOT's 2017 per person revenue of $18.3506 applied to the number of persons projected to reside in the proposed development at buildout and full occupancy (totaling 270, cells F6-F9). The annual Liquid Fuels revenue is projected to total $4,955 (cells F14-F17). Please note that the Township will not receive any additional revenue per mile, since the proposed development has no internal streets to be dedicated to the Township.

- Interest earnings, based on the projected assessed value of the proposed development (totaling $21,133,000, cells D6-D9) divided by the Township's total assessed value ($4,000,412,104, according to the Board of Assessment as of January, 2017), and multiplying by the Township's projected revenue from interest earnings in the 2017 budget, totaling $175,000 (cell I32), which includes $170,000 from the General Fund and $5,000 from the Liquid Fuels Fund. The annual interest earnings are projected to total $924 (cells G14-G17).

The annual Township revenue from all sources is projected to total $187,164 (cells H14-H17). The annual Township revenue is projected to be $731 for each one bedroom unit, $801 for each two bedroom unit, and $25 per structured parking space (cells I14-I16).

The annual net Township impact (revenue minus expenditures) is projected to total positive $124,916 (cells B21-B24). The annual net Township revenue is projected to be positive $454 for each one bedroom unit, positive $524 for each two bedroom unit, and positive $25 per structured parking space (cells C21-C24). Annual revenue is projected to exceed annual expenditures by 164.26 percent for the one bedroom units, 189.4 percent for the two bedroom units, and 200.7 percent overall (cells D21-D24). Since the structured parking spaces have no Township expenditures associated directly with them, all $10,906 of annual revenue becomes surplus.

Annual Abington School District Expenditures

The number of units and parking spaces, as well as the projected assessment per unit/space and the total projected assessment are the same as for the Township impact, above.

The Abington School District General Fund budgeted expenditures total $159,283,771 for the 2017-2018 year (cell D62 of the School District spreadsheet). The following pass-through funds are subtracted from this total:

Pass-Through Fund	Budgeted Amount
Public Utility Realty Tax	$115,000
Revenue from Intermediary Sources	$1,162,542
Rentals	$120,000
Tuition from Patrons	$36,000
TOTAL	**$1,433,542**

The pass-through funds total $1,433,542 (cell D63), with the remaining net School District expenditures totaling $157,850,229 (cell D64). This figure is then divided by the projected 2017-2018 District-wide enrollment of 8,107 students (cell I60) to find the 2017-2018 ASD net expenditure of $19,471 per student (cell I61). This per student expenditure is applied to the 0 students from the proposed development projected to attend public schools (cells F39-F42) to determine the annual projected School District expenditures of $0 (cells G39-G42). The annual School District expenditure per unit is projected to be $0 for all units and parking spaces (cells H39-H41).

Annual Abington School District Revenue

The annual School District revenue is determined by adding the following sources:

- Real estate tax revenue, based on the School District's 2017-2018 tax rate of 31.77 mills (cell I62) applied to the projected assessed value of the proposed development (totaling $21,133,000, cells D39-D42). The annual real estate tax revenue is projected to total $671,395 (cells B47-B50).

- Earned income tax revenue, determined using the same method as was used for the Township impact, above. The annual earned income tax revenue is projected to total $50,995 (cells C47-C50).

- State and Federal revenue, based on the 2017-2018 ASD budgeted revenue from those sources totaling $34,902,283 divided by the projected 2017-2018 ASD enrollment of 8,107 (cell I60), or $4,305 per public school student (cell I63), applied to the projected number of students from the proposed development (totaling 0, cells F39-F42). The annual state and federal revenue is projected to total $0 (cells D47-D50).

- Earnings on investments, based on the projected assessed value of the proposed development (totaling $21,133,000, cells D39-D42) divided by the School District's total assessed value ($3,576,566,884, according to the 2017-2018 ASD budget), and multiplying by the School District's projected revenue from earnings on investments in the budget ($75,000, cell I64). The annual earnings on investments is projected to total $443 (cells E47-E50).

The annual School District revenue from all sources is projected to total $722,834 for the proposed development (cells F47-F50). The annual School District revenue per unit is projected to be $2,598 for the one bedroom units, $2,933 for the two bedroom units, and $191 per structured parking space (cells G47-G49).

The annual net School District impact (revenue minus expenditures) is projected to total positive $722,834 (cells B54-B57). The annual net School District revenue per unit is projected to be positive $2,598 for the one bedroom units, positive $2,933 for the two bedroom units, and positive $191 per structured parking space (cells C54-C56). Since there are no School District expenditures projected from the proposed development, every dollar of annual revenue becomes surplus.

ANALYSIS OF THE ANNUAL FISCAL IMPACT TO ABINGTON TOWNSHIP

Of the roposed Abington Terrace Development

November 19, 2017

Proposed Use/ Dwelling Type	Number of Units/Spaces	Average Assessed Value per Unit/Space	Total Assessed Value	Persons per Unit	Total Persons	**Annual Township Expenditures**	Expenditures per Unit/Space
Age Qualified 1 BR	56	$75,000	$4,200,000	1.20	67	**$15,493**	$277
Age Qualified 2 BR	169	$85,000	$14,365,000	1.20	203	**$46,755**	$277
Structured Parking	428	$6,000	$2,568,000	0.00	0	**$0**	$0
Total	**225 / 428**		**$21,133,000**		**270**	**$62,247**	

	Annual Township Revenue							
Proposed Use/ Dwelling Type	Real Estate Tax	Earned Income Tax	Business Privilege Tax	Franchise Fee & Misc. Revenue	Liquid Fuels Revenue	Interest Earnings	**Total Annual Revenue**	Revenue per per Unit/Space
Age Qualified 1 BR	$17,653	$11,944	$6,451	$3,466	$1,233	$184	**$40,931**	$731
Age Qualified 2 BR	$60,376	$39,051	$21,091	$10,459	$3,722	$628	**$135,327**	$801
Structured Parking	$10,793	$0	$0	$0	$0	$112	**$10,906**	$25
Total	**$88,822**	**$50,995**	**$27,542**	**$13,925**	**$4,955**	**$924**	**$187,164**	

Proposed Use/ Dwelling Type	**Annual Net Township Revenue**	Net Township Revenue per Unit/Space	Revenue > Expenditure
Age Qualified 1 BR	**$25,438**	$454	164.2%
Age Qualified 2 BR	**$88,572**	$524	189.4%
Structured Parking	**$10,906**	$25	--
Total	**$124,916**	**--**	**200.7%**

NOTES:

2017-2018 STEB Common Level Ratio (Market Value to Assessed Value)	54.1%	2017 Township per Capita Expenditure (Age Qualified Dev.)	$230.55
2017 Township Operating Expenditures (2 Funds)	$39,560,901	2017 Township Population Estimate	55,773
Minus 2017 Pass-Through and Excluded Expenditures	$6,125,851	2017 Township Real Estate Tax Millage	4.203
2017 Net Township Operating Expenditures	$33,435,050	2017 Township Housing Unit Estimate	22,290
2017 Township Non-Residential Expenditures 30.1%	$10,072,654	2017 Township Franchise Fee & Misc. Revenue per Unit	$61.89
2017 Township per Capita Expenditure (Standard Development)	$418.88	2017 Township Interest Earnings	$175,000

ANALYSIS OF THE ANNUAL FISCAL IMPACT TO THE ABINGTON SCHOOL DISTRICT

Of the roposed Abington Terrace Development

November 19, 2017

Proposed Use/ Dwelling Type	Number of Units/Spaces	Average Assessed Value per Unit/Space	Total Assessed Value	School Age Children per Unit	ASD Students	**Annual School District Expenditures**	Expenditures per Unit/Space
Age Qualified 1 BR	56	$75,000	$4,200,000	0.00	0	**$0**	$0
Age Qualified 2 BR	169	$85,000	$14,365,000	0.00	0	**$0**	$0
Structured Parking	428	$6,000	$2,568,000	0.00	0	**$0**	$0
Total	**225 / 428**		**$21,133,000**		**0**	**$0**	

	Annual School District Revenue					
Proposed Use/ Dwelling Type	Real Estate Tax	Earned Income Tax	State & Federal Revenue	Earnings on Investments	**Total Annual Revenue**	Revenue per Unit/Space
Age Qualified 1 BR	$133,434	$11,944	$0	$88	**$145,467**	$2,598
Age Qualified 2 BR	$456,376	$39,051	$0	$301	**$495,728**	$2,933
Structured Parking	$81,585	$0	$0	$54	**$81,639**	$191
Total	**$671,395**	**$50,995**	**$0**	**$443**	**$722,834**	

Proposed Use/ Dwelling Type	**Annual Net School District Revenue**	Net School District Revenue per Unit/Space	Revenue > Expenditure
Age Qualified 1 BR	**$145,467**	$2,598	--
Age Qualified 2 BR	**$495,728**	$2,933	--
Structured Parking	**$81,639**	$191	--
Total	**$722,834**	**--**	**--**

NOTES:

2017-2018 STEB Common Level Ratio (Market Value to Assessed Value)	54.1%	2017-2018 ASD Projected Student Enrollment	8,107
Percentage of Abington Township School Age Children in Public Schools	83.3%	2017-2018 ASD Net Expenditure per Student	$19,471
2017-2018 ASD Total Expenditures	$159,283,771	2017-2018 ASD Real Estate Tax Millage	31.77
Minus Pass-Through Expenditures	$1,433,542	2017-2018 ASD State/Federal Revenue per Student	$4,305
2017-2018 ASD Net Expenditures	$157,850,229	2017-2018 ASD Earnings on Investments	$75,000

McMAHON
TRANSPORTATION ENGINEERS & PLANNERS

Transportation Impact Study for Abington Terrace

Abington Township, Montgomery County, PA

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Prepared for
BET Investments, Inc.

November 2017

817470.11

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Executive Summary

BET Investments, Inc. proposes to redevelop the existing Abington YMCA, which is located in the southeast quadrant of the intersection of Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017), as well as an adjacent parcel to the south that currently contains a funeral home in Abington Township, Montgomery County, PA (see **Figure 1**). The existing YMCA and funeral home buildings will be removed and replaced by an age-restricted apartment complex, Abington Terrace, which could provide up to 225 units.

The purpose of this transportation impact study is to evaluate the traffic impacts of the proposed redevelopment of the site. The scope of this study includes an evaluation of the existing weekday morning and weekday afternoon peak hours, as well as the future 2020 build-out year, without and with the development at the following study intersections:

- Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017);
- Old York Road (S.R. 0611) and Adams Avenue;
- Old York Road (S.R. 0611) and YMCA Access;
- Susquehanna Road (S.R. 2017) and the existing YMCA Accesses;
- Susquehanna Road (S.R. 2017) and Sunrise of Abington Access; and
- Susquehanna Road (S.R. 2017) and Huntingdon Road.

Trip Generation Characteristics

The existing trips associated with the YMCA were based on the access traffic count data. The traffic volumes generated by the proposed age-restricted development were prepared based on trip generation data compiled from numerous studies contained in the Institute of Transportation Engineers' (ITE) publication entitled, *Trip Generation Manual, Ninth Edition*. Specifically, the equations for ITE Land Use Code 252: Senior Adult Housing – Attached were utilized for the weekday morning and weekday afternoon peak hours, while the rate was utilized to calculate the number of daily trips. The redevelopment of the site is anticipated to generate approximately 774 total trips (inbound and outbound) during a typical weekday, of which 45 total trips (inbound and outbound) will be generated during weekday morning peak hour and 56 total trips (inbound and outbound) will be generated during the weekday afternoon peak hour.

A comparison between the existing YMCA and proposed age-restricted apartment complex indicates that the age-restricted apartments are anticipated to generate significantly less trips. Specifically, during a typical weekday the new age-restricted apartments will generate approximately 361 less total trips (inbound and outbound), of which there would be 186 and 168 less total trips (inbound and outbound) during the weekday morning and weekday afternoon peak hour, respectively.

Site Accesses

Access to the YMCA is currently provided via two driveways along Susquehanna Road (S.R. 2017) and one driveway along Old York Road (S.R. 0611), while the funeral home has two driveways along Old York Road (S.R. 0611). With the redevelopment of the site, the existing access located along Susquehanna Road (S.R. 2017) approximately 265 feet east of Old York Road (S.R. 0611) will be converted from an ingress only driveway to a left-in/right-in/right-out only driveway and a new full-movement access will then be located approximately 600 feet to the east of Old York Road (S.R. 0611),

directly opposite an access for the Sunrise of Abington facility. Along Old York Road (S.R. 0611), the three existing driveways will all be removed and two new right-in/right-out only driveways will then be provided approximately 425 and 600 feet to the south of Susquehanna Road (S.R. 2017).

All accesses would be classified as low-volume driveways per PennDOT criteria, as the entire site will generate less than 1,500 trips per day or 750 vehicles per day. Based on the results of this evaluation, the following access configurations and traffic controls are recommended and are subject to detailed engineering of the site accesses:

Old York Road (S.R. 0611) and Southern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide curbed (minimum) egress lane;
- Restrict the site access to right-in/right-out only movements with an appropriate signage to deter prohibited movements;
- Provide stop-control along the site access approach to Old York Road (S.R. 0611);
- Install "Do Not Block Driveway" signage along the northbound approach of Old York Road (S.R. 0611);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Old York Road (S.R. 0611) and Northern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide curbed (minimum) egress lane;
- Restrict the site access to right-in/right-out only movements with an appropriate signage to deter prohibited movements;
- Provide stop-control along the site access approach to Old York Road (S.R. 0611);
- Install "Do Not Block Driveway" signage along the northbound approach of Old York Road (S.R. 0611);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Susquehanna Road (S.R. 2017) and Western Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide (minimum) curbed egress lane;
- Restrict the site access to right-in/left-in/right-out only movements with a channelization island and appropriate signage to deter prohibited left-out movements;
- Provide stop-control along the site access approach to Susquehanna Road (S.R. 2017);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Susquehanna Road (S.R. 2017) and Eastern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide (minimum) curbed egress lane;
- Provide stop-control along the site access approach to Susquehanna Road (S.R. 2017);
- Install "Do Not Block Driveway" signage along the westbound approach of Susguehanna Road (S.R. 2017);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Old York Road (S.R. 611) and Susquehanna Road (S.R. 2017)

This signalized intersection operates at acceptable conditions (LOS D), under the existing, future without-development, and future with-development conditions. Since the site will generate less traffic compared to the existing YMCA, the intersection traffic operations should improve with the planned development. Therefore, no mitigation measures are recommended for this intersection.

According to the analyses, queue formations along the northbound approach of Old York Road (S.R. 0611) and westbound approach of Susquehanna Road (S.R. 2017) extend beyond the proposed site accesses. Given that the new site will generate less traffic compared to the existing YMCA and the queue lengths are anticipated to be shorter compared to the existing queues, no mitigation measures are recommended. It is recommended that "Do Not Block Driveway" signage be installed at the accesses to allow for traffic to enter/exit them.

The traffic analyses contained herein reveals that safe and efficient access to and from the proposed development can be provided and that the adjacent roadways and intersections can accommodate the projected site-generated traffic.

Existing Transportation Settings and Conditions

The proposed development will be located in the southeast corner of the intersection of Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017) in Abington Township, Montgomery County, PA. The existing roadways and intersections in the vicinity of the site, which comprise the study area roadway network, are described in this section.

Roadway Characteristics

The study area roadway network and characteristics are summarized below in **Table 1**.

Table 1 - Existing Roadway Characteristics

Roadway Name (Jurisdiction)	Average Daily Traffic Volumes (vehicles per day)	Roadway Classification		Travel Lanes (per direction)	Posted Speed Limit (mph)
		Smart Transportation [1]	PennDOT/ Township [2]		
Old York Road (S.R. 0611)	26,120 to 28,598 [3]	Regional Arterial	Urban – Other Principal Arterial	2	35
Susquehanna Road (S.R. 2017)	13,387 to 16,614 [3]	Community Arterial	Urban – Other Principal Arterial	1	25
Huntingdon Road	n/a	Neighborhood Collector	Local Road	1	25
Adams Avenue	n/a	Local Road	Local Road	1	25

(1) Based on Table 5.1 – Roadway Categories in the PennDOT publication, *Smart Transportation Guidebook*.
(2) Based on the roadway classifications provided on PennDOT's Internet Traffic Monitoring System (iTMS) website.
(3) Based on traffic data from PennDOT's Internet Traffic Monitoring System (iTMS) website.

The following key intersections in the vicinity of the site comprise the study area:

- Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017);
- Old York Road (S.R. 0611) and Adams Avenue;
- Old York Road (S.R. 0611) and YMCA Access;
- Susquehanna Road (S.R. 2017) and the existing YMCA Accesses;
- Susquehanna Road (S.R. 2017) and Sunrise of Abington Access; and
- Susquehanna Road (S.R. 2017) and Huntingdon Road.

The existing characteristics of the study intersections, including photographs, field sketches, and signal permit plans are provided in **Appendix A**.

Land Use Context

The proposed development (dashed outline) is located in Abington Township within the R3 Medium Density Residential (orange) and the CS Community Service (light blue) Zoning Districts as seen in the Abington Township Zoning Map **(Exhibit 1)**. The applicant is requesting that the property be rezoned to be located within the AO Apartment-Office District (brown) and that use H-12 Senior Apartment Units be permitted by Conditional Use within this zoning district. The proposed site would then be adjacent to existing land within the Township with the same zoning classification.

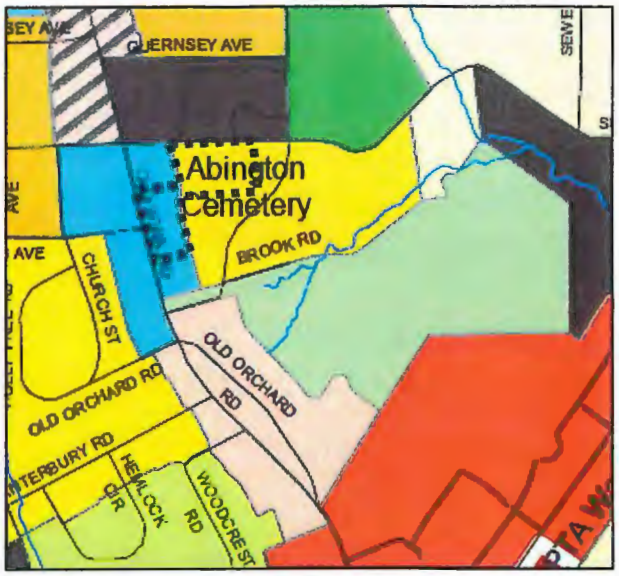

Exhibit 1 –2017 Abington Township Zoning Map

Area Transit Services

Under current conditions, SEPTA Bus Route 55 provides stops along Old York Road (S.R. 0611). Bus stops are provided within 400 feet of the site with stops located in the northwest and southeast quadrants at the intersection of Old York Road (S.R. 0611)/Susquehanna Road (S.R. 2017), as well as on the east side of Old York Road (S.R. 0611) opposite Adams Avenue, which is along the site frontage. The Noble Station of SEPTA's West Trenton Line Regional Rail is also located within a mile of the site and Bus Route 55 provides a connection to this station, as well as to the Olney Transportation Center.

Pedestrian-Bicycle Facilities

Under current conditions, sidewalk is provided along the Old York Road (S.R. 0611) site frontage. No sidewalk is provided along the Susquehanna Road (S.R. 2017) site frontage. According to *Section 146-27.A* of Abington Township *SALDO*, sidewalks are to be provided along all streets. Therefore, it is anticipated that sidewalk will be provided along the Susquehanna Road (S.R. 2017) site frontage.

Traffic Count Data

Daily traffic counts were obtained from PennDOT's Internet Traffic Monitoring System (iTMS) website. The traffic count data, which is summarized in Table 1, is provided in **Appendix B**. Manual turning movement traffic counts were conducted in June 2017 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday afternoon (4:00 P.M. to 6:00 P.M.) peak periods. The results of these traffic counts are tabulated by 15-minute intervals in **Appendix C**. The four highest consecutive 15-minute peak intervals during these traffic count periods constitute the peak hours that are the basis of this traffic analysis.

The existing peak hour traffic volumes were balanced conservatively (adjusted upwardly) between the intersections, where appropriate and the initial, unbalanced volumes along with balancing notes are provided in Appendix C. The resultant peak hour traffic volumes are depicted in **Figure 2A** for the weekday morning peak period (7:00 A.M. to 9:00 A.M.) and weekday afternoon peak period (4:00 P.M.

to 6:00 P.M.). The traffic volumes in Figure 2A were then analyzed to determine the existing operating conditions, and the results of this analysis are shown in **Figure 2B.** Specific details regarding the analysis results and traffic operations are provided later in this report.

Site Characteristics

This section presents the details regarding the proposed site, including the incremental increase in traffic volumes generated by the development during the peak hours and the distribution of site traffic to the study area roadways, as well as the proposed site access configuration, traffic control, and sight distance requirements.

Trip Generation

The existing trips associated with the YMCA were based on the access traffic count data, conducted in June 2017. The traffic volumes generated by the proposed age-restricted development were prepared based on trip generation data compiled from numerous studies contained in the Institute of Transportation Engineers' (ITE) publication entitled, *Trip Generation Manual, Ninth Edition*. Specifically, the equations for ITE Land Use Code 252: Senior Adult Housing – Attached were utilized for the weekday morning and weekday afternoon peak hours, while the rate was utilized to calculate the number of daily trips.

Table 2 provides a comparison of the total trips generated under existing conditions and with the proposed age-restricted development. As can be seen, the site is anticipated to generate approximately 774 total trips (inbound and outbound) during a typical weekday, of which 45 total trips (inbound and outbound) will be generated during weekday morning peak hour and 56 total trips (inbound and outbound) will be generated during the weekday afternoon peak hour. These values are significantly less than those generated by the YMCA as seen in Table 2.

Table 2 - Site Vehicular Trip Generation (1)

Description	Size	Daily	Weekday Morning			Weekday Afternoon		
			In	Out	Total	In	Out	Total
Proposed Age-Restricted Development (2)	225 units	774	15	30	45	30	26	56
Existing YMCA (3)	33,600 sq-ft	1,135	134	97	231	127	97	224
Difference (Proposed less Existing)		-361	-119	-67	-186	-97	-71	-168

(1) Based on data from ITE's *Trip Generation Manual, Ninth Edition*.
(2) Daily trips are based on the rates and peak hour trips are based on the equations for ITE Land Use Code 252: Senior Adult Housing – Attached.
(3) Daily trips are based on the rates for ITE Land Use Code 495: Recreational Community Center, and peak hour trips are based on the counts at the site access driveways conducted in June 2017.

An additional comparison has also been completed to determine the potential trip generation characteristics for a conventional apartment complex based upon Land Use Code 220: Apartment. If the proposed apartments were not age-restricted, the 225 units would generate a total of 1,487 trips (inbound and outbound) on a typical weekday, of which 114 and 141 total trips (inbound and outbound) during the weekday morning and weekday afternoon peak hours, respectively. While a conventional apartment complex would generate more trips on a typical weekday, it would also generate less trips than the prior YMCA use during the commuter peak hours.

Trip Distribution and Assignment

Site-generated traffic will approach and depart the site via different routes depending on factors such as the existing traffic patterns, location of major roadways, and the location of the development's site accesses and any intersection turning restrictions. As the existing on-site uses will be removed with the planned redevelopment, all traffic associated with the existing YMCA was first removed from the roadway network. **Figure 3** illustrates the removal of these trips, which is based upon the current traffic patterns at the driveways. The distribution percentages for the anticipated directions of approach and departure for the site are then illustrated in **Figure 4A**. Application of the percentages illustrated in Figure 4A to the proposed trips contained in Table 2 are illustrated in **Figure 4B**.

Site Access Configuration and Traffic Control

Access to the YMCA is currently provided via two driveways along Susquehanna Road (S.R. 2017) and one driveway along Old York Road (S.R. 0611), while the funeral home has two driveways along Old York Road (S.R. 0611). With the redevelopment of the site, the existing access located along Susquehanna Road (S.R. 2017) approximately 265 feet east of Old York Road (S.R. 0611) will be converted from an ingress only driveway to a left-in/right-in/right-out only driveway and a new full-movement access will then be located approximately 600 feet to the east of Old York Road (S.R. 0611), directly opposite an access for the Sunrise of Abington facility. Along Old York Road (S.R. 0611), the three existing driveways will all be removed and two new right-in/right-out only driveways will then be provided approximately 425 and 600 feet to the south of Susquehanna Road (S.R. 2017).

The recommendations for the proposed access designs, including auxiliary turn lanes, traffic control, and geometric design, were based on industry accepted criteria and guidelines. Specifically, the need for left- and right-turn deceleration lanes was based on the current PennDOT guidelines in accordance with *Publication 46, Chapter 11 – Traffic Studies*. The various warrant/guideline analysis worksheets are contained in **Appendix D**.

Additionally, the geometric design of the proposed site accesses were preliminarily evaluated based on guidelines contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads*, as well as local PennDOT District policies. Based upon the daily trip generation anticipated for the site, the site accesses would all be classified as low-volume driveways, since the age-restricted apartment complex generates less than 1,500 trips per day or 750 vehicles per day. The following intersection configurations and traffic controls are recommended, subject to the detailed engineering of the site access:

Old York Road (S.R. 0611) and Southern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide curbed (minimum) egress lane;
- Restrict the site access to right-in/right-out only movements with an appropriate signage to deter prohibited movements;
- Provide stop-control along the site access approach to Old York Road (S.R. 0611);
- Install "Do Not Block Driveway" signage along the northbound approach of Old York Road (S.R. 0611);

- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Old York Road (S.R. 0611) and Northern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide curbed (minimum) egress lane;
- Restrict the site access to right-in/right-out only movements with an appropriate signage to deter prohibited movements;
- Provide stop-control along the site access approach to Old York Road (S.R. 0611);
- Install "Do Not Block Driveway" signage along the northbound approach of Old York Road (S.R. 0611);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Susquehanna Road (S.R. 2017) and Western Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide (minimum) curbed egress lane;
- Restrict the site access to right-in/left-in/right-out only movements with a channelization island and appropriate signage to deter prohibited left-out movements;
- Provide stop-control along the site access approach to Susquehanna Road (S.R. 2017);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Susquehanna Road (S.R. 2017) and Eastern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide (minimum) curbed egress lane;
- Provide stop-control along the site access approach to Susquehanna Road (S.R. 2017);
- Install "Do Not Block Driveway" signage along the westbound approach of Susguehanna Road (S.R. 2017);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Sight Distance

Sight distance field measurements and an evaluation were performed at the proposed site accesses along Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2042). Generally, the prevailing travel speed, roadway grades and profiles, and the number of travel lanes play a role in determining if safe sight distances are available for egress and ingress at the proposed intersections. The existing sight

distances at the proposed site accesses intersections were measured and compared to PennDOT's sight distance requirements. These sight distance requirements are contained in *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads*. **Table 3** summarizes the available sight distance measurements, as well as PennDOT's sight distance requirements at the proposed intersections locations. The available sight distances at all four proposed driveways does meet PennDOT's desirable sight distance criteria. Copies of the PennDOT M-950S forms are provided in **Appendix E.**

Table 3 - Sight Distance Evaluation
Old York Road (S.R. 0611) and Southern Access

Movement	Direction	Posted Speed (mph)	Approximate Grade	PennDOT Requirements (feet)		Available Sight Distance (feet)
				Desirable [1]	Acceptable [2]	
Exiting	Looking Left	35	+2%	440	242	300

(1) Based on the desirable sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

(2) Based on the safe stopping sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

Old York Road (S.R. 0611) and Northern Access

Movement	Direction	Posted Speed (mph)	Approximate Grade	PennDOT Requirements (feet)		Available Sight Distance (feet)
				Desirable [1]	Acceptable [2]	
Exiting	Looking Left	35	+5%	440	233	621

(1) Based on the desirable sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

(2) Based on the safe stopping sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

Susquehanna Road (S.R. 2017) and Western Access

Movement	Direction	Posted Speed (mph)	Approximate Grade	PennDOT Requirements (feet)		Available Sight Distance (feet)
				Desirable [1]	Acceptable [2]	
Exiting	Looking Left	25	-2%	250	150	580

(1) Based on the desirable sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

(2) Based on the safe stopping sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

Susquehanna Road (S.R. 2017) and Eastern Access/Sunrise of Abington

Movement	Direction	Posted Speed (mph)	Approximate Grade	PennDOT Requirements (feet)		Available Sight Distance (feet)
				Desirable [1]	Acceptable [2]	
Exiting	Looking Left	25	-2%	250	150	581
	Looking Right	25	+2%	195	144	352
Left turn Entering	Looking Ahead	25	-2%	190	150	606
	From the Rear	25	+2%	190	144	303

(1) Based on the desirable sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

(2) Based on the safe stopping sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

Future Traffic Conditions

This section presents the future build-out year (2020) traffic conditions, both without and with the proposed development, which is anticipated to be completed and occupied by 2020. The future 2020 without-development traffic volumes were estimated by increasing the existing 2017 traffic volumes to account for regional growth, as described below. After the removal of the existing YMCA traffic from the site, the incremental increase due to the anticipated trip generation for the site was then added, resulting in the future 2020 with-development traffic volumes.

Regional Traffic Growth

To account for regional traffic growth, the existing traffic volumes were increased by an annual traffic growth rate 0.61 percent per year compounded for three years (1.84 percent total) to 2020 build-out year. This growth rate is consistent with the traffic growth rate recommended by the PennDOT Bureau of Planning and Research *Growth Factors for August 2016 to July 2017* for similar urban, non-interstate roadways in Montgomery County. It should be noted that this rate is more conservative than those recommended in the updated *Growth Factors for August 2017 to July 2018* document, which indicates a yearly growth rate of 0.41 per year.

Planned Roadway Improvements

According to a *Conceptual Plan* prepared by Traffic Planning and Design, Inc., dated July 7, 2015, improvements are planned for the intersection of Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017), including restriping all approaches, providing a new right-turn lane along the eastbound approach of Susquehanna Road (S.R. 2017), cutting back the median for lane shift along the northbound approach of Old York Road (S.R. 0611), and increasing the southeast corner radius.

Future Traffic Conditions

The total background growth was then added to the existing 2017 traffic volumes, resulting in the future 2020 build-out year without-development traffic volumes. Next, after removal of all traffic associated with the existing YMCA as illustrated in Figure 3, the site generated traffic volumes, as shown in Figure 4B, were added to the future 2020 build-out year without-development traffic volumes, resulting in the future 2020 build-out year with-development traffic volumes. Spreadsheets summarizing the volume projections from the existing year (2017) to the future build-out year (2020) are provided in **Appendix F**.

The resultant future 2020 build-out year peak hour traffic volumes without development are illustrated in **Figure 5A.** The future 2020 build-out year with-development peak hour traffic volumes are illustrated in **Figure 5B**. These traffic volumes were then analyzed to determine the future 2020 build-out year without- and with- development traffic operating conditions, and the results of the analyses are shown in **Figure 5C** for the without-development conditions and in **Figure 5D** for the base with-development conditions.

Capacity/Level-of-Service Results

The peak hour traffic volumes were analyzed to determine the existing and future traffic operating conditions, both without and with the proposed development, in accordance with the standard techniques contained in the current *Highway Capacity Manual (2010)* for both signalized and unsignalized intersections. The HCM 2010 Methodology within Synchro 8.0 (build 806, rev. 77) traffic analysis software was utilized to complete traffic analyses, unless otherwise noted.

These standard capacity/level-of-service analysis techniques, which calculate total control delay, are described in **Appendix G** for both signalized and unsignalized intersections, as well as the correlation between average total control delay and the respective level-of-service (LOS) criteria for each intersection type.

According to PennDOT's *Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permit Plans,* the following procedures and assumptions were utilized:

- For signalized intersections, the Pennsylvania base saturation flow rate (Exhibit 10-9) and Pennsylvania traffic signal control calibration parameters (Exhibit 10-10) outlined in PennDOT's *Publication 46, Traffic Engineering Manual,* were used.

- For unsignalized intersections, the base critical headways at TWSC intersections (Exhibit 10-11) and base follow-up headways at TWSC intersections (Exhibit 10-12) outlined in PennDOT's *Publication 46, Traffic Engineering Manual,* were used.

- If the evaluation of without development to with development indicates that the overall intersection level-of-service has dropped, the applicant will be required to mitigate the level-of-service if the increase in delay is greater than 10 seconds. If the overall intersection delay increase is less than or equal to 10 seconds, mitigation of the intersection will not be required.

- Vehicle queues are based on the *2010 Highway Capacity Manual* methodology, which are initially reported in vehicles. The reported number of vehicles was then converted to feet by multiplying by a factor of 25.

The existing and future build-out year (2020) traffic conditions, both without and with the proposed development are summarized in Figures 2B, 5C, and 5D, respectively, while the detailed capacity/level-of-service analysis worksheets are provided in **Appendices H, I, and J.** **Table 4** summarizes the overall levels of service for the study intersections for the existing and future without- and with-development conditions. Since the redevelopment of the site will result in less traffic, operations are anticipated to improve. The detailed level-of-service and queue matrices are provided at the end of the report in **Tables 5 and 6.**

Table 4- Overall Intersection Levels-of-Service
2020 Build-out Year Weekday Morning Peak Hour

Intersection	2017 Existing	Without Development	With Development [1]	Delay Increase for LOS Drop [2]	Requires Mitigation?
Old York Road (S.R. 0611) and Adams Avenue	A (0.5)	A (0.5)	A (0.5)	n/a	No
Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017)	D (37.9)	D (39.2)	D (36.2)	n/a	No
Susquehanna Road (S.R. 2017) and Sunrise of Abington/ Eastern Access	A (0.1)	A (0.1)	A (0.5)	n/a	No
Susquehanna Road (S.R. 2017) and Huntingdon Road	A (2.5)	A (2.6)	A (2.4)	n/a	No

(1) Base with no-improvements condition is shown.
(2) Based on difference from with development to without-development.

2020 Build-out Year Weekday Afternoon Peak Hour

Intersection	2015 Existing	Without Development	With Development [1]	Delay Increase for LOS Drop [2]	Requires Mitigation?
Old York Road (S.R. 0611) and Adams Avenue	A (0.3)	A (0.3)	A (0.3)	n/a	No
Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017)	D (48.2)	D (50.6)	D (44.1)	n/a	No
Susquehanna Road (S.R. 2017) and Sunrise of Abington/Eastern Access	A (0.1)	A (0.1)	A (0.7)	n/a	No
Susquehanna Road (S.R. 2017) and Huntingdon Road	A (4.6)	A (5.0)	A (4.7)	n/a	No

(1) Base with no-improvements condition is shown.
(2) Based on difference from with development to without-development.

Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017)

At this signalized intersection, the analyses indicates that the existing and future queues associated with the westbound approach of Susquehanna Road (S.R. 2017) during both peak hours will extend beyond the new western and eastern accesses for the site. It is recommended that "Do Not Block Drivewat" driveway signage be installed at the western access. Observations of the operations of the intersection do indicate that there are gaps in the traffic that will support the left-turn egress movements from the western access.

Along the northbound approach of York Road (S.R. 0611), the anticipated existing and future queues from the signalized approach are also anticipated to extend beyond the locations of the new northern and southern driveways. It is recommended that "Do Not Block Driveway" signage also be installed to allow for potential right-turn egress movements from these driveways.

According to the Township, potential improvements are planned for this signalized intersection. A *Conceptual Plan* prepared by Traffic Planning and Design, Inc., dated July 7, 2015, is provided in **Appendix K**, which illustrates restriping all approaches, providing a new right-turn lane along the eastbound approach of Susquehanna Road (S.R. 2017), cutting back the median for lane shift along the northbound approach of Old York Road (S.R. 0611), and increasing the southeast corner radius. A

supplemental analyses was completed for the 2020 build-out year to account for the completion of these improvements. The supplemental analysis results are also provided in Appendix K. While the planned improvements will benefit the region, the improvements are not required in conjunction with the redevelopment of the site, as the proposed age-restricted apartments will generate less traffic compared to the existing YMCA and the intersections will continue to operate at the same acceptable conditions overall (LOS D) during both peak hours without these potential improvements.

Old York Road (S.R. 0611) and Northern Site Access

As proposed, stop-control will be provided along the approach to Old York Road (S.R 0611) and the intersection will be restricted to right-in/right-out only movements. For the 2020 build-out year, the stop-controlled approach will operate acceptably (LOS B) during the weekday morning and weekday afternoon peak hours.

Old York Road (S.R. 0611) and Southern Site Access

As proposed, stop-control will be provided along the approach to Old York Road (S.R 0611) and the intersection will be restricted to right-in/right-out only movements. For the 2020 build-out year, the stop-controlled approach will operate acceptably (LOS B) during the weekday morning and weekday afternoon peak hours.

Susquehanna Road (S.R. 2017) and Sunrise of Abington/Western Site Access

As proposed, stop-control will be provided along the new access approach to Susquehanna Road (S.R. 2017). For 2020 build-out year, the stop-controlled approach will operate acceptably (LOS D or better) during the weekday morning and weekday afternoon peak hours.

Susquehanna Road (S.R. 2017) and Eastern Site Access

As proposed, stop-control will be provided along the new access approach to Susquehanna Road (S.R. 2017). For 2020 build-out year, the stop-controlled approach will operate acceptably (LOS C) during the weekday morning and weekday afternoon peak hours.

Conclusions and Recommendations

A review of the overall levels-of-service indicates that the off-site study intersections will operate at acceptable levels-of-service overall (LOS D) from without- to with-development conditions for the future build-out year (2020). Based on the results of this evaluation, the following access configurations and traffic controls are recommended and are subject to detailed engineering of the site accesses:

Old York Road (S.R. 0611) and Southern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide curbed (minimum) egress lane;
- Restrict the site access to right-in/right-out only movements with an appropriate signage to deter prohibited movements;
- Provide stop-control along the site access approach to Old York Road (S.R. 0611);
- Install "Do Not Block Driveway" signage along the northbound approach of Old York Road (S.R. 0611);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Old York Road (S.R. 0611) and Northern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide curbed (minimum) egress lane;
- Restrict the site access to right-in/right-out only movements with an appropriate signage to deter prohibited movements;
- Provide stop-control along the site access approach to Old York Road (S.R. 0611);
- Install "Do Not Block Driveway" signage along the northbound approach of Old York Road (S.R. 0611);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Susquehanna Road (S.R. 2017) and Western Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide (minimum) curbed egress lane;
- Restrict the site access to right-in/left-in/right-out only movements with a channelization island and appropriate signage to deter prohibited left-out movements;
- Provide stop-control along the site access approach to Susquehanna Road (S.R. 2017);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

Susquehanna Road (S.R. 2017) and Eastern Site Access

- Provide one 12-foot wide (minimum) curbed ingress lane and one 12-foot wide (minimum) curbed egress lane;
- Provide stop-control along the site access approach to Susquehanna Road (S.R. 2017);
- Install "Do Not Block Driveway" signage along the westbound approach of Susguehanna Road (S.R. 2017);
- Provide ADA compliant ramps and crossings for the sidewalk system crossing the site access; and
- Provide appropriate curb radii based upon the largest vehicle anticipated to utilize the site access.

As the redevelopment of the site will generate less traffic than the existing YMCA use, area traffic operations should improve with the planned development. Therefore no off-site mitigation measures are planned with the redevelopment of the site.

Table 5 - Level of Service Matrices

0- Old York Road (S.R. 0611) and Southern Access

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Proposed Access	WB	Right	(2)	(2)	B 12.0	(2)	(2)	B 14.1
Old York Road (S.R. 0611)	NB	Thru	(2)	(2)	(1)	(2)	(2)	(1)
		Thru/Right						
	SB	Thru	(2)	(2)	(1)	(2)	(2)	(1)
Overall			(2)	(2)	A 0.0	(2)	(2)	A 0.0

(1) Movement operates at free-flow conditions.

(2) Intersection does not exist.

Table 5 - Level of Service Matrices

1- Old York Road (S.R. 0611) and Adams Avenue

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Adams Avenue	EB	Left	B	C	C	C	C	C
		Right	14.8	15.0	15.2	15.4	15.7	15.7
Old York Road (S.R. 0611)	NB	Left	B 10.6	B 10.7	B 10.7	B 11.6	B 11.7	B 11.7
		Thru	(1)	(1)	(1)	(1)	(1)	(1)
	SB	Thru	(1)	(1)	(1)	(1)	(1)	(1)
		Right						
Overall			A 0.5	A 0.5	A 0.5	A 0.3	A 0.3	A 0.3

(1) Movement operates at free-flow conditions.

Table 5 - Level of Service Matrices

2- Old York Road (S.R. 0611) and Northern Access

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Proposed Access	WB	Right	(2)	(2)	B 12.0	(2)	(2)	B 13.6
Old York Road (S.R. 0611)	NB	Thru	(2)	(2)	(1)	(2)	(2)	(1)
		Thru/Right						
	SB	Thru	(2)	(2)	(1)	(2)	(2)	(1)
Overall			(2)	(2)	A 0.0	(2)	(2)	A 0.0

(1) Movement operates at free-flow conditions.

(2) Intersection does not exist.

Table 5 - Level of Service Matrices

3- Old York Road (S.R. 0611) and Existing YMCA Access

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Existing Access	WB	Right	B 12.5	B 12.7	(2)	B 14.2	B 14.5	(2)
Old York Road (S.R. 0611)	NB	Thru	(1)	(1)	(2)	(1)	(1)	(2)
	SB	Thru	(1)	(1)	(2)	(1)	(1)	(2)
Overall			A 0.3	A 0.3	(2)	A 0.2	A 0.2	(2)

(1) Movement operates at free-flow conditions.

(2) Intersection does not exist.

Table 5 - Level of Service Matrices

4-Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017)

Time Period			Weekday Morning Peak Hour				Weekday Afternoon Peak Hour			
Design Year			2017 Existing	2020 Build-Out Year			2017 Existing	2020 Build-Out Year		
Development Condition				w/o Dev	w/Dev	Supp [1]		w/o Dev	w/Dev	Supp [1]
Susquehanna Road (S.R. 2017)	EB	Left	D 51.1	D 52.2	D 50.8	D 50.8	E 56.9	E 58.3	E 55.1	E 55.1
		Thru	C	C	C	C 25.3	D	D	D	C 33.4
		Right	32.1	32.6	30.1	C 24.3	43.7	44.7	39.3	C 27.9
	WB	Left	D 40.9	D 41.5	D 38.9	C 31.0	D 54.5	E 55.5	D 50.7	D 43.8
		Thru/Right	D 50.8	D 53.7	D 49.9	D 50.0	D 51.1	D 53.5	D 47.6	D 48.1
Old York Road (S.R. 0611)	NB	Left	C 22.2	C 22.5	C 21.9	C 21.8	D 40.2	D 44.2	D 41.1	D 40.9
		Thru	D 40.2	D 41.5	D 36.3	D 36.2	D 52.3	D 54.6	D 45.4	D 45.1
		Thru/Right	D 40.1	D 41.4	D 36.2	D 36.1	D 52.4	D 54.8	D 45.3	D 45.1
	SB	Left	C 26.8	C 27.9	C 22.9	C 22.8	E 62.2	E 72.1	D 43.2	D 43.0
		Thru	C 34.1	C 34.9	C 34.0	C 33.9	D 42.2	D 43.6	D 43.1	D 42.9
		Thru/Right	C 33.9	C 34.7	C 33.8	C 33.7	D 41.9	D 43.3	D 42.9	D 42.6
Overall			D 37.9	D 39.2	D 36.2	D 35.4	D 48.2	D 50.6	D 44.1	D 43.0

(1) Based on supplumental analysis results based on the Concept Plan provided by Traffic Planning and Design, Inc, dated July 7, 2015.

Table 5 - Level of Service Matrices

5- Susquehanna Road (S.R. 2017) and Western Access (Existing YMCA Ingress Only Access)

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Thru	(1)	(1)	(1)	(1)	(1)	(1)
		Right						
	WB	Left	A	A	A	A	A	A
		Thru	0.0	0.0	0.0	0.0	0.0	0.1
Western Access	NB	Right	(2)	(2)	B	(2)	(2)	B
					10.9			13.1
Overall			A	A	A	A	A	A
			0.0	0.0	0.0	0.0	0.0	0.1

(1) Movement operates at free-flow conditions.

(2) Approach/Movement does not exist.

Table 5 - Level of Service Matrices

6- Susquehanna Road (S.R. 2017) and Existing YMCA Full-Movement Access

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Thru	(1)	(1)	(2)	(1)	(1)	(2)
		Right						
	WB	Left	A 0.6	A 0.6	(2)	A 0.4	A 0.4	(2)
		Thru						
YMCA Access (Eastern)	NB	Left	D 25.4	D 26.3	(2)	D 31.1	D 32.3	(2)
		Right	B 11.4	B 11.5		B 13.6	B 13.8	
Overall			A 1.1	A 1.2	(2)	A 1.3	A 1.3	(2)

(1) Movement operates at free-flow conditions.

(2) Intersection does not exist.

Table 5 - Level of Service Matrices

7- Susquehanna Road (S.R. 2017) and Eastern Access/Sunrise of Abington

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Left	A	A	A	A	A	A
		Thru	0.1	0.1		0.1	0.1	
		Right	(1)	(1)	0.1	(1)	(1)	0.1
	WB	Left	(1)	(1)	A	(1)	(1)	A
		Thru	(2)	(2)		(2)	(2)	
		Right			0.0			0.1
Proposed Access	NB	Left			C			D
		Thru	(1)	(1)		(1)	(1)	
		Right			22.0			31.5
Sunrise of Abington	SB	Left	B	B	B	B	B	B
		Thru [3]						
		Right	12.1	12.3	11.9	11.7	11.8	11.6
Overall			A	A	A	A	A	A
			0.1	0.1	0.5	0.1	0.1	0.7

(1) Movement/Approach does not exist.

(2) Movement operates at free-flow conditions.

(3) Thruogh movement does not exist under existing and without development conditions.

Table 5 - Level of Service Matrices

9- Susquehanna Road (S.R. 20171) and Huntingdon Road

Time Period			Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
Design Year			2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
Development Condition				w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Left	A	A	A	A	A	A
		Thru	1.0	1.0	0.9	0.9	0.9	0.9
		Right						
	WB	Left	A	A	A	A	A	A
		Thru	0.1	0.1	0.1	0.1	0.1	0.1
		Right						
Huntingdon Road	NB	Left	C	C	C	D	D	D
		Thru	17.4	17.9	16.8	33.0	34.6	32.8
		Right						
	SB	Left	C	C	C	F	F	F
		Thru	22.6	23.6	21.7	51.5	56.1	51.5
		Right						
Overall			A	A	A	A	A	A
			2.5	2.6	2.4	4.6	5.0	4.7

Table 6 - 95th Percentile Queue

0- Old York Road (S.R. 0611) and Southern Access

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage [1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Proposed Access	WB	Right	(2)	30	(2)	(2)	0	(2)	(2)	0
Old York Road (S.R. 0611)	NB	Thru	(2)	300	(2)	(2)	0	(2)	(2)	0
		Thru/Right								
	SB	Thru	(2)	n/a	(2)	(2)	0	(2)	(2)	0

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Intersection does not exist.

Table 6 - 95th Percentile Queue

1- Old York Road (S.R. 0611) and Adams Avenue

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage [1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Adams Avenue	EB	Left	≥1,000	≥1,000	10	13	13	8	8	8
		Right								
Old York Road (S.R. 0611)	NB	Left	120	120	3	3	3	5	5	5
		Thru	420	115	0	0	0	0	0	0
	SB	Thru	420	420	0	0	0	0	0	0
		Right								

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

Table 6 - 95th Percentile Queue

2- Old York Road (S.R. 0611) and Northern Access

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage [1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Proposed Access	WB	Right	(2)	30	(2)	(2)	0	(2)	(2)	0
Old York Road (S.R. 0611)	NB	Thru	(2)	80	(2)	(2)	0	(2)	(2)	0
		Thru/Right								
	SB	Thru	(2)	n/a	(2)	(2)	0	(2)	(2)	0

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Intersection does not exist.

Table 6 - 95th Percentile Queue

3- Old York Road (S.R. 0611) and Existing YMCA Access

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage[1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Existing Access	WB	Right	100	(2)	8	8	(2)	8	8	(2)
Old York Road (S.R. 0611)	NB	Thru	n/a	(2)	0	0	(2)	0	0	(2)
	SB	Thru	n/a	(2)	0	0	(2)	0	0	(2)

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Intersection does not exist.

Table 6 - 95th Percentile Queue

4-Old York Road (S.R. 0611) and Susquehanna Road (S.R. 2017)

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage [1] (feet)	Weekday Morning Peak Hour				Weekday Afternoon Peak Hour			
					2017 Existing	2020 Build-Out Year			2017 Existing	2020 Build-Out Year		
						w/o Dev	w/Dev (Base)	Supp [2]		w/o Dev	w/Dev (Base)	Supp [2]
Susquehanna Road (S.R. 2017)	EB	Left	115	115	23	23	23	23	60	63	60	60
		Thru	950	950	433	440	380	243	570	585	500	385
		Right		950, 60 [3]				128				88
	WB	Left	100	100	53	55	63	58	90	93	95	88
		Thru/Right	215	215	693	723	680	683	645	668	605	608
Old York Road (S.R. 0611)	NB	Left	180	180	98	100	95	95	223	233	220	220
		Thru	250	300	528	545	488	488	738	763	680	680
		Thru/Right	250	300	538	553	503	498	750	775	693	693
	SB	Left	115	115	163	168	133	133	430	458	258	258
		Thru	≥1,000	≥1,000	468	480	475	475	665	688	685	685
		Thru/Right	≥1,000	≥1,000	483	495	490	490	688	708	708	708

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Supplumental analysis results based on the Concept Plan provided by Traffic Planning and Design, Inc, dated July 7, 2015.

(3) A separate 60-foot right-turn lane was recommended based on the Concept Plan provided by Traffic Planning and Design, Inc, dated July 7, 2015.

Table 6 - 95th Percentile Queue

5- Susquehanna Road (S.R. 2017) and Western Access (Existing YMCA Ingress Only Access)

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage[1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Thru	215	215	0	0	0	0	0	0
		Right								
	WB	Left	115	310	0	0	0	0	0	0
		Thru								
Western Access	NB	Right	(2)	50	(2)	(2)	0	(2)	(2)	0

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Approch/movement does not exist.

Table 6 - 95th Percentile Queue

6- Susquehanna Road (S.R. 2017) and Existing YMCA Full-Movement Access

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage [1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Thru	105	(2)	0	0	(2)	0	0	(2)
		Right								
	WB	Left	160	(2)	5	5	(2)	3	3	(2)
		Thru								
YMCA Access (Eastern)	NB	Left	80	(2)	13	13	(2)	23	23	(2)
		Right			5	5		5	5	

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Intersection does not exist.

Table 6 - 95th Percentile Queue

7- Susquehanna Road (S.R. 2017) and Eastern Access/Sunrise of Abington

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage [1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Left	(2)	570	0	0	0	0	0	0
		Thru								
		Right			(2)	(2)		(2)	(2)	
	WB	Left	(2)	100	(2)	(2)	0	(2)	(2)	0
		Thru			0	0		0	0	
		Right								
Proposed Access	NB	Left	(2)	50	(2)	(2)	8	(2)	(2)	10
		Thru								
		Right								
Sunrise of Abington	SB	Left	125	125	0	0	0	3	3	3
		Thru [3]								
		Right								

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

(2) Movement/Approach does not exist.

(3) Thruogh movement does not exist under existing and without development conditions.

Table 6 - 95th Percentile Queue

9- Susquehanna Road (S.R. 2017) and Huntingdon Road

Time Period / Design Year / Development Condition			Current Storage[1] (feet)	Future Storage[1] (feet)	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour		
					2017 Existing	2020 Build-Out Year		2017 Existing	2020 Build-Out Year	
						w/o Dev	w/Dev (Base)		w/o Dev	w/Dev (Base)
Susquehanna Road (S.R. 2017)	EB	Left / Thru / Right	270	170	5	5	5	8	8	8
	WB	Left / Thru / Right	≥1,000	≥1,000	0	0	0	0	0	0
Huntingdon Road	NB	Left / Thru / Right	≥1,000	≥1,000	3	3	3	5	5	5
	SB	Left / Thru / Right	≥1,000	≥1,000	38	40	35	88	95	88

(1) Distance measured from stop bar, if present, to near edge of closest study area intersection, existing/proposed site access, or adjacent signalized intersection.

FIGURE 1
Site Location Map

PROPOSED AGE-RESTRICTED DEVELOPMENT

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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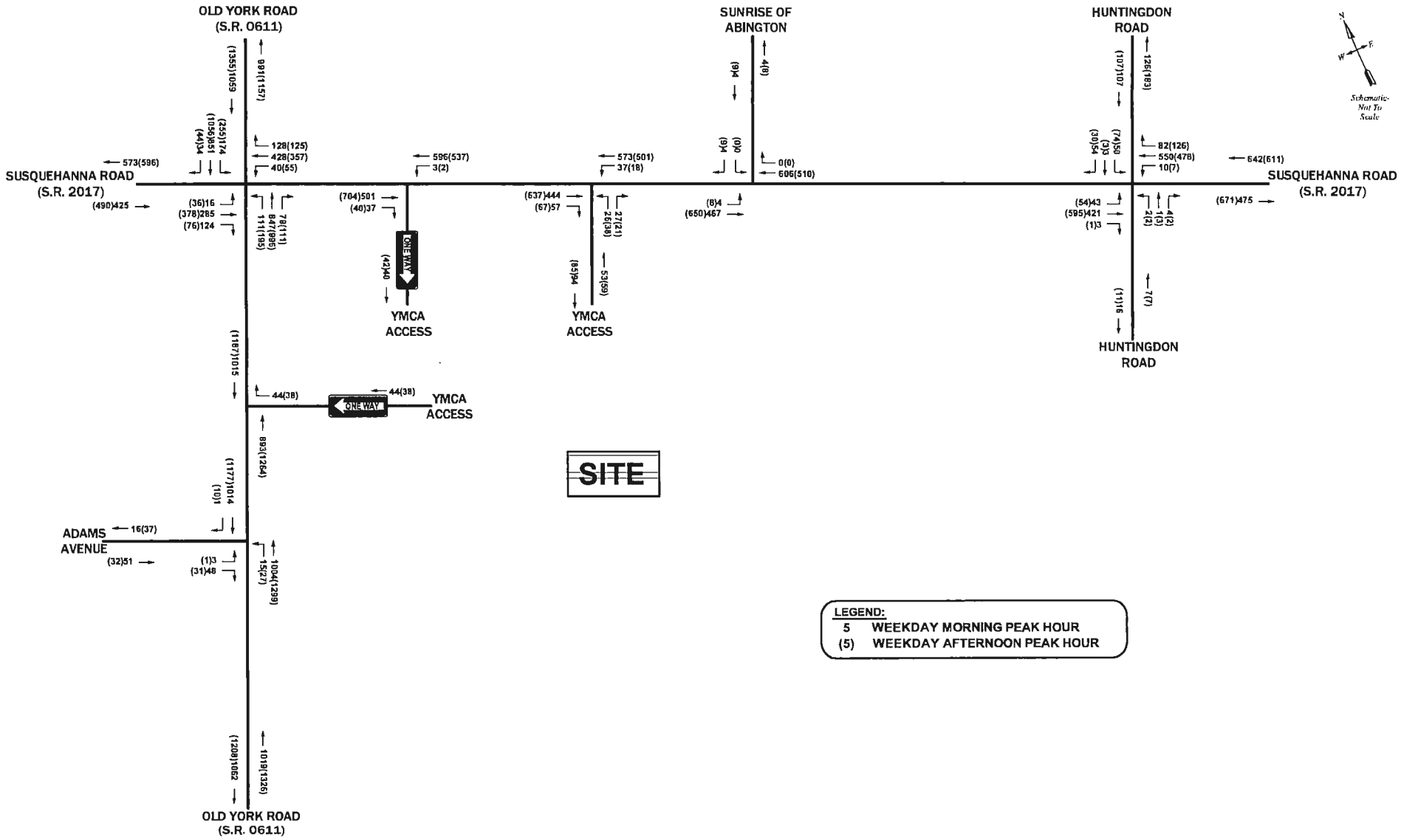

FIGURE 2A

2017 Existing Peak Hour Traffic Volumes

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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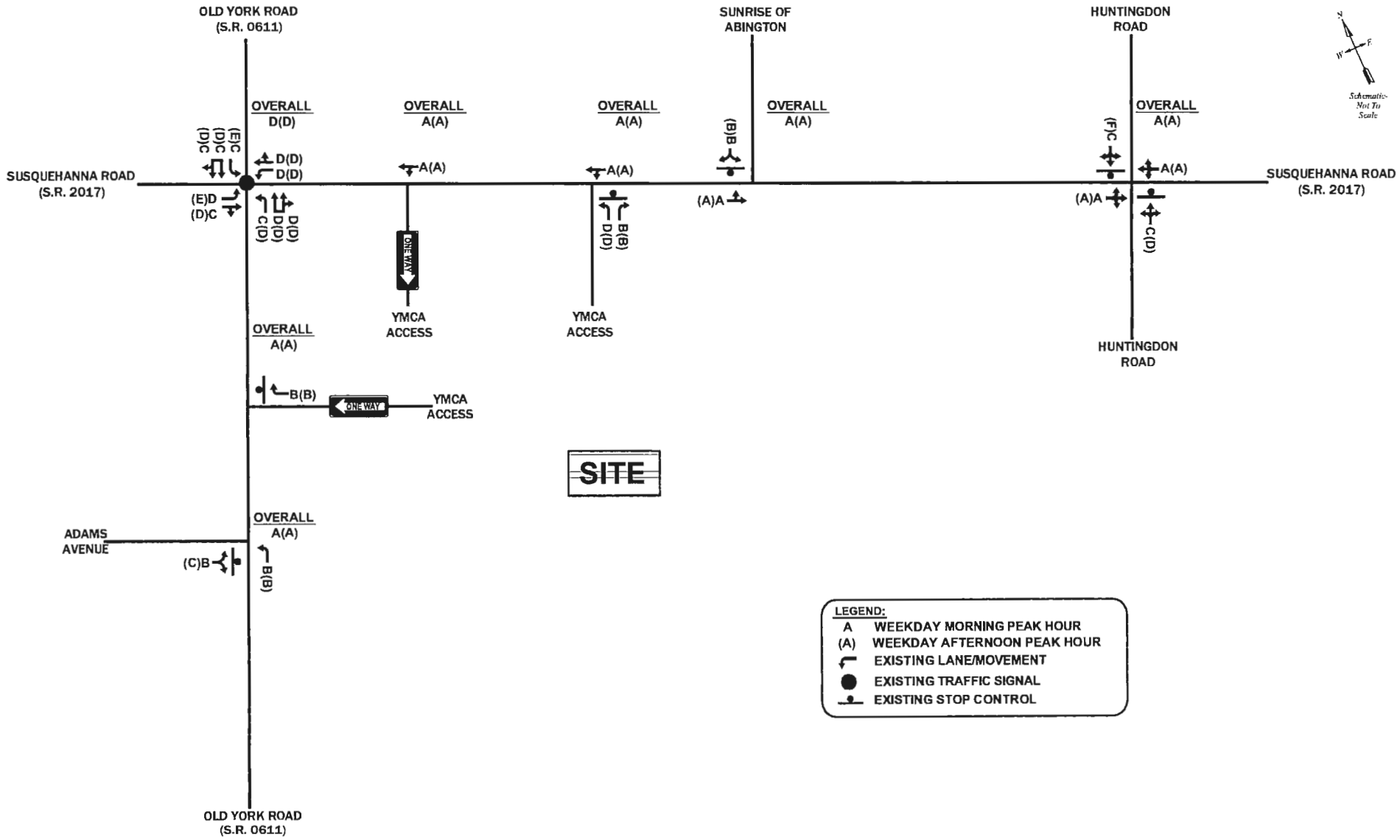

FIGURE 2B

2017 Existing Peak Hour Levels of Service

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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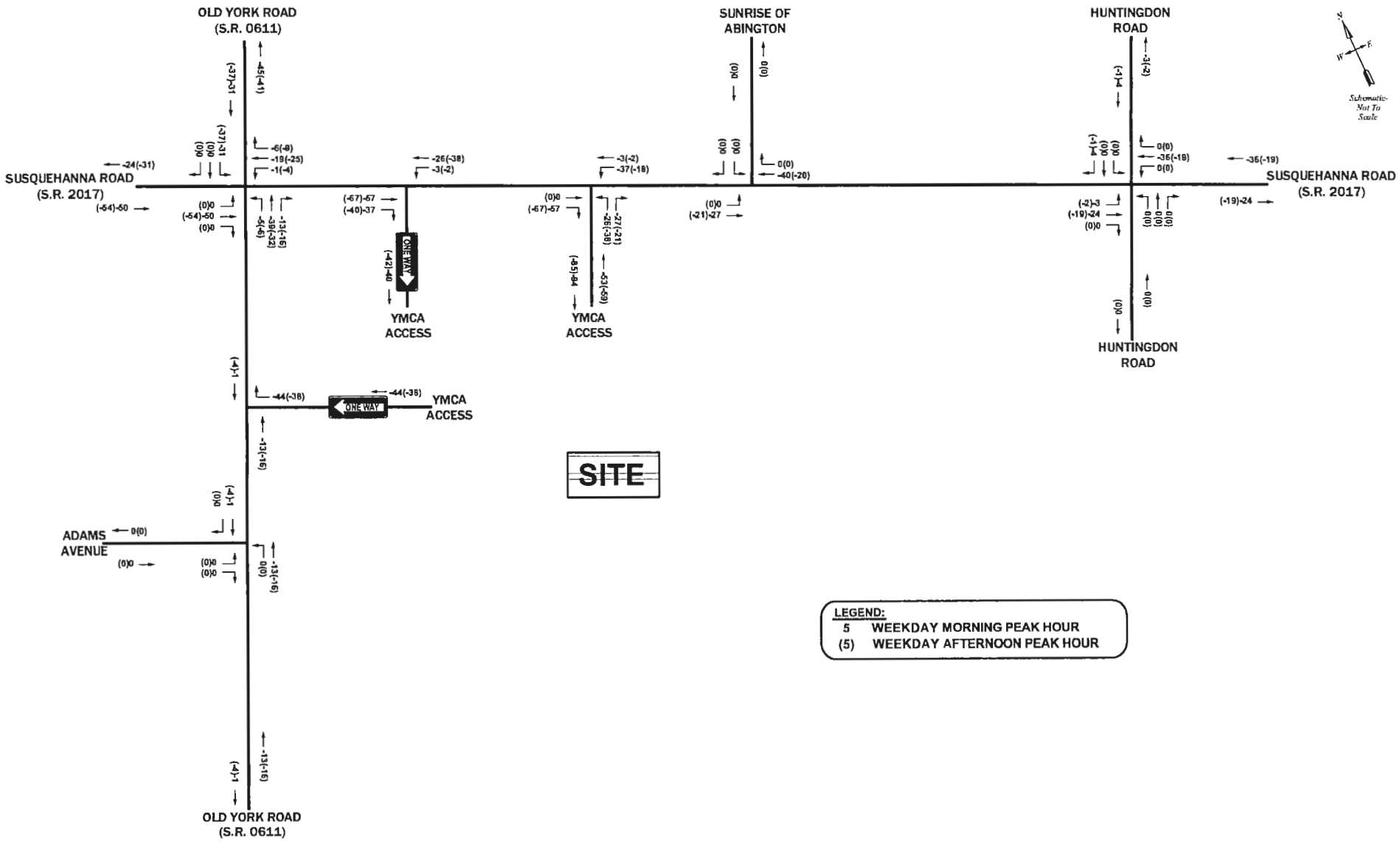

FIGURE 3

Existing Trip Credits

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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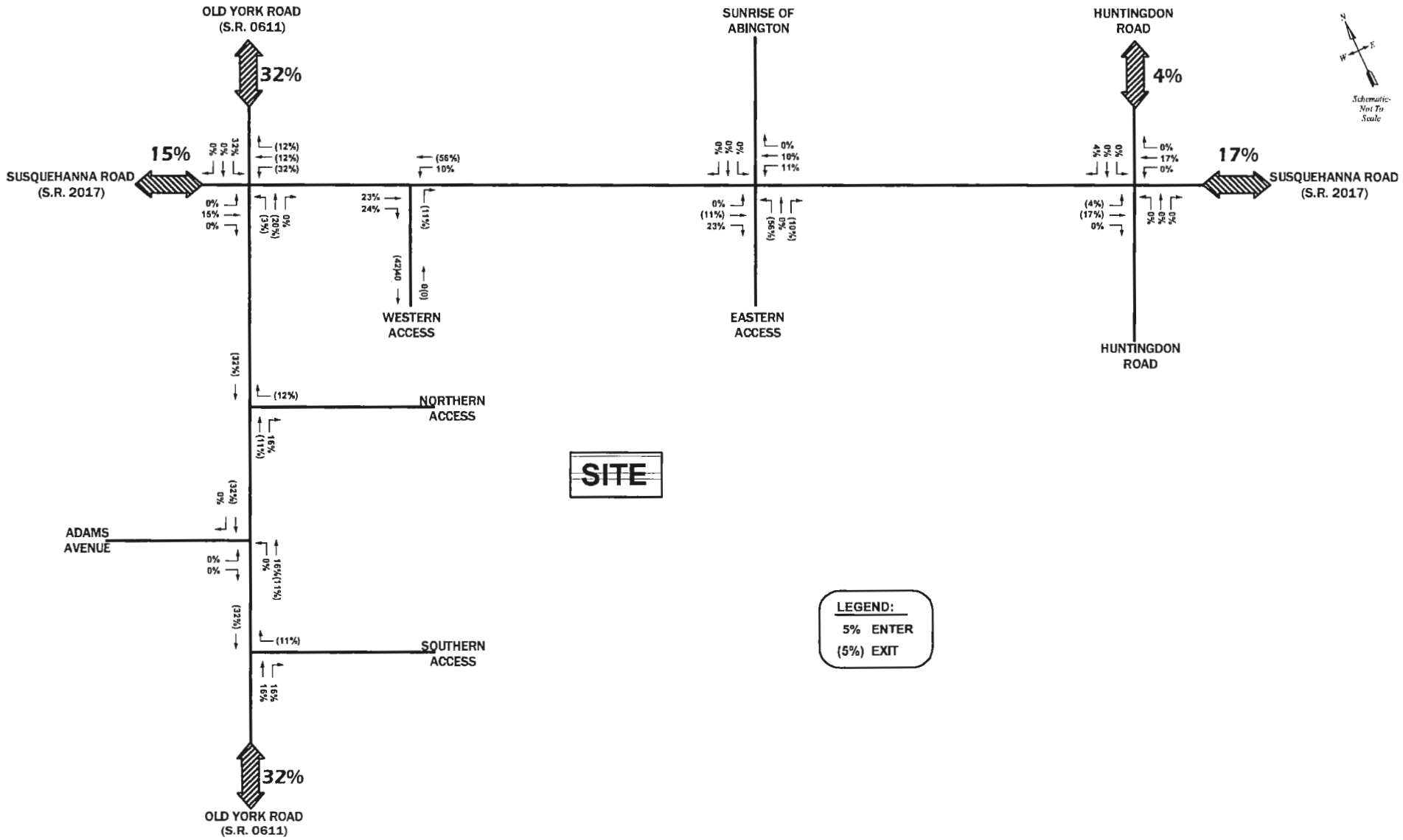

FIGURE4A

Trip Distribution

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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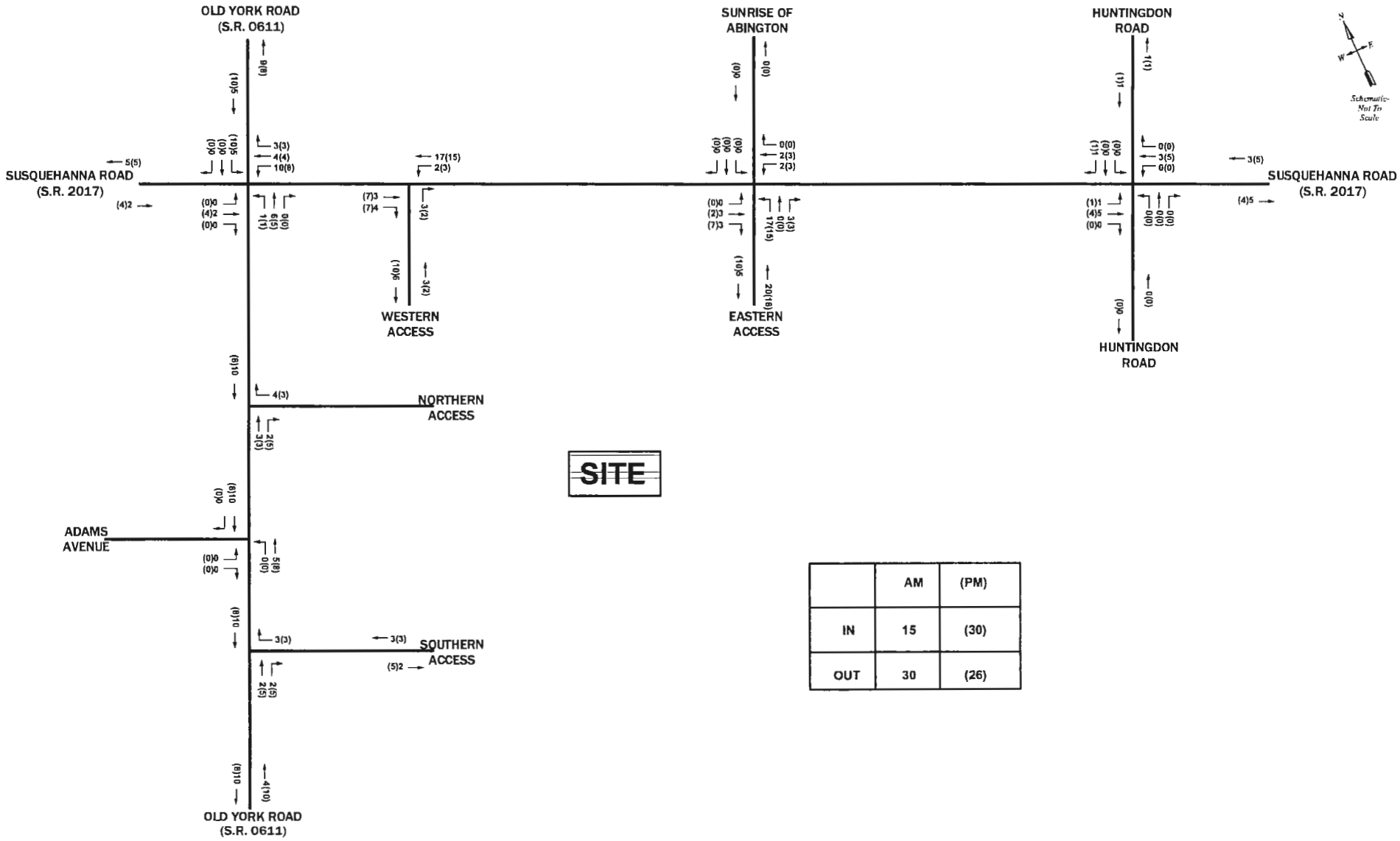

	AM	(PM)
IN	15	(30)
OUT	30	(26)

FIGURE 4B

Trip Assignment

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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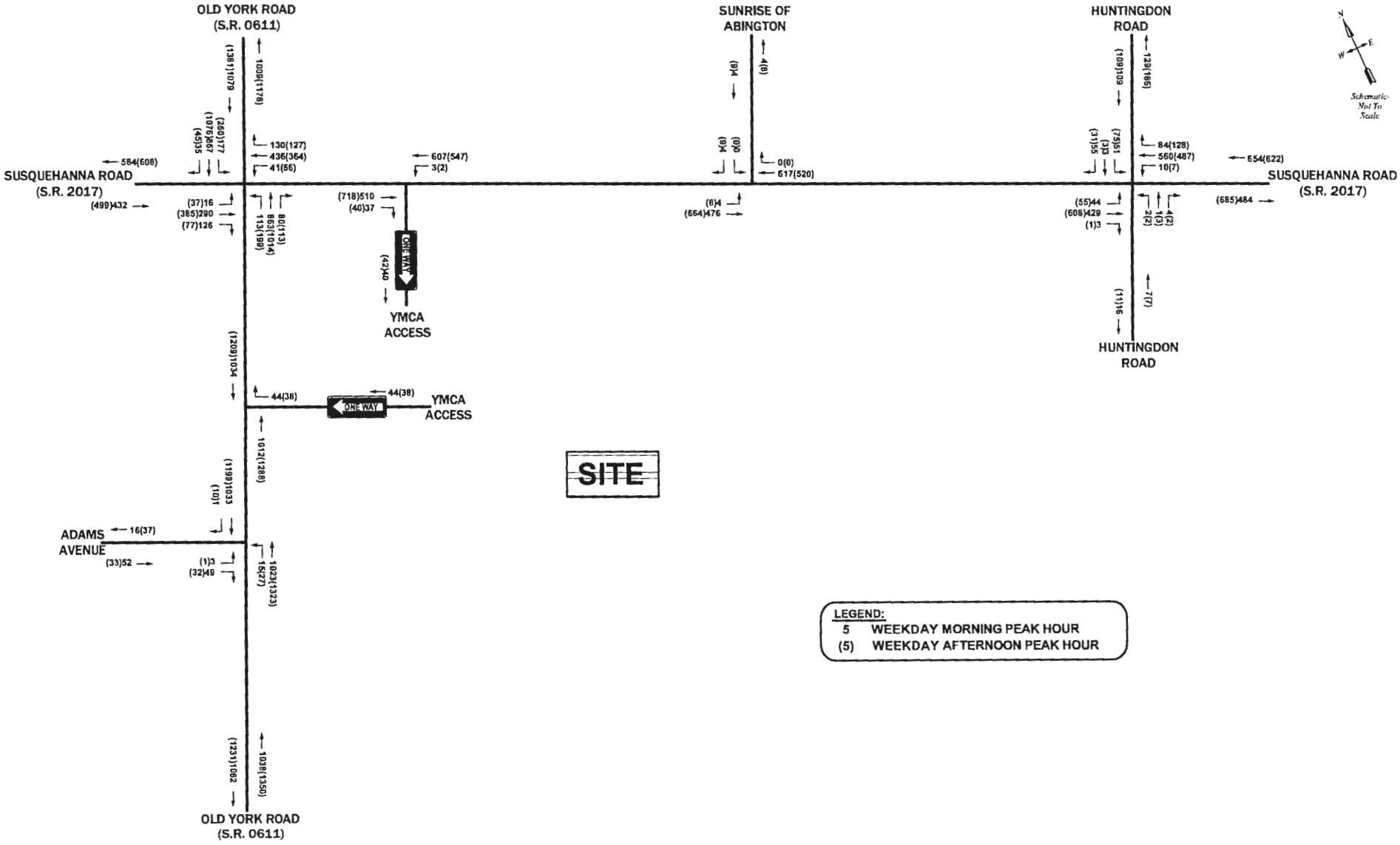

FIGURE 5A

2020 Future Peak Hour Traffic Volumes without Development

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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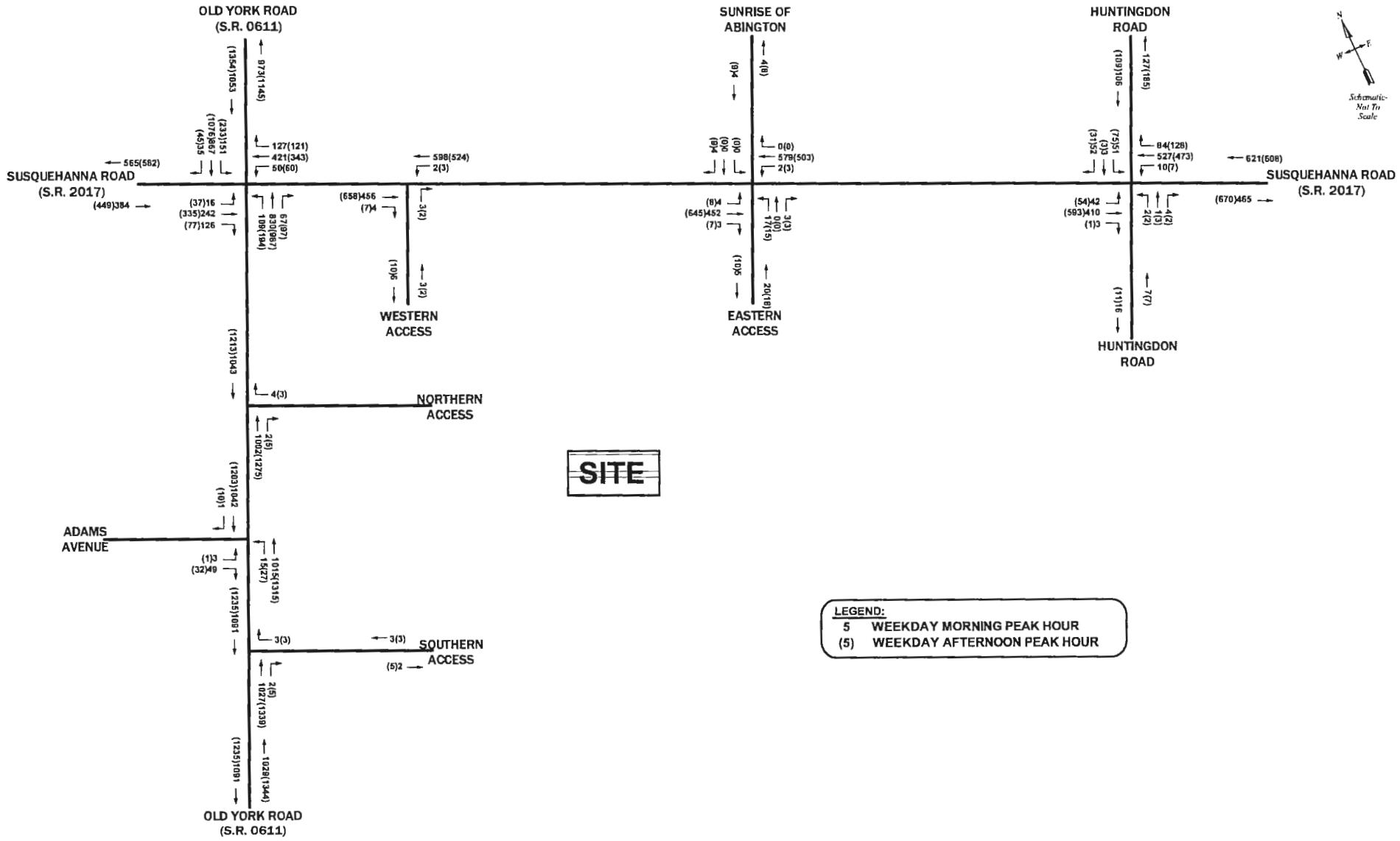

FIGURE 5B

2020 Future Peak Hour Traffic Volumes with Development

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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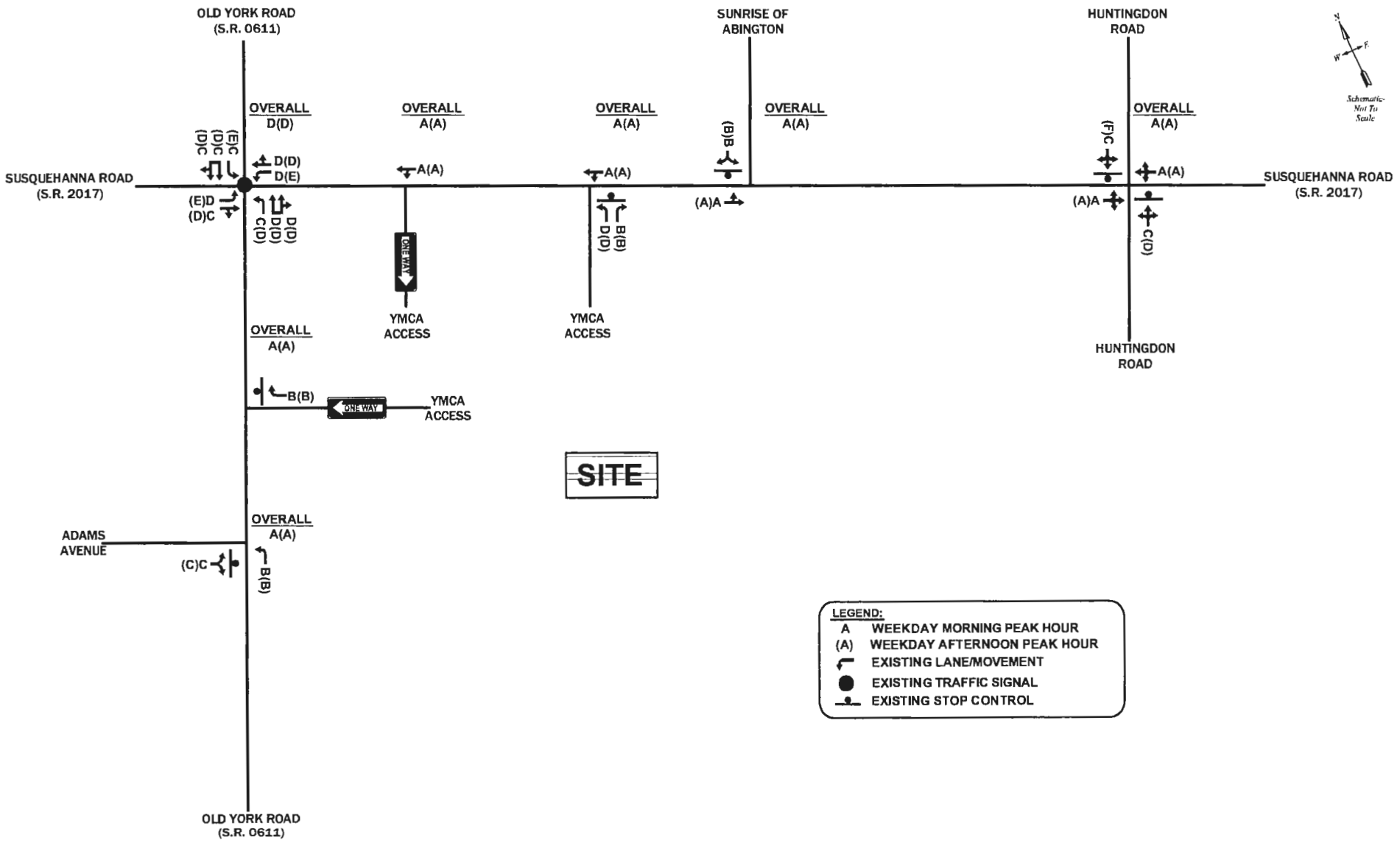

FIGURE 5C

2020 Future Peak Hour Levels of Service without Development

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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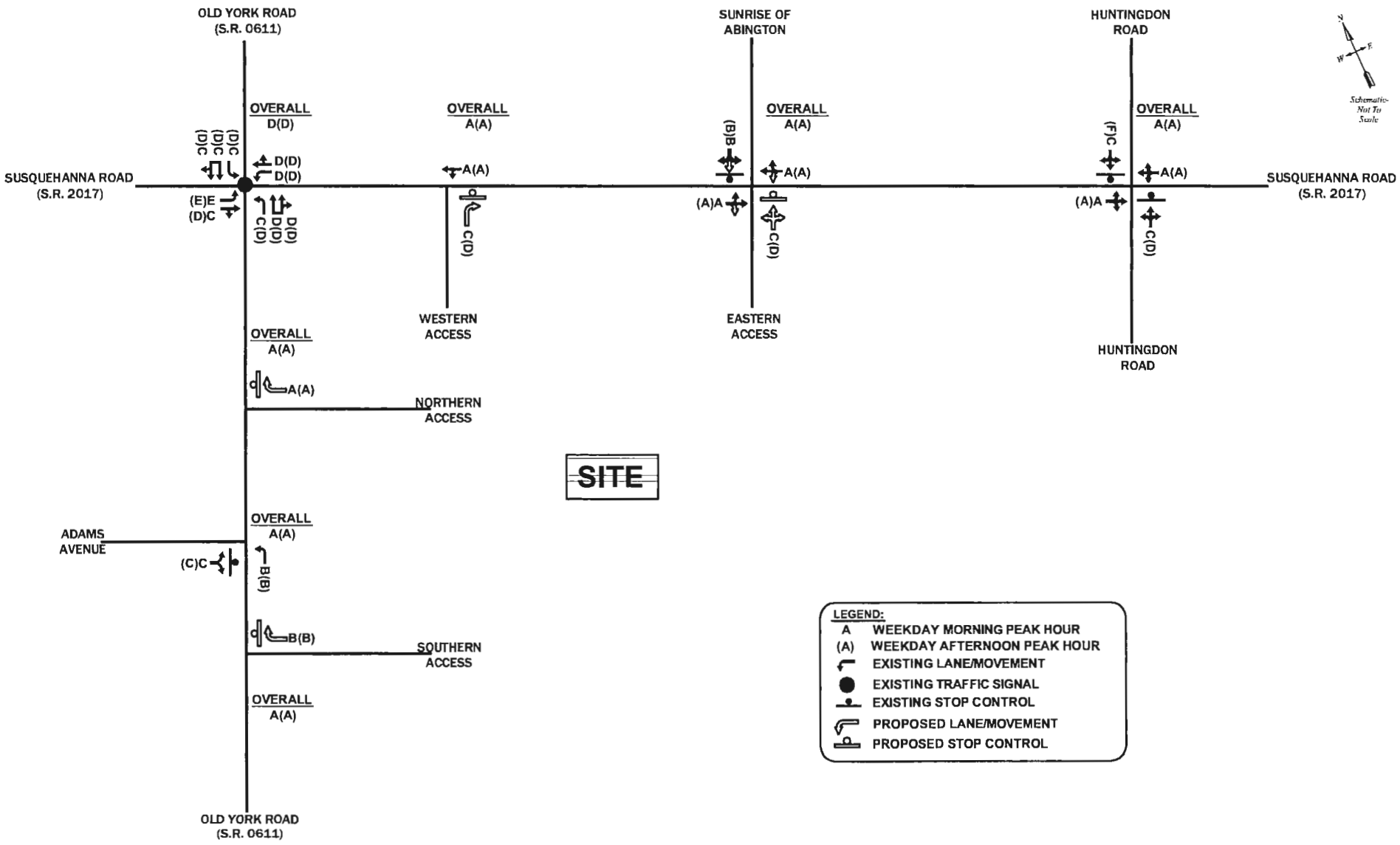

FIGURE 5D

2020 Future Peak Hour Levels of Service with Development

ABINGTON TERRACE

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA

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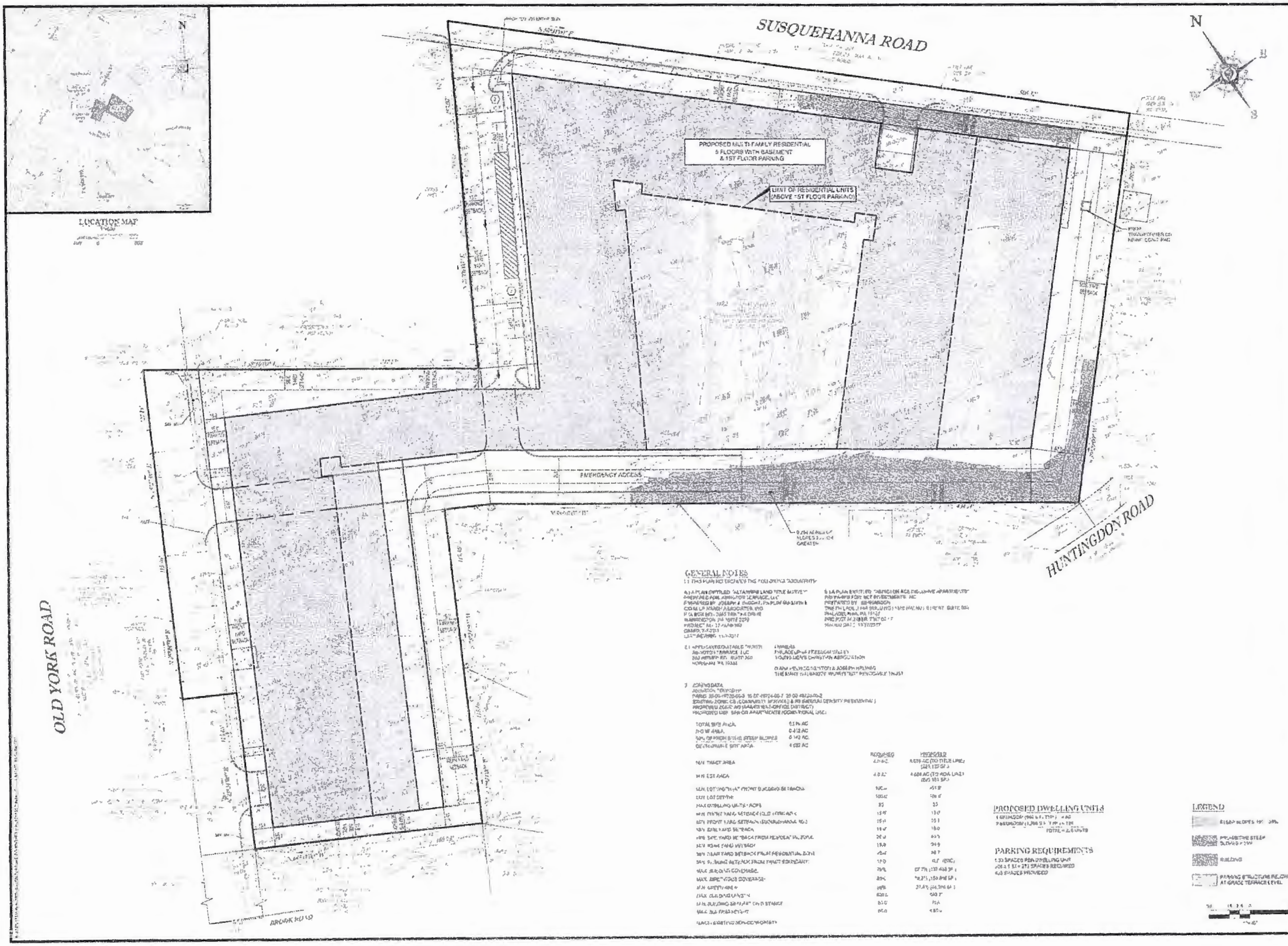

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