

BOARD OF COMMISSIONERS

AGENDA

Monday, April 27, 2015 - 6:30 PM

Pledge of Allegiance

Notice of Executive Session preceding the Board of Commissioners meeting of April 27, 2015

1. Consent Agenda

- a) Disbursement Review and Approval: 2015-04A, 2015-04B, 2015-04Z
- b) Acceptance of Department Monthly Reports
- c) Approval of minutes for the Board of Commissioners meeting of March 23, 2015 & April 13, 2015
- d) Acceptance of Staff Traffic Committee Meeting Minutes of March 18, 2015
- e) Resolution #2015-55 – Award of Superpave Resurfacing Program

2. Letters of Commendation (*Police*) and Recognitions (*Recreation*)

3. Public Participation

4. Committee Reports

PUBLIC SAFETY

A. Ordinance #2015-04 – (***Introduction***) - Section 270-16, Stop Intersections, Adding New Stop Intersections for Oakford Road, Arbordale Road and Creek Drive

B. Ordinance #2015-05 – (***Introduction***) - Chapter 270, Section 270-31 - Rescinding Handicapped Parking Space on David Drive

PUBLIC WORKS & ENGINEERING

C. Motion to Approve the Ardossan Subdivision Planting Berm

D. Resolution #2015-54 – ***Preliminary Approval*** – Preliminary Approval – Villanova University Housing Project

E. Resolution #2015-53 – ***Preliminary Approval***– Preliminary Approval – 145 King of Prussia Road (BioMed)

F. Discussion of a draft PLO amendment as prepared by RETTEW

COMMUNITY DEVELOPMENT

FINANCE & AUDIT

LIBRARY

PARKS & RECREATION

PERSONNEL & ADMINISTRATION

PUBLIC HEALTH

Old Business

New Business

Public Participation

Adjournment

RADNOR TOWNSHIP
DISBURSEMENTS SUMMARY
April 21, 2015

The table below summarizes the amount of disbursements made since the last public meeting held on April 13, 2015. As approved by the Board, the Administration is now making weekly accounts payable disbursement batches and publishing those lists on the Township's web site at the following link. Please refer to those files for a detailed listing of the amounts paid by vendor by account code.

Link: <http://www.radnor.com/egov/apps/document/center.egov?path=browse&id=22>

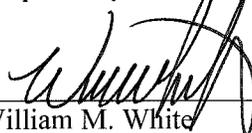
Fund (Fund Number)	2015-4A April 10, 2015	2015-4B April 17, 2015	2015-4Z April 17, 2015	Total
General Fund (01)	801,315.01	69,459.17	5,433.75	\$876,207.93
Sewer Fund (02)	14,210.40	1,839.71	0.00	16,050.11
Capital Improvement Fund (05)	51,743.09	213.71	0.00	51,956.80
Escrow Fund (10)	1,800.00	0.00	0.00	1,800.00
Investigation Fund (12)	157.56	80.00	0.00	237.56
Police K-9 Fund (17)	200.00	200.00	0.00	400.00
\$8 Million Settlement Fund (18)	1,963.80	0.00	0.00	1,963.80
The Willows Fund (23)	1,790.50	0.00	0.00	1,790.50
Total Accounts Payable Disbursements	873,180.36	\$71,792.59	5,433.75	\$950,406.70
<i>Electronic Disbursements</i>	n/a	n/a	n/a	1,138,003.43
Grand Total	\$873,180.36	\$71,792.59	\$5,433.75	\$2,088,410.13

In addition to the accounts payable checks, the Township also has various electronic payments including payroll, debt service, credit card purchases and fees as well as others from time to time. The attached table reflects all of the electronic payments made since the last public Board meeting as well as those anticipated prior to the next Board meeting.

The Administration has adopted various internal control and processing procedures to insure that amounts obligated are within the budgetary limits established by the Board of Commissioners. Those procedures are monitored on a daily basis by members of the Finance Department and responsible employees of the various departments. The amounts included in the table above have been scrutinized as part of the internal control and processing procedures and have obtained the required approvals prior to disbursement.

If you should have any questions, please contact the Finance Department.

Respectfully Submitted,



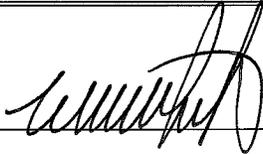
 William M. White
 Finance Director

ELECTRONICALLY PAID DISBURSEMENT LISTING

Estimated Through May 11, 2015

Description	Account No.	Date	Purpose	Amount
Credit Card Revenue Fees - Estimated	Various Funds	5/1/2015	4/15 Credit Card Revenue Processing Fees	\$2,000.00 *
Payroll [Pension] Transaction - Estimated	07-492-4980	5/1/2015	5/15 Police Pension Payments	\$171,497.64
Payroll [Pension] Transaction - Estimated	11-495-4980	5/1/2015	5/15 Civilian Pension Payments	\$133,705.79
Payroll [Bi-Weekly] Transaction - Estimated	01-various	4/23/2015	Salaries and Payroll Taxes - General Fund	\$400,000.00
Payroll [Bi-Weekly] Transaction - Estimated	02-various	4/23/2015	Salaries and Payroll Taxes - Sewer Fund	\$15,000.00
Payroll [Bi-Weekly] Transaction - Estimated	17-various	4/23/2015	Salaries and Payroll Taxes - K-9 Fund	\$400.00
Payroll [Bi-Weekly] Transaction - Estimated	01-various	5/7/2015	Salaries and Payroll Taxes - General Fund	\$400,000.00
Payroll [Bi-Weekly] Transaction - Estimated	02-various	5/7/2015	Salaries and Payroll Taxes - Sewer Fund	\$15,000.00
Payroll [Bi-Weekly] Transaction - Estimated	17-various	5/7/2015	Salaries and Payroll Taxes - K-9 Fund	\$400.00
Period Total				\$1,138,003.43

Submitted:



* Credit card fees are charged to the Township's accounts on the first of the month

\$2,088,410.13

Radnor Township
Public Works Department
Monthly Report for March 2015

Building Maintenance *1 man*

Maintains & cleans facilities including trash and recycling removal – Administration and Police Building, Public Works Buildings, Radnor Activity Center, and Willows Mansion (as needed)

Fleet *3 men*

- Daily routine checkups of police vehicles
– 25 vehicles
- Vehicle safety inspections for all departments
– 10 vehicles
- Major Repairs
– Unit #49 Turbocharger
Unit #48 Power Steering Pump
Unit #78 Helper spring replacement
Unit #32 Air dryer replacement
Unit #85 Bumper replacement
Unit #27 Repair fuel and oil leak on engine
Unit #31 Repair oil pressure problem
Unit #58 Repair and replace hydraulic relay box
Unit #27 Rear springs
Unit #31 Walking beam bushings
- Snow Storm Repairs – 10 vehicles / 5 snow blade replacements
- Scheduled Vehicle Maintenance
Unit #H-1
Unit #97
Unit #93
Unit #49
Unit #52
Unit #11
Unit #6
Unit #18
Unit #89
- Repair, Service and Maintenance of 117 pieces of equipment and vehicles

Highway *12 men*

- Attended All Staff meetings
- Installed new traffic signs
- Replaced bulbs as needed on traffic signals
- Ran the Tub Grinder at Skunk Hollow
- Installed speed boards for police dept.
- Cleaned inlets throughout the Township
- Delivered Barricades for various events
- Assisted Refuse Department
- Assisted Sewer Department
- 100 storm drains cleaned
- Installed 40 tons of blacktop on state & local roads
- Repaired meters for parking authority
- Numerous salting and plowing events
- Ordered road salt as needed
- Removed Snow from Business District
- Turned compost piles at Skunk Hollow
- Replaced and repaired signs as needed
- Called Higgins Electric for Traffic Signal Concerns
- Cleaned Storm Sewer Lines with the Sewer Department
- Moved Speed Boxes for Police Department
- Cleaned business district
- Cleared snow from inlets for drainage purposes
- Installed 15 pedestrian signs throughout the twp.
- Picked up 2 cubes of brick for inlet repairs
- Installed 2 new handicapped parking spaces per police dept.
- Repaired 6 mail boxes damaged during snow removal
- Removed Piano from the senior center
- Assisted with trash and recycling
- Repaired parking lots in business district with blacktop
- Changed times on school flashers for daylight savings

Parks *13 men*

- Attended all staff meetings
- Cleaned all Park Restrooms, 3 times per week
- Picked up trash at parks and bike trail, 3 times per week
- Cleared all wood lines in parks
- Cleared 1 tree from waterway
- Removed 7 trees in township right of way
- Pruned 22 trees in right of way

RADNOR TOWNSHIP RECREATION & COMMUNITY PROGRAMMING DEPARTMENT

MONTHLY REPORT – MARCH 2015



Programs/Excursions/Events

- Programming consisted of:
 - Radnor Youth Basketball Program (1,070 participants)
 - Youth Wrestling (19 participants)
 - After-School Science at Ithan (11 participants)
 - After-School Chess at Ithan (20 participants)
 - Gryphon Volleyball (19 participants)
 - Pre-School Soccer with Soccer Shots (109 participants)
 - Pre-School Soccer with World Cup Sports Academy (58 participants)
 - School's Out Who's In March 12th & 13th In-Service Day Program with Jump Start Sports (83 participants)
 - Spring Break Sports Camp with Jump Start Sports (94 participants)
 - Spring Break Soccer Camp (38 participants)
 - Women's Boot Camp/Sessions 2 & 3 (17 participants)
 - Indoor Tennis with David Broida (30 participants)
 - Men's Basketball (19 participants)
 - Pickleball Clinic (14 participants)
 - Regal Movie Discount Ticket Program (58 movie tickets sold to date 2015)
 - PRPS Discount Ticket Program (102 ski tickets sold to date 2015 – Bear Creek, Big Boulder/Jack Frost, Blue Mountain, Elk Mountain)
 - Manager's Challenge Lecture Series - Raw Can Roll Café Cooking Demo & Tasting (Sold Out with 17 participants)
 - Safety Committee Health & Safety Fair – (20 vendors/staff/members of the public)
 - Spring Eggstravaganza & Community Event – (2,500 in attendance)
- Spring Programming attendance has grown approximately 140% from 2014 to with the addition of the pickleball clinic at the programs run and administered by Jump Start Sports.
- Met with winter programming and event vendors/instructors and aligned contractual agreements and coordinated facility schedules with venues.
- Developed and distributed Spring & Summer 2015 Recreational Activities Brochure.
- Winter 2014-2015 Radnor Youth Basketball Program – worked with Basketball Program Coordinator, Referee Coordinator, League Representatives and Coaches through the practice/game scheduling process and program assessment process to wrap up the program; over 200 coaches and representatives have been involved with the program this season; coordinated facility usage with RTSD and various local private schools such as Agnes Irwin School, Hill Top Preparatory School, Woodlynde School, and Villanova University, particularly inclement weather cancellations and communications; developed goals and objectives for next season and continued working through the process of evaluating transition of the program to a contractual partnership for the 2015-2016 season.

Radnor Youth Basketball Participation Summary

	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014*	2014/2015*
Hoops Clinic	296	225	204	185	192	172
League	969	878	862	813	907	898
Total:	1265	1103	1066	998	1099	1070

*2014 and 2015 program includes Kindergartners/2nd Grade League options

- Held Manager's Challenge Wellness Incentive Program that includes free health and wellness workshops at the Wayne Art Center.
- Coordinated spring PSSC adult co-ed volleyball league (6 teams), soccer and pickleball leagues; spring preschool t-ball program (99 participants); developed summer specialty camps including new baseball, field hockey, all-sports and science camps.
- Developed various components of Radnor Day Camp and Summer Preschool Camp (RDC has 114 full-day camp registrants/7 half-day registrants; PKC has 21 registrants) including facility usage details with Radnor Elementary School; camp trip and visitor schedules; restructuring of the swimming program at Radnor Day Camp due camp relocation (will take place at RHS); the hiring process for all open summer positions; the planning process with camp Directors and Coordinators; implemented extended day camp PM hours.
- Upcoming Community Events coordinated consisted of:
 - Spring Eggstravaganza & Community Event – coordinated venue logistics and met with Villanova University representatives; coordinated sponsorships, supplies, vendors, activities, and mini-camp fair to be held at the event.
 - Wheels of Wayne Car & Motorcycle Show – coordinated sponsorships, vehicle/vendor registration processes, activities, and met with vehicle judges.
 - Arbor Day Celebration – coordinated partnerships and event logistics.
 - Bike Rodeo – coordinated logistics at Wayne Senior Center.
 - Wayne Magazine Music Festival – met with WBA President and Wayne Magazine owner to continue planning for new June event.
 - Great American Backyard Campout – met with Radnor Scouts to discuss new activities for this year's event.
 - Summer Concert Series – prepared three concert nights July to August at Veterans Park, Clem Macrone Park, and Bo Connor Park.
 - Night at the Ball Park – planned activities and fireworks.
 - Radnor Run – attended monthly meeting.
- Continued sponsorship development by working with local businesses and organizations for current events and programs; conducted meetings and discussions with several potential sponsors to secure monetary and in-kind sponsorships for 2015 events; monetary sponsorship contributions are near \$15,000; updated areas of the website to include continual updates on event information and sponsorship opportunities.
- Continued/developed event and programming collaborations with Radnor Township School District, Villanova University, Radnor Memorial Library, Wayne Senior Center, the Wayne Business Association; the American Lung Association, Radnor Hotel, La Maison, PSSC, and with other prospective businesses and organizations within the community.
- Met with Radnor Conservancy Director to discuss partnership opportunities.
- Staff and Radnor Boy Scouts Executive Director attended PRPS Awards Banquet (PA Recreation & Parks Society) to accept the Excellence in Programming Award for the 2014 Great American Backyard Campout – this is the Department's second award in two years in this category.
- Prepared financial reporting and evaluation for seasonal programming, events, discount ticket program, picnic, park, athletic field, and facility rentals; continued review and development of the Department's Goals and Objectives/Projects and Status for 2015.

Administrative

- Processed daily phone and email communications in order to provide information on community sports, recreational activities, and events; set up online registration for applicable programs and events through egov Strategies/handled registrations for programs; prepared purchase orders/invoices, deposited income; conducted ongoing program wrap-ups as needed including the reconciling of participation numbers, finalizing instructor payments, performing program financial analyses, and sending out program evaluations; coordinated locations and logistics for programming, scheduled facility reservations/submitted applications, maintained Outlook event calendars, met with instructors and vendors to develop program agreements and process background checks; continued utilization of PEN (Programmer's Exchange Network) listserv to obtain and share information to evaluate and advance; updated all Department areas of the Township website and social media page and distributed monthly/weekly e-newsletters; filmed

our monthly segment for the *Radnor 411* television show, *30 Minutes with the Manager* television show, and prepared slides for the Radnor Cable Channel; coordinated ongoing marketing efforts; managed inventories and distributed supplies to programs; worked with Township solicitor on various pieces of Department legislation and matters.

- Continued to work with Program Supervisor and Program Coordinator through continued planning, programming, and procedures; visited facilities in the Township; met with organizations; discussed daily/seasonal operations, services, and Township/Department procedures; conducted programmatic planning and developed short-term goals and objectives for 2015.
- Attended and prepared reports and documentation for monthly Board of Commissioners Meetings and monthly Parks Board Meeting.
- Attended weekly staff meetings with Township Manager and Department Directors/Supervisors.
- Staff hosted the March Wayne Business Association Meeting and provided an update on Township projects and accomplishments from 2014.
- Met with Township Solicitor to discuss details of State Act 153 and effects on Department background check process.
- Met with Township Risk Management firm to discuss facilities and operations of programs.
- Program Supervisor attended monthly Township Safety Committee meeting and assisted in the coordination of the Township Health & Safety Fair.
- Met to discuss staff performance evaluations and discuss personnel performance matters.
- Program Supervisor met with Radnor Middle School students and provided information to them on various opportunities.
- Met with Finance staff and enterprise-wide finance software demo representatives.
- Worked with spring internship student from Temple University and met with advisor; interviewed summer internship candidates.
- Established and distributed job advertisements for part-time leadership positions for programs, birthday party program at Radnor Activity Center, summer camp positions, and internships.
- Attended new Township website training; set up Department pages.
- Monitored budgetary line items; developed budgetary analyses outline and management of vendor expense data along with budgetary composition analyses; continued to build on our Department's reporting and time allocation; developed cost assumptions and cost recovery illustrations relative to our Department's financial overview; continued review of Department operating budget and parks capital and improvement planning.
- Administrative Projects underway: Passport to Parks Program Initiative; Department Strategic Plan; Online registration solution for programs.

Parks/Facilities

- All park bathrooms are winterized for the season (will re-open in mid-April).
- Staff met at Bishop Richard Allen Park to locate a memorial bench for the late Commissioner Lisa Paolino.
- **Athletic Fields:** Coordinated field scheduling for spring 2015 with the community sports organizations, local schools, and programs; coordinated spring field requests with primary spring users - Radnor Boys and Girls Lax; Radnor Wayne Little League; Radnor Soccer Club; St. Katharine's of Siena School; Agnes Irwin School; Sacred Heart; and many other schools and organizations for rentals.
- **Park Areas:** Continued taking reservations for the 2015 season.
- **Trails:** continued working with the Delaware Valley Planning and Recreation Commission on a project that will entail pedestrian and cycle counts along the Radnor Trail utilizing equipment and technology that was funded by the DVPRC's grant receipt from the William Penn Foundation – we are currently working through the details of a letter of understanding for the project; noteworthy is that the Radnor Trail will be celebrating 10 years in 2015.
- **Radnor Activity Center:** Coordinated usage and rentals – 12 rentals took place in March, most were for multiple dates, along with the Department's seasonal recreational usage including the Radnor Youth Basketball Winter Program, men's hoops, futsal, soccer; RMS basketball, SKS basketball, PSSC volleyball league; staff in-service day programs; and other Department-related programming; we have continued to work on new rental opportunities, the birthday party program and general program growth at the facility.

- **The Willows:** Working with the Willows, LLC. (firm that has been authorized by the Board of Commissioners in September 2014 through the development of a lease agreement to operate the Willows Mansion as a wedding/event facility with improvements to the Willows Mansion and the addition of a pre-fabricated event structure/terrace to accommodate 200+) on their timeline for building entry and construction which will be beginning in the coming months. Staff met with representatives from the Willows LLC. and the anticipated new catering/chef to discuss a tentative timeline for re-opening in mid-2016; Replacement of the Willows entryway bridge remains underway through 2015 and the low-bidder was authorized at the March 23rd Board of Commissioners Meeting.
- **Cell Towers in Township Parks:** Evaluation has been underway for cellular towers in Township Parks – parks include Fenimore Woods, the Willows, and Ithan Valley Park; the Parks & Recreation Board reviewed presentations by the proposed cell tower companies in a special meeting in September 2014; a recommendation has been made in support of cell towers by the Parks & Recreation Board (with qualifiers) to the Board of Commissioners; during the discussion of the topic at the March 23rd Board of Commissioners Meeting, the project was rejected.
- **Encke Park:** Recommended by the Parks & Recreation Board and authorized by the Board of Commissioners, a project is underway with members of Radnor Wayne Little League on park improvements that will include a combination comfort station/concession stand, and other anticipated park improvements such as repairs to the driveway access off of Iven Avenue, electronic scoreboards, and ball field conversion completion; this project will utilize funds received as part of the Township Building cell tower contract renegotiation; a rain garden project is also being coordinated for the site near the streambank and parking area (see February 23rd BOC Meeting presentation by Dan Meier of the EAC); additional parking is also being planned for the Township Building/Encke Park complex along with resurfacing and improvements to Radnor Skatepark – the project is currently underway.
- **Radnor Skatepark Improvements:** Recommended by the Parks & Recreation Board and authorized by the Board of Commissioners, a project is underway provide improvements to the skatepark that entails replacement and upgrade to structures. This project will utilize funds received as part of the Township Building cell tower contract renegotiation.
- **Emlen Tunnell Park:** Met with RWLL softball coordinator to discuss the placement of a shed at Emlen Tunnell Park along with skinning Tunnell B field that is planned for spring.
- **Park Signage Replacement:** Approved in the 2015 Township Capital Plan, the process of replacing park signage is currently underway for Cowan, Encke, and Warren Filipone Parks and we anticipate having more details and possible renderings of the recommended signage in April.
- **Clem Macrone Park Master Planning:** A master plan was developed that reviewed the existing site and provided a conceptual plan of how the park should be developed to maximize its footprint and best serve the passive and active recreational needs of the community (presented to Parks & Recreation Board and to the Board of Commissioners in April 2014); authorization to proceed with Kimmel-Bogrette to prepare the construction/design documentation was approved at the Monday, January 12th BOC Meeting and is underway; we have received authorization and are in the process of applying for DCNR C2P2 Program Grant in the amount of \$350K (requires a dollar-for-dollar match); the grant application that was submitted to the DCED Greenways, Trails, and Recreation Program (GTRP) for \$250K was approved with notification that \$224K has been awarded as part of this program with a required match of \$39,500; funding has been requested from the State Capital Budget Program (no notification has been given to date); \$5,000 has been received from a PECO grant application.
- **Veterans Park Planning:** (formerly St. Davids Community Park): Planning project underway to honor Veterans, educate visitors, and improve various features of the site; The Parks and Recreation Board (on March 13th) and the Board of Commissioners (on March 24th) reviewed the Conceptual Plan as presented by Simone Collins Landscape Architecture who have been engaged to develop the plan; we met with the neighbors of the park in late April to discuss and review the plan; Simone Collins has incorporated the changes to the plan that were recommended and the updates were shared with the Parks & Recreation Board the park neighbors in July; fundraising is underway by the Township Manager to fund the park changes.

- **North Wayne Park Stormwater Plan**: Development of a plan is underway and has been ongoing since 2010 to install a stormwater retention system at the site of North Wayne Park while retaining the recreational amenities of the site; public meetings took place with residents in June 2014 and at the September 22nd Board of Commissioners Meeting; the voted stormwater plan, that retains the current recreational features of the park, is currently under development.
- **Greenways & Open Space Network Plan**: The Greenways and Open Space Network Plan has been completed. The plan examines opportunities for new pedestrian and bicycle routes throughout the Township that will link open space, natural areas, parks, existing trails, schools, residential developments, places of business, regional transportation, other prominent Township destinations, and provide links to trails in adjoining municipalities. The final plan was presented and approved by the Board of Commissioners in December 2014.

Respectfully Submitted,



Tammy S. Cohen
Director of Recreation & Community Programming

RADNOR TOWNSHIP RECREATION AND COMMUNITY PROGRAMMING

5TH ANNUAL

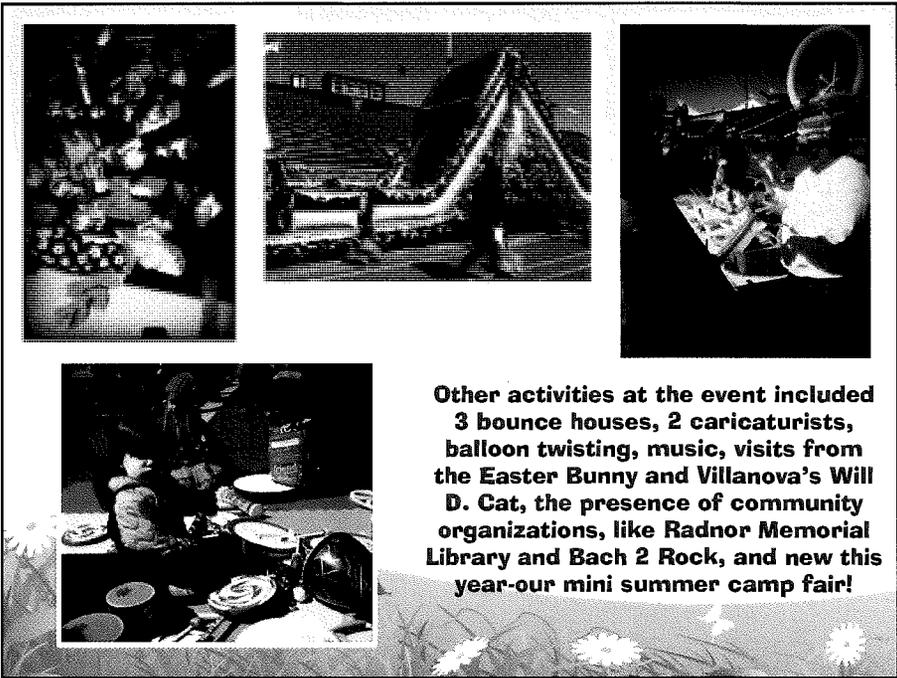
SPRING EGGSTRAVAGANZA



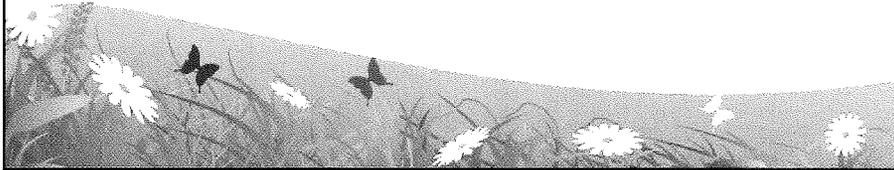
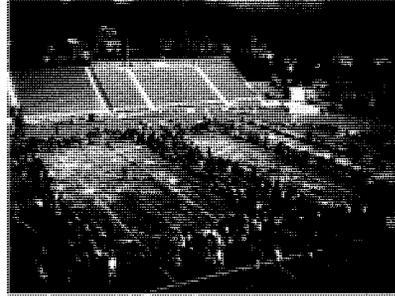
SUNDAY, MARCH 29, 2015
VILLANOVA UNIVERSITY STADIUM

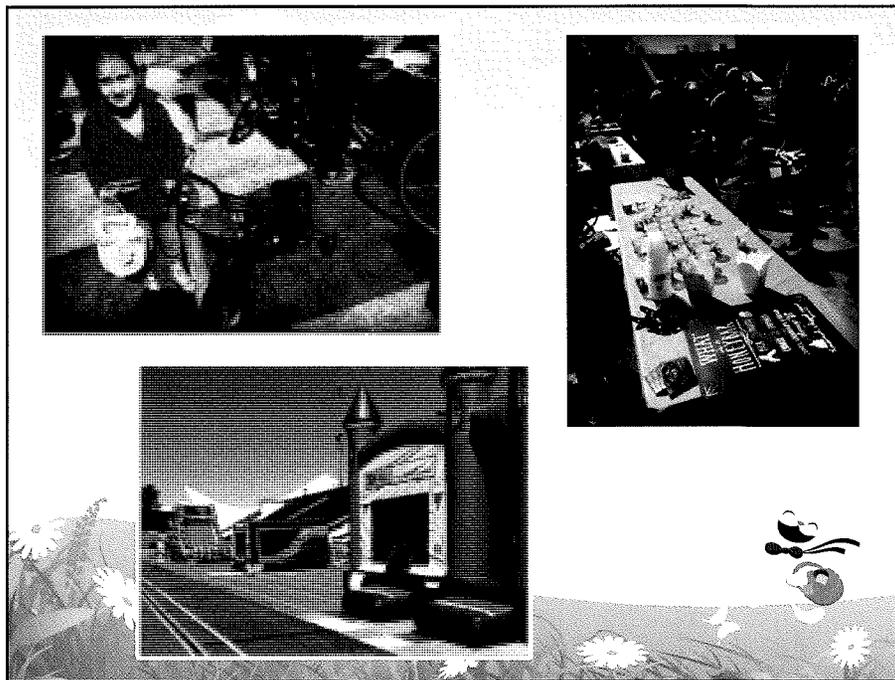
This year's Spring Eggstravaganza featured 5 sections of egg hunts: ages 0-2, ages 3-5, ages 6-8, ages 9+, and adults! Each age group vied for free prizes such as bikes, prize baskets, Villanova gear, gift certificates, and more!





About 2,500 people were estimated to have been in attendance for this community event! Although a bit chilly, the skies were clear and the sun was shining! What a wonderful way to celebrate Spring!





THANK YOU TO OUR SPONSORS!



VILLANOVA
UNIVERSITY



Gannett Fleming

Excellence Delivered As Promised

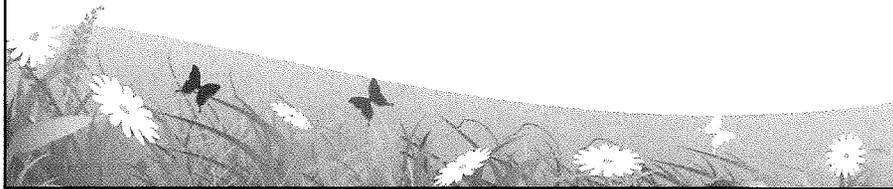


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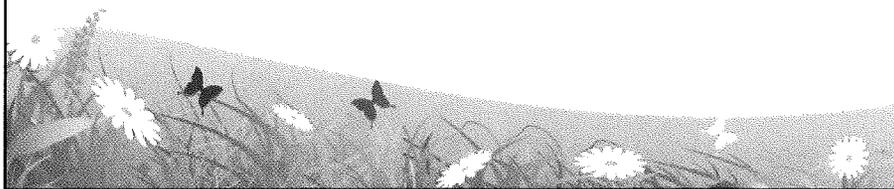
honeygrow



THANK YOU TO OUR PRIZE CONTRIBUTORS!

Anthony's Coal Fire Pizza
Avero Italiano
Bach To Rock
Bang & Olufsen
City Sports
Do It Best Hardware Plus II
gphomestay
High Road Cycles
Philadelphia Phillies

Red Mango
ShredWich
So Fun! Frozen Yogurt
Villanova University
Wayne Art Supplies
Wayne Sporting Goods
Whirled Peace Frozen Yogurt
Whole Foods Market Devon



THANK YOU TO THE VOLUNTEERS AND STAFF MEMBERS WHO HELPED TO MAKE THE EVENT SUCCESSFUL!



VILLANOVA STUDENT GOVERNMENT ASSOCIATION



RADNOR TOWNSHIP POLICE DEPARTMENT

MONTHLY REPORT



MARCH 2015

**William A. Colarulo
Police Superintendent**



RADNOR TOWNSHIP POLICE DEPARTMENT

**301 IVEN AVENUE
WAYNE, PENNSYLVANIA 19087-5297
OFFICE: (610) 688-0503
FAX: (610) 688-1238**

**WILLIAM A. COLARULO
POLICE SUPERINTENDENT**

Executive Summary

March 2015

The Radnor Police Department responded to 2,150 calls for service for the month of March 2015. Radnor Officers issued 658 traffic citations for motor vehicle violations. 69 non-traffic citations were issued for various summary offenses such as Disorderly Conduct, Underage Drinking and Public Drunkenness. A total of 1,460 parking tickets were issued for expired meter violations. Radnor Police Officers made 20 misdemeanor/felony arrests during March 2015.

Radnor Township Police Department
March 2015 Accidents / Violations / Investigations / Juvenile Report

Accidents	Mar-15	YTD 2015	Mar-14	YTD 2014	YTD from 15 to 14
Accidents - Fatal	0	1	0	0	1
Accidents - Reportable- With Injuries	3	17	6	19	-2
Accidents - Reportable - No Injuries	13	41	15	40	1
Accidents - Non Reportable	54	151	46	182	-31
Accidents - Hit & Run	11	19	11	37	-18
Accidents - No Report	10	26	4	22	4
Pedestrian Accidents - With Injuries	0	0	0	0	0
Pedestrian Accidents - Fatal	0	0	0	0	0
Total Accidents	91	255	82	300	-45
Violations					
Arrests - Felony & Misdemeanor	20	49	16	53	-4
Traffic Violations	658	1319	538	990	329
Non-Traffic Violations	69	130	81	196	-66
Parking Meter Violations	1460	4982	2923	6850	-1868
Abandoned Vehicles	2	4	2	3	1
Total Violations	2209	6484	3560	8092	-1608
Complaints					
Complaints	1423	3731	1344	4022	-291
Unlocked Businesses	11	19	16	23	-4
Alarms	123	369	133	494	-125
Animal Complaints	14	37	23	57	-20
					0
Total Complaints	1571	4156	1516	4596	-440

Radnor Township Police Department
March 2015 Burglary Report

<i>Time of Day</i>	Res-Forced	Res-No Force	Res-Attempt	Non Res-Forced	Non Res-No Force	Non Res-Attempt
Day (6 AM to 6 PM)	0	0	0	0	0	0
Night (6 PM to 6 AM)	1	0	0	0	0	0
Time Unknown	0	0	0	0	0	0
Total Burgs - 1/15	1	0	0	0	0	0
Total Burgs - YTD	6	0	1	0	0	0
Burglaries by Area						
Patrol Area	District	Burgs 1/15	Burgs YTD 15			
Northeast Beat	0	0	0			
Northwest Beat	0	1	3			
Southwest Beat	0	0	3			
Southeast Beat	0	0	1			
Villanova University	0	0	0			
Total Burglaries	0	1	7			

Radnor Township Police Department
March 2015 Crime Report

CLASS 1 Offenses							
Offense	Inc 3/15	Inc YTD 15	Cir'd 3/15	Cir'd YTD 15	Inc YTD 14	Cir'd YTD 14	Inc YTD 15 to 14
Criminal Homicide	0	0	0	0	1	0	-1
Forcible Rape	0	0	0	0	0	0	0
Robbery	0	0	0	0	0	0	0
Assault	1	5	1	2	7	8	-2
Burglary	1	7	0	0	15	1	-8
Larceny	23	55	3	8	54	3	1
Auto Theft	2	2	0	0	2	0	0
Arson	0	0	0	0	0	0	0
Total Class 1 Off.	27	69	4	10	79	12	-10
CLASS 2 Offenses							
Vandalism	11	22	0	0	16	3	6
Illegal Drugs	10	27	4	16	11	12	16
DUI	7	14	0	9	24	15	-10
Disorderly Conduct	8	23	1	3	23	5	0
Fraud Related	14	58	0	0	25	0	33
Underage Drinking	5	9	1	4	18	10	-9
All Other Class 2	9	22	2	9	36	9	-14
Total Class 2 Off.	64	175	8	41	153	54	22
Grand Total	91	244	12	51	232	66	12

Radnor Township Police Department
March 2015 Property Stolen Recovered Report

Type of Property	Mar-15 Stolen	2015 YTD Stolen	Mar-15 Recovered	2015 YTD Recovered
Currency, Notes, Stocks Etc.	\$1,240.00	\$4,935.00	\$0.00	\$0.00
Clothing & Furs	\$67.00	\$10,195.00	\$0.00	\$60.00
Locally Stolen Motor Vehicles	\$10,000.00	\$10,500.00	\$8,000.00	\$8,000.00
Office Equipment	\$2,200.00	\$14,045.00	\$0.00	\$1,300.00
Televisions, Radios, Cameras	\$0.00	\$1,325.00	\$0.00	\$0.00
Firearms	\$0.00	\$0.00	\$0.00	\$160.00
Household Goods	\$3,253.00	\$8,028.00	\$0.00	\$895.00
Consumable Goods	\$50.00	\$376.00	\$0.00	\$0.00
Jewelery & Precious Metals	\$5,000.00	\$29,237.00	\$0.00	\$0.00
Livestock	\$0.00	\$0.00	\$0.00	\$0.00
Miscellaneous	\$2,026.00	\$5,326.00	\$0.00	\$300.00
Total Property Value	\$23,836.00	\$83,967.00	\$8,000.00	\$10,715.00

April 20, 2015

Calls for Service - by UCR Code

Incidents Reported Between 03/01/2015 and 03/31/2015



RADNOR TOWNSHIP

Code	Description	Primary Count	Secondary UCR Count		
			Code 2	Code 3	Code 4
0221	ASSAULTS TO RAPE - ATTEMPTS - FIREARM	0	1		
0440	ASSAULT - ATROCIOUS- HANDS,FISTS,FEET	1			
0511	BURGLARY-FORCED ENTRY-RESIDENCE-NIGHT	1			
0613	THEFT-\$200 & OVER-RETAIL THEFT	3			
0614	THEFT-\$200 & OVER-FROM AUTO (EXCPT 0615)	2			
0616	THEFT-\$200 & OVER-BICYCLES	1			
0617	THEFT-\$200 & OVER-FROM BUILDINGS	5			
0619	THEFT-\$200 & OVER-ALL OTHER	3			
0624	THEFT-\$50 TO \$200-FROM AUTO (EXCPT 0625)	1			
0629	THEFT-\$50 TO \$200-ALL OTHER	1			
0634	THEFT-UNDER \$50-FROM AUTO (EXCEPT 0635)	7			
0690	THEFT - REPORTS	0	1		
0720	MOTOR VEHICLE THEFT-TRUCK	1			
0736	M.V THEFT-OTHER VEHICLE-ALL OTHER LOTS	1			
1100	FRAUD	3	1		
1130	FRAUD - ALL OTHERS (FLIM-FLAM, ETC.)	4			
1150	FRAUD - CREDIT CARDS	4			
1190	FRAUD-ALL OTHER(FLIM FLAM,CONFIDENCE	1			
1191	FRAUD - REPORTS	2			
1410	CRIMINAL MISCHIEF TO AUTOMOBILES	7			
1430	CRIMINAL MISCHIEF - PUBLIC BUILDINGS	1			
1440	CRIMINAL MISCHIEF - ALL OTHER	2			
1465	INSTITUTIONAL VANDALISM	1			
1812	NARCOTICS-SALE-MARIJUANA, HASHISH, ETC.	2	1		
1822	NARCOTICS-MANUFACTURE-MARIJUANA,ETC.	1			
1832	NARCOTICS-POSSESSION-MARIJUANA,ETC.	7			
1890	NARCOTICS - REPORTS	0		1	
2110	DRIVING UNDER THE INFLUENCE-LIQUOR/DRUGS	1			
2111	DRIVING UNDER THE INFLUENCE - ALCOHOL	6			
2211	LIQUOR LAW-UNDERAGE-PURCH,CONSMP,POSSES	5			
2230	LIQUOR LAW-ALL OTHER VIOLATIONS	0	1		
2300	PUBLIC DRUNKENESS	1			
2400	DISORDERLY CONDUCT	1	1		
2410	HARASSMENT BY COMMUNICATION	1			
2450	HARASSMENT	5			
2480	DISORDERLY CONDUCT-ALL OTHERS	1			
2616	ALL OTHERS - CONTEMPT OF COURT (NON M.V)	0	1		
2639	ALL OTHERS - SANITATION(ORDINANCE VIO.)	1			
2640	ALL OTHER ORDINANCE VIOLATIONS	7			
2660	TRESPASSING OF REAL PROPERTY	1			
2800	TWP ORD-SOLICITING	1			
2820	TWP ORD-OPEN BURNING	2			
2830	TWP ORD-ALL OTHER	0	1		
2900	JUVENILE RUNAWAYS	9			
2910	LOST/MISSING PROPERTY	2			
2912	RUNAWAY-INCORRIGIBLE-FEMALE (JUVENILE)	0	1		
2990	RUNAWAYS - (JUVENILE) - REPORTS	1			
3000	LOST/RECOVERED PROPERTY	1			

April 20, 2015

Calls for Service - by UCR Code

Incidents Reported Between 03/01/2015 and 03/31/2015



RADNOR TOWNSHIP

Code	Description	Primary Count	Secondary UCR Count		
			Code 2	Code 3	Code 4
3200	CHECK ON WELFARE	5			
3300	CIVIL DISPUTES	9			
3320	DOA	1			
3500	DISTURBANCE - DISORDERLY PERSONS	4			
3501	DISTURBANCE-COMPLAINT OF NOISE,MUSIC,ETC	9			
3520	DOMESTIC PROBLEM (NO ARREST)	17			
3610	DISTURBANCES-JUVENILE	1			
3620	DISTURBANCES-OTHER (FIGHTS,DISPUTES,ETC)	4			
3650	ELECTRIC COMPANY-POWER OUTAGES,ETC	2			
3700	FIRE - RESIDENTIAL	5			
3703	FIRE-ALL OTHERS	11			
3840	FIRES (INCLUDING ALARMS-FOUNDED/UNFOUND)	1			
3850	HAZARDOUS CONDITIONS	6			
3880	OPEN DOORS/WINDOWS - DISCOVERED	8			
3900	GAS LEAKS (NATURAL GAS)	5			
4000	JUVENILE PROBLEMS (NO ARREST)	7			
4008	NON-CRIMINAL-ELECTRIC LIGHT OUTAGES	1			
4016	NON-CRIMINAL - PEDESTRIAN CONTACTS	2			
4018	NON-CRIMINAL-ST. LIGHT OUT, ST. REPAIRS.	1			
4200	MISSING PERSONS(EXCEPT JUVENILES)	1			
4300	MENTAL HEALTH-EMERG.302/SUICIDE ATTEMPTS	3	2		
4301	MENTAL HEALTH-ALL OTHERS	4			
4400	OFFICER INJURED ON DUTY	1			
4500	OPEN DOORS/WINDOWS	11	1		
4600	ORDINANCE VIOL.-EXCEPT BURNING/SOLICIT	6			
4650	POLICE INFORMATION	48			
4655	CID/DTF INVESTIGATION	0	1		
4660	911 HANG UP CALL	38			
4700	ADDED PATROL-REQUEST FOR	13			
4701	ADDED PATROL - BUSINESS CHECKS	106			
4702	ADDED PATROL - SCHOOL CHECKS	48			
4800	SOLICITING-WITHOUT PERMIT	1			
4801	SOLICITING-COMPLAINTS	6			
4900	SUSPICIOUS PERSON	26	1		
4901	SUSPICIOUS CIRCUMSTANCE	22			
4902	SUSPICIOUS VEHICLES	26			
5000	TELEPHONE CALLS-HARASSING/SUSPICIOUS	8			
5002	LOST & FOUND - FOUND ANIMAL	1			
5004	LOST & FOUND - FOUND ARTICLES	2			
5005	FOUND BICYCLES	1			
5008	LOST & FOUND - LOST ARTICLES	1			
5100	TRAFFIC SIGNALS-DAMAGED/NEED REPAIR	8			
5200	TRAFFIC HAZARD-POTHoles/OBSTRUCTIONS/ICE	17			
5300	TREES DOWN AND/OR BLOCKING ROADWAY,ETC	3			
5400	VEHICLES-ABANDONED	4			
5401	VEHICLES-ASSIST MOTORIST(INCL LOCKOUTS)	27			
5402	VEHICLES-DISABLED	34			
5403	VEHICLES-MV VIOLATIONS & MVV COMPLAINTS	23	1		

Calls for Service - by UCR Code

Incidents Reported Between 03/01/2015 and 03/31/2015



RADNOR TOWNSHIP

Code	Description	Primary Count	Secondary UCR Count		
			Code 2	Code 3	Code 4
5404	VEHICLES-PARKING COMPLAINTS	19			
5405	VEHICLES-TOWED	6			
5500	WATER MAIN BREAK/WATER CO. PROBLEMS	3			
5501	WIRES DOWN - NO HAZARD	5	1		
5506	ANIMAL COMPLAINTS - STRAY ANIMALS	7			
5508	ANIMAL COMPLAINTS - OTHER ANIMAL BITES	1			
5510	ANIMAL COMPLAINTS - OTHER	8			
5590	ANIMAL COMPLAINTS - REPORTS	1			
6001	ACCIDENT - WITH INJURIES	3			
6002	ACCIDENT - NO INJURIES (REPORTABLE)	13			
6003	ACCIDENT - NON REPORTABLE	54	1		
6004	ACCIDENT - HIT & RUN	11			
6005	ACCIDENT - NO REPORT DONE	10			
7002	NOTIFICATION - COMMUNITY DEVELOPMENT	1	2		
7006	NOTIFICATION - HIGHWAY DEPT.	4			
7008	NOTIFICATION - SEWER DEPT.	4			
7010	NOTIFICATION - PARKS DEPT.	1			
7014	PUBLIC SERVICE - OTHERS (OFFICER ASSIST)	5			
7504	ASSIST OTHER AGENCIES - OTHER POLICE	1			
7506	ASSISTING OTHER AGENCIES - ALL OTHERS	1			
8001	BURG/HOLDUP/PANIC ALARM - NO CITATION	98			
8003	FIRE/MEDICAL ALARM - NO CITATION	30			
8004	ANY ALARM- SEVERE WEATHER- NO CITATION	3			
8010	WARRANTS - LOCAL - CRIMINAL	0		1	
9000	ANIMALS - DOG COMPLAINTS	7			
9001	ANIMALS-RABID/SICK	2			
9002	ANIMALS - ALL OTHER	3			
9005	ANIMALS - ALL INVOLVING DEER	2			
9038	K-9 ASSIST	2	3		
9040	ASSIST LOWER MERION PD	2			
9041	ASSIST HAVERFORD PD	1			
9043	ASSIST NEWTOWN PD	7			
9045	ASSIST TREDYFFRIN PD	2			
9046	ASSIST UPPER MERION PD	2			
9047	ASSIST PSP	3	1		
9050	ASSIST SICK/INJURED	100			
9051	ASSIST AMBULANCE	35	1	1	
9052	ASSIST OTHER POLICE DEPARTMENT	3			
9055	ASSIST SICK/INJURED ALCOHOL/DRUG RELATED	5			
9966	SELECTIVE ENFORCEMENT-CITATION ISSUED	174			
9968	SELECTIVE ENFORCEMENT-WARNING ISSUED	34			
9970	SELECTIVE ENFORCEMENT-NO ISSUANCE	54			
9972	MOTOR OFFICER ACTIVITY	0	3		
CITN	NON-TRAFFIC CITATION	69			
CITT	TRAFFIC CITATION	658			
Total Calls		2,150			

INTEROFFICE MEMORANDUM

TO: BOARD OF COMMISSIONERS
FROM: KEVIN KOCHANSKI, DIRECTOR
DEPARTMENT OF COMMUNITY DEVELOPMENT
SUBJECT: FEBRUARY MONTHLY REPORT
DATE: APRIL 7, 2015
CC: ROBERT A. ZIENKOWSKI, TOWNSHIP MANAGER



Community
Development

Attached for your review is the Community Development Monthly Report for the month of March 2015. Please note the following highlights:

- Building Permit Fee Revenue totaled \$59,336.00 with 61 permits issued
 - Electric Permit Fee Revenue totaled \$8,319.00 with 54 permits issued
 - Mechanical Permit Fee Revenue totaled \$10,224.00 with 24 permits issued
 - Plumbing Permit Fee Revenue totaled \$6,379.00 with 49 permits issued
 - Zoning Permit Fee Revenue totaled \$450.00 with 7 permits issued
 - Banner Permit Fee Revenue totaled \$200.00 with 4 permits issued
 - Design Review Board Revenue totaled \$900.00 with 6 applications received
 - HARB Review Fee Revenue totaled \$50.00 with 1 application received
 - Zoning Hearing Board Fee Revenue totaled \$550.00 with 1 application received
-
- Permit and application revenue for March 2015: \$ 86,408.00
 - Permit and application revenue year to date: \$ 266,498.00
-
- Permits and applications for March 2015: 207
 - Permits and applications year to date: 510
-
- Inspections conducted for March 2015: 716
 - Inspections conducted year to date: 2,025

TOWNSHIP OF RADNOR
Minutes of Public Meeting of March 23, 2015

The Radnor Township Board of Commissioners met at approximately 6:30 PM in the Radnorshire Room in the Radnor Township Municipal Building, 301 Iven Avenue, Wayne, PA 19087

Commissioners Present

William Spingler, President

John Fisher

John Nagle - Absent

Elaine Schaefer

James C. Higgins, Vice President

Richard F. Booker

Donald Curley

Also Present: *Robert A. Zienkowski, Township Manager; John Osborne, Treasurer; John Rice, Township Solicitor; William White, Finance Director; Kevin Kochanski, Director of Community Development; Steve Norcini, Director of Public Works; William Colarulo, Superintendent of Police; Tammy Cohen, Director of Recreation and Community Programming; Amy Kaminski, Traffic Engineer; Roger Philips, Township Engineer and Jennifer DeStefano, Executive Assistant to the Township Manager.*

President Spingler called the meeting to order and led the assembly in the Pledge of Allegiance

Public Participation

Ken Taylor, Wayne – He commented in regards to past behavior at meetings by the public and Commissioners. He asked for the board to set a few standards.

Marty Costello - He along with Commissioner Schaefer presented a picture of students from St. Katherine of Siena, Radnor High School and Archbishop Carroll who collaborated to research fallen war veterans as an effort with Saving Hallowed Ground to Mr. Zienkowski.

Jamie Richmond, Bryn Mawr – He commented that he is in support of the improvements at Encke Park and encouraged the Commissioners to support it as well.

Dan Sherry, Wayne – He commented in regards to Commissioner Nagle’s apology at the March 9, 2015 Board of Commissioners meeting.

Notice of Executive Session of the Board of Commissioners meeting of March 23, 2015

All commissioners were in attendance with the exception of Commissioner Nagle, where matters of personnel, real estate and litigation were discussed.

Commissioner Spingler announced that item C on the agenda will be removed from the agenda this evening, item E will be moved to first on the agenda as well as item 1n removed from the consent agenda.

Resolution #2015-50 – Authorizing the Township to remit \$187,150 to Radnor Wayne Little League for the construction of a comfort station at Encke Park along with other park site improvements (Funded by proceeds designated as part of the Radnor Township Building cell tower negotiations where funds have been identified specific to park improvements)

Commissioner Spingler made a motion to approve, seconded by Commissioner Schaefer.

Mr. Zienkowski and Tammy Cohen, Director of Community Programming and Recreation gave a brief overview of the project that has been discussed for many years. There was a brief discussion among Commissioners and staff in regards to the project.

Commissioner Fisher made a motion to amend the resolution to add the condition of *Subject to the execution of an agreement including bonding, insurance and other terms subject to the satisfaction of Township Administration and Township Solicitor*, seconded by Commissioner Booker. Motion passed 6-0 with Commissioner Nagle absent.

Commissioner Spingler called the vote, motion passed 6-0 with Commissioner Nagle absent.

1. Consent Agenda

- a) Disbursement Review and Approval: 2015-03A, 2015-03B
- b) Approval of minutes for the Board of Commissioners meeting of February 23, 2015
- c) Acceptance of Department Monthly Reports
- d) Approval of Staff Traffic Committee Meeting Minutes of February 18, 2015
- e) Resolution #2015-11 - Award of Willows Bridge Replacement
- f) Motion for Authorization to Receive Bids for the Radnor Chester and Raider Roads Traffic Signal Installation Project
- g) Resolution #2015-41 – Authorization to Purchase Poles and Mast Arms for the Radnor Chester and Raider Roads Traffic Signal Installation Project
- h) Resolution #2015-42 - Authorization to Purchase Grass Seed
- i) Resolution #2015-43 - Authorizing the Township to enter into an agreement with Main Line Baseball Academy for Summer Baseball Camps
- j) Resolution #2015-44 - Authorizing the Township to enter into an agreement with Ashlee Bailey for Summer Field Hockey Camps
- k) Resolution #2015-45 – Authorizing the Approval for the Purchase of Skatepark Equipment and Removal/Installation for the Radnor Skatepark Improvement Project (Funded by proceeds designated as part of the Radnor Township Building cell tower negotiations where funds have been identified specific to park improvements)
- l) Resolution #2015-15 – Entering into an Agreement with Consolation Energy for the purchase of green power pursuant to the Township’s approved Green House Gas Action Plan
- m) Resolution #2015-49 - Authorizing the Execution of a Grant Application to the Department of Conservation and Natural Resources for the Clem Macrone Park Master Plan Development Project
- n) Consideration of a Motion to deny the Certificate of Appropriateness:

- ~~HARB 2014 25 – 120 & 124 Bloomingdale Avenue – Convert 120 Bloomingdale Avenue to a single family detached dwelling. Demolish existing structures on 124 Bloomingdale Avenue and develop property with five (5) new townhomes located in two (2) buildings.~~

There was request from Commissioners for item d, g & l to be removed from the consent agenda.

Commissioner Schaefer made a motion to approve, seconded by Commissioner Higgins. Motion passed 6-0 with Commissioner Nagle absent.

Acceptance of Staff Traffic Committee Meeting Minutes of February 18, 2015

Commissioner Fisher made a motion to accept, seconded by Commissioner Schaefer.

Commissioner Schaefer commented in regards to item 1 on the staff traffic meeting minutes stating that by accepting the minutes from this meeting does not mean that there is approval for the speed humps to be installed on Pine Tree Road. After the acceptance of the minutes, staff will proceed to bring the item back to the Commissioners at a later time for approval. There was a discussion amongst the Commissioners. Doug Felske, Deputy Chief – Radnor Fire Company is not in support of the speed humps on Pine Tree.

Public Comment

Bill Clark, Pine Tree Road – He is in support of some type of traffic calming on Pine Tree Road.

Kevin Brown, Pine Tree Road - He is in support of some type of traffic calming on Pine Tree Road.

Commissioner Spingler called the vote, motion passed 5-0 with Commissioner Booker abstaining and Commissioner Nagle absent.

Resolution #2015-41 - Authorization to Purchase Poles and Mast Arms for the Radnor Chester and Raider Roads Traffic Signal Installation Project

Commissioner Schaefer made a motion to approve, seconded by Commissioner Fisher.

Public Comment

Cheryl Tumola – She inquired in regards to the stop bar at the proposed traffic lights.

Dan Sherry, Wayne – He commented in regards to allowing the staff and public to comment without interruption.

Commissioner Spingler called the vote, motion passed 5-0 with Commissioner Booker abstaining and Commissioner Nagle absent.

Resolution #2015-15 - Entering into an Agreement with Constellation Energy for the purchase of green power pursuant to the Township's approved Green House Gas Action Plan

Commissioner Schaefer made a motion to approve, seconded by Commissioner Higgins. Mr. White presented the following in the legislative summary of the resolution:

	100% Wind	Non-Wind	Difference
Two Year Fixed Price / kWh	0.06539 / kWh	0.06407 / kWh	0.00132 / kWh
As applied to Projected 2,489,476 kWh	\$162,787	\$159,500	\$3,287
	(recommended)		

There was a brief discussion amongst the Commissioners.

Public Comment

Sara Pilling, Garrett Hill – She commented that she had felt pressured by this company when they inquired with her to sign up with them.

Josh Hilbert, Environmental Advisory Committee Chair – He read a prepared statement in regards to the EAC support of the resolution.

Ginny Kreitler – She is in support of the above resolution.

Susan Stern, Wayne – She is in support of the resolution.

Commissioner Spingler called the vote, motion passed 5-1 with Commissioner Booker opposed and Commissioner Nagle absent.

Consideration of a Motion to deny the Certificate of Appropriateness:

HARB-2014-25 – 120 & 124 Bloomingdale Avenue – Convert 120 Bloomingdale Avenue to a single family detached dwelling. Demolish existing structures on 124 Bloomingdale Avenue and develop property with five (5) new townhomes located in two (2) buildings.

George Broseman, Attorney for applicant gave a brief explanation of the project and asked for guidance from the Commissioners on how to proceed.

Commissioner Fisher made a motion to approve the denial of the Certificate of Appropriateness HARB-2014-25, seconded by Commissioner

Public Comment

Susan Stern, Wayne – She commented in regards to her disappointment that the Board allowed the applicant to discuss a plan that Planning, HARB nor Township Staff have seen.

Drew Saunders, Neuman and Saunders Gallery – He commented that he endorses the plan.

Eileen Weir, Bloomingdale Avenue – She is in support of the plan.

Cheryl Tumola, - She commented that the plan falls far short esthetically from the historical district.

George Broseman, attorney for the applicant submitted a letter to the Township Solicitor formally withdrawing the pending application and they will go back through the process with single family homes.

Commissioner Fisher withdrew his motion.

2. Appointments to Various Boards and Commissions

Commissioner Fisher made a motion to appoint Kirsten Krug to CARFAC, seconded by Commissioner Schaeffer. Motion passed 6-0 with Commissioner Nagle absent.

3. Letters of Commendation and Recognition

Tammy Cohen, Director of Community Programming and Recreation and Commissioner Schaefer presented Villanova University with Recognition for their support with the Radnor Township Basketball program.

4. Discussion in regards to Cell Towers in Township Parks

Mr. Zienkowski, Township Manager along with staff made a brief presentation stating that there are pocket of dead zone coverage as well as a security issue for first responders. Staff asked the Board if this is something that they would like to pursue further. The parks suggested to place towers in are Willows, Fenimore Woods and Ithan Valley Park.

There was an in depth conversation amongst Commissioners and staff in regards to other options that are available instead of cell towers including microcells.

Public Comment

Ken Taylor, Wayne – He commented that there is an existing cell antennae on the AT&T building and thought that could be utilized instead of one in Fenimore Woods.

Roy Perry, Friends of Ithan Valley Park – He is in support of cell towers at Ithan Valley Park.

Dan Sherry, Wayne – He commented in regards to the revenue stream potential.

Maya Van Rossum, S. Roberts Road – She is not in support of the cell towers in the Township Parks.

Andy Santillo, Chair – Parks Board – He commented in regards to the Parks and Recreation Boards motion made in December in support of the cell towers.

David Wood, S. Roberts Road – He commented that it would be a large sacrifice to allow the towers; he is not in support of them.

There was a sense of the board to not proceed with cell towers in the parks and for administration to pursue other areas of technology at this time.

5. Committee Reports

PERSONNEL & ADMINISTRATION

A. Resolution #2015-51 - Fern Valley Farm License Agreement---Rye, Quarry, Wheeler Tracts

Commissioner Fisher made a motion to approve, seconded by Commissioner Schaefer.

Solicitor Rice gave a brief overview of the proposed license agreement. There was a discussion amongst the Commissioners.

Public Comment

Karen Stark, Westover Road – She commented that she would like to see organic farming as there was a recent study by Rodale Institute that showed that organic farming is not only sustainable but outperforms conventional farming practices.

Ken Taylor, Willow Ave. – He inquired on whether workers compensation coverage is required for the farmer and proof provided to the Township.

Maya van Rossum, Delaware Riverkeeper – She urged the board to not approve this until it is amended to mandate the use of chemical free practices for the farm.

Dan Sherry, Wayne – He commented in regards to an article published in the Main Line Suburban Life titled *Residents Worry Over Herbicide Use at Ardrossan Farm*.

Motion passed 4-2 with Commissioner Booker and Curley opposed and Commissioner Nagle absent.

FINANCE & AUDIT

- B. From CARFAC - A motion authorizing the Township Manager to engage in the necessary discussion, reviews, and negotiations in an effort to produce recommendations to the Board of Commissioners to monetize all or any one of the following Township owned assets: The Township Building, the Public Works Facility, and/or the North Wayne Parking Lot and Senior Center

Commissioner Fisher made a motion for the Township Manager to proceed, seconded by Commissioner Curley.

There was a brief discussion amongst the Commissioners and requested that the S. Wayne Lot be added to the list to be evaluated.

Public Comment

Chris Todd, WBA – He commented that the WBA is not against growth but is against losing parking and interruption to business.

Commissioner Spingler called the vote, motion passed 5-1 with Commissioner Booker opposed and Commissioner Nagle absent.

PUBLIC WORKS & ENGINEERING

- ~~C. 120/124 Bloomingdale Avenue - Discussion of steep slopes and zoning with the Board of Commissioners REMOVED FROM AGENDA PER THE TOWNSHIP SOLICITOR~~

D. Resolution #2015-47 – (Final Approval) - Villanova University West End Zone Building/Butler Annex

Commissioner Higgins made a motion to approve, seconded by Commissioner Curley. Motion passed 4-1 with Commissioner Booker opposed, Commissioner Schaefer abstaining and Commissioner Nagle absent.

E. Stormwater Management Advisory Committee Update

Heather Gill, Chair – Stormwater Advisory Committee gave an update which can be found on the Township website at: <http://www.radnor.com/DocumentCenter/View/7987>.

There was a conversation amongst the Commissioners, Stormwater Management Committee and Staff in regards to the update given and moving forward.

F. Resolution #2015-46 - Authorization to Contract with CH2M Hill for Stormwater Program Billing, GIS, and Professional Services

Commissioner Higgins made a motion to approve, seconded by Commissioner Fisher.

There was further in depth discussion in regards to the tasks of the stormwater administrator and the GIS system.

Public Comment

Dan Sherry, Wayne – He commented in regards to the Stormwater Advisory Committee and an email from one of the members.

Ken Taylor, Wayne – He commented in regards to the hiring of a stormwater administrator.

Commissioner Spingler called the vote, motion passed 4-2 with Commissioners Booker and Curley opposed and Commissioner Nagle absent.

G. Resolution #2015-48 - Authorization for an expenditure of up to \$60,000 for an Ithan Creek Watershed Assessment, with Authorization for \$500,000 to be Appropriated for the Remediation Efforts Determined by the Ithan Creek Watershed Assessment (By Request of the Stormwater Management Advisory Committee)

Commissioner Higgins made a motion to approve, seconded by Commissioner Schaefer.

There was an in depth discussion amongst the Commissioners, representatives from the Stormwater Advisory Committee and Staff in regards to how to proceed with stormwater projects and where in the Township they would take place or whether a study is needed.

Commissioner Schaefer made a motion to amend the resolution to read:

NOW, THEREFORE, be it RESOLVED by the Board of Commissioners of Radnor Township does hereby provide authorization for an expenditure of up to \$60,000 for an Ithan Creek Watershed Assessment and remediation recommendation. Such assessment and remediation recommendation shall include at a minimum, RFP's for the following projects:

1. the Iven Avenue culvert
2. the lowpoint in front of the Radnor firehouse on S. Wayne Avenue
3. the flooding at the intersection of Banbury and Lancaster Avenue Seconded by

Motion seconded by Commissioner Curley.

Commissioner Spingler called the vote on the amended motion, motion passed 5-1 with Commissioner Booker abstaining and Commissioner Nagle absent.

Commissioner Spingler called the vote on the original motion with the amendment. Motion passed 4-2 with Commissioners Booker & Curley opposed and Commissioner Nagle absent.

Public Comment

Charles Boschen, Ward 2 – He commented on the course of action the stormwater management advisory committee took when trying to prioritize the list of projects.

Maya van Rossum, S. Roberts Road – She commented in regards to her thoughts on how to proceed with stormwater projects. She read a statement left by other residents that needed to leave the meeting stating the stormwater management advisory committee needed more detailed analysis to make informed decisions.

Dan Sherry, Wayne – He commented in regards to an email from a member of the stormwater management advisory committee as well as a facebook post on a community group called REM page.

H. Discussion and Possible Motion to Select Specific Stormwater Projects to be Funded

PARKS & RECREATION

- I. Resolution #2015 50 Authorizing the Township to remit \$187,150 to Radnor Wayne Little League for the construction of a comfort station at Encke Park along with other park site improvements (Funded by proceeds designated as part of the Radnor Township Building cell tower negotiations where funds have been identified specific to park improvements)*

This item was moved to the beginning of the agenda.

COMMUNITY DEVELOPMENT

None

PUBLIC SAFETY

None

LIBRARY

None

PUBLIC HEALTH

None

Old Business

Commissioner Booker commented in regards to his frustrations with the Stormwater Fee and also commented in regards to the comments made at a past meeting by the chair of democratic committee.

New Business

Mr. Zienkowski announced that the annual Springeggstravaganza will be held on March 29th at 2 PM at Villanova University Stadium.

Public Participation

Charles Boschen, Ward 2 – He commented that ward 2 has benefited from the stormwater fees.

Ken Taylor, Wayne – He commented about reasons the Township had to implement the stormwater fee.

David Wood, S. Roberts Road – He commented in regards to the apology made at the last meeting and other comments made.

Dan Sherry, Wayne – He commented briefly in regards to legal fee reimbursement for Commissioners' attorney fees as well as actions taken by the Ethics Board.

There being no further business, the meeting adjourned on a motion duly made and seconded.

Respectfully submitted,

Jennifer DeStefano

TOWNSHIP OF RADNOR
Minutes of Public Meeting of April 13, 2015

The Radnor Township Board of Commissioners met at approximately 6:30 PM in the Radnorshire Room in the Radnor Township Municipal Building, 301 Iven Avenue, Wayne, PA 19087

Commissioners Present

William Spingler, President

John Fisher

John Nagle - Absent

Elaine Schaefer

James C. Higgins, Vice President

Richard F. Booker

Donald Curley

Also Present: Robert A. Zienkowski, Township Manager; John Osborne, Treasurer; John Rice, Township Solicitor; Kevin Kochanski, Director of Community Development; Steve Norcini, Director of Public Works; Amy Kaminski, Traffic Engineer; Roger Philips, Township Engineer and Jennifer DeStefano, Executive Assistant to the Township Manager.

President Spingler called the meeting to order and led the assembly in the Pledge of Allegiance

Notice of Executive Session of the Board of Commissioners meeting of April 13, 2015

All commissioners were in attendance with the exception of Commissioner Nagle, where matters of personnel, real estate and litigation were discussed.

Commissioner announced that he has moved the initial public participation to after consent agenda.

1. Consent Agenda

a) Disbursement Review and Approval: 2015-03C, 2015-03D

b) Approval of minutes for the Board of Commissioners meeting of March 9, 2015

c) Resolution #2015-52 – Sale of Surplus Equipment

d) Motion to authorize John Rice to attend the Zoning Hearing Board meeting and oppose the following:

APPEAL #2932 - The applicant, David Semerjian Builders, LLC, property located at 415 and 501 Maplewood Avenue, 255 Highland Avenue – Lots 4 and 5, Central Avenue – Lot 15 and 16, and 253 Highland Avenue and zoned R5, seeks a variance, in order to construct 12 townhomes which is a permitted use, from Section 280-35(B)(9) regarding Impervious Coverage or contends that the relief is permitted as of right since it is not increasing the existing non-conformity on Impervious Coverage. Applicant further seeks any other zoning or alternative relief required pursuant to the Plans presented with this Application.

Commissioner Spingler commented that item d is removed from the consent agenda as the applicant has granted a continuance.

Commissioner Fisher made a motion to approve, seconded by Commissioner Schaefer. Motion passed 6-0 with Commissioner Nagle absent.

2. Delaware Riverkeeper to discuss the Ruling on the Application of Article 1 Section 27 of the PA Constitution to PA Municipalities

Maya Van Rossum, the Delaware Riverkeeper gave a brief presentation in regards to the ruling on the application of Article 1 Section 27 of the Pennsylvania Constitution to Municipalities.

3. Public Participation

Christina Perrone, Wayne – She commented in regards to a meeting she attended last week which was hosted by the League of Women Voters which was between PennDot, Radnor Township residents and Friends to Preserve Radnor in regards to the effect and impact of the proposed Villanova development.

Dan Sherry, Wayne – He commented in regards to bullying comments made by the chair of the democratic committee and an incident that occurred between Commissioner Higgins and the Delaware Riverkeeper at the March 23, 2015 meeting.

Jane Galli, Barcladen Rd. – She commented in regards to parking that is in the plans for Villanova University.

Maya Van Rossum, S. Robert Road – She commented that Commissioner Higgins did give her a heartfelt apology.

4. Committee Reports

PUBLIC WORKS & ENGINEERING

It was agreed by majority of the Board to allow Villanova University to present first.

Caucus – Preliminary Approval – Villanova University Housing Project

Representatives of Villanova presented the proposed plans for their housing project which can be found on the Township website. The applicant will comply with most of the comments. The remainder will require the request of waivers. There was a conversation amongst Commissioners and the applicant in regards to the crosswalk at Ithan & Lancaster Avenue; pedestrian bridge; right turn lane; increased traffic and stormwater.

Public Comment

Jane Galli, Barcladen Road – She inquired for clarifications of washing stations for the construction vehicles and where that water will go; stormwater management and handicap access at the church.

Sara Pilling, Garrett Avenue – She inquired in regards to the length of the ramp leading to the pedestrian bridge.

Maya Van Rossum, Delaware Riverkeeper – She commented in regards to stormwater at the project and commended the university.

Toni Bailey, Barcladen Road – She commented in regards to the reduction of the parking with respect to Sunday Church services and special events.

Commissioner Fisher asked the applicant to give an extension until May 11, 2015 and applicant responded that they are not prepared to grant an extension. Commissioner Fisher also asked for the applicant to consider a cap on enrollment for undergraduate students, staging of the project in particular during special events, the right turn lane, and the rear entry behind the dorms to get to the garage as conditions at preliminary plan approval.

Randy Maud, Aldwyn Lane – He inquired for clarification of whether the lanes are one-way or two-way as well as buffering areas.

Caucus – Preliminary Approval – 145 King of Prussia Road (BioMed)

Representatives for the applicant presented the proposed plans. Discussions included parking; increased green space; several buildings have been moved forward to the parking area and the square footage has been shared between the buildings; a greenways trail plan has been incorporated throughout the development and a sidewalk has been added; revised traffic improvements were detailed to the board including traffic adaptive signals.

There was an in depth conversation amongst Commissioners, the applicant and staff in regards to driveways in/out of the campus, increased traffic, PennDot right-of-way, traffic patterns, stormwater on the site, the proposed underground garage, impacts to traffic if there were to be medical offices within the buildings, park & recreation impact fee calculations, traffic neutral plan, incentives to tenants to use mass transit, fire safety/training & apparatus for Fire Company in regards to the underground parking garage and the adaptive traffic signals.

Public Comment

Matt Marshall, Walnut Ave. – He commented in regards to his disagreements with the proposed plan.

Dan Sherry, Wayne – He commented in regards to solicitor Rice's memos change of views about accessory uses and parking structures.

Randy Maud, Aldwyn Lane – He commented about the SEPTA lot being a busy area.

Mark Kaplan, represents Brandywine Realty Trust – He commented in regards to his position to the below grade parking, his clients concern about the traffic and stormwater management on the site.

COMMUNITY DEVELOPMENT

None

FINANCE & AUDIT

None

LIBRARY

Commissioner Booker commented that the capital campaign for the Library commenced last week to raise funds for the Library expansion project.

PARKS & RECREATION

Mr. Zienkowski announced that the Wheels of Wayne is April 19, 2015 1-4 PM on N. Wayne Avenue as well as the Arbor Day event on April 21, 2015 at 6 PM at the Friends of Radnor Trail Park.

PERSONNEL & ADMINISTRATION

None

PUBLIC HEALTH

None

PUBLIC SAFETY

None

Old Business

New Business

Commissioner Fisher asked the Solicitor and staff to look into the ITE rates that are quoted in the zoning code.

Commissioner Curley commented that neighbors near the intersection of Oakford and Arbordale have asked for a 4-way stop. There will be a recommendation by Superintendent of Police and the Township Manager to introduce an ordinance at a future meeting.

Public Participation

Dan Sherry, Wayne – He inquired about the absence of Commissioner Nagle at the meeting this evening since there had been precedent in the past and again commented in regards to the Solicitors change in view in his memos on accessory use as well as an incident between Commissioners Higgins and the Delaware Riverkeeper.

There being no further business, the meeting adjourned on a motion duly made and seconded.

Respectfully submitted,

Jennifer DeStefano

RADNOR TOWNSHIP POLICE DEPARTMENT

301 Iven Avenue
Wayne, Pennsylvania 19087-5297
(610) 688-0503 ☎ Fax (610) 687-8852

William A. Colarulo
Police Superintendent

TO: A Staff Traffic Committee Meeting was held on March 18, 2015 and was attended by Paul Bazik, Public Works; Lieutenant Christopher B. Flanagan; Officer Ray Matus and Officer Mark Stiansen, Traffic Safety, Jennifer Spottiswoode, Radnor resident, and Mary Ann Donnelly, Administrative Assistant.

RE: **STAFF TRAFFIC COMMITTEE MEETING HELD IN THE POLICE ROLL CALL ROOM, WEDNESDAY, MARCH 18, 2015, 10:00AM.**

NEW BUSINESS:

1. Radnor Elementary requests permission to hold the 6th annual SMART Run on Sunday, April 26, 2015 at 0900 hours.

The Staff Traffic Committee recommends approval of the 6th Annual SMART Run on Sunday, April 26, 2015 t 9:00 am. Highway Patrol reviewed the application and all applicable documents have been executed. Approximately 500 runners are expected to participate in this race. An extra duty detail officer will be required for this event to assist with traffic control.

2. David Van Dyke requests permission for the Hill Top Preparatory School to hold the 4th annual 5k on May 16, 2015 at 0900 hours.

The Staff Traffic Committee recommends approval of the 4th Annual Hill Top Preparatory School 5k Run to be held on Saturday, May 16, 2015 at 9:00 am. Highway Patrol reviewed the application and all applicable documents have been executed. Approximately 200 runners are expected to participate in this race. An extra duty detail officer will be required for this event to assist with traffic control at 737 South Ithan Avenue.

3. St. Katharine of Siena requests permission to hold the 5k run on Saturday, May 9, 2015 at 0900 hours.

The Staff Traffic Committee recommends approval of the 5th Annual St. Katharine's of Siena School 5k Run to be held on Saturday May, 9, 2015 at 9:00 am. Highway Patrol reviewed the application and all applicable documents have been executed. Approximately 250 runners are expected to participate in this race. An extra duty detail office will be required for this event to assist with traffic control at the intersection of Conestoga Road and South Aberdeen Avenue.

4. Radnor Police are requesting that all VASCAR lines be repainted.

The Public Works Department will consider thermoplastics which has a long service life and good visibility with an approximate 3 year life span. Previously water based paint has been

used on pavement markings. It is low cost but traffic and snow plowing wear it away in about a year.

5. Resident Jennifer Spottiswoode has safety concerns regarding speeding on Brooke Road.

Traffic counts were completed in 2014 and the average speed was 41 MPH; speed limit on Brooke Road is posted at 25 MPH.

Petition is required with 80% of residents' signatures on Brooke Road and 60 % on secondary streets; however, Jennifer Spottiswoode is unable to collect signatures at this time.

Jennifer Spottiswoode would like the following placed on record, speed issues on Brooke Road continues, drivers are passing school buses and she would like more police presence. Staff Traffic suggested facilitating a meeting with the RTSD regarding the bus stop. The Police Department has not received any complaints regarding school bus violations, at this location.

Highway Patrol Unit will continue to conduct speed checks and monitor the speeding situation. Speed boards will be placed and Patrol will have Brooke Road on rotation with added patrol.

OLD BUSINESS:

1. Status of installation of school zone on Radnor Chester Road at Radnor High School.

The speed limit on Radnor Chester Road is currently 35 MPH and students do walk to school at this location. Staff Traffic is requesting an update from Steve Norcini on installing a school zone at this location.

RESOLUTION NO. 2015-55

**A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE
COUNTY, AWARDING THE SUPERPAVE STREET
RESURFACING PROJECT**

WHEREAS, Radnor Township proposes to resurface approximately 3.0 miles of Township streets

WHEREAS, sealed bids were received on April 20, 2015, in accordance with Township requirements.

WHEREAS, Joseph E. Sucher and Sons, Incorporated submitted the lowest qualified bid in the amount of \$507,104.10.

NOW, THEREFORE, be it *RESOLVED* by the Board of Commissioners of Radnor Township does hereby award the Superpave Street Resurfacing Program contract to Joseph E. Sucher and Sons in the amount of \$507,104.10

SO RESOLVED this 27th day of April, A.D., 2015

RADNOR TOWNSHIP

By: _____

Name: William A. Spingler

Title: President

ATTEST: _____

Robert A. Zienkowski
Manager/Secretary

Radnor Township

PROPOSED MOTION

DATE: April 21, 2015

TO: Radnor Township Board of Commissioners

FROM: Stephen F. Norcini, P.E., Director of Public Works *SN*

CC: Robert A. Zienkowski, Township Manager

LEGISLATION: Resolution #2015-55 Award of the Superpave Street Resurfacing Contract

LEGISLATIVE HISTORY: In the fall of 2014, the Board of Commissioners authorized the Public Works and Engineering Departments to Receive Bids for the 2014 Superpave Resurfacing Projects. The majority of this project is funded by Liquid Fuels (SLFF-State Liquid Fuel Funds) and there are many parameters set forth by Penn DOT for the project to be able to use this money. During the bidding process, Penn DOT had set forth a cutoff date that we could not meet for the programs bid date. The bids package was pulled (no bids were yet received) with the intent to bid this year. In essence this project is carried forward. The list of previously approved streets is outlined below.

Street Name	TO	FROM
Brookside	Orchard	Iven
Church Road	Abraham's	Brook
Radnor Street Road	Aberdeen Terrace	North Aberdeen
Aberdeen Terrace	Radnor Street	North Aberdeen
Northwoods Road	ALL	ALL
Highridge Road	ALL	ALL
Highview Road	Northwoods	Highridge
Ridgewood	Highridge	Twp Line
Pine Tree Road	Northwoods	Upper Gulph
South Ithan Avenue	Roberts	Bryn Mawr Ave.
Eagle Road	SR 30	Bridge
Roberts Road	Woodlea	Robinhood

PURPOSE AND EXPLANATION: The project entails milling the existing surface of the street to maintain curb reveal and remove oxidized asphalt, repairing any areas that are deteriorated, leveling course (if needed), and the installation of 1.5" of compacted 9.5 mm Superpave wearing course. Roads are chosen for consideration based on the following criteria: alligating, oxidation, rutting, deformation, utility cuts, general condition, and use. Along with our State Liquid Fuel Funds, we are using Aqua Pennsylvania funding towards resurfacing. The amount of money that Aqua PA would have expended to pave the single lane (required for the trench restoration of the water main) of Northwoods Road, Highridge Road, Highview Road, Ridgewood Road, and Pine Tree Road is being used by the Township, in conjunction with our SLFF, to pave the entire width of these roads. This was done with the 2013 Resurfacing program on Browning Lane and Ithan Avenue. The 2015 Superpave Asphalt Program will be in front of the Board of Commissioners at the regularly scheduled May 11th, 2015 Board of Commissioners meeting. Both programs should be completed by the end of the summer. The bid tabulation is below. Joseph E. Sucher & Sons, Incorporated is the lowest qualified bidder.

Joseph E. Sucher and Sons, Inc.	Glasgow Inc.	Innovative Construction Services
\$507,104.10	\$564,623.10	\$566,057.50

IMPLEMENTATION SCHEDULE: If approved by the Board of Commissioners, the contractor will be notified immediately. The bid specs require the project to be completed by August 1, 2015.

FISCAL IMPACT: Funding for this project is provided in the Liquid Fuels Account, #03-439-4880, with \$429,596 allocated for street resurfacing, \$85,594 from Aqua Pennsylvania.

RECOMMENDED ACTION: *I respectfully request the Board of Commissioners the Superpave Street Resurfacing Program to Joseph E. Sucher and Sons, Incorporated in the amount of \$507,104.10.*

MOVEMENT OF LEGISLATION: It is being requested the Board of Commissioners approve this motion.

Letters of Commendation (*Police*)
and
Recognitions (*Recreation*)

Public Participation

ORDINANCE #2015-04

AN ORDINANCE OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, AMENDING THE CODE OF THE TOWNSHIP OF RADNOR, SECTION 270-16, STOP INTERSECTIONS, ADDING NEW STOP INTERSECTIONS FOR OAKFORD ROAD, ARBORDALE ROAD AND CREEK DRIVE

The Board of Commissioners of the Township of Radnor does hereby ENACT and ORDAIN the following amendments to Chapters 270-16 as follows:

Section 1. Section 270-16 Stop Intersections, of the Code of the Township of Radnor is hereby amended as follows:

Stop Sign On:	Direction of Travel:	Intersection With:
Oakford Road	South	Arbordale Road
Oakford Road	North	Arbordale Road
Creek Drive	West	Township Building Driveway- Iven Avenue

Section 2: Repealer. All ordinances or parts of ordinances which are inconsistent herewith are hereby repealed.

Section 3: Severability. If any section, paragraph, subsection, clause or provision of this Ordinance shall be declared invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of this Ordinance as a whole or any part thereof other than that portion specifically declared invalid.

Section 4: Effective Date. This Ordinance shall become effective in accordance with the Home Rule Charter of Radnor Township.

ENACTED and **ORDAINED** this _____ day of _____, 2015.

RADNOR TOWNSHIP

By: _____
Name: William A. Spingler
Title: President

ATTEST: _____
Robert A. Zienkowski, Secretary

RADNOR TOWNSHIP POLICE DEPARTMENT

301 Iven Avenue
Wayne, Pennsylvania 19087-5297
(610)688-0503 ε Fax (610)688-1238

William A. Colarulo
Superintendent of Police

Andrew J. Block
Lieutenant

Christopher B. Flanagan
Lieutenant

April 20, 2015

To: Radnor Township Board of Commissioners
Robert A. Zienkowski, Township Manager

Fr: William A. Colarulo

Re: Ordinance 2015-04
New Stop Sign Ordinance on Oakford Road at Arbordale Road

The following information is justification for Ordinance 2015-04 being introduced on Monday, April 27, 2015, Board of Commissioners Meeting. This intersection will now become a 4-way stop.

Justification:

- Numerous cars park to attend sporting events for children in the spring and fall. This will allow more controlled pedestrian crossings.
- The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes.

If you have any questions regarding this ordinance, please contact me at 610-688-0503 extension 101.

Sincerely,



William A. Colarulo
Superintendent of Police

Radnor Township

PROPOSED LEGISLATION

DATE: 04/09/15

TO: Robert A. Zienkowski, Township Manager

FROM: William A. Colarulo, Police Superintendent

LEGISLATION: Rescinding Ordinance No. 2011-02 dated February 14, 2011, authorizing a handicapped parking space on David Drive.

LEGISLATIVE HISTORY: None.

PURPOSE AND EXPLANATION: A resident requested and was approved for a handicapped parking space to be placed on David Drive. The resident has moved and no longer requires the handicapped parking space.

FISCAL IMPACT: None.

RECOMMENDED ACTION: The Police Department respectfully requests the Board to adopt the amendment at the regular Board of Commissioners Meeting on _____, 2015.



Gannett Fleming

100 Years

of Excellence Delivered As Promised

Date: April 17, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: Ardrossan Farms
Rye Field Buffer Berm

Gannett Fleming, Inc. has completed a review of the Sight Line Study Plan for Ardrossan and the addition of the berm. It appears there are no adverse impacts relating to the proposed berm regrading and the installation of reduced height trees. The sight line profiles show that additional screening will be accomplished with the addition of the berm. I call your attention to the following:

1. PCSM N begins at the southwest side of the cul-de-sac on Tyler Lane. The proposed berm grading does NOT appear to affect the drainage swales or piping to PCSM N.
2. The proposed berm grading/plantings will increase the screening elevation as viewed from the intersection of Newtown Road and Darby-Paoli Road between 10 to 15 ft for lots 3-2, 3-3, 3-4,3-5.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.

Roger A. Phillips, P.E.
Senior Project Manager

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402
t: 610.650.8101 • f: 610.650.8190

www.gannettfleming.com





Rockwell Associates, LLC

Memorandum

April 17, 2015

via Email

To: Mr. Steve Norcini

From: John Hosbach

Site: Ardrossan Farm

Subject: Rye field buffer Berm

Mr. Norcini,

I am in receipt of the updated proposed landscape berm and have reviewed its content. Overall, this berm will provide grander visual abatement and will benefit both the pedestrian and the future dwelling owners as it pertains to the overall visual impact.

As discussed, the following are my suggestions based on my review;

- o The capping of the berm (36 inches) should be a mix of ½ topsoil and ½ leaf mold/compost. The berm should remain unplanted for 30 days to allow for settlement.
- o Each tree should receive recommended rates of Terra-Sorb Hydrogel Super Absorbent Fine <http://www.lebanonturf.com/labels/2724645.pdf>
- o Each tree should be inoculated with ROOTS Healthy Start 12-8-8 and Mycorrhizae.
- o The exposed soil on the entire berm should be seeded and stabilized with the following mixture; APPLICATION RATE: 35 lb./acre | 1250 sq. ft./lb. - SPECIES: Creeping Red Fescue, (Festuca rubra), Canada Wild Rye, (Elymus canadensis), Annual Ryegrass, (Lolium multiflorum), Perennial Ryegrass, (Lolium perenne), Blue Grama, (Bouteloua gracilis), Little Bluestem, (Schizachyrium scoparium), Indian Grass, (Sorghastrum nutans), Rough Bentgrass, (Agrostis scabra), Upland Bentgrass, (Agrostis perennans).
- o I would like to see a reduction of 3% of the stocking for reduced competition.
- o Since transpiration levels will be greater on a constructed berm and the fact that supplemental and natural irrigation will have decreased retention, water management will need to be increased during post care.



Rockwell Associates, LLC

- o No staking should be permitted except for evergreens.
- o No maintenance (mowing, herbicide sprays, clearing) should be permitted once established.
- o Trees should be mulched only once using aged woodchips preferably from the site.
- o Deer management should be implemented.

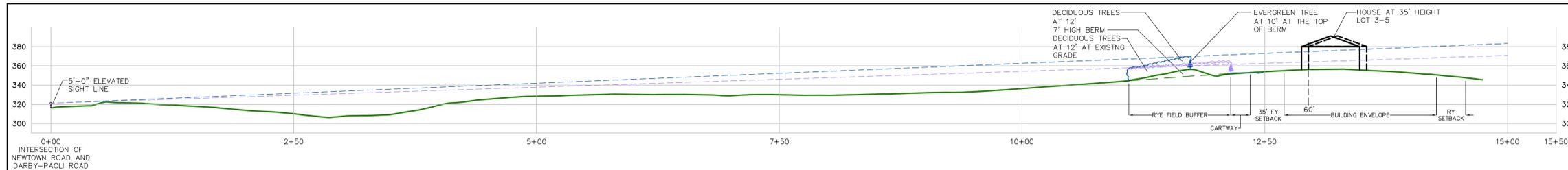
I think this a excellent upgrade to the community and should provide many benefits in the future. Please don't hesitate to call with any questions.

JOHN ROCKWELL HOSBACH JR.

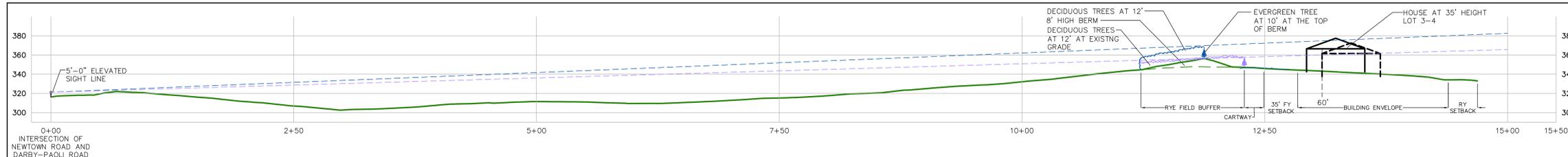
REGISTERED CONSULTING ARBORIST #483

ISA CERTIFIED ARBORIST PD-0372

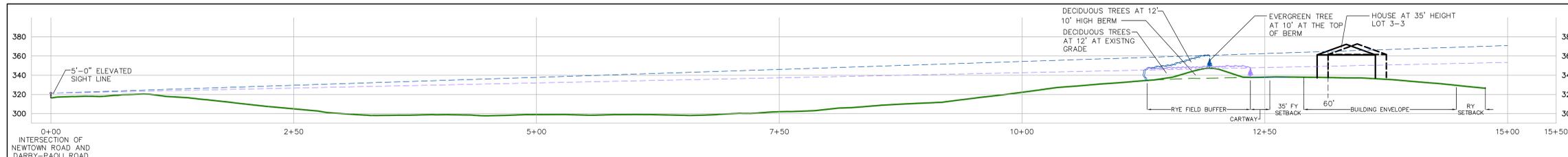
JHTREES@VERIZON.NET



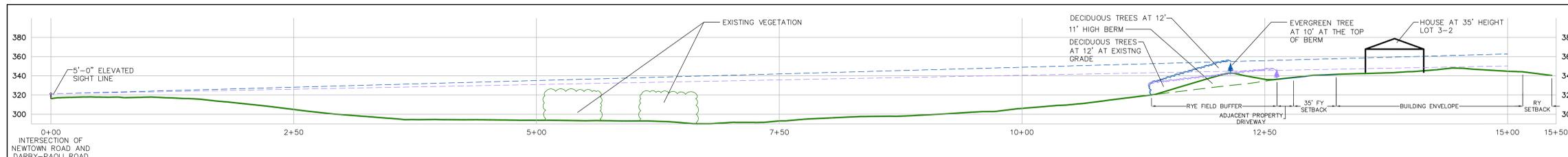
LOT 3-5



LOT 3-4



LOT 3-3



LOT 3-2

Serial Number: 2014-203-0820

CALL BEFORE YOU DIG!
 PENNSYLVANIA LAW REQUIRES
 3 WORKING DAYS NOTICE FOR
 ANY EXCAVATION DEEPER THAN
 4 FEET IN EXCESS OF 48 HOURS
 PENNSYLVANIA One Call System, Inc.
 1-800-242-7776

MOMENEE & ASSOCIATES, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 421 MARKET STREET, SUITE 200
 PHILADELPHIA, PA 19106
 PHONE: (610) 927-3020 FAX: (610) 927-9908

SIGHT LINE PROFILES
 FINAL SUBDIVISION PLANS
 THE ARROSSAN FARM
 RADNOR TOWNSHIP-DELAWARE COUNTY-PENNSYLVANIA
 ONE-CALL: 203-0820
 DRAWN BY: JRM
 CHECKED BY: DJR

APPLICANT
 ESSELI LP
 107 TIMBER HILL ROAD
 WILMINGTON, DE 19807

MA

DATE: OCTOBER 2, 2014
 SHEET NO.
 OF 1
 SCALE: 1" = 50'
 FILE NO.: 06-012

02 2-11-15 REVISED GRADING
 01 2-4-15 REVISED GRADING
 00 2-4-15 COMMENTS

**RESOLUTION NO. 2015-54
RADNOR TOWNSHIP**

A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, APPROVING THE PRELIMINARY PLAN APPLICATION OF VILLANOVA UNIVERSITY FOR A PROPERTY LOCATED ON LANCASTER AVENUE AND ITHAN AVENUE PURSUANT TO PLANS PREPARED BY NAVE NEWELL, INC. ESTABLISHING A COMPREHENSIVE INTEGRATED COLLEGE DEVELOPMENT.

WHEREAS, Villanova University (“Applicant”) submitted a Preliminary Land Development Application (“Application”) for properties located on the southeast and southwest corners of Lancaster Avenue and Ithan Avenue within the Township’s PI - Planned Institutional Zoning District (“Property”) to establish a Comprehensive Integrated College Development (“CICD”) upon the Campus in accordance with Section 280-68.1 of the Township Zoning Ordinance; and

WHEREAS, this Application includes the following engineered plan sets (jointly referred to as the “Plan”):

- Preliminary Land Development Submission for Lancaster Avenue Housing, consisting of 35 sheets prepared for Villanova University, prepared by Nave Newell, Inc., dated December 5, 2014 and revised March 6, 2015.
- Preliminary Land Development Submission for West Lancaster Parking, consisting of 28 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
- Preliminary Land Development Submission for Church Walk and Bridge, consisting of 20 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 13, 2015.
- Preliminary Land Development Submission for Pike Field Garage, consisting of 34 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
- Preliminary Land Development Submission for Performing Arts Center , consisting of 18 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.

WHEREAS, the Application proposes the construction of student housing, retail shops, a parking garage, a performing arts center, and 147 surface parking spaces as set forth on the Plan.

WHEREAS, the Application has been reviewed by both the Radnor Township Planning Commission and the Delaware County Planning Commission.

WHEREAS, the Applicant received conditional use approval for the CICD by Decision and Order of the Radnor Township Board of Commissioners dated November 24, 2014 (“CU Decision”); and

NOW, THEREFORE, it is hereby **RESOLVED** that the Board of Commissioners of Radnor Township does hereby approve the Preliminary Plan of land development for Villanova University subject to the following conditions:

1. The Applicant shall comply with the April 7, 2015 correspondence of the Township Engineer, Gannett Fleming, a copy of which is attached hereto and incorporated herein as “**Exhibit “A”**”.
2. The Applicant shall comply with the March 30, 2015 correspondence of Gilmore & Associates, Inc., a copy of which is attached hereto and incorporated herein as “**Exhibit “B”**”.
3. The Applicant shall comply with the March 20, 2015 and April 1, 2015 correspondence of RETTEW, copies of which are attached hereto and incorporated herein collectively as “**Exhibit “C”**”.
4. The Applicant shall comply with the terms and conditions of the Conditional Use Order of the Board of Commissioners dated November 24, 2014, a copy of which is attached hereto and incorporated herein as **Exhibit “D”**.
5. The Applicant shall install the enhanced stormwater system shown on the Plan and discussed at the Planning Commission meeting on March 26, 2015.
6. The Applicant shall install the proposed right-hand turn lane along Lancaster Pike in front of the performing arts center and into the entrance drive for the Pike Field Garage.
7. The Applicant shall pay \$423,296.00 in park and recreation fees based on a total square footage of 511,799 in lieu of dedication of park land. All fees are due and payable upon execution of development and financial security agreements.
8. The Applicant shall construct all public improvements shown on the Plan. Additionally, the Applicant shall connect the existing PennDOT stormwater pipe from State Route 30 to Pike Field to the proposed stormwater system for the overall project.
9. The Applicant shall submit to the Township Engineer for review and approval all necessary legal descriptions and construction cost estimates of the site improvements.
10. The Applicant shall execute Development and Financial Security Agreements in a form and manner to be approved by the Township Solicitor. Prior to any construction, the Applicant shall provide a detailed staging plan acceptable to the Public Works

Director addressing off site erosion, street sweeping, the impact of special events, construction worker parking, and any required road closures of Township or State streets during construction.

- 11. The Applicant shall comply with all other Township, County, State and Federal ordinances, statutes, rules and regulations.
- 12. The Applicant shall comply with current IBC and NFPA guidelines for all new construction. The Applicant shall provide sufficient vehicle access to all buildings as recommended by the Township Fire Marshall. Additionally, the Applicant shall provide to the Township information and/or training guidelines for firefighting issues which may arise upon construction and operation of the proposed parking structure.
- 13. The Applicant shall provide a supplemental landscape plan for the buffer area along the north Blackfriar Road neighboring residents' property lines which shall be reviewed and approved by the Township.

In addition to the foregoing conditions of preliminary plan approval, the Board's determination with respect to the following waivers is as follows:

- 1. SLDO 255-29 A.(2) to permit the existing 22' entry/exit drive to remain in the West Lancaster parking lot.

-----Approved -----Denied

- 2. SLDO 255-27 H. to permit a reduced curb radius at the southwest corner of the Ithan/Lancaster Avenue intersection

-----Approved -----Denied

SO RESOLVED, at a duly convened meeting of the Board of Commissioners of Radnor Township conducted on this 27th day of April, 2015.

RADNOR TOWNSHIP

By: _____
 Name: William A. Spingler
 Title: President

ATTEST: _____



Gannett Fleming

100 Years
1915-2015
A Division of The McGraw-Hill Companies

Date: April 7, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: Villanova University – Lancaster Avenue Housing
Villanova University – Applicant

Date Accepted: January 6, 2015

90 Day Review: April 6, 2015 extended to April 30, 2015

Gannett Fleming, Inc. has completed a preliminary review of the Villanova University Lancaster Avenue Housing Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor. A preliminary review was also completed for the West Lancaster Parking Lot, Pike Field Garage, the Performing Arts Center, and the Church Walk. Preliminary comments have been included in this letter. Additional comments may be forthcoming as a detailed review is completed. We note that plans have not been submitted for the SAC Parking Garage.

Conditional use approval was granted on November 24, 2014 to permit the development under CICD (decision attached). The applicant is proposing to construct a 1,138 bed student housing facility in six buildings with associated retail space.

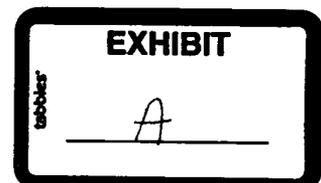
The applicant appeared before the Planning Commission on April 6, 2015. The Planning Commission recommended approval of the plans based on the following conditions:

- Denial of the waiver request for Section 255-27.H, to permit a 25' radius curb on the southwest corner of Ithan Avenue and Route 30.
- The applicant meet all outstanding staff comments and review letters, or request waivers from comments.
- The applicant install an enhanced stormwater management plan as detailed to the staff, the public, and the Planning Commission at the March 26th meeting. This enhanced

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stormwater management system is to include infiltration and improved water quality as outlined at the March 26 meeting

- The applicant seek any and all easements necessary for the construction, maintenance and access to the pedestrian bridge.

The applicant has indicated that the following waivers will be requested from the Subdivision and Land Development Code:

- §255-27.H – To permit a 25 ft radius curb on the southwest corner of Ithan Avenue and Lancaster Avenue.

Plans Prepared By: Nave Newell

Dated: 12/05/2015 and revised 03/06/2015

I Zoning

1. §280-68.1.D(2)(g)1 – Not more than 30% of CICD shall be occupied by buildings. The total building coverage may be increased to no greater than 45%, subject to the land preservation standards of this section, provided that in no event may the total building coverage of the applicant's entire campus within the PI zoning district exceed 30%. For purposes of calculating the total building coverage in the CICD, parking structures shall be included in the building area. A breakdown of the proposed 35.5% building coverage shown on the plans must be provided, including information from the other phases. The applicant has indicated that the total building area is 4.9 acres. The building area for each individual building must be provided.
2. §280-68.1.D(2)(g)2 – No individual building nor group of buildings not separated from each other by the minimum required separation distance noted below shall occupy more than 10% of the CICD site. Parking structures are not required to be included in the calculations of individual building coverage. The plan indicates building coverages of 7.6% for Residence Hall 2, 8.5% for Residence Hall 1 and the Performing Arts Center is 5.6%. A detailed breakdown of this calculation has been provided. It appears that the proposed % shown on the zoning tables are reversed for the residence halls. This must be revised.
3. §280-68.1.D(2)(h) – Not more than 45% of the CICD site may be covered by impervious surfaces; provided, however, if the CICD is redeveloping existing improved lands, then the maximum allowed impervious surface ratio shall be 45% or 10% less than the existing impervious surface ratio on the proposed CICD site, whichever is greater. In no event may the maximum allowed impervious surfaces on the applicants entire campus within the PI Zoning District exceed 45%. The plan indicates that the entire campus proposes 36.4%. The existing impervious surface calculation for the CICD indicates it is 92% impervious therefore 82% is the maximum permitted. A detailed breakdown of how

the 92% impervious was calculated must be provided. The impervious should be broken down by each separate area.

4. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section. The applicant has revised the plans to label every building separation point.
5. §280-68.1.D(3)(e)[2] – There shall be no off-street loading requirements except for retail subordinate uses. All off-street loading shall be adjacent to the use being served by the space; designated by the applicant; and approved during the conditional use approval process. The location of loading dock behind Building 1C was not provided on the plans during the conditional use approval. A loading area was proposed within the surface parking lot behind Building 1C, which is no longer proposed.
6. §280-68.1.D(3)(e)[5] – As specifically designated during the conditional use approval process, the required off-street parking spaces may be located within the boundaries of the CICD or on other areas of the entire campus, exclusive of areas within residential zoning districts. The location of the proposed parking areas differ slightly from what was approved during the conditional use process. There is no longer a parking area expansion proposed for the Health Services Center, and the Saint Augustine Garage (SAG) is proposed to have 2 additional levels. This increases the net number of parking spaces provided by the SAG by 27 spaces. The overall number of proposed parking spaces that was approved during conditional approval has been reduced by 19 for the entire site, however the parking provide still exceeds the minimum required.
7. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
8. §280-103A – As a general requirement, each use in the Township shall provide sufficient off-street parking area to serve its users. The applicant has submitted a phasing narrative on sheet C2.3 that indicates the minimum required parking will be maintained during construction.
9. §280-105.E – All outside lighting including sign lighting shall be directed in such a way as not to create a nuisance in any agricultural, institutional, or residential districts, and in every district all such lighting shall be arranged so as to protect the street or highway and

adjoining property from direct glare or hazardous interference of any kind. Any luminary shall be equipped with some type of glare shielding device approved by the Township Engineer. The height of any luminary shall not exceed 25 feet. It appears that the detail for the luminary has been removed from the detail sheet. A clearly legible detail must be provided that indicates the proposed height.

10. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. The applicant has indicated that there will be disturbance in the steep slope area along Ithan Avenue. This disturbance is allowed under §280.112.D.(6) as it is required for construction of a roadway with no alternative routing along Ithan Avenue.
11. §280-123 – Any signs proposed for this development must be in accordance with this section. The applicant has indicated that any necessary signage applications will be submitted separately from the land development process.

II Subdivision and Land Development

1. §255-20.B.(1)(d) – All applicable zoning districts for this land development must be provided on the plans. This must be shown on the overall plan sheet.
2. §255-27.H(6) - Minimum curb radii at street intersections shall be 25 feet for local streets; 30 feet for collectors; 35 feet for arterials; and 10 feet for driveways. The applicant has requested a waiver to allow a 25 foot radius curb on the southwest corner of Ithan Avenue and Lancaster Avenue.
3. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance exit drive shown on the plan into the proposed parking area behind the student housing is 22 feet. This must be revised or a waiver from this requirement requested.
4. §255-38 – Street trees 2 ½ ddb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.
5. §255-43.1.B(2) – For all nonresidential subdivision and/or land developments, the amount of land to be dedicated for park and recreational area shall be 2,500 square feet per 4,000 square feet of building area. The applicant must conform to this section.
6. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and

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recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. The applicant must conform to this section.

7. §255-54.B. – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. The applicant must provide an explanation or reconcile the inconsistency for the impervious area value for RG-10. Page 31 of the Stormwater Report lists the impervious area to be 9,216 SF, page 40 lists the impervious area to be 6,216 SF, page 149 lists the impervious area to be 6,216 SF and the table on the plan, and “Drainage Plan (Volume Management) lists the impervious area to be 9,216 SF.
2. The Dewatering Calculations for LAH Infiltration System 202 indicates that the 100-year condition requires 103.56 hrs. (4.31 days) for the volume to completely dewater. Stormwater BMPs must be able to completely drain within 96 hours.

IV General Comments

1. The applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increase wastewater disposal generated by the project.
2. A detail of the proposed fence/gate enclosure must be provided on the plans.

West Lancaster Parking

I Zoning

1. §280-43.D – No building shall be located less than 65 feet from a street right-of-way line, less than 20 feet from a side property line nor less than 25 feet from a rear property line. The applicant is proposing a 57.9 front yard setback and a 11.9 foot side yard setback. Both are non-conformities that the applicant intends to continue.

II Subdivision Land Development

1. §255-29.B.(1) – All parking areas shall have at least one tree 2 ½ inches minimum in caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every parking space in double bay. A minimum of 10% of any parking lot facility over 2,000 square feet in gross area shall be devoted to landscaping, inclusive of required trees. The landscape plans indicate that there are 232 parking spaces for this project. The overall Lancaster Avenue housing plans indicate that there are 240 proposed spaces for this lot. This must be verified and all plans revised to be consistent.
2. §255-29.A.(1) – The minimum aisle width for two way parking is 22 feet. The aisle width for Moriarty Hall, the visitor’s lot, Stone Hall and between Stone Hall and Farrell Hall must be revised. Also a dimension should be shown between the proposed shuttle stop and curbing on sheet C2.1.
3. §255-29.A.(1) – The dimension of a 90° parking stall shall be 9 ½ feet by 20 feet. There is a parking spot located south of Farrell Hall does not meet those dimensions. Also the parallel parking spaces between Stone Hall and Farrell Hall are not the required 8 x 22 feet. The two way parking aisle between parallel parking spaces must be 18 feet.
4. §255-29.A.(6) – No more than 10 parking spaces shall be permitted in a continuous row without being interrupted by landscaping and concrete curb. The visitor lot must be revised.
5. §255-29.A.(7) – No one area for off-street parking of motor vehicles shall exceed 30 cars in capacity. Separate areas on a parcel shall be physically separated from one another by ten-foot wide planting strips and concrete curb. The visitors lot must be revised.
6. §255-29.A.(15) – All dead-end parking areas shall be designed to provide sufficient backup area for all the end stalls of a parking area. The dead-end parking spaces behind Farrell Hall must be revised to include a sufficient back-up area.

III Stormwater Management

1. The applicant must provide an explanation or reconcile the inconsistency for the Area values listed for RG-101. The supporting calculations for the Volume Summary on page 24 list the overall drainage area to be 29,422 SF. Plan measurements of the sheet, “Post Watershed Area Plan” appears to indicate a drainage area significantly larger (approximately 46,500 SF). It would be helpful if the applicant submitted documentation similar to page 36 of the Stormwater Report for the Lancaster Avenue Housing Phase that detailed the structure/facility’s total area, impervious area and pervious area.
2. The “Volume – One Inch” calculation sheet on pages 24-25 appears to have some inconsistencies and should be rechecked and resubmitted. Specific examples include the following

- a. RG-101's volumetric storage value of 1,472 CF seems inconsistent with the calculations shown for the cumulative storage and incremental storage volume values.
 - b. RG-102 has a similar calculation inconsistency – The T/G elevation of 438.5 listed, however calculations for the area, depth, ave. area etc. stop at elevation 438.00. Additionally the volumetric storage value of 1,846 CF does not appear consistent with the volume calculations provided for both the incremental and cumulative storage volume values.
 - c. The applicant must provide supporting documentation for the cumulative volume values reported for Infiltration systems 101, 102 and 103 similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
3. The Dewatering Calculations for WLA Infiltration System 202 indicates that the 100-year condition requires 113.45 hrs. (4.73 days) for the volume to completely dewater. Stormwater BMPs must be able to completely drain within 96 hours.
 4. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
 5. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
 6. The “Inlet Area Plan” appears to be missing drainage areas for I-202A, I-202B, and some of the inlets along the Lancaster Avenue turning lane. Please update the plan so these values can be checked against what is being reported in the stormwater calculations.
 7. How and where is the runoff from the pedestrian bridge being addressed? A drainage area for this area is partially drawn on sheet “Post Watershed Area Plan”, but it is not included in the drainage area chart on page 124. Please provide an explanation.
 8. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

Pike Field Garage

I Zoning

1. §280-68.1.D(2)(i)[3] – Height limitations from the average existing grade (the average of the existing grades taken at a twenty foot interval around the proposed building perimeter) to the midpoint of a sloped roof or to the highest roof beams if a flat roof, provided that the chimneys and spires shall not be included in measuring the height structures for the CICD. The height limitations for a parking structure shall be 38 feet. The plan indicates that the proposed structure will be 5 levels. The applicant has indicated that the height of the parking structure will be 37.85 feet.
2. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.
3. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
4. §280-68.1.D(3)(e)4 – Surface parking spaces shall be no less than nine feet by 19 feet. Parking spaces in any parking structure shall be no less than eight feet six inches by 19 feet. The parking spaces must be dimensioned on the plans. Detailed parking garage plans must be submitted for review.
5. §280-69.C – No building or structures shall exceed three stories or 38 feet in height. The plan indicates that the proposed parking structure will be 5 levels. The applicant has indicated that the parking structure will be 37.85 feet.
6. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. There are storm sewers proposed on areas of greater than 20%.

II Subdivision Land Development

1. §255-54.B. – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided. The proposed fire access land is proposed to be grass pavers. This must be reviewed by the Township Fire Marshall.

III Stormwater Management

1. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
2. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
3. There appears to be missing/inconsistent information between the drainage area table on page 189 of the Stormwater Report and the “Inlet Area Plan”. The RG-1 referred to on the table does not appear on the plan for this section of the development. There also appears to be missing drainage areas/information for YD 3-1, YD 3-2 and the Trunc Flow I-314. Please explain.
4. A drainage area for Pike Garage is shown to drain to a stormwater management system in POI 2B. The area breakdown does not appear to be included on the drainage area table on page 189 of the Stormwater Report. This is inconsistent with the other drainage areas reported for POI 2B. Please update the table accordingly.
5. The Volume Calculations for the Proposed Garage Basin – POI – 2B appears to have inconsistent information with regards to the detail shown on the Pike Field Garage Plans, Sheet 27 of 34. The bottom of the engineered soils appears to be at elevation 412.50 while the calculations report a total volume to el. 411.50 to be 1,613 CF. Further detail explaining how that volume was calculated must be provided.
6. The applicant must provide supporting documentation for the “Elevate Low Flow Orifice 6” to 411.00 volume value reported (6,073 CF) similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
7. Please provide a detail of the Existing Underground Basin in Pike Field

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8. The applicant must provide supporting documentation for the “Total Volume to El. 411.65” volume value reported (1,992 CF) similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
9. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

IV General

1. The proposed fire access lane is proposed to be grass pavers. This must be reviewed by the Township Fire Marshall.
2. Detailed parking garage plans must be provided for the Pike Field Garage.

Performing Arts Center

I Zoning

1. §280-68.1.D(2)(i)[1] – Height limitations from the average existing grade (the average of the existing grades taken at a twenty foot interval around the proposed building perimeter) to the midpoint of a sloped roof or to the highest roof beams if a flat roof, provided that the chimneys and spires shall not be included in measuring the height structures for the CICD. The height limitations for academic and performance facilities shall be 50 feet. The applicant has indicated that the height will be 49.88 feet.
2. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.
3. §280-68.1.D(2)(j)2(b) - The minimum building space between buildings and a parking structure is 30 feet. The parking garage must be shown on the plans to ensure adequate distance between the performance art center and the parking garage.
4. §280-68.1.D(3)(f)[2] – Mechanical/electrical equipment and trash shall be screened from view. In addition, sound attenuation shall be installed on all equipment to minimize noise

pollution at any adjacent residential property line. A detail of the dumpster/recycling area must be provided. Also details of the proposed screen wall and access gates must be provided.

5. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.

II Stormwater Management

1. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
2. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
3. The drainage area table on page 189 of the Stormwater Report does not appear to be accounting for the drainage areas of the PAC Detention System to POI 2B (I-225, I-226, Roof area).
4. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

Church Walk and Bridge

I Zoning

1. §280-68.1.D(2)(b) – Setbacks from the ultimate right-of way for major collector streets shall be 60 feet for surface parking lots. The visitors parking lot is less than 60 feet from the proposed right of way line. This is a non-conformity that the applicant intends to continue.
2. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property

line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.

3. §280-69.E(3) – Surface parking areas are classified as a category of use 1. Category 1 uses and structures shall be set back from rear and side property lines by 75 feet. The existing parking area is set back 20 feet. This is a non-conformity that the applicant intends to continue.
4. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified.
5. §280-123 – Any signs proposed for this development must be in accordance with this section. The applicant has indicated that any necessary signage applications will be submitted separately from the land development process.

II Subdivision and Land Development

1. §255-29.A.(1) – The minimum dimensions of parking aisles for 90° parking is 22 feet. The aisles in the existing visitor parking area are less than 22 feet. This must be revised or a waiver from this section requested.
2. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance and exit drive shown on the plan is 22 feet. This must be revised or a waiver from this section requested.
3. §255-29.A.(19) – All artificial lighting used to illuminate any parking space or spaces shall be arranged so that no direct rays from such lighting shall fall upon any neighboring property or streets, nor shall any high-brightness surface of the luminaries be visible from neighboring residential properties or from a public street.
4. §255-37.C – Sidewalks and public paths shall be located within a public right-of-way, a public easement or a common open space area. The sidewalk is not located in the public right-of-way. The applicant must request a waiver from this requirement.
5. §255-38 – Street trees 2 ½ dhb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.

III Stormwater Management

1. The March 6, 2015 Stormwater Report does not include a specific discussion of the Stormwater concept for the Church Walk and Bridge. Please update the narrative accordingly.
2. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
3. The applicant must provide a plan similar to the "Post Development Drainage Plan (Volume Management)" provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.

We recommend that the plans be revised to address the comments stated above along with comments provided in the review memo from Gilmore and Associates prior to consideration for approval, or conditional approval shall include the applicant addressing the comments to the satisfaction of the Township Engineer.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



GILMORE & ASSOCIATES, INC.

ENGINEERING & CONSULTING SERVICES

MEMORANDUM

Date: March 30, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Department Manager of Transportation

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Villanova University – Lancaster Avenue Redevelopment
Preliminary Land Development Review #2
Radnor Township, Delaware County, PA

G&A 12-04054

Gilmore & Associates, Inc. (G&A) has completed a transportation review referenced project addressing comments in our review memorandum, dated January 28, 2015 and offers the following comments for Radnor Township consideration:

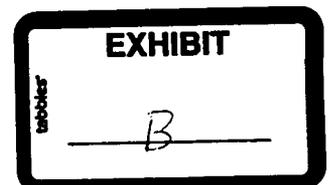
I. BACKGROUND

The applicant, Villanova University, intends to develop/redevelop several parcels located along Lancaster Avenue, southeast and southwest of the Ithan Avenue intersection, in Radnor Township, Delaware County. The project includes construction of student housing (1,135 bed apartment-style residence halls), retail shops (University Bookstore, bistro and small convenience store, size to be determined) along with 147 surface parking spaces to be located on the southwest corner of Lancaster Avenue and Ithan Avenue. In addition, the project includes construction of a Performing Arts Center (with 500 – 650 total seats in two theaters) and a multilevel parking structure (1,293 spaces) to be located on the southeast corner of Lancaster Avenue and Ithan Avenue. Villanova University intends to eliminate many of the existing driveway accesses located on the south side of Lancaster Avenue, west of Ithan Avenue and construct a shared surface parking lot to the rear of the existing university buildings along the south side of Lancaster Avenue. The Church Walk access and associated signalization will be relocated west of the present location and a new right in driveway will be constructed

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west of Church Walk. The applicant also intends to construct a pedestrian walkway over Lancaster Avenue at the present Church Walk access location.

II. DOCUMENTS REVIEWED

1. Preliminary Land Development Submission for Lancaster Avenue Housing, consisting of 35 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated December 5, 2014 and revised March 6, 2015.
2. Preliminary Land Development Submission for West Lancaster Parking, consisting of 28 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
3. Preliminary Land Development Submission for Church Walk and Bridge, consisting of 20 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 13, 2015.
4. Preliminary Land Development Submission for Pike Field Garage, consisting of 34 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
5. Preliminary Land Development Submission for Performing Arts Center, consisting of 18 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
6. Pedestrian Parking & Traffic Plan, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
7. Event Traffic Circulation Plan, consisting of 7 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
8. Lancaster Avenue residential Housing Evacuation Plan, consisting of 2 sheets, prepared for Villanova University, prepared by Voith & Mactavish Architects LLP, dated March 2, 2015.
9. Response Letter, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
10. Transportation Impact Study dated March 12, 2015 prepared by F. Tavani Associates, Inc.
11. Response Letter dated March 12, 2015 prepared by F. Tavani Associates, Inc.

III. CONSTRUCTION PHASING

The applicant has identified the following construction phasing Sheet 8 of 35(C2.3) *Project Phasing Plan*.

1. Phase 1 Improvements
 - i. St. Augustines Center Garage Expansion
 - ii. Improvements to the West Lancaster Parking facilities
 - iii. Ingress from Lancaster Avenue at existing driveways
 - iv. Egress to Lancaster Avenue at signal at the existing Church Walk driveway
 - v. Closure of Pike Lot surface parking field

Comment: Phase 1 improvements may require signal timing modifications at the Church Walk intersection due to redistribution of traffic from Ithan Avenue to Church

Walk signal. In addition, the elimination/modification to the existing accesses along Lancaster Avenue should be discussed with PennDOT.

2. Phase 2 Improvements (includes Highway Occupancy Permitting)
 - i. Construction of the Pike Field Parking Garage
 - ii. Temporary improvements to Pike Lot surface lot at the site of the future Performing Arts Center – PAC
 - iii. Construction of the Pedestrian Bridge over Lancaster Avenue
 - iv. Improvements to visitor lot, west of existing Church Walk
 - v. Relocation of Church Walk
 - vi. Lancaster Avenue and Ithan Avenue improvements
3. Phase 3 Improvements
 - i. Construction of Student Housing Complexes 1 and 2
 - ii. Continued use of Pike Lot surface lot at the site of the future Performing Arts Center – PAC
4. Phase 4 Improvements (Upon availability of funding)
 - i. Elimination of Pike Lot surface lot
 - ii. Construction of Performing Arts Center

IV. REQUESTED WAIVERS

1. §255-27.H – The applicant has requested waiver to permit a 25ft. radii for the curb on the southwest corner of Ithan Avenue and Lancaster Avenue; a 35 foot radii is required for arterials. This approach is currently being re-evaluated by PennDOT for other improvements. If the Township decides to approve this waiver, we recommend the applicant demonstrate a WB-50 is able to complete the turn without encroaching on adjacent or opposing travel lanes.

V. GENERAL COMMENTS

1. The public sidewalk on the south side of Lancaster Avenue has been relocated outside the public legal right-of-way. In addition, the sidewalk is located behind a decorative fence open to public access. A sidewalk easement granting public access will be required from the applicant. The easement must be shown the plans.
2. Use an industry standard WB-50 in lieu of the custom US FOOD truck turning templates for truck turning templates.
3. We recommend discussing potential traffic calming elements with nearby affected neighborhoods, particularly Aldwyn Lane residents.
4. Final Land Development requirements:

- i. Provide a Pavement Marking and Signage Plan
 - ii. Provide traffic signal construction and permit plans for both signalized intersections and the two pedestrian-activated rectangular rapid flashing beacons (RRFB) crossings on Ithan Avenue.
5. Revise all stop bars locations to a minimum of 4 feet from any crosswalk.
 6. The applicant's Traffic Engineer in a response letter dated March 12, 2015 indicates an eastbound right turn lane at Lancaster Avenue and Ithan Avenue is not required and will not be supported by PennDOT. It is our understanding based on a meeting with PennDOT, the need for an eastbound right turn at the intersection was still being evaluated and additional information was requested by PennDOT.

VI. LANCASTER AVENUE HOUSING PLAN COMMENTS

1. §255-29.A(14), No less than a five-foot radius of curvature shall be permitted for all curblines in parking areas. Sheet 6 of 30 (C2.2) includes several deficient radii along the south side of the parking lot, near the Proposed Dumpster and Recycle Area(s). Revise as required or request a waiver.
2. On Sheet 7 of 35 (C2.2)
 - i. The plan indicates pedestrian activated rectangular rapid flashing beacons (RRFB) for the midblock crossings on Ithan Avenue near the South Campus dormitories and Aldwyn Triangle, and the Lancaster Avenue Housing surface lot and the Pike Street Garage accesses to Ithan Avenue. Flashing Warning signal permit and construction plans are required for both locations.
 - ii. The applicant has proposed a right-turn lane along Lancaster Road at the PAC driveway. The implementation of the warranted right turn lane on Lancaster Avenue at Ithan Avenue of an eastbound right-turn lane along Lancaster Avenue at Ithan Avenue is still being evaluated by PennDOT and Township staff.
 - iii. Eliminate the stop bar on southbound Ithan Avenue at the proposed LAH/PAC driveways.
 - i. Verify the sight distance is adequate for the proposed crosswalks on Ithan Avenue at the parking driveways;
 - ii. Identify and dimension all existing and proposed public sidewalks along Ithan Avenue and Lancaster Avenue.
3. During final land development, each phase will require the design details regarding the onsite pedestrian curb ramps and crosswalks (refer to PennDOT Publication 72M *Roadway Construction Details, RC-67M* for information) CS 4401 form should be provide at the time.

4. Include signage to prohibit all trucks from turning right out of the driveway access to continue southbound on Ithan Avenue, and to prohibit trucks from turning left into the driveway from northbound Ithan Avenue.
5. Provide Truck Turning Templates for the eastbound right-turn from Lancaster Avenue onto Church Walk and the westbound left-turn from Lancaster Avenue onto Church Walk.
6. Provide Truck Turning Templates for the eastbound left-turn from LAH driveway onto Ithan Road.
7. Sheet 9 (C2.4), Exhibit 2: Adjust the location of the eastbound stop bars if necessary to allow for the left turn movement from both exit lanes or include signage prohibiting trucks in the left most, left turn lane exiting Church Walks.
8. The University may want to consider designating short term parking for spaces located near the proposed retail space in the LAH parking area to encourage parking turnover.

VII. WEST LANCASTER PARKING PLAN COMMENTS

1. §255-29.A(1) – Parking aisle widths shall be a minimum of 18' for one-way aisles. The aisle between Stone and Farrell Hall is less than 18 feet and appears to be a two-way vehicular movement. Revise the design or request a waiver.
2. §255-29.A(15) All dead-end parking areas shall be designed to provide sufficient backup area for end stalls of a parking area. The Parking area south for Farrell Hall should be revised accordingly.
3. §255-29.A(21) – Concrete curbing is required along the perimeter of the parking areas. Revise the parking area south of Farrell Hall.
4. Sheet 5 of 28 (C2.1): Clarify the use of the remaining western most access to Lancaster Avenue. The access is located within the limits of the right turn lane taper and based on the provided legend, appears to include a fence. If this is an emergency access, provide a note on the plans identifying the use and replace the "fence" line with a gate.
5. Sheet 6 of 28 (C2.2) Consider altering the location of the handicapped parking space closer to the sidewalk near Moriarty Hall.
6. The location of the proposed fencing is inconsistent and not clearly defined. The Composite Site Plan indicates fencing is proposed along the north side of Lancaster Avenue from Ithan Avenue and extending west with a campus entrance break just west of the proposed right in /right out access; however, no fencing is shown on

Sheet 5 (C2.1) and Sheet 6 (C2.2) of the plan set. The plans should be revised to be consistent for all provided sheets.

7. Provide turning templates for a WB-50 turning right from eastbound Lancaster Avenue into Church Walk.
8. Provide turning templates for two adjacent left turning vehicles exiting the proposed Church Walk access to continue westbound Lancaster Avenue. Additional widening along Lancaster Avenue may be necessary for the receiving lanes associated with the dual left turn lane operation.

VIII. CHURCH WALK PLAN

1. Include internal stop bars and signage on internal parking aisles. Adjust the location of the pedestrian crosswalks and stop bars as needed.

IX. PIKE FIELD GARAGE PLAN COMMENTS

1. Sheet 9 of 34 (C2.4): Modify the design of the driveway access to Lancaster Avenue. Exhibit 1 indicates SU-30 trucks will encroach on the concrete island.
2. Sheet 9 of 34 (C2.4): Include the exiting SU-30 right-out turn movement to eastbound Lancaster Avenue.
3. The crosswalk locations at the intersection of Ithan Avenue and Lancaster Avenue may require signal equipment relocation or additional pedestrian related traffic signal equipment (i.e. Pedestrian pedestal poles).

X. PERFORMING ARTS CENTER PLAN COMMENTS

1. We have no transportation comments.

XI. LANCASTER AVENUE HOUSING PEDESTRIAN PARKING & TRAFFIC PLAN

1. Provide a north arrow and label all roadways.
2. Phase 2: Provide phase 2A and 2B separately. Identify what work will be completed during each phase and identify the pedestrian path available, particularly near Church Walk.

XII. EVENT CIRCULATION PLAN

1. The event traffic Circulation Plan should be reviewed by the Radnor Police Department.

2. Refer to the Manual of Uniform Traffic Control Devices (MUTCD) 2009 (Chapter 2L *Changeable Message Signs*) and PennDOT Publication 646 *Intelligent Transportation Systems Design Guide* and verify DMS sign placement/location based on the reading and decision zone, number of lines, character length and height is adequate for roadway conditions.
3. We recommend the applicant consider the following suggestions:
 - i. Consider revising all turn designations to provide the direction message after the movement message. Specifically, TURN RIGHT instead of RIGHT TURN.
 - ii. To reduce the message length and improve patron memory retainage, revise the parking structure designations to colors as opposed to structure name. Revise the Permanent Signs for Parking Facilities to include the color as a background or text legend.
 - iii. Revise messages from "MAKE" to "TURN" for clear conveyance of movement.
 - iv. Revise messages from "AFTER LIGHT" to read "AFTER" followed by the name of the street.

XIII. TRAFFIC IMPACT STUDY

1. The applicant is required to provide a turn-lane length analysis for all auxiliary lanes including the eastbound right turn lane at the intersection of Ithan Avenue and Lancaster Avenue in accordance with the methodology included in PennDOT Publication 46 Traffic Engineering Manual.
2. Subsequent submissions must utilize Synchro HCM2010 methodology for the analysis of the Church Walk and Lancaster Avenue intersection. G&A verified the provided Synchro files can utilize HCM 2010 methodology.
3. Table I *Level of Service Comparisons*
 - v. **Lancaster Avenue & Spring Mill/Kenilworth Road/Aldwyn Lane**
Provide mitigation for the degradation of critical movements at the intersection where there is more than 10 seconds additional delay between the No-Build (Base) to Build (Projected) scenario.
 - vi. **Lancaster Avenue & Ithan Avenue**
Provide mitigation for the degradation of critical movements at the intersection where there is a more than 10 second additional delay between the No-Build (Base) to Build (Projected) scenario.
4. Table II *Queue Comparison Table Signalized Intersections*

- i. Revise based on the HCM 2010 methodology in lieu of the provided percentile method.
- ii. Provide omitted queues for the Existing, No-Build 2020 and Build 2020 scenarios.
- iii. **Lancaster Avenue & Ithan Avenue:**
The queue for the AM and PM peak hour Build Scenario exceeds the southbound left-turn available storage length of 75 feet. Mitigation must be provided for this movement to accommodate the anticipated queues.
- iv. **Conestoga & Sproul Roads**
The projected 2025 AM and PM peak hour queue for the eastbound through/right movement exceeds available storage length in both the No-Build and Build conditions. The applicant should provide cost effective recommendations for improvements.



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March 20, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Villanova University
Lancaster Avenue Housing, Related Parking Improvements, and
Performing Arts Center
Preliminary Land Development Plans
Review No. 2
RETTEW Project No. 101442003

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell, Inc. Our review was of the following information received on March 9, 2015:

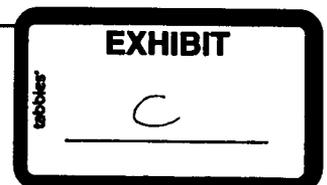
1. Thirty-six (36) plan sheets for Lancaster Avenue Housing dated December 5, 2014 and revised March 6, 2015;
2. Twenty-eight (28) plan sheets for West Lancaster Parking dated March 6, 2015;
3. Thirty-four (34) plan sheets for Pike Field Garage dated March 6, 2015;
4. Eighteen (18) plan sheets for the Performing Arts Center dated March 6, 2015;
5. Four (4) sheets for the Pedestrian Circulation Plan dated March 6, 2015;
6. Event Circulation Plan Summary and four (4) plan sheets for Events Circulation Plan dated March 6, 2015;
7. Lancaster Avenue Housing Evacuation Plan with diagram dated March 2, 2015;
8. PECO response letter concerning additional landscape material stamped received December 19, 2014 by the Facilities Management Office;
9. Storm Water Management Report and Site Drainage Calculations revised March 6, 2015; and,
10. A plan reviews comments response letter dated March 6, 2015.

Project Overview:

Applicant: Villanova University

Requested Action/Use: Preliminary Land Development Plan Review:
Lancaster Avenue Housing
West Lancaster Parking
Pike Field Garage
Performing Arts Center

Zoning District: PI – Planned Institutional; CO-Commercial Office; R-3 Residence



<u>Location and Size:</u>	Lancaster Avenue Student Housing and most related parking improvements properties are located between Lancaster Avenue and the SEPTA R-100 tracks, and between Pike Field and Farrell Hall on the Villanova campus. Improvements to the SAC Garage are located on land at the north end of the Main Campus along the AMTRAK/SEPTA rail lines. Apart from the SAC Garage site, the subject lands are roughly coincidental with the CICD development proposal which the applicant indicated contained gross site area of approximately 13.81 acres.
<u>Existing Use:</u>	Surface parking lots and small University office buildings.
<u>Proposed Use:</u>	Student dormitories, student-centered retail, Performing Arts Center, and related Pike Parking Garage, West Lancaster Avenue parking lot, and SAC Garage expansion.

We have performed a compliance review of the four land development plans with certain elements of the Radnor Township Zoning Ordinance, with the applicant's phasing plan, with the conditions of the Board of Commissioners' CICD conditional use approval, and with the Radnor Township Comprehensive Plan. We have the following comments on this submittal:

SPECIFIC ZONING

1. New landscaping information has been provided by the applicant including section drawings along the south property line of the Housing portion of the site showing new and existing vegetation looking in a west to east direction. One additional series of views of the proposed buffer planting strip looking through the landscaping in a south to north direction is needed to demonstrate that the proposed Buffer Planting Strip along the R-100 line provides a screen of sufficient density not to be seen through and of sufficient height to constitute an effective screen and give maximum protection and immediate visual screening to an abutting property or district (§ 280-4B, § 280-68.1.D(3) and § 280-71.D). The same view of the landscaping proposed for the West Lancaster Parking Plan needs to be provided. We will coordinate with the applicant's design team on this item.
2. Sub-section 71.A of the zoning ordinance requires buffer planting strips to be not less than 20 feet in width. There are places at the rear of the West Lancaster Parking and Lancaster Housing where the width of the buffer planting strip is less than 20 feet wide. However, Sub-section 71.D allows for alternative buffer planting strips stating, "As an alternative to the possibly linear appearance of the minimum requirements above, applicants are encouraged to provide innovative, free-form buffers which need not be located entirely within the minimum required width. Such alternative buffers shall be subject to approval by the Township." Such alternative buffer planting strips would be required to meet the same "a screen of sufficient density not to be seen through...and immediate visual screening..." standard as noted above. The requested view of the proposed buffer planting strip in the south to north direction will provide the basis for the Township to determine sufficiency.

3. New landscaping information has been provided by the applicant including a plan view of the landscaping proposed to surround the Pike Field Parking Garage and the Performing Arts Center. Further, the applicant indicated during its presentation at the March 10 Planning Commission meeting that it will provide additional landscaping along the eastern boundary of Pike Field as desired by residents of Barley Cone Lane to buffer their view of the Pike Field Parking Garage and Performing Arts Center. The development plan needs to reflect this additional landscaping desired by the Barley Cone Lane residents. The ultimate standard required of such landscaping is the same as above "a screen of sufficient density not to be seen through and of sufficient height to constitute an effective screen and give maximum protection and immediate visual screening to an abutting property or district," as called for by § 280-68.1D(3)(b) and § 280-71.D.
4. The submitted lighting plan information for all four development plans includes isometrics that demonstrate light at the nearby residential property lines is well below the maximum 0.5 foot-candles allowed. However, information is needed to show how all the proposed site and area lighting complies with International Dark Sky Association (IDA) full cut-off standards. Some of the proposed light fixtures do not appear to contain full cut-off shields (§ 280-68.1.D(3)(g)).
5. The Housing plan shows most ground-mounted mechanical and trash equipment is screened from view from public streets and abutting properties. Outstanding items: a) The proposed loading dock and trash compactor at the railroad end of the eastern portion of Building 1-C in the Housing Plan is proposed to be surrounded with a fence and gate. A detail of the proposed fence and gate needs to be provided; b) Roof mounted mechanical facilities were also proposed during the conditional use process. If such facilities are still part of the Housing development proposal, appropriate screening needs to be shown as well (§ 280-68.1.D(3)(f)) (§ 280-70.C); c) Further, the plan needs to describe how the proposed loading area and proposed dumpster and recycling area at the southeast corner of the Performing Arts Center will be screened from view from the Barley Cone Lane properties and Lancaster Avenue.
6. The Housing plan needs to include information describing the sound attenuation devices that are a part of or are to be installed on all mechanical, electrical, and trash equipment to minimize noise pollution at any adjacent residential property line (§ 280-68.1.D(3)(f)). While a fence and gate enclosure are proposed to surround the trash compactor shown at the railroad end of the eastern portion of Building 1-C in the Housing Plan, how will the fence provide noise buffering? Noise buffering of the mechanical pit adjacent to South Ithan Avenue will be needed as well.
7. The Housing plan needs to show consideration for trash receptacles along Lancaster Avenue, pedestrian benches along Lancaster Avenue in between the proposed "seatwall" sites, and related features (pennants, kiosks, signage) to complete promotion of a pedestrian-friendly townscape (§ 280-68.1.A). An 'Image Board' or site design collage with photos of selected design features would help portray the townscape environment.
8. A small section of the access control fence along the south side of Lancaster Avenue near its intersection with South Ithan Avenue is proposed to be located inside the required right-of-way.

9. As noted in the February 19, 2015 plan review letter from the Delaware County Planning Commission, a portion of the subject site is zoned R-3 Residence and should be rezoned to PI Planned Institutional.

PHASING AND PEDESTRIAN PARKING AND TRAFFIC PLAN

1. Phase 1 - the buffer planting strip that is proposed between the proposed West Lancaster Parking Lot and the R-100 line needs to be ordinance compliant and in place prior to the start of construction of any part of Phase 2.
2. Phase 1 – landscaping to be installed along the Barley Cone Lane properties at the request of the property owners needs to be to the property owners satisfaction and installed during Phase 1 construction activities and before the start of construction of the Pike Field Garage in Phase 2A.
3. Phase 1 – how will users of the reallocated 100 parking spaces area on the north side of the Amtrak/SEPTA line make their way to key facilities on Main Campus from that parking area?
4. Phase 1 – the reallocated 100 parking spaces area in Phase 1 is labelled as 87 spaces in Phase 2. Is something happening there in either phase?
5. Phase 3 – the buffer planting strip that is proposed between the proposed parking to the rear of the proposed new dormitories and the R-100 line needs to be ordinance compliant and in place prior to the start of construction of any part of Phase 4.

CONDITIONAL USE ORDER CONDITIONS

Below in *italics* is the status of each of the Conditional Use Order Conditions as of land development plan submittal. Confirmation of some of the conditions will require follow up over time with certain parties and/or be shown in future plan submittal and may not be able to be assured until after plan review or until during plan construction.

1. The applicant shall comply with all other applicable Township Ordinances and shall submit a land development plan pursuant to the Township's Subdivision and Land Development Ordinance prior to the construction of any facilities – *the applicant has submitted a land development plan and review of compliance with Township ordinances is underway.*
2. The transportation, roadway and signalization and improvements necessary for the construction to have full access to Ithan Avenue from both the Pike Lot Parking Garage and Lancaster Avenue housing parking area with provisions for stop control for both parking accesses to Ithan Avenue and a pedestrian activated signal including the new pedestrian crosswalk be required if approved by PennDOT, unless waived by the Board of Commissioners during the land development process – *Township and PennDOT review for these improvements is underway.*
3. During the land development process an event circulation plan be developed to address event parking and traffic circulation with the input of the Radnor Township Police Department and Township traffic engineer outlining procedures, traffic patterns, parking configurations and

way-finding techniques for the various sporting and other events held at the University. Upon development of the event circulation plan, Villanova shall be responsible for constructing and/or installing such signs, structures, or other directional aids necessary to implement the event circulation plan – *an event circulation plan has been submitted and is pending Township Police and Township Traffic Engineer review.*

4. That Villanova University contributes the sum of One Hundred Seventy-Five Thousand Dollars (\$175,000.00) towards the design, approval and installation of a traffic adaptive signal system that would incorporate the following signalized intersections along Lancaster Avenue:
 - a. Sproul Road/Spring Mill Road; Aldwyn Lane/Kenilworth Street
 - b. Church Walk
 - c. Ithan Avenue
 - d. Lowrys Lane
 - e. Airdale Road
 - f. County Line Road

Township staff will confirm upon receipt of the required \$175,000.

5. During the land development process an emergency evacuation plan for the new student housing be developed – *an emergency evacuation plan for the new student housing has been submitted and is pending Township Police and Fire review.*
6. Appropriate fencing be provided on both the north and south sides of Lancaster Avenue in the area of the church walk pedestrian bridge in an effort to restrict pedestrian traffic from accessing the campus. A gate shall be provided for vehicular and pedestrian access during church events if approved by the Board of Commissioners during the land development approval process – *the plan needs to show the elevation view of the proposed fencing along Lancaster Avenue (unless it is proposed to be the ornamental metal picket fence shown on Sheet L2.2) so that the Township can determine if it is appropriate. The Township also needs to determine if the proposed safety fencing along the R-100 rail line and the safety fencing along Ithan Avenue are acceptable (see Safety Fence detail on Sheet L2.2).*
7. The University preserve the entire area known as the Aldwyn Triangle and restrict it as open space except for that portion of the area necessary to provide pedestrian activity and handicap accessibility improvements for the adjacent SEPTA rail line – *the plan shows nearly all of the Aldwyn Triangle property being proposed for preservation. The form of preservation needs to be indicated and documented to the Township when it is achieved.*
8. That a landscape and buffer plan be developed to comply with Section 280-68.1.D. (3)(b) of the Zoning Ordinance – *a landscaping plan and additional information have been submitted as part of the Housing and West Lancaster Parking land development plans. The view of the landscape buffer planting strips on the Housing and West Lancaster Parking plans in a south to the north direction is needed. Similarly, elevation views in an east to west direction from the Barley Cone*

Lane residences are needed. With that information in hand, it can be determined if the proposed buffer planting strips comply with Sections 280-4B, 280-68.1.D(3)(b) and 280-71.D of the zoning ordinance.

9. Villanova seek permission from PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the adjacent residential neighbors. Provided that the applicant receives permission, Villanova shall provide an installation and maintenance plan of the vegetation necessary for this screening during land development – *a response from PECO to Villanova’s inquiry was submitted with the latest packet of information. PECO indicates that its “guidelines call for a minimum of 32 feet of clearance from its transmission lines to the nearest trees on either side. Large trees situated within this area are removed, and trees situated beyond this distance are pruned to the 32 foot mark or the edge of the ROW.” Villanova needs to submit a scaled existing conditions plan of the area in question that includes an overlay of the 32 feet clearance dimension to show how much, if any, planting area exists for the purpose of planting landscaping that will visually screen the SEPTA bridge from the adjacent residences. The plan needs to show how and what kind of landscape plantings would fit in that area as well.*
10. Villanova shall provide Radnor Township a list of contractors, subcontractors and vendors and their addresses within twenty (20) days of the execution of any contracts by Villanova in connection with the development and/or construction of the proposed project. The purpose of this list is to permit the Township to audit for required business privilege/mercantile taxes – *such a list needs to be provided prior to any permit being issued for any of the improvements proposed in the land development plan including the 4 Phases Plan and then supplemented as each phase is pursued in turn. The Township will confirm receipt of each contractor list.*
11. During the land development process, the Applicant shall use its best efforts to develop and construct storm water management facilities, including green infrastructure practices and components that meet or exceed infiltration or retention requirements as currently required by the Radnor Township Stormwater Management Ordinance. The Applicant shall conduct soil testing as necessary to determine whether the site can accommodate volume management in excess of one (1) inch of run-off from all impervious surfaces resulting from the project. If soil testing indicates that it is possible to provide volume management in excess of one (1) inch of run-off, the Applicant shall construct such necessary storm water facilities on the site to accommodate this increased volume – *storm water information submitted by the applicant is under review by the Township Engineer who will ultimately confirm compliance with this condition.*
12. The Applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increased waste water disposal generated by the project – *applications to obtain revisions to the Radnor and Lower Merion Township Act 537 Plans must be submitted by the applicant with review and approval received from each Township and the PA Department of Environmental Protection.*
13. Applicant shall develop a traffic plan during the land development process delineating the paths by which the existing population of commuting and part-time students will be directed to and from parking for each phase of the construction – *a parking phasing plan including student foot-*

travel to and from the parking areas has been submitted and is under review by the Township Traffic Engineer.

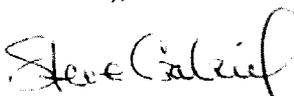
14. The Applicant shall permit parishioners to park, on a space available basis, on the north side of Lancaster Avenue on existing Villanova property adjacent to the church for church related events - *Villanova has indicated that it will permit parishioners to park on campus adjacent to the Church as needed. So that parishioners know which spaces are intended, Villanova provided as part of a September 10, 2014 response to residents regarding church parking an informal site plan (see attached) showing the particular areas adjacent to the church.*
15. The Applicant shall maintain a pedestrian crosswalk from the proposed project site to the existing church at the present church walk location if approved by PennDOT – *the proposed land development plan shows a pedestrian crosswalk at grade across Lancaster Avenue at Church Walk. Villanova indicated at the last Planning Commission meeting that the existing driveway located just east of the proposed pedestrian bridge can provide the necessary at-grade pedestrian access all the way to the church as described by this condition as well as Condition #6.*
16. The Applicant shall ensure that no amplified music or other excessive noise shall emanate from any of the south facing dormitories. During the land development process, the Township and applicant shall establish a permissible sound level at the property boundary of the Aldwyn Lane residential uses – *the land development plan needs to demonstrate: 1) how such noise will be buffered so as not to impact Aldwyn Lane residential uses; and 2) how such noise will be buffered to achieve the required sound level to be determined in concert with the Township.*
17. The Applicant's land development plans shall be in substantial conformity with the Conditional use plans dated May 2, 2014 as amended during the hearings – *the land development plan appears to be comparable to the applicant's conditional use plans at this stage. Review of compliance with Township ordinances is underway and will confirm compliance with this condition.*

COMPREHENSIVE PLAN CONSISTENCY

1. Our previous review indicated that Villanova's proposed development plan was generally consistent with various components of the Township's Comprehensive Plan including Institutional uses, Environment and Natural Resources, Transportation and Circulation, and Stormwater policies.

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

Page 8 of 8
Radnor Township
March 20, 2015
RETTEW Project No. 101442003
Lancaster Avenue Housing Land Development Preliminary Plan

Attachment

copy: Steve Norcini, Public Works Director
Suzan Jones
File

H:\Projects\10144\101442003\CivMun\Ltr-snorcini-Prelim LD Rev_2_03-20-15.docx

ATTACHMENT 2: CURRENT CHURCH PARKING

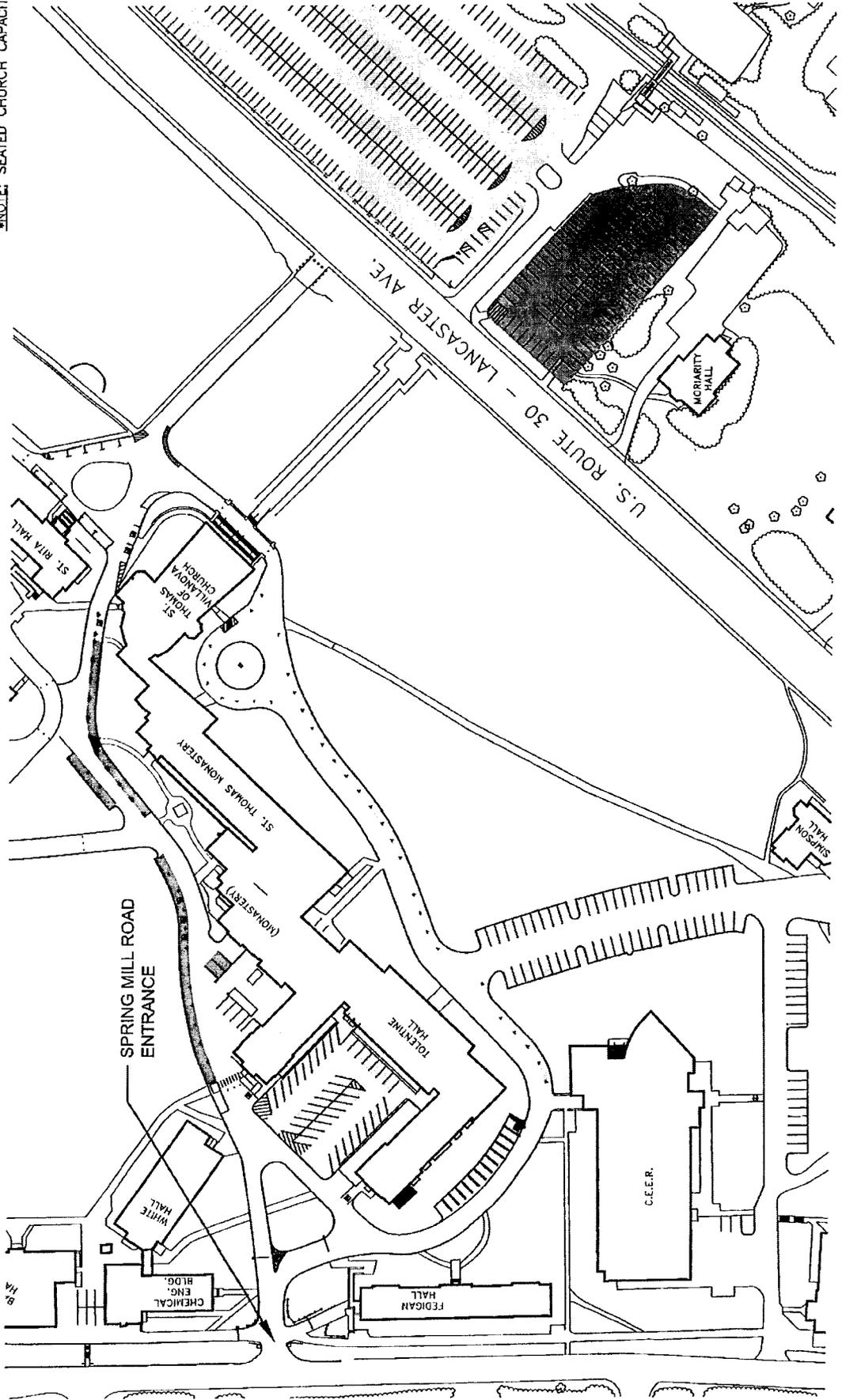
LEGEND:

81 VISITOR LOT/CHURCH SERVICE PARKING

1289 AVAILABLE PARKING FOR CHURCH EVENTS

25 PRIORITY MONASTERY PARKING (AVAILABLE IF NECESSARY)

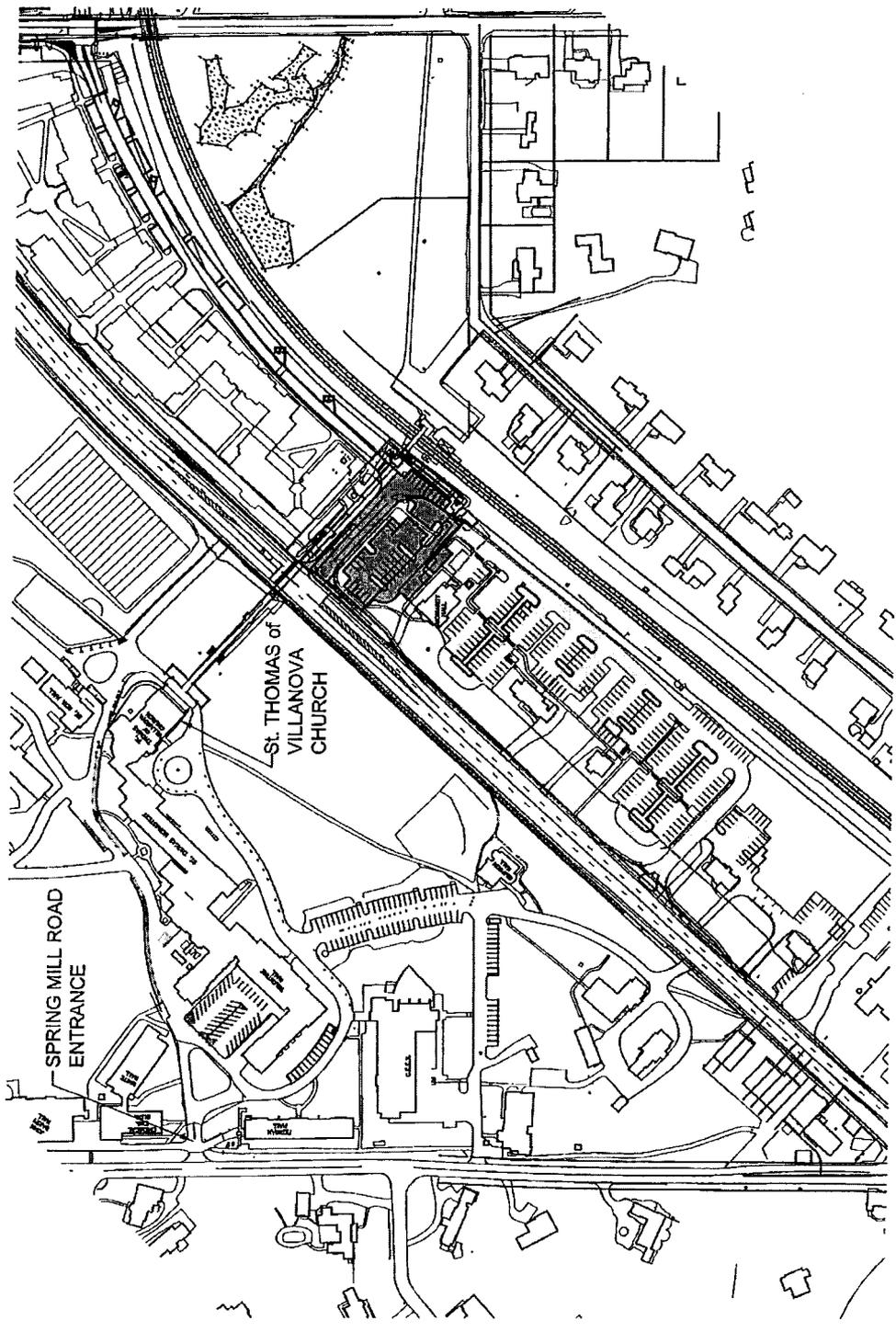
*NOTE: SEATED CHURCH CAPACITY = 550



ATTACHMENT 3: FUTURE CHURCH PARKING

LEGEND:

-  VISITOR LOT/CHURCH SERVICE PARKING
 -  AVAILABLE PARKING FOR CHURCH EVENTS
 -  PRIORITY MONASTERY PARKING (AVAILABLE IF NECESSARY)
- NOTE: SEATED CHURCH CAPACITY = 550





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April 1, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Villanova University
Church Walk and Bridge
Preliminary Land Development Plans
Review No. 1
RETTEW Project No. 101442003

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell, Inc. including 19 plan sheets dated March 13, 2015. The Church Walk and Pedestrian Bridge are necessary elements of the University's overall Lancaster Avenue Housing and related CICD development. Preliminary plans for those developments have been reviewed and comments were submitted March 20, 2015. Certain comments contained in that letter related specifically to Church Walk and the Pedestrian Bridge. Those comments are not repeated here.

We have performed a compliance review of the Church Walk and Bridge preliminary plan for conformance with certain elements of the Radnor Township Zoning and Subdivision Ordinances and coordinated our comments with those submitted by Gannett Fleming, the Township Engineer. We have the following comments on this submittal:

ZONING

1. Landscaping making up the required buffer planting strip along the rear of the property (Sheet L 1.0) needs to be shown on the plan along the south side of the proposed ADA ramp to the pedestrian bridge or a note needs to be added to the plan referring to the information on the landscaping plan that is part of the Lancaster Avenue Housing preliminary land development plan (§ 280-71.D).
2. On Sheet L1.1 regarding the planting on the Aldwyn Triangle, the references to the amounts of dedicated and unprotected areas and the preservation easement need to be updated to reflect the current Lancaster Avenue Housing plan that shows virtually all of the Triangle being preserved.



SUBDIVISION

1. ADA accessible sidewalk is needed between the West Lancaster Parking Lot and Moriarty Hall so that the ADA parking space in the parking lot just to the west of Moriarty Hall has direct access to a handicapped accessible route to the Pedestrian Bridge that does not require movement through the parking lot other than in an ADA crosswalk. The proposed walkway from the ADA parking space has a flight of steps proposed in it out front of Moriarty Hall.
2. On the north side of Lancaster Avenue, a gate is proposed across the driveway just east of the Pedestrian Bridge that leads up to St. Thomas of Villanova Church and other campus facilities. The gate is to be closed except for church events. If vehicles will be allowed to travel during church events along the driveway, a separate walkway up to the church will also be needed for pedestrian safety.

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Suzan Jones
Kevin Kochanski, RLA, CZO
Roger Phillips, PE
Amy Kaminski, PE
Peter Nelson, Esq.

H:\Projects\10144\101442003\CivMun\Ltr-snorcini-Church Walk Ped Bridge-Prelim LD Rev1-04-01-15.docx

CONDITIONAL USE APPLICATION OF VILLANOVA UNIVERSITY

ORDER

AND NOW, this 24th day of November, 2014, after due deliberation and discussion at public hearings, the Radnor Township Board of Commissioners does hereby grant the Conditional Use Application of Villanova University, subject to the following conditions:

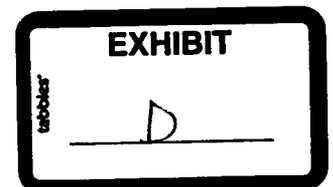
1. The applicant shall comply with all other applicable Township Ordinances and shall submit a land development plan pursuant to the Township's Subdivision and Land Development Ordinance prior to the construction of any facilities.

2. That the transportation, roadway and signalization and improvements necessary for the construction have full access to Ithan Avenue from both the Pike Lot Parking Garage and Lancaster Avenue housing parking area with provisions for stop control for both parking accesses to Ithan Avenue and a pedestrian activated signal including the new pedestrian crosswalk be required if approved by PennDOT, unless waived by the Board of Commissioners during the land development process.

3. That during the land development process an event circulation plan be developed to address event parking and traffic circulation with the input of the Radnor Township Police Department and Township traffic engineer outlining procedures, traffic patterns, parking configurations and way finding techniques for the various sporting and other events held at the University. Upon development of the event circulation plan, Villanova shall be responsible for constructing and/or installing such signs, structures, or other directional aids necessary to implement the event circulation plan.

4. That Villanova University contributes the sum of One Hundred Seventy-Five Thousand Dollars (\$175,000.00) towards the design, approval and installation of a traffic adaptive signal system that would incorporate the following signalized intersections along Lancaster Avenue:

- a. Sproul Road/Spring Mill Road; Aldwyn Lane/ Kenilworth Street
- b. Church Walk
- c. Ithan Avenue
- d. Lowrys Lane
- e. Airdale Road
- f. County Line Road



5. That during the land development process an emergency evacuation plan for the new student housing be developed.

6. That appropriate fencing be provided on both the north and south sides of Lancaster Avenue in the area of the church walk pedestrian bridge in an effort to restrict pedestrian traffic from accessing the campus. A gate shall be provided for vehicular and pedestrian access during church events if approved by the Board of Commissioners during the land development approval process.

7. That the University preserve the entire area known as the Aldwyn Triangle and restrict it as open space except for that portion of the area necessary to provide pedestrian activity and handicap accessibility improvements for the adjacent SEPTA rail line.

8. That a landscape and buffer plan be developed to comply with Section 280-68.1.D. (3)(b) of the Zoning Ordinance.

9. That Villanova seek permission from PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the adjacent residential neighbors. Provided that the applicant receives permission, Villanova shall provide an installation and maintenance plan of the vegetation necessary for this screening during land development.

10. Villanova shall provide Radnor Township a list of contractors, subcontractors and vendors and their addresses within twenty (20) days of the execution of any contracts by Villanova in connection with the development and/or construction of the proposed project. The purpose of this list is to permit the Township to audit for required business privilege/mercantile taxes.

11. During the land development process, the Applicant shall use its best efforts to develop and construct stormwater management facilities, including green infrastructure practices and components that meet or exceed infiltration or retention requirements as currently required by the Radnor Township Stormwater Management Ordinance. The Applicant shall conduct soil testing as necessary to determine whether the site can accommodate volume management in excess of 1-inch of run-off from all impervious surfaces resulting from the project. If soil testing indicates that it is possible to provide volume management in excess of 1-inch of run-off, the Applicant shall construct such necessary stormwater facilities on the site to accommodate this increased volume.

12. The Applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increased waste water disposal generated by the project.

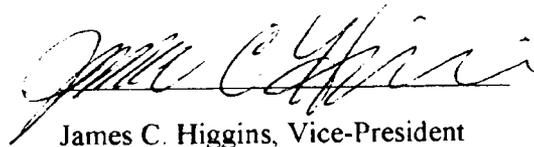
13. The Applicant shall develop a traffic plan during the land development process delineating the paths by which the existing population of commuting and part-time students will be directed to and from parking for each phase of the construction

14. The Applicant shall permit parishioners to park, on a space available basis, on the north side of Lancaster Avenue on existing Villanova property adjacent to the church for church related events.

15. The Applicant shall maintain a pedestrian crosswalk from the proposed project site to the existing church at the present church walk location if approved by Penn Dot.

16. The Applicant shall insure that no amplified music or other excessive noise shall emanate from any of the south facing dormitories. During the land development process, the Township and applicant shall establish a permissible sound level at the property boundary of the the Aldwyn Lane residential uses.

17. The Applicant's land development plans shall be in substantial conformity with the Conditional use plans dated May 2, 2014 as amended during the hearings.



James C. Higgins, Vice-President

Radnor Township Board of Commissioners

Date of mailing 12/5/14



MEMORANDUM

Date: April 20, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Department Manager of Transportation

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Villanova University – Lancaster Avenue Redevelopment
Preliminary Land Development Waivers
Radnor Township, Delaware County, PA

G&A 12-04054

At the request of the Board of Commissioners of Radnor Township, Gilmore & Associates, Inc. (G&A) offers the following discussion regarding the various requested waivers for the Villanova University Lancaster Avenue Housing project at 800 Lancaster Avenue within the Township's PI – Planned Institutional Zoning District Comprehensive Integrated College Development (CICD).

1. **Waiver:** §255-29.A(12)(b) to permit the existing 22' entry/exit drive to remain in the West Lancaster parking lot.

Discussion:

In my opinion, the 22' width is internal to the parking facility; and the 25' width identified in the code is for the driveway access to any streets. Therefore, the applicant would not need a waiver from this section of the ordinance.

- i. Aisles should be designed with a consistent width to eliminate the "hour glass" affect found when incorporating dissimilar widths. If the width alters from a 22' to 25' to 22' width, this can lead to motorist confusion and increased crashes; obviously, this situation should be avoided. The aisle should either be a consistent 25' or 22' width; in my professional opinion, the 22' width is adequate.
- ii. From a transportation engineering perspective, safety is a priority and the 22' width is adequate for internal circulation. If the Township is interested in pursuing a consistent 25' width, the Shade Tree Commission should weigh in on the design and determine if the additional width should be required.

- iii. The current parking facility includes 22' aisle widths and the existing access at Church Walk is 22' wide. I'm not aware of any issues with the present internal design. We have no objections to the requested waiver as long as the applicant is able to continue to provide bus and truck turning templates to ensure vehicular turn movements do not encroach on adjacent or opposing travel lanes.
2. **Waiver:** §255-27.H(6) to permit a reduced curb radius at the southwest corner of the Ithan/Lancaster Avenue intersection

DISCUSSION:

i. **ALL PEDESTRIAN SCRAMBLE TIMING**

Increasing the curb return from 25 feet to 35 feet also increases the walking distance for pedestrians and in turn, increases the pedestrian signal timing. Calculations for each scenario are presented at the end of this memorandum. For consistency; all pedestrian timing calculations (All Pedestrian Phase/Pedestrian Scramble) are based on the industry standard of 3.5 ft/second walking speed with a minimum of 7 seconds for the WALK phase. As a reminder, the All Pedestrian Phase/Pedestrian Scramble is only activated during the presence of pedestrians.

EXISTING CONDITIONS:

- Presently, the curb return is measured as a **17' radius**.
- The cartway width of the road is 50'
- The pedestrian crosswalk (crossing the western leg of Lancaster Avenue), measured from the southwest corner to the northwest corner is 64'
- Presently, the signal walk time is based on a walk speed of 4.0 feet/second. Based on the current industry standard walk speed of 3.5 ft/second; any improvements to the signal would require a revised pedestrian timing for the ALL PED PHASE to **25.3 seconds**.

FUTURE BUILD CONDITIONS:

- With a **25' curb radius** for the southwest corner **WITHOUT** the right turn lane:
 - a. The cartway width is 56'
 - b. The pedestrian crosswalk is 69';
 - c. The Pedestrian timing for the ALL PED PHASE is **26.8 seconds**
- With a **25' curb radius** for the southwest corner **WITH** the 12' right turn lane is
 - a. The cartway width is 67'
 - b. The pedestrian crosswalk is 75';
 - c. The Pedestrian timing for the ALL PED PHASE is **28.5 seconds**
- With a **35' curb radius** for the southwest corner **WITHOUT** the right turn lane:
 - a. The cartway width is 56'.
 - b. The pedestrian crosswalk is 74'
 - c. The Pedestrian timing for the ALL PED PHASE is **28.2 seconds**

- With a **35' curb radius** for the southwest corner **WITH** the 12' right turn lane
 - a. The cartway width is 67'.
 - b. The pedestrian crosswalk is 88'
 - c. The Pedestrian timing for the ALL PED PHASE is **32 seconds**

SUMMARY

- **Without the right turn lane:**
If the right turn lane is not constructed, the 35' curb radius introduces an additional 1.4 seconds upon activation of the pedestrian phase compared to the 25' curb radius. The difference is insignificant and will minimally impact the flow of vehicular traffic.
- **With construction of the right turn lane:**
If the right turn lane is constructed, the 35' curb radius introduces an additional 3.5 seconds upon activation of the pedestrian phase compared to the 25' curb radius. The difference is minimal and should not deter the Township from denying the waiver.

ii. **ADDITIONAL CONSIDERATIONS:**

- Lancaster Avenue is a state road and PennDOT has not reviewed any designs or Highway Occupancy Permit Plan submissions.
- PennDOT has indicated if the right turn lane is constructed, the 25' radius would be adequate; however, if the right turn lane is NOT constructed, they would support the required 35' turn radius.
- The proposed Build scenario indicates that taking into consideration the proposed 50' stop line setback, the maximum peak hour queue of 189' can be adequately stored in the proposed 190' left turn storage lane on northbound Ithan Ave.
- The Manual of Uniform Traffic Control Devices (MUTCD) and PennDOT Publication 111M, TC-8600 Pavement Markings both indicate that stop lines at controlled intersections should be placed 4' to 30' from the travel lane; the plan proposes a 50' stop line setback.

SUMMARY

Given the minor increase of 3.5 seconds for the pedestrian timing for the All Pedestrian/Pedestrian Scramble Phase and the significant stop line setback of 50', we do not support a waiver from the 35' curb radius on the southwest corner of the intersection with or without construction of the right turn lane.

3. NO TURN ON RED PROHIBITION

Although G&A was not asked to respond to this discussion, it bears mentioning. During the board caucus on Monday, April 13, 2015, a statement was made that it is likely the eastbound right turn lane on Lancaster Avenue would be revised to include a NO TURN ON RED turn prohibition. However, we disagree and do not support this turn prohibition. The submitted transportation impact study Build 2025 proposed traffic volumes for both the

AM and PM peak hours are nearly equal or less than the No-Build 2015 traffic volumes (See Table 1 below). In addition, the provided transportation impact study did not identify any significant crash incidents supporting the need for a turn prohibition.

Table 1 *Lancaster Avenue and Ithan Avenue Right Turn Prohibition*

Movement and Traffic volumes	No-Build 2015		Build 2025	
	AM Peak	PM Peak	AM Peak	PM Peak
Route 30 Eastbound Right Turn	35	91	23	92
Ithan Ave Southbound Thru	214	232	144	201

STUDY LOCATION AND ANALYSIS INFORMATION			
Municipality:	Radnor Township	Analysis Date:	4/15/2015
County:	Delaware County	Conducted By:	ABK
PennDOT Engineering District:	5	Checked By:	MS
		Agency/Company Name:	Gilmore & Associates, Inc.
Intersection Description: Route 30 and Ithan Ave--ALL PED SCRAMBLE			

VEHICLE AND PEDESTRIAN INTERVAL FINDINGS

Vehicle Change and Clearance Interval Findings

Approach Description	Direction	Calculated Yellow Change Interval, Y	User Defined Yellow Change Interval, Y	Calculated All-Red Clearance Interval, AR	User Defined All-Red Clearance Interval, AR	To Be Implemented	
						Y (s)	AR (s)
S.R. 2030 (Phase 1)	EB	4.2	4.5	1.1	4.5	4.5	4.5
S.R. 2030 (Phase 2)	WB	4.2	4.5	1.1	4.5	4.5	4.5
New Britain Blvd. (Phase 3)	NB	3.1		1.9	4.5	3.1	4.5
			4		4.5	4	4.5
S.R. 2030 (Phase 1)	EB	2.8		2	4.5	2.8	4.5
			4		4.5	4	4.5

Additional Comments/Justifications:

Pedestrian Interval Findings

WITH PEDESTRIAN SIGNALS	Description of Pedestrian Crossing	Calculated Walk Interval, T_w	User Defined Walk Interval, T_w	Calculated Ped. Change Interval, T_{pc}	User Defined Ped. Change Interval, T_{pc}	Greater than $(T_w + T_{pc})_{min}$?	To Be Implemented	
							T_w (s)	T_{pc} (s)
	R17' Route 30 (West Crossing)	12.2	7	18.3		Yes	7	18.3
	R25' Route 30 (West Crossing)	12.9	7	19.8		Yes	7	19.8
	R25' RTL Route 30 (West Crossing)	13.8	7	21.5		Yes	7	21.5
	R35' Route 30 (West Crossing)	13.6	7	21.2		Yes	7	21.2
	R35' RR1L Route 30 (West Crossing)	15.6	7	25.2		Yes	7	25.2

WITHOUT PEDESTRIAN SIGNALS	Calculated Min. Green Interval, T_g
Description of Pedestrian Crossing	

Additional Comments/Justifications:



April 27, 2015

VIA EMAIL

William A. Spingler
Board of Commissioners - President
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

**Reference: Villanova University - Waiver Request
Ithan Ave. and Lancaster Ave., Radnor Township, Delaware County, PA
Nave Newell No. 2011-005.00**

Dear Mr. Spingler:

In accordance with the Township Consultant review letters, we are hereby requesting two waivers from the Subdivision and Land Development Ordinance. Please find the waiver justifications below.

Section 255-27.H.(6) – Street Intersections

The Ordinance states *“Minimum curb radii at street intersections shall be 25 feet for local streets; 30 feet for collectors; 35 feet for arterials; and 10 feet for driveways.”*

The Applicant is requesting a waiver to permit a 25 foot curb radius on the southwest corner of Ithan Ave. and Lancaster Ave., in lieu of the required 35 foot radius. As presented by the Applicant during multiple Conditional Use Hearings and Township Meetings, the design intent of this corner was to balance the need to improve turning movements for vehicles making a right turn while minimizing the pedestrian crossing distance to attempt to maintain the existing 26 second “all red pedestrian scramble phase”. This design intent is in line with a transportation policy referred to as “complete streets”. Complete Streets is a relatively new a transportation policy and design approach that encourages street design which reflects all “users”, including not only motorists, but also pedestrians, transit riders, etc. A proper **Complete Streets approach** makes it easy for pedestrians to cross the street while still maintaining a balance with motorists’ needs and capacity goals. Exclusive turning lanes and other intersection design elements which are expected to be lightly used or serve limited benefit must be weighed against other Complete Streets needs.

If the Applicant were to construct the 35 foot radius, the pedestrian phase would increase thus stealing signal time from vehicles traveling through this intersection. The proposed 25 foot radius proposed is a 50% improvement from the approximate 17 foot radius that exists today. The currently proposed plans are aimed at providing an appropriate balance of facilities to address all road/intersection “users”. The currently proposed plans are context-sensitive, reduce pedestrian exposure to vehicle cartways, and ultimately result in levels of service which are comparable to future no-build conditions as presented in the Transportation Impact Study which has been previously submitted. Conversely, an even larger radius for a turning movement known to be used by relatively few motorists requires longer pedestrian scramble times, decreased overall and individual traffic flow efficiencies, and results in a contextual solution which runs counter to smart transportation and Complete Streets initiatives.



William A. Spingler, Radnor Township
Nave Newell No. 2011-005.00
April 27, 2015
Page 2

Section 255-29.A(12)(b) – Entry and Exit Drives

The Ordinance states *“The width of entry and exit drives shall be a minimum of 25 feet for two way use.”*

The location of this request is an internal drive aisle and not an entry and exit drive, but the applicant is still requesting a waiver to be conservative. The proposed plan provides a 22 foot drive aisle through the site which is the same dimension used in areas of drive aisles adjacent to parking stalls. This proposed dimension for the drive aisle permits the preservation of trees between the proposed drive aisle and the railroad and adjacent residential neighbors, as well as providing a consistent on-site drive aisle dimension internal to the property with the areas with parking stalls adjacent to the drive aisle.

Should you have any questions with respect to these requests, please contact me at (610)265-8323 or via email at atweedie@navenewell.net.

Sincerely,

A handwritten signature in black ink that reads 'DATweedie'.

D. Alexander Tweedie, P.E.

DAT/jjh
Enclosures

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Gannett Fleming

100 Years

of Excellence Delivered As Promised

Date: April 7, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: Villanova University – Lancaster Avenue Housing
Villanova University – Applicant

Date Accepted: January 6, 2015

90 Day Review: April 6, 2015 extended to April 30, 2015

Gannett Fleming, Inc. has completed a preliminary review of the Villanova University Lancaster Avenue Housing Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor. A preliminary review was also completed for the West Lancaster Parking Lot, Pike Field Garage, the Performing Arts Center, and the Church Walk. Preliminary comments have been included in this letter. Additional comments may be forthcoming as a detailed review is completed. We note that plans have not been submitted for the SAC Parking Garage.

Conditional use approval was granted on November 24, 2014 to permit the development under CICD (decision attached). The applicant is proposing to construct a 1,138 bed student housing facility in six buildings with associated retail space.

The applicant appeared before the Planning Commission on April 6, 2015. The Planning Commission recommended approval of the plans based on the following conditions:

- Denial of the waiver request for Section 255-27.H, to permit a 25' radius curb on the southwest corner of Ithan Avenue and Route 30.
- The applicant meet all outstanding staff comments and review letters, or request waivers from comments.
- The applicant install an enhanced stormwater management plan as detailed to the staff, the public, and the Planning Commission at the March 26th meeting. This enhanced

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

t: 610.650.8101 • f: 610.650.8190

www.gannettfleming.com



stormwater management system is to include infiltration and improved water quality as outlined at the March 26 meeting

- The applicant seek any and all easements necessary for the construction, maintenance and access to the pedestrian bridge.

The applicant has indicated that the following waivers will be requested from the Subdivision and Land Development Code:

- §255-27.H – To permit a 25 ft radius curb on the southwest corner of Ithan Avenue and Lancaster Avenue.

Plans Prepared By: Nave Newell

Dated: 12/05/2015 and revised 03/06/2015

I Zoning

1. §280-68.1.D(2)(g)1 – Not more than 30% of CICD shall be occupied by buildings. The total building coverage may be increased to no greater than 45%, subject to the land preservation standards of this section, provided that in no event may the total building coverage of the applicant's entire campus within the PI zoning district exceed 30%. For purposes of calculating the total building coverage in the CICD, parking structures shall be included in the building area. A breakdown of the proposed 35.5% building coverage shown on the plans must be provided, including information from the other phases. The applicant has indicated that the total building area is 4.9 acres. The building area for each individual building must be provided.
2. §280-68.1.D(2)(g)2 – No individual building nor group of buildings not separated from each other by the minimum required separation distance noted below shall occupy more than 10% of the CICD site. Parking structures are not required to be included in the calculations of individual building coverage. The plan indicates building coverages of 7.6% for Residence Hall 2, 8.5% for Residence Hall 1 and the Performing Arts Center is 5.6%. A detailed breakdown of this calculation has been provided. It appears that the proposed % shown on the zoning tables are reversed for the residence halls. This must be revised.
3. §280-68.1.D(2)(h) – Not more than 45% of the CICD site may be covered by impervious surfaces; provided, however, if the CICD is redeveloping existing improved lands, then the maximum allowed impervious surface ratio shall be 45% or 10% less than the existing impervious surface ratio on the proposed CICD site, whichever is greater. In no event may the maximum allowed impervious surfaces on the applicants entire campus within the PI Zoning District exceed 45%. The plan indicates that the entire campus proposes 36.4%. The existing impervious surface calculation for the CICD indicates it is 92% impervious therefore 82% is the maximum permitted. A detailed breakdown of how

the 92% impervious was calculated must be provided. The impervious should be broken down by each separate area.

4. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section. The applicant has revised the plans to label every building separation point.
5. §280-68.1.D(3)(e)[2] – There shall be no off-street loading requirements except for retail subordinate uses. All off-street loading shall be adjacent to the use being served by the space; designated by the applicant; and approved during the conditional use approval process. The location of loading dock behind Building 1C was not provided on the plans during the conditional use approval. A loading area was proposed within the surface parking lot behind Building 1C, which is no longer proposed.
6. §280-68.1.D(3)(e)[5] – As specifically designated during the conditional use approval process, the required off-street parking spaces may be located within the boundaries of the CICD or on other areas of the entire campus, exclusive of areas within residential zoning districts. The location of the proposed parking areas differ slightly from what was approved during the conditional use process. There is no longer a parking area expansion proposed for the Health Services Center, and the Saint Augustine Garage (SAG) is proposed to have 2 additional levels. This increases the net number of parking spaces provided by the SAG by 27 spaces. The overall number of proposed parking spaces that was approved during conditional approval has been reduced by 19 for the entire site, however the parking provide still exceeds the minimum required.
7. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
8. §280-103A. – As a general requirement, each use in the Township shall provide sufficient off-street parking area to serve its users. The applicant has submitted a phasing narrative on sheet C2.3 that indicates the minimum required parking will be maintained during construction.
9. §280-105.E. – All outside lighting including sign lighting shall be directed in such a way as not to create a nuisance in any agricultural, institutional, or residential districts, and in every district all such lighting shall be arranged so as to protect the street or highway and

adjoining property from direct glare or hazardous interference of any kind. Any luminary shall be equipped with some type of glare shielding device approved by the Township Engineer. The height of any luminary shall not exceed 25 feet. It appears that the detail for the luminary has been removed from the detail sheet. A clearly legible detail must be provided that indicates the proposed height.

10. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. The applicant has indicated that there will be disturbance in the steep slope area along Ithan Avenue. This disturbance is allowed under §280.112.D.(6) as it is required for construction of a roadway with no alternative routing along Ithan Avenue.
11. §280-123 – Any signs proposed for this development must be in accordance with this section. The applicant has indicated that any necessary signage applications will be submitted separately from the land development process.

II Subdivision and Land Development

1. §255-20.B.(1)(d) – All applicable zoning districts for this land development must be provided on the plans. This must be shown on the overall plan sheet.
2. §255-27.H(6) - Minimum curb radii at street intersections shall be 25 feet for local streets; 30 feet for collectors; 35 feet for arterials; and 10 feet for driveways. The applicant has requested a waiver to allow a 25 foot radius curb on the southwest corner of Ithan Avenue and Lancaster Avenue.
3. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance exit drive shown on the plan into the proposed parking area behind the student housing is 22 feet. This must be revised or a waiver from this requirement requested.
4. §255-38 – Street trees 2 ½ dhb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.
5. §255-43.1.B(2) – For all nonresidential subdivision and/or land developments, the amount of land to be dedicated for park and recreational area shall be 2,500 square feet per 4,000 square feet of building area. The applicant must conform to this section.
6. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and

recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. The applicant must conform to this section.

7. §255-54.B. – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. The applicant must provide an explanation or reconcile the inconsistency for the impervious area value for RG-10. Page 31 of the Stormwater Report lists the impervious area to be 9,216 SF, page 40 lists the impervious area to be 6,216 SF, page 149 lists the impervious area to be 6,216 SF and the table on the plan, and “Drainage Plan (Volume Management) lists the impervious area to be 9,216 SF.
2. The Dewatering Calculations for LAH Infiltration System 202 indicates that the 100-year condition requires 103.56 hrs. (4.31 days) for the volume to completely dewater. Stormwater BMPs must be able to completely drain within 96 hours.

IV General Comments

1. The applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increase wastewater disposal generated by the project.
2. A detail of the proposed fence/gate enclosure must be provided on the plans.

West Lancaster Parking

I Zoning

1. §280-43.D – No building shall be located less than 65 feet from a street right-of-way line, less than 20 feet from a side property line nor less than 25 feet from a rear property line. The applicant is proposing a 57.9 front yard setback and a 11.9 foot side yard setback. Both are non-conformities that the applicant intends to continue.

II Subdivision Land Development

1. §255-29.B.(1) – All parking areas shall have at least one tree 2 ½ inches minimum in caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every parking space in double bay. A minimum of 10% of any parking lot facility over 2,000 square feet in gross area shall be devoted to landscaping, inclusive of required trees. The landscape plans indicate that there are 232 parking spaces for this project. The overall Lancaster Avenue housing plans indicate that there are 240 proposed spaces for this lot. This must be verified and all plans revised to be consistent.
2. §255-29.A.(1) – The minimum aisle width for two way parking is 22 feet. The aisle width for Moriarty Hall, the visitor’s lot, Stone Hall and between Stone Hall and Farrell Hall must be revised. Also a dimension should be shown between the proposed shuttle stop and curbing on sheet C2.1.
3. §255-29.A.(1) – The dimension of a 90° parking stall shall be 9 ½ feet by 20 feet. There is a parking spot located south of Farrell Hall does not meet those dimensions. Also the parallel parking spaces between Stone Hall and Farrell Hall are not the required 8 x 22 feet. The two way parking aisle between parallel parking spaces must be 18 feet.
4. §255-29.A.(6) – No more than 10 parking spaces shall be permitted in a continuous row without being interrupted by landscaping and concrete curb. The visitor lot must be revised.
5. §255-29.A.(7) – No one area for off-street parking of motor vehicles shall exceed 30 cars in capacity. Separate areas on a parcel shall be physically separated from one another by ten-foot wide planting strips and concrete curb. The visitors lot must be revised.
6. §255-29.A.(15) – All dead-end parking areas shall be designed to provide sufficient backup area for all the end stalls of a parking area. The dead-end parking spaces behind Farrell Hall must be revised to include a sufficient back-up area.

III Stormwater Management

1. The applicant must provide an explanation or reconcile the inconsistency for the Area values listed for RG-101. The supporting calculations for the Volume Summary on page 24 list the overall drainage area to be 29,422 SF. Plan measurements of the sheet, “Post Watershed Area Plan” appears to indicate a drainage area significantly larger (approximately 46,500 SF). It would be helpful if the applicant submitted documentation similar to page 36 of the Stormwater Report for the Lancaster Avenue Housing Phase that detailed the structure/facility’s total area, impervious area and pervious area.
2. The “Volume – One Inch” calculation sheet on pages 24-25 appears to have some inconsistencies and should be rechecked and resubmitted. Specific examples include the following

January 27, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Villanova University
Lancaster Avenue Housing and Related Parking Improvements
Preliminary Land Development Plan
Review No. 1
RETTEW Project No. 101442003

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell, Inc. Our review was of the following information received on December 14, 2014:

1. Thirteen (13) plan sheets dated December 5, 2014;
2. One (1) Radnor Township Subdivision – Land Development Application; and,
3. One (1) Delaware County Planning Commission Act 247 Review Application.

Project Overview:

<u>Applicant:</u>	Villanova University
<u>Requested Action/Use:</u>	Preliminary Land Development Plan Review
<u>Zoning District:</u>	PI – Planned Institutional; CO-Commercial Office
<u>Location and Size:</u>	Lancaster Avenue Student Housing and most related parking improvements properties are located between Lancaster Avenue and the SEPTA R-100 tracks, and between Pike Field and Farrell Hall on the Villanova campus. Improvements to the SAC Garage are located on land at the north end of the Main Campus along the AMTRAK/SEPTA rail lines. Apart from the SAC Garage site, the subject lands are roughly coincidental with the CICD development proposal which the applicant indicated contained gross site area of approximately 13.81 acres.
<u>Existing Use:</u>	Surface parking lots and small University office buildings.



Proposed Use: Student dormitories, student-centered retail, Performing Arts Center, and related Pike Parking Garage, West Lancaster Avenue parking lot, and SAC Garage expansion.

We have performed a compliance review of the land development plan with certain elements of the Radnor Township Zoning Ordinance, with the conditions of the Board of Commissioners' CICD conditional use approval, and with the Radnor Township Comprehensive Plan. We have the following comments to offer now, and may have additional comments as more detailed information is provided in future submittals:

SPECIFIC ZONING

1. The plan needs to include profile views to demonstrate that the proposed Buffer Planting Strip along the R-100 line provides a screen of sufficient density not to be seen through and of sufficient height to constitute an effective screen and give maximum protection and immediate visual screening to an abutting property or district (§ 280-4B, § 280-68.1.D(3) and § 280-71.D). The plan also needs to indicate what the spacing will be between trees and shrubs, and how the gap in the buffer just to the east of the SEPTA bridge will be addressed.
2. The plan needs to include plan and profile views to demonstrate the sufficiency of the landscaping proposed to buffer the views from those residences along Barley Cone Lane of the Pike Parking Garage and Performing Arts Center (§ 280-4B, § 280-68.1.D(3) and § 280-71.D).
3. The plan needs to show how the proposed site and area lighting complies with International Dark Sky Association (IDA) full cut-off standards. Some of the proposed light fixtures do not appear to contain full cut-off shields (§ 280-68.1.D(3)[g]).
4. The plan needs to show how all mechanical, electrical, and trash equipment are screened from view from public streets and abutting properties (§ 280-68.1.D(3)[f]) (§ 280-70.C).
5. The plan needs to include information describing the sound attenuation devices that are a part of or are to be installed on all mechanical, electrical, and trash equipment to minimize noise pollution at any adjacent residential property line (§ 280-68.1.D(3)[f]). How will noise from the trash compactor shown at the railroad end of the eastern portion of Building 1-C be buffered?
6. The plan needs to show consideration for trash receptacles along Lancaster Avenue, pedestrian benches along Lancaster Avenue in between the proposed "seatwall" sites, and related features (pennants, kiosks, signage) to complete promotion of a pedestrian-friendly townscape (§ 280-68.1.A).
7. The plan needs to designate pedestrian circulation patterns with directional arrows, especially the points of access and use at the stairways and ramps at both ends of the proposed Pedestrian Bridge (§ 280-68.1.A).

8. The additional parking proposed in West Lancaster Avenue lot can be used to support CICD uses even though the land is zoned General Commercial not Planned Institutional and sits outside of the CICD per Section 280-68.1.D(3)(e)[5][b].
9. The access control fence along the south side of Lancaster Avenue is proposed to be located in the existing right-of-way.
10. What is the proposed "Areaway" shown on Sheet C2.1 at the southern end of Building 1A? What will the proposed "Screen Wall" in the Quad of Building 1A look like?

CONDITIONAL USE ORDER CONDITIONS

Below in *italics* is the status of each of the Conditional Use Order Conditions as of land development plan submittal. Confirmation of some of the conditions will require follow up over time with certain parties and/or be shown in future plan submittal and may not be able to be assured until after plan review or until during plan construction.

1. The applicant shall comply with all other applicable Township Ordinances and shall submit a land development plan pursuant to the Township's Subdivision and Land Development Ordinance prior to the construction of any facilities – *the applicant has submitted a land development plan and review of compliance with Township ordinances is underway.*
2. The transportation, roadway and signalization and improvements necessary for the construction have full access to Ithan Avenue from both the Pike Lot Parking Garage and Lancaster Avenue housing parking area with provisions for stop control for both parking accesses to Ithan Avenue and a pedestrian activated signal including the new pedestrian crosswalk be required if approved by PennDOT, unless waived by the Board of Commissioners during the land development process – *plans for these improvements are pending Township and PennDOT review.*
3. During the land development process an event circulation plan be developed to address event parking and traffic circulation with the input of the Radnor Township Police Department and Township traffic engineer outlining procedures, traffic patterns, parking configurations and way-finding techniques for the various sporting and other events held at the University. Upon development of the event circulation plan, Villanova shall be responsible for constructing and/or installing such signs, structures, or other directional aids necessary to implement the event circulation plan – *an event circulation plan still needs to be prepared and submitted.*
4. That Villanova University contributes the sum of One Hundred Seventy-Five Thousand Dollars (\$175,000.00) towards the design, approval and installation of a traffic adaptive signal system that would incorporate the following signalized intersections along Lancaster Avenue:
 - a. Sproul Road/Spring Mill Road; Aldwyn Lane/Kenilworth Street
 - b. Church Walk
 - c. Ithan Avenue
 - d. Lowrys Lane

- e. Airdale Road
- f. County Line Road

Township staff will confirm upon receipt of the required \$175,000.

5. During the land development process an emergency evacuation plan for the new student housing be developed – *an emergency evacuation plan for the new student housing still needs to be developed and submitted for Township review.*
6. Appropriate fencing be provided on both the north and south sides of Lancaster Avenue in the area of the church walk pedestrian bridge in an effort to restrict pedestrian traffic from accessing the campus. A gate shall be provided for vehicular and pedestrian access during church events if approved by the Board of Commissioners during the land development approval process – *the plan needs to show the profile view of the proposed fencing so that the Township can determine if it is appropriate. The same would apply for the proposed safety fencing along the R-100 rail line and the safety fencing and “screen wall” along Ithan Avenue.*
7. The University preserve the entire area known as the Aldwyn Triangle and restrict it as open space except for that portion of the area necessary to provide pedestrian activity and handicap accessibility improvements for the adjacent SEPTA rail line – *the plan shows nearly all of the Aldwyn Triangle property being proposed for preservation. The form of preservation needs to be indicated and confirmed to the Township when it is achieved.*
8. That a landscape and buffer plan be developed to comply with Section 280-68.1.D. (3)(b) of the Zoning Ordinance – *a plan has been submitted as part of the land development plan. It needs to demonstrate compliance with Sections 280-4B, 280-68.1.D(3) and 280-71.D of the zoning ordinance.*
9. Villanova seek permission from PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the adjacent residential neighbors. Provided that the applicant receives permission, Villanova shall provide an installation and maintenance plan of the vegetation necessary for this screening during land development – *Villanova needs to copy the Township on its request for permission. If permission is granted, then an installation and maintenance plan will need to be submitted.*
10. Villanova shall provide Radnor Township a list of contractors, subcontractors and vendors and their addresses within twenty (20) days of the execution of any contracts by Villanova in connection with the development and/or construction of the proposed project. The purpose of this list is to permit the Township to audit for required business privilege/mercantile taxes – *such a list needs to be provided prior to any permit being issued for any of the improvements proposed in the land development plan including the 4 Phases Plan and then supplemented as each phase is pursued in turn. The Township will confirm receipt of each contractor list.*
11. During the land development process, the Applicant shall use its best efforts to develop and construct stormwater management facilities, including green infrastructure practices and components that meet or exceed infiltration or retention requirements as currently required by

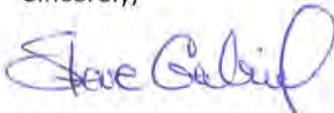
- the Radnor Township Stormwater Management Ordinance. The Applicant shall conduct soil testing as necessary to determine whether the site can accommodate volume management in excess of one (1) inch of run-off from all impervious surfaces resulting from the project. If soil testing indicates that it is possible to provide volume management in excess of one (1) inch of run-off, the Applicant shall construct such necessary stormwater facilities on the site to accommodate this increased volume – *the applicant needs to provide such documentation to the Township Engineer for review and confirmation.*
12. The Applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increased waste water disposal generated by the project – *applications to obtain revisions to the Radnor and Lower Merion Township Act 537 Plans must be submitted by the applicant with review and approval received from each Township and the PA Department of Environmental Protection.*
 13. Applicant shall develop a traffic plan during the land development process delineating the paths by which the existing population of commuting and part-time students will be directed to and from parking for each phase of the construction – *such a plan still needs to be developed and submitted for Township review.*
 14. The Applicant shall permit parishioners to park, on a space available basis, on the north side of Lancaster Avenue on existing Villanova property adjacent to the church for church related events - *the applicant needs to prepare a site plan for Township review that shows the area adjacent to the church where parishioners will be permitted to park including the number of spaces available, anyone else also permitted to park there at the same time, and the accessway from the parking area to the church.*
 15. The Applicant shall maintain a pedestrian crosswalk from the proposed project site to the existing church at the present church walk location if approved by PennDOT – *the proposed land development plan shows a pedestrian crosswalk at grade across Lancaster Avenue at Church Walk but the plan needs to show that there is at-grade pedestrian access all the way to the church.*
 16. The Applicant shall insure that no amplified music or other excessive noise shall emanate from any of the south facing dormitories. During the land development process, the Township and applicant shall establish a permissible sound level at the property boundary of the Aldwyn Lane residential uses – *the land development plan needs to demonstrate how such noise will be buffered so as not to impact Aldwyn Lane residential uses and achieve the required sound level to be determined in concert with the Township.*
 17. The Applicant's land development plans shall be in substantial conformity with the Conditional use plans dated May 2, 2014 as amended during the hearings – *the land development plan appears to be comparable to the applicant's conditional use plans at this stage. Review of compliance with Township ordinances is underway and will confirm compliance with this condition.*

COMPREHENSIVE PLAN CONSISTENCY

1. The Comprehensive Plan lays out some general principles which are to be kept in mind when dealing with Institutional land use. For example, the expansion of institutions is to be limited to the areas within the present boundaries of the campus zoned for Institutional use. The University's development plan does not extend beyond the current limits of the campus.
2. The Comprehensive Plan asks that existing institutions be harmonized with adjacent land uses by promoting physical buffering. Villanova's plans include the installation of deciduous trees, evergreens, shrubs, and ground cover along most of the development area's boundaries. Zoning standards for buffer planting strips will still need to be met.
3. Objective 4 of the Comprehensive Plan's Environment and Natural Resources section notes that the Aldwyn Triangle has been designated, at least partially, as a "core reserve wooded area". The Comprehensive Plan strongly recommends that the Township protect and preserve these existing natural areas to the maximum extent. Villanova's development plan shows nearly all of Aldwyn Triangle is to be preserved.
4. Section 5 of the Transportation and Circulation Plan of the Comprehensive Plan outlines an Access Management Program that "should apply to all roads in the Township, as practical. Reducing the amount of unnecessary curb cuts and access points can also help to reduce delays in traffic flow, accident levels, and pedestrian conflicts" (5-29). The University's plan includes the elimination of several existing access points along Lancaster Avenue at the West Lancaster Parking area properties.
5. The stormwater policy as laid out in the Comprehensive Plan for the Wayne Business District, and more generally, in Section 10 – Existing Land Use and Land Use Plan of the Radnor Township Comprehensive Plan Update calls for the design of Business District elements to include "subsurface stormwater infiltration systems, 'feeding' the new landscaping and overflowing into the groundwater" (10-22). Villanova's land development plan shows the use of rain gardens is anticipated throughout the project to maximize stormwater infiltration and absorption.

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Steve Norcini, Public Works Director
Suzan Jones
File

- a. RG-101's volumetric storage value of 1,472 CF seems inconsistent with the calculations shown for the cumulative storage and incremental storage volume values.
 - b. RG-102 has a similar calculation inconsistency – The T/G elevation of 438.5 listed, however calculations for the area, depth, ave. area etc. stop at elevation 438.00. Additionally the volumetric storage value of 1,846 CF does not appear consistent with the volume calculations provided for both the incremental and cumulative storage volume values.
 - c. The applicant must provide supporting documentation for the cumulative volume values reported for Infiltration systems 101, 102 and 103 similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
3. The Dewatering Calculations for WLA Infiltration System 202 indicates that the 100-year condition requires 113.45 hrs. (4.73 days) for the volume to completely dewater. Stormwater BMPs must be able to completely drain within 96 hours.
 4. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
 5. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
 6. The “Inlet Area Plan” appears to be missing drainage areas for I-202A, I-202B, and some of the inlets along the Lancaster Avenue turning lane. Please update the plan so these values can be checked against what is being reported in the stormwater calculations.
 7. How and where is the runoff from the pedestrian bridge being addressed? A drainage area for this area is partially drawn on sheet “Post Watershed Area Plan”, but it is not included in the drainage area chart on page 124. Please provide an explanation.
 8. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

Pike Field Garage

I Zoning

1. §280-68.1.D(2)(i)[3] – Height limitations from the average existing grade (the average of the existing grades taken at a twenty foot interval around the proposed building perimeter) to the midpoint of a sloped roof or to the highest roof beams if a flat roof, provided that the chimneys and spires shall not be included in measuring the height structures for the CICD. The height limitations for a parking structure shall be 38 feet. The plan indicates that the proposed structure will be 5 levels. The applicant has indicated that the height of the parking structure will be 37.85 feet.
2. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.
3. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
4. §280-68.1.D(3)(e)4 – Surface parking spaces shall be no less than nine feet by 19 feet. Parking spaces in any parking structure shall be no less than eight feet six inches by 19 feet. The parking spaces must be dimensioned on the plans. Detailed parking garage plans must be submitted for review.
5. §280-69.C – No building or structures shall exceed three stories or 38 feet in height. The plan indicates that the proposed parking structure will be 5 levels. The applicant has indicated that the parking structure will be 37.85 feet.
6. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. There are storm sewers proposed on areas of greater than 20%.

II Subdivision Land Development

1. §255-54.B. – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided. The proposed fire access land is proposed to be grass pavers. This must be reviewed by the Township Fire Marshall.

III Stormwater Management

1. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
2. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
3. There appears to be missing/inconsistent information between the drainage area table on page 189 of the Stormwater Report and the “Inlet Area Plan”. The RG-1 referred to on the table does not appear on the plan for this section of the development. There also appears to be missing drainage areas/information for YD 3-1, YD 3-2 and the Trunc Flow I-314. Please explain.
4. A drainage area for Pike Garage is shown to drain to a stormwater management system in POI 2B. The area breakdown does not appear to be included on the drainage area table on page 189 of the Stormwater Report. This is inconsistent with the other drainage areas reported for POI 2B. Please update the table accordingly.
5. The Volume Calculations for the Proposed Garage Basin – POI – 2B appears to have inconsistent information with regards to the detail shown on the Pike Field Garage Plans, Sheet 27 of 34. The bottom of the engineered soils appears to be at elevation 412.50 while the calculations report a total volume to el. 411.50 to be 1,613 CF. Further detail explaining how that volume was calculated must be provided.
6. The applicant must provide supporting documentation for the “Elevate Low Flow Orifice 6” to 411.00 volume value reported (6,073 CF) similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
7. Please provide a detail of the Existing Underground Basin in Pike Field

8. The applicant must provide supporting documentation for the “Total Volume to El. 411.65” volume value reported (1,992 CF) similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
9. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

IV General

1. The proposed fire access lane is proposed to be grass pavers. This must be reviewed by the Township Fire Marshall.
2. Detailed parking garage plans must be provided for the Pike Field Garage.

Performing Arts Center

I Zoning

1. §280-68.1.D(2)(i)[1] – Height limitations from the average existing grade (the average of the existing grades taken at a twenty foot interval around the proposed building perimeter) to the midpoint of a sloped roof or to the highest roof beams if a flat roof, provided that the chimneys and spires shall not be included in measuring the height structures for the CICD. The height limitations for academic and performance facilities shall be 50 feet. The applicant has indicated that the height will be 49.88 feet.
2. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.
3. §280-68.1.D(2)(j)2(b) - The minimum building space between buildings and a parking structure is 30 feet. The parking garage must be shown on the plans to ensure adequate distance between the performance art center and the parking garage.
4. §280-68.1.D(3)(f)[2] – Mechanical/electrical equipment and trash shall be screened from view. In addition, sound attenuation shall be installed on all equipment to minimize noise

pollution at any adjacent residential property line. A detail of the dumpster/recycling area must be provided. Also details of the proposed screen wall and access gates must be provided.

5. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.

II Stormwater Management

1. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
2. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
3. The drainage area table on page 189 of the Stormwater Report does not appear to be accounting for the drainage areas of the PAC Detention System to POI 2B (I-225, I-226, Roof area).
4. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

Church Walk and Bridge

I Zoning

1. §280-68.1.D(2)(b) – Setbacks from the ultimate right-of way for major collector streets shall be 60 feet for surface parking lots. The visitors parking lot is less than 60 feet from the proposed right of way line. This is a non-conformity that the applicant intends to continue.
2. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property

line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.

3. §280-69.E(3) – Surface parking areas are classified as a category of use 1. Category 1 uses and structures shall be set back from rear and side property lines by 75 feet. The existing parking area is set back 20 feet. This is a non-conformity that the applicant intends to continue.
4. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified.
5. §280-123 – Any signs proposed for this development must be in accordance with this section. The applicant has indicated that any necessary signage applications will be submitted separately from the land development process.

II Subdivision and Land Development

1. §255-29.A.(1) – The minimum dimensions of parking aisles for 90° parking is 22 feet. The aisles in the existing visitor parking area are less than 22 feet. This must be revised or a waiver from this section requested.
2. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance and exit drive shown on the plan is 22 feet. This must be revised or a waiver from this section requested.
3. §255-29.A.(19) – All artificial lighting used to illuminate any parking space or spaces shall be arranged so that no direct rays from such lighting shall fall upon any neighboring property or streets, nor shall any high-brightness surface of the luminaries be visible from neighboring residential properties or from a public street.
4. §255-37.C – Sidewalks and public paths shall be located within a public right-of-way, a public easement or a common open space area. The sidewalk is not located in the public right-of-way. The applicant must request a waiver from this requirement.
5. §255-38 – Street trees 2 ½ dnb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.

III Stormwater Management

1. The March 6, 2015 Stormwater Report does not include a specific discussion of the Stormwater concept for the Church Walk and Bridge. Please update the narrative accordingly.
2. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
3. The applicant must provide a plan similar to the "Post Development Drainage Plan (Volume Management)" provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.

We recommend that the plans be revised to address the comments stated above along with comments provided in the review memo from Gilmore and Associates prior to consideration for approval, or conditional approval shall include the applicant addressing the comments to the satisfaction of the Township Engineer.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager

April 1, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Villanova University
Church Walk and Bridge
Preliminary Land Development Plans
Review No. 1
RETTEW Project No. 101442003

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell, Inc. including 19 plan sheets dated March 13, 2015. The Church Walk and Pedestrian Bridge are necessary elements of the University's overall Lancaster Avenue Housing and related CICD development. Preliminary plans for those developments have been reviewed and comments were submitted March 20, 2015. Certain comments contained in that letter related specifically to Church Walk and the Pedestrian Bridge. Those comments are not repeated here.

We have performed a compliance review of the Church Walk and Bridge preliminary plan for conformance with certain elements of the Radnor Township Zoning and Subdivision Ordinances and coordinated our comments with those submitted by Gannett Fleming, the Township Engineer. We have the following comments on this submittal:

ZONING

1. Landscaping making up the required buffer planting strip along the rear of the property (Sheet L 1.0) needs to be shown on the plan along the south side of the proposed ADA ramp to the pedestrian bridge or a note needs to be added to the plan referring to the information on the landscaping plan that is part of the Lancaster Avenue Housing preliminary land development plan (§ 280-71.D).
2. On Sheet L1.1 regarding the planting on the Aldwyn Triangle, the references to the amounts of dedicated and unprotected areas and the preservation easement need to be updated to reflect the current Lancaster Avenue Housing plan that shows virtually all of the Triangle being preserved.



SUBDIVISION

1. ADA accessible sidewalk is needed between the West Lancaster Parking Lot and Moriarty Hall so that the ADA parking space in the parking lot just to the west of Moriarty Hall has direct access to a handicapped accessible route to the Pedestrian Bridge that does not require movement through the parking lot other than in an ADA crosswalk. The proposed walkway from the ADA parking space has a flight of steps proposed in it out front of Moriarty Hall.
2. On the north side of Lancaster Avenue, a gate is proposed across the driveway just east of the Pedestrian Bridge that leads up to St. Thomas of Villanova Church and other campus facilities. The gate is to be closed except for church events. If vehicles will be allowed to travel during church events along the driveway, a separate walkway up to the church will also be needed for pedestrian safety.

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Suzan Jones
Kevin Kochanski, RLA, CZO
Roger Phillips, PE
Amy Kaminski, PE
Peter Nelson, Esq.

H:\Projects\10144\101442003\CivMun\Ltr-snorcini-Church Walk Ped Bridge-Prelim LD Rev1-04-01-15.docx



Gannett Fleming

100 Years

of Excellence Delivered As Promised

Date: March 31, 2015

To: Radnor Township Planning Commission

From: Roger Phillips, P.E.

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Steve Gabriel - Rettew
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official

RE: Villanova University – Lancaster Avenue Housing – Church Walk
Villanova University – Applicant

Date Accepted: January 6, 2015

90 Day Review: April 30, 2015

Gannett Fleming, Inc. has completed a preliminary review of the Church Walk and Bridge Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor. Preliminary comments have been included in this letter. Additional comments may be forthcoming as a detailed review is completed.

Conditional use approval was granted on November 24, 2014 to permit the development under CICD (decision attached). The applicant is proposing to construct a 1,138 bed student housing facility in six buildings with associated retail space.

Plans Prepared By: Nave Newell

Dated: 03/13/2015

Church Walk and Bridge

I Zoning

1. §280-68.1.D(2)(b) – Setbacks from the ultimate right-of way for major collector streets shall be 60 feet for surface parking lots. The visitors parking lot is less than 60 feet from the proposed right of way line. This is a non-conformity that the applicant intends to continue.

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

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2. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
3. §280-69.E(3) – Surface parking areas are classified as a category of use 1. Category 1 uses and structures shall be set back from rear and side property lines by 75 feet. The existing parking area is set back 20 feet. This is a non-conformity that the applicant intends to continue.
4. §280-71 – Along rear and side property lines, a buffer planting strip, shall be provided. The applicant has provided a 20” buffer planting strip along 142 of the rear property line. The buffer planting strip must be provided along the entire rear property line.
5. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified.
6. §280-123 – Any signs proposed for this development must be in accordance with this section. The applicant has indicated that any necessary signage applications will be submitted separately from the land development process.

II Subdivision and Land Development

1. §255-29.A.(1) – The minimum dimensions of parking aisles for 90° parking is 22 feet. The aisles in the existing visitor parking area are less than 22 feet. This must be revised or a waiver from this section requested.
2. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance and exit drive shown on the plan is 22 feet. This must be revised or a waiver from this section requested.
3. §255-29.A.(19) – All artificial lighting used to illuminate any parking space or spaces shall be arranged so that no direct rays from such lighting shall fall upon any neighboring property or streets, nor shall any high-brightness surface of the luminaries be visible from neighboring residential properties or from a public street.
4. §255-37.C – Sidewalks and public paths shall be located within a public right-of-way, a public easement or a common open space area. The sidewalk is not located in the public right-of-way. The applicant must request a waiver from this requirement.

5. §255-38 – Street trees 2 ½ ddb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.

III Stormwater Management

1. The March 6, 2015 Stormwater Report does not include a specific discussion of the Stormwater concept for the Church Walk and Bridge. Please update the narrative accordingly.
2. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
3. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.

We recommend that the plans be revised to address the comments stated above along with comments provided in the review memo from Gilmore and Associates prior to consideration for approval, or conditional approval shall include the applicant addressing the comments to the satisfaction of the Township Engineer.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: March 30, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Department Manager of Transportation

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Villanova University – Lancaster Avenue Redevelopment
Preliminary Land Development Review #2
Radnor Township, Delaware County, PA

G&A 12-04054

Gilmore & Associates, Inc. (G&A) has completed a transportation review referenced project addressing comments in our review memorandum, dated January 28, 2015 and offers the following comments for Radnor Township consideration:

I. BACKGROUND

The applicant, Villanova University, intends to develop/redevelop several parcels located along Lancaster Avenue, southeast and southwest of the Ithan Avenue intersection, in Radnor Township, Delaware County. The project includes construction of student housing (1,135 bed apartment-style residence halls), retail shops (University Bookstore, bistro and small convenience store, size to be determined) along with 147 surface parking spaces to be located on the southwest corner of Lancaster Avenue and Ithan Avenue. In addition, the project includes construction of a Performing Arts Center (with 500 – 650 total seats in two theaters) and a multilevel parking structure (1,293 spaces) to be located on the southeast corner of Lancaster Avenue and Ithan Avenue. Villanova University intends to eliminate many of the existing driveway accesses located on the south side of Lancaster Avenue, west of Ithan Avenue and construct a shared surface parking lot to the rear of the existing university buildings along the south side of Lancaster Avenue. The Church Walk access and associated signalization will be relocated west of the present location and a new right in driveway will be constructed

west of Church Walk. The applicant also intends to construct a pedestrian walkway over Lancaster Avenue at the present Church Walk access location.

II. DOCUMENTS REVIEWED

1. Preliminary Land Development Submission for Lancaster Avenue Housing, consisting of 35 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated December 5, 2014 and revised March 6, 2015.
2. Preliminary Land Development Submission for West Lancaster Parking, consisting of 28 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
3. Preliminary Land Development Submission for Church Walk and Bridge, consisting of 20 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 13, 2015.
4. Preliminary Land Development Submission for Pike Field Garage, consisting of 34 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
5. Preliminary Land Development Submission for Performing Arts Center, consisting of 18 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
6. Pedestrian Parking & Traffic Plan, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
7. Event Traffic Circulation Plan, consisting of 7 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
8. Lancaster Avenue residential Housing Evacuation Plan, consisting of 2 sheets, prepared for Villanova University, prepared by Voith & Mactavish Architects LLP, dated March 2, 2015.
9. Response Letter, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
10. Transportation Impact Study dated March 12, 2015 prepared by F. Tavani Associates, Inc.
11. Response Letter dated March 12, 2015 prepared by F. Tavani Associates, Inc.

III. CONSTRUCTION PHASING

The applicant has identified the following construction phasing Sheet 8 of 35(C2.3) *Project Phasing Plan*.

1. Phase 1 Improvements
 - i. St. Augustines Center Garage Expansion
 - ii. Improvements to the West Lancaster Parking facilities
 - iii. Ingress from Lancaster Avenue at existing driveways
 - iv. Egress to Lancaster Avenue at signal at the existing Church Walk driveway
 - v. Closure of Pike Lot surface parking field

Comment: Phase 1 improvements may require signal timing modifications at the Church Walk intersection due to redistribution of traffic from Ithan Avenue to Church

Walk signal. In addition, the elimination/modification to the existing accesses along Lancaster Avenue should be discussed with PennDOT.

2. Phase 2 Improvements (includes Highway Occupancy Permitting)
 - i. Construction of the Pike Field Parking Garage
 - ii. Temporary improvements to Pike Lot surface lot at the site of the future Performing Arts Center – PAC
 - iii. Construction of the Pedestrian Bridge over Lancaster Avenue
 - iv. Improvements to visitor lot, west of existing Church Walk
 - v. Relocation of Church Walk
 - vi. Lancaster Avenue and Ithan Avenue improvements
3. Phase 3 Improvements
 - i. Construction of Student Housing Complexes 1 and 2
 - ii. Continued use of Pike Lot surface lot at the site of the future Performing Arts Center – PAC
4. Phase 4 Improvements (Upon availability of funding)
 - i. Elimination of Pike Lot surface lot
 - ii. Construction of Performing Arts Center

IV. REQUESTED WAIVERS

1. §255-27.H – The applicant has requested waiver to permit a 25ft. radii for the curb on the southwest corner of Ithan Avenue and Lancaster Avenue; a 35 foot radii is required for arterials. This approach is currently being re-evaluated by PennDOT for other improvements. If the Township decides to approve this waiver, we recommend the applicant demonstrate a WB-50 is able to complete the turn without encroaching on adjacent or opposing travel lanes.

V. GENERAL COMMENTS

1. The public sidewalk on the south side of Lancaster Avenue has been relocated outside the public legal right-of-way. In addition, the sidewalk is located behind a decorative fence open to public access. A sidewalk easement granting public access will be required from the applicant. The easement must be shown the plans.
2. Use an industry standard WB-50 in lieu of the custom US FOOD truck turning templates for truck turning templates.
3. We recommend discussing potential traffic calming elements with nearby affected neighborhoods, particularly Aldwyn Lane residents.
4. Final Land Development requirements:

- i. Provide a Pavement Marking and Signage Plan
 - ii. Provide traffic signal construction and permit plans for both signalized intersections and the two pedestrian-activated rectangular rapid flashing beacons (RRFB) crossings on Ithan Avenue.
5. Revise all stop bars locations to a minimum of 4 feet from any crosswalk.
6. The applicant's Traffic Engineer in a response letter dated March 12, 2015 indicates an eastbound right turn lane at Lancaster Avenue and Ithan Avenue is not required and will not be supported by PennDOT. It is our understanding based on a meeting with PennDOT, the need for an eastbound right turn at the intersection was still being evaluated and additional information was requested by PennDOT.

VI. LANCASTER AVENUE HOUSING PLAN COMMENTS

1. §255-29.A(14), No less than a five-foot radius of curvature shall be permitted for all curblines in parking areas. Sheet 6 of 30 (C2.2) includes several deficient radii along the south side of the parking lot, near the Proposed Dumpster and Recycle Area(s). Revise as required or request a waiver.
2. On Sheet 7 of 35 (C2.2)
 - i. The plan indicates pedestrian activated rectangular rapid flashing beacons (RRFB) for the midblock crossings on Ithan Avenue near the South Campus dormitories and Aldwyn Triangle, and the Lancaster Avenue Housing surface lot and the Pike Street Garage accesses to Ithan Avenue. Flashing Warning signal permit and construction plans are required for both locations.
 - ii. The applicant has proposed a right-turn lane along Lancaster Road at the PAC driveway. The implementation of the warranted right turn lane on Lancaster Avenue at Ithan Avenue of an eastbound right-turn lane along Lancaster Avenue at Ithan Avenue is still being evaluated by PennDOT and Township staff.
 - iii. Eliminate the stop bar on southbound Ithan Avenue at the proposed LAH/PAC driveways.
 - i. Verify the sight distance is adequate for the proposed crosswalks on Ithan Avenue at the parking driveways;
 - ii. Identify and dimension all existing and proposed public sidewalks along Ithan Avenue and Lancaster Avenue.
3. During final land development, each phase will require the design details regarding the onsite pedestrian curb ramps and crosswalks (refer to PennDOT Publication 72M *Roadway Construction Details, RC-67M* for information) CS 4401 form should be provide at the time.

4. Include signage to prohibit all trucks from turning right out of the driveway access to continue southbound on Ithan Avenue, and to prohibit trucks from turning left into the driveway from northbound Ithan Avenue.
5. Provide Truck Turning Templates for the eastbound right-turn from Lancaster Avenue onto Church Walk and the westbound left-turn from Lancaster Avenue onto Church Walk.
6. Provide Truck Turning Templates for the eastbound left-turn from LAH driveway onto Ithan Road.
7. Sheet 9 (C2.4), Exhibit 2: Adjust the location of the eastbound stop bars if necessary to allow for the left turn movement from both exit lanes or include signage prohibiting trucks in the left most, left turn lane exiting Church Walks.
8. The University may want to consider designating short term parking for spaces located near the proposed retail space in the LAH parking area to encourage parking turnover.

VII. WEST LANCASTER PARKING PLAN COMMENTS

1. §255-29.A(1) – Parking aisle widths shall be a minimum of 18' for one-way aisles. The aisle between Stone and Farrell Hall is less than 18 feet and appears to be a two-way vehicular movement. Revise the design or request a waiver.
2. §255-29.A(15) All dead-end parking areas shall be designed to provide sufficient backup area for end stalls of a parking area. The Parking area south for Farrell Hall should be revised accordingly.
3. §255-29.A(21) – Concrete curbing is required along the perimeter of the parking areas. Revise the parking area south of Farrell Hall.
4. Sheet 5 of 28 (C2.1): Clarify the use of the remaining western most access to Lancaster Avenue. The access is located within the limits of the right turn lane taper and based on the provided legend, appears to include a fence. If this is an emergency access, provide a note on the plans identifying the use and replace the “fence” line with a gate.
5. Sheet 6 of 28 (C2.2) Consider altering the location of the handicapped parking space closer to the sidewalk near Moriarty Hall.
6. The location of the proposed fencing is inconsistent and not clearly defined. The Composite Site Plan indicates fencing is proposed along the north side of Lancaster Avenue from Ithan Avenue and extending west with a campus entrance break just west of the proposed right in /right out access; however, no fencing is shown on

Sheet 5 (C2.1) and Sheet 6 (C2.2) of the plan set. The plans should be revised to be consistent for all provided sheets.

7. Provide turning templates for a WB-50 turning right from eastbound Lancaster Avenue into Church Walk.
8. Provide turning templates for two adjacent left turning vehicles exiting the proposed Church Walk access to continue westbound Lancaster Avenue. Additional widening along Lancaster Avenue may be necessary for the receiving lanes associated with the dual left turn lane operation.

VIII. CHURCH WALK PLAN

1. Include internal stop bars and signage on internal parking aisles. Adjust the location of the pedestrian crosswalks and stop bars as needed.

IX. PIKE FIELD GARAGE PLAN COMMENTS

1. Sheet 9 of 34 (C2.4): Modify the design of the driveway access to Lancaster Avenue. Exhibit 1 indicates SU-30 trucks will encroach on the concrete island.
2. Sheet 9 of 34 (C2.4): Include the exiting SU-30 right-out turn movement to eastbound Lancaster Avenue.
3. The crosswalk locations at the intersection of Ithan Avenue and Lancaster Avenue may require signal equipment relocation or additional pedestrian related traffic signal equipment (i.e. Pedestrian pedestal poles).

X. PERFORMING ARTS CENTER PLAN COMMENTS

1. We have no transportation comments.

XI. LANCASTER AVENUE HOUSING PEDESTRIAN PARKING & TRAFFIC PLAN

1. Provide a north arrow and label all roadways.
2. Phase 2: Provide phase 2A and 2B separately. Identify what work will be completed during each phase and identify the pedestrian path available, particularly near Church Walk.

XII. EVENT CIRCULATION PLAN

1. The event traffic Circulation Plan should be reviewed by the Radnor Police Department.

2. Refer to the Manual of Uniform Traffic Control Devices (MUTCD) 2009 (Chapter 2L *Changeable Message Signs*) and PennDOT Publication 646 *Intelligent Transportation Systems Design Guide* and verify DMS sign placement/location based on the reading and decision zone, number of lines, character length and height is adequate for roadway conditions.
3. We recommend the applicant consider the following suggestions:
 - i. Consider revising all turn designations to provide the direction message after the movement message. Specifically, TURN RIGHT instead of RIGHT TURN.
 - ii. To reduce the message length and improve patron memory retainage, revise the parking structure designations to colors as opposed to structure name. Revise the Permanent Signs for Parking Facilities to include the color as a background or text legend.
 - iii. Revise messages from “MAKE” to “TURN” for clear conveyance of movement.
 - iv. Revise messages from “AFTER LIGHT” to read “AFTER” followed by the name of the street.

XIII. TRAFFIC IMPACT STUDY

1. The applicant is required to provide a turn-lane length analysis for all auxiliary lanes including the eastbound right turn lane at the intersection of Ithan Avenue and Lancaster Avenue in accordance with the methodology included in PennDOT Publication 46 Traffic Engineering Manual.
2. Subsequent submissions must utilize Synchro HCM2010 methodology for the analysis of the Church Walk and Lancaster Avenue intersection. G&A verified the provided Synchro files can utilize HCM 2010 methodology.
3. Table I *Level of Service Comparisons*
 - v. **Lancaster Avenue & Spring Mill/Kenilworth Road/Aldwyn Lane**
Provide mitigation for the degradation of critical movements at the intersection where there is more than 10 seconds additional delay between the No-Build (Base) to Build (Projected) scenario.
 - vi. **Lancaster Avenue & Ithan Avenue**
Provide mitigation for the degradation of critical movements at the intersection where there is a more than 10 second additional delay between the No-Build (Base) to Build (Projected) scenario.
4. Table II *Queue Comparison Table Signalized Intersections*

- i. Revise based on the HCM 2010 methodology in lieu of the provided percentile method.
- ii. Provide omitted queues for the Existing, No-Build 2020 and Build 2020 scenarios.
- iii. **Lancaster Avenue & Ithan Avenue:**
The queue for the AM and PM peak hour Build Scenario exceeds the southbound left-turn available storage length of 75 feet. Mitigation must be provided for this movement to accommodate the anticipated queues.
- iv. **Conestoga & Sproul Roads**
The projected 2025 AM and PM peak hour queue for the eastbound through/right movement exceeds available storage length in both the No-Build and Build conditions. The applicant should provide cost effective recommendations for improvements.



Gannett Fleming

100 Years

of Excellence Delivered As Promised

Date: March 24, 2015

To: Radnor Township Planning Commission

From: Roger Phillips, P.E.

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Steve Gabriel - Rettew
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official

RE: Villanova University – Lancaster Avenue Housing
Villanova University – Applicant

Date Accepted: January 6, 2015

90 Day Review: April 6, 2015

Gannett Fleming, Inc. has completed a preliminary review of the Villanova University Lancaster Avenue Housing Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor. A preliminary review was also completed for the West Lancaster Parking Lot, Pike Field Garage and the Performing Arts Center. Preliminary comments have been included in this letter. Additional comments may be forthcoming as a detailed review is completed. We note that plans have not been submitted for the SAC Parking Garage, Visitors Lot and the Church Walk.

Conditional use approval was granted on November 24, 2014 to permit the development under CICD (decision attached). The applicant is proposing to construct a 1,138 bed student housing facility in six buildings with associated retail space.

The applicant has indicated that the following waivers will be requested from the Subdivision and Land Development Code:

- §255-27.H – To permit a 25 ft radius curb on the southwest corner of Ithan Avenue and Lancaster Avenue.

Plans Prepared By: Nave Newell

Dated: 12/05/2015 and revised 03/06/2015

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

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I Zoning

1. §280-68.1.D(2)(g)1 – Not more than 30% of CICD shall be occupied by buildings. The total building coverage may be increased to no greater than 45%, subject to the land preservation standards of this section, provided that in no event may the total building coverage of the applicant's entire campus within the PI zoning district exceed 30%. For purposes of calculating the total building coverage in the CICD, parking structures shall be included in the building area. A breakdown of the proposed 35.5% building coverage shown on the plans must be provided, including information from the other phases. The applicant has indicated that the total building area is 4.9 acres. The building area for each individual building must be provided.
2. §280-68.1.D(2)(g)2 – No individual building nor group of buildings not separated from each other by the minimum required separation distance noted below shall occupy more than 10% of the CICD site. Parking structures are not required to be included in the calculations of individual building coverage. The plan indicates building coverages of 7.6% for Residence Hall 2, 8.5% for Residence Hall 1 and the Performing Arts Center is 5.6%. A detailed breakdown of this calculation has been provided. It appears that the proposed % shown on the zoning tables are reversed for the residence halls. This must be revised.
3. §280-68.1.D(2)(h) – Not more than 45% of the CICD site may be covered by impervious surfaces; provided, however, if the CICD is redeveloping existing improved lands, then the maximum allowed impervious surface ratio shall be 45% or 10% less than the existing impervious surface ratio on the proposed CICD site, whichever is greater. In no event may the maximum allowed impervious surfaces on the applicants entire campus within the PI Zoning District exceed 45%. The plan indicates that the entire campus proposes 36.4%. The existing impervious surface calculation for the CICD indicates it is 92% impervious therefore 82% is the maximum permitted. A detailed breakdown of how the 92% impervious was calculated must be provided. The impervious should be broken down by each separate area.
4. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section. The applicant has revised the plans to label every building separation point.
5. §280-68.1.D(3)(e)[2] – There shall be no off-street loading requirements except for retail subordinate uses. All off-street loading shall be adjacent to the use being served by the space; designated by the applicant; and approved during the conditional use approval

process. The location of loading dock behind Building 1C was not provided on the plans during the conditional use approval. A loading area was proposed within the surface parking lot behind Building 1C, which is no longer proposed.

6. §280-68.1.D(3)(e)[5] – As specifically designated during the conditional use approval process, the required off-street parking spaces may be located within the boundaries of the CICD or on other areas of the entire campus, exclusive of areas within residential zoning districts. The location of the proposed parking areas differ slightly from what was approved during the conditional use process. There is no longer a parking area expansion proposed for the Health Services Center, and the Saint Augustine Garage (SAG) is proposed to have 2 additional levels. This increases the net number of parking spaces provided by the SAG by 27 spaces. The overall number of proposed parking spaces that was approved during conditional approval has been reduced by 19 for the entire site, however the parking provide still exceeds the minimum required.
7. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
8. §280-103A. – As a general requirement, each use in the Township shall provide sufficient off-street parking area to serve its users. The applicant has submitted a phasing narrative on sheet C2.3 that indicates the minimum required parking will be maintained during construction.
9. §280-105.E. – All outside lighting including sign lighting shall be directed in such a way as not to create a nuisance in any agricultural, institutional, or residential districts, and in every district all such lighting shall be arranged so as to protect the street or highway and adjoining property from direct glare or hazardous interference of any kind. Any luminary shall be equipped with some type of glare shielding device approved by the Township Engineer. The height of any luminary shall not exceed 25 feet. It appears that the detail for the luminary has been removed from the detail sheet. A clearly legible detail must be provided that indicates the proposed height.
10. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. The applicant has indicated that there will be disturbance in the steep slope area along Ithan Avenue. This disturbance is allowed under §280.112.D.(6) as it is required for construction of a roadway with no alternative routing along Ithan Avenue.

11. §280-123 – Any signs proposed for this development must be in accordance with this section. The applicant has indicated that any necessary signage applications will be submitted separately from the land development process.

II Subdivision and Land Development

1. §255-20.B.(1)(d) – All applicable zoning districts for this land development must be provided on the plans. This must be shown on the overall plan sheet.
2. §255-27.H(6) – Minimum curb radii at street intersections shall be 25 feet for local streets; 30 feet for collectors; 35 feet for arterials; and 10 feet for driveways. The applicant has requested a waiver to allow a 25 foot radius curb on the southwest corner of Ithan Avenue and Lancaster Avenue.
3. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance exit drive shown on the plan into the proposed parking area behind the student housing is 22 feet. This must be revised or a waiver from this requirement requested.
4. §255-38 – Street trees 2 ½ ddb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.
5. §255-43.1.B(2) – For all nonresidential subdivision and/or land developments, the amount of land to be dedicated for park and recreational area shall be 2,500 square feet per 4,000 square feet of building area. The applicant must conform to this section.
6. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. The applicant must conform to this section.
7. §255-54.B. – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. The applicant must provide an explanation or reconcile the inconsistency for the impervious area value for RG-10. Page 31 of the Stormwater Report lists the impervious area to be 9,216 SF, page 40 lists the impervious area to be 6,216 SF, page 149 lists the impervious area to be 6,216 SF and the table on the plan, and "Drainage Plan (Volume Management) lists the impervious area to be 9,216 SF.
2. The Dewatering Calculations for LAH Infiltration System 202 indicates that the 100-year condition requires 103.56 hrs. (4.31 days) for the volume to completely dewater. Stormwater BMPs must be able to completely drain within 96 hours.

IV General Comments

1. The applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increase wastewater disposal generated by the project.
2. A detail of the proposed fence/gate enclosure must be provided on the plans.

West Lancaster Parking

I Zoning

1. §280-43.D – No building shall be located less than 65 feet from a street right-of-way line, less than 20 feet from a side property line nor less than 25 feet from a rear property line. The applicant is proposing a 57.9 front yard setback and a 11.9 foot side yard setback. Both are non-conformities that the applicant intends to continue.

II Subdivision Land Development

1. §255-29.B.(1) – All parking areas shall have at least one tree 2 ½ inches minimum in caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every parking space in double bay. A minimum of 10% of any parking lot facility over 2,000 square feet in gross area shall be devoted to landscaping, inclusive of required trees. The landscape plans indicate that there are 232 parking spaces for this project. The overall Lancaster Avenue housing plans indicate that there are 240 proposed spaces for this lot. This must be verified and all plans revised to be consistent.
2. §255-29.A.(1) – The minimum aisle width for two way parking is 22 feet. The aisle width for Moriarty Hall, the visitor's lot, Stone Hall and between Stone Hall and Farrell Hall must be revised. Also a dimension should be shown between the proposed shuttle stop and curbing on sheet C2.1.

3. §255-29.A.(1) – The dimension of a 90° parking stall shall be 9 ½ feet by 20 feet. The is a parking spot located south of Farrell Hall does not meet those dimensions. Also the parallel parking spaces between Stone Hall and Farrell Hall are not the required 8 x 22 feet. The two way parking aisle between parallel parking spaces must be 18 feet.
4. §255-29.A.(6) – No more than 10 parking spaces shall be permitted in a continuous row without being interrupted by landscaping and concrete curb. The visitor lot must be revised.
5. §255-29.A.(7) – No one area for off-street parking of motor vehicles shall exceed 30 cars in capacity. Separate areas on a parcel shall be physically separated from one another by ten-foot wide planting strips and concrete curb. The visitors lot must be revised.
6. §255-29.A.(15) – All dead-end parking areas shall be designed to provide sufficient backup area for all the end stalls of a parking area. The dead-end parking spaces behind Farrell Hall must be revised to include a sufficient back-up area.

III Stormwater Management

1. The applicant must provide an explanation or reconcile the inconsistency for the Area values listed for RG-101. The supporting calculations for the Volume Summary on page 24 list the overall drainage area to be 29,422 SF. Plan measurements of the sheet, Post Watershed Area Plan” appears to indicate a drainage area significantly larger (approximately 46,500 SF). It would be helpful if the applicant submitted documentation similar to page 36 of the Stormwater Report for the Lancaster Avenue Housing Phase that detailed the structure/facility’s total area, impervious area and pervious area.
2. The “Volume – One Inch” calculation sheet on pages 24-25 appears to have some inconsistencies and should be rechecked and resubmitted. Specific examples include the following
 - a. RG-101’s volumetric storage value of 1,472 CF seems inconsistent with the calculations shown for the cumulative storage and incremental storage volume values.
 - b. RG-102 has a similar calculation inconsistency – The T/G elevation of 438.5 listed, however calculations for the area, depth, ave. area etc. stop at elevation 438.00. Additionally the volumetric storage value of 1,846 CF does not appear consistent with the volume calculations provided for both the incremental and cumulative storage volume values.
 - c. The applicant must provide supporting documentation for the cumulative volume values reported for Infiltration systems 101, 102 and 103 similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.

3. The Dewatering Calculations for WLA Infiltration System 202 indicates that the 100-year condition requires 113.45 hrs. (4.73 days) for the volume to completely dewater. Stormwater BMPs must be able to completely drain within 96 hours.
4. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
5. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
6. The “Inlet Area Plan” appears to be missing drainage areas for I-202A, I-202B, and some of the inlets along the Lancaster Avenue turning lane. Please update the plan so these values can be checked against what is being reported in the stormwater calculations.
7. How and where is the runoff from the pedestrian bridge being addressed? A drainage area for this area is partially drawn on sheet “Post Watershed Area Plan”, but it is not included in the drainage area chart on page 124. Please provide an explanation.
8. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

Pike Field Garage

I Zoning

1. §280-68.1.D(2)(i)[3] – Height limitations from the average existing grade (the average of the existing grades taken at a twenty foot interval around the proposed building perimeter) to the midpoint of a sloped roof or to the highest roof beams if a flat roof, provided that the chimneys and spires shall not be included in measuring the height structures for the CICD. The height limitations for a parking structure shall be 38 feet. The plan indicates that the proposed structure will be 5 levels. The height of the proposed parking structure must be shown on the plans.
2. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with

dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.

3. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.
4. §280-68.1.D(3)(e)4 – Surface parking spaces shall be no less than nine feet by 19 feet. Parking spaces in any parking structure shall be no less than eight feet six inches by 19 feet. The parking spaces must be dimensioned on the plans. Detailed parking garage plans must be submitted for review.
5. §280-69.C – No building or structures shall exceed three stories or 38 feet in height. The plan indicates that the proposed parking structure will be 5 levels.
6. §280-112.C – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. There are storm sewers proposed on areas of greater than 20%.

II Subdivision Land Development

1. §255-54.B – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided. The proposed fire access land is proposed to be grass pavers. This must be reviewed by the Township Fire Marshall.

III Stormwater Management

1. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
2. The applicant must provide a plan similar to the “Post Development Drainage Plan (Volume Management)” provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.

3. There appears to be missing/inconsistent information between the drainage area table on page 189 of the Stormwater Report and the “Inlet Area Plan”. The RG-1 referred to on the table does not appear on the plan for this section of the development. There also appears to be missing drainage areas/information for YD 3-1, YD 3-2 and the Trunc Flow I-314. Please explain.
4. A drainage area for Pike Garage is shown to drain to a stormwater management system in POI 2B. The area breakdown does not appear to be included on the drainage area table on page 189 of the Stormwater Report. This is inconsistent with the other drainage areas reported for POI 2B. Please update the table accordingly.
5. The Volume Calculations for the Proposed Garage Basin – POI – 2B appears to have inconsistent information with regards to the detail shown on the Pike Field Garage Plans, Sheet 27 of 34. The bottom of the engineered soils appears to be at elevation 412.50 while the calculations report a total volume to el. 411.50 to be 1,613 CF. Further detail explaining how that volume was calculated must be provided.
6. The applicant must provide supporting documentation for the “Elevate Low Flow Orifice 6” to 411.00 volume value reported (6,073 CF) similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
7. Please provide a detail of the Existing Underground Basin in Pike Field
8. The applicant must provide supporting documentation for the “Total Volume to El. 411.65” volume value reported (1,992 CF) similar to what was provided for the infiltration systems in the Lancaster Avenue Section of the Stormwater report on page 43-46.
9. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

IV General

1. The proposed fire access lane is proposed to be grass pavers. This must be reviewed by the Township Fire Marshall.
2. Detailed parking garage plans must be provided for the Pike Field Garage.

Performing Arts Center

I Zoning

1. §280-68.1.D(2)(i)[1] – Height limitations from the average existing grade (the average of the existing grades taken at a twenty foot interval around the proposed building perimeter) to the midpoint of a sloped roof or to the highest roof beams if a flat roof, provided that the chimneys and spires shall not be included in measuring the height structures for the CICD. The height limitations for academic and performance facilities shall be 50 feet. The height of the Performance Art Center must be shown on the plans.
2. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.
3. §280-68.1.D(2)(j)2(b) - The minimum building space between buildings and a parking structure is 30 feet. The parking garage must be shown on the plans to ensure adequate distance between the performance art center and the parking garage.
4. §280-68.1.D(3)(f)[2] – Mechanical/electrical equipment and trash shall be screened from view. In addition, sound attenuation shall be installed on all equipment to minimize noise pollution at any adjacent residential property line. A detail of the dumpster/recycling area must be provided. Also details of the proposed screen wall and access gates must be provided.
5. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance with IDA requirements.

II Stormwater Management

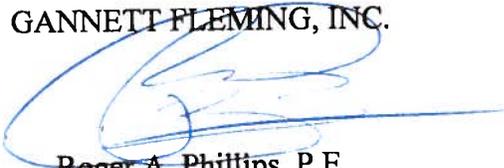
1. The applicant must provide a summary table similar to what was provided for the Lancaster Avenue Housing calculations (p. 35-36) which details what drainage areas contribute to each BMP (or unmanaged area), including total drainage area, impervious area, and pervious area.
2. The applicant must provide a plan similar to the "Post Development Drainage Plan (Volume Management)" provided for the Lancaster Avenue Housing portion of the project which includes a table detailing the impervious surfaces to each BMP.
3. The drainage area table on page 189 of the Stormwater Report does not appear to be accounting for the drainage areas of the PAC Detention System to POI 2B (I-225, I-226, Roof area).
4. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

We recommend that the plans be revised to address the comments stated above along with comments provided in the review memo from Gilmore and Associates prior to consideration for approval, or conditional approval shall include the applicant addressing the comments to the satisfaction of the Township Engineer.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager

March 20, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Villanova University
Lancaster Avenue Housing, Related Parking Improvements, and
Performing Arts Center
Preliminary Land Development Plans
Review No. 2
RETTEW Project No. 101442003

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell, Inc. Our review was of the following information received on March 9, 2015:

1. Thirty-six (36) plan sheets for Lancaster Avenue Housing dated December 5, 2014 and revised March 6, 2015;
2. Twenty-eight (28) plan sheets for West Lancaster Parking dated March 6, 2015;
3. Thirty-four (34) plan sheets for Pike Field Garage dated March 6, 2015;
4. Eighteen (18) plan sheets for the Performing Arts Center dated March 6, 2015;
5. Four (4) sheets for the Pedestrian Circulation Plan dated March 6, 2015;
6. Event Circulation Plan Summary and four (4) plan sheets for Events Circulation Plan dated March 6, 2015;
7. Lancaster Avenue Housing Evacuation Plan with diagram dated March 2, 2015;
8. PECO response letter concerning additional landscape material stamped received December 19, 2014 by the Facilities Management Office;
9. Storm Water Management Report and Site Drainage Calculations revised March 6, 2015; and,
10. A plan reviews comments response letter dated March 6, 2015.

Project Overview:

<u>Applicant:</u>	Villanova University
<u>Requested Action/Use:</u>	Preliminary Land Development Plan Review: Lancaster Avenue Housing West Lancaster Parking Pike Field Garage Performing Arts Center
<u>Zoning District:</u>	PI – Planned Institutional; CO-Commercial Office; R-3 Residence



<u>Location and Size:</u>	Lancaster Avenue Student Housing and most related parking improvements properties are located between Lancaster Avenue and the SEPTA R-100 tracks, and between Pike Field and Farrell Hall on the Villanova campus. Improvements to the SAC Garage are located on land at the north end of the Main Campus along the AMTRAK/SEPTA rail lines. Apart from the SAC Garage site, the subject lands are roughly coincidental with the CICD development proposal which the applicant indicated contained gross site area of approximately 13.81 acres.
<u>Existing Use:</u>	Surface parking lots and small University office buildings.
<u>Proposed Use:</u>	Student dormitories, student-centered retail, Performing Arts Center, and related Pike Parking Garage, West Lancaster Avenue parking lot, and SAC Garage expansion.

We have performed a compliance review of the four land development plans with certain elements of the Radnor Township Zoning Ordinance, with the applicant's phasing plan, with the conditions of the Board of Commissioners' CICD conditional use approval, and with the Radnor Township Comprehensive Plan. We have the following comments on this submittal:

SPECIFIC ZONING

1. New landscaping information has been provided by the applicant including section drawings along the south property line of the Housing portion of the site showing new and existing vegetation looking in a west to east direction. One additional series of views of the proposed buffer planting strip looking through the landscaping in a south to north direction is needed to demonstrate that the proposed Buffer Planting Strip along the R-100 line provides a screen of sufficient density not to be seen through and of sufficient height to constitute an effective screen and give maximum protection and immediate visual screening to an abutting property or district (§ 280-4B, § 280-68.1.D(3) and § 280-71.D). The same view of the landscaping proposed for the West Lancaster Parking Plan needs to be provided. We will coordinate with the applicant's design team on this item.
2. Sub-section 71.A of the zoning ordinance requires buffer planting strips to be not less than 20 feet in width. There are places at the rear of the West Lancaster Parking and Lancaster Housing where the width of the buffer planting strip is less than 20 feet wide. However, Sub-section 71.D allows for alternative buffer planting strips stating, "As an alternative to the possibly linear appearance of the minimum requirements above, applicants are encouraged to provide innovative, free-form buffers which need not be located entirely within the minimum required width. Such alternative buffers shall be subject to approval by the Township." Such alternative buffer planting strips would be required to meet the same "a screen of sufficient density not to be seen through...and immediate visual screening..." standard as noted above. The requested view of the proposed buffer planting strip in the south to north direction will provide the basis for the Township to determine sufficiency.

3. New landscaping information has been provided by the applicant including a plan view of the landscaping proposed to surround the Pike Field Parking Garage and the Performing Arts Center. Further, the applicant indicated during its presentation at the March 10 Planning Commission meeting that it will provide additional landscaping along the eastern boundary of Pike Field as desired by residents of Barley Cone Lane to buffer their view of the Pike Field Parking Garage and Performing Arts Center. The development plan needs to reflect this additional landscaping desired by the Barley Cone Lane residents. The ultimate standard required of such landscaping is the same as above "a screen of sufficient density not to be seen through and of sufficient height to constitute an effective screen and give maximum protection and immediate visual screening to an abutting property or district," as called for by § 280-68.1D(3)(b) and § 280-71.D.
4. The submitted lighting plan information for all four development plans includes isometrics that demonstrate light at the nearby residential property lines is well below the maximum 0.5 foot-candles allowed. However, information is needed to show how all the proposed site and area lighting complies with International Dark Sky Association (IDA) full cut-off standards. Some of the proposed light fixtures do not appear to contain full cut-off shields (§ 280-68.1.D(3)(g)).
5. The Housing plan shows most ground-mounted mechanical and trash equipment is screened from view from public streets and abutting properties. Outstanding items: a) The proposed loading dock and trash compactor at the railroad end of the eastern portion of Building 1-C in the Housing Plan is proposed to be surrounded with a fence and gate. A detail of the proposed fence and gate needs to be provided; b) Roof mounted mechanical facilities were also proposed during the conditional use process. If such facilities are still part of the Housing development proposal, appropriate screening needs to be shown as well (§ 280-68.1.D(3)(f)) (§ 280-70.C); c) Further, the plan needs to describe how the proposed loading area and proposed dumpster and recycling area at the southeast corner of the Performing Arts Center will be screened from view from the Barley Cone Lane properties and Lancaster Avenue.
6. The Housing plan needs to include information describing the sound attenuation devices that are a part of or are to be installed on all mechanical, electrical, and trash equipment to minimize noise pollution at any adjacent residential property line (§ 280-68.1.D(3)(f)). While a fence and gate enclosure are proposed to surround the trash compactor shown at the railroad end of the eastern portion of Building 1-C in the Housing Plan, how will the fence provide noise buffering? Noise buffering of the mechanical pit adjacent to South Ithan Avenue will be needed as well.
7. The Housing plan needs to show consideration for trash receptacles along Lancaster Avenue, pedestrian benches along Lancaster Avenue in between the proposed "seatwall" sites, and related features (pennants, kiosks, signage) to complete promotion of a pedestrian-friendly townscape (§ 280-68.1.A). An 'Image Board' or site design collage with photos of selected design features would help portray the townscape environment.
8. A small section of the access control fence along the south side of Lancaster Avenue near its intersection with South Ithan Avenue is proposed to be located inside the required right-of-way.

9. As noted in the February 19, 2015 plan review letter from the Delaware County Planning Commission, a portion of the subject site is zoned R-3 Residence and should be rezoned to PI Planned Institutional.

PHASING AND PEDESTRIAN PARKING AND TRAFFIC PLAN

1. Phase 1 - the buffer planting strip that is proposed between the proposed West Lancaster Parking Lot and the R-100 line needs to be ordinance compliant and in place prior to the start of construction of any part of Phase 2.
2. Phase 1 – landscaping to be installed along the Barley Cone Lane properties at the request of the property owners needs to be to the property owners satisfaction and installed during Phase 1 construction activities and before the start of construction of the Pike Field Garage in Phase 2A.
3. Phase 1 – how will users of the reallocated 100 parking spaces area on the north side of the Amtrak/SEPTA line make their way to key facilities on Main Campus from that parking area?
4. Phase 1 – the reallocated 100 parking spaces area in Phase 1 is labelled as 87 spaces in Phase 2. Is something happening there in either phase?
5. Phase 3 – the buffer planting strip that is proposed between the proposed parking to the rear of the proposed new dormitories and the R-100 line needs to be ordinance compliant and in place prior to the start of construction of any part of Phase 4.

CONDITIONAL USE ORDER CONDITIONS

Below in *italics* is the status of each of the Conditional Use Order Conditions as of land development plan submittal. Confirmation of some of the conditions will require follow up over time with certain parties and/or be shown in future plan submittal and may not be able to be assured until after plan review or until during plan construction.

1. The applicant shall comply with all other applicable Township Ordinances and shall submit a land development plan pursuant to the Township's Subdivision and Land Development Ordinance prior to the construction of any facilities – *the applicant has submitted a land development plan and review of compliance with Township ordinances is underway.*
2. The transportation, roadway and signalization and improvements necessary for the construction to have full access to Ithan Avenue from both the Pike Lot Parking Garage and Lancaster Avenue housing parking area with provisions for stop control for both parking accesses to Ithan Avenue and a pedestrian activated signal including the new pedestrian crosswalk be required if approved by PennDOT, unless waived by the Board of Commissioners during the land development process – *Township and PennDOT review for these improvements is underway.*
3. During the land development process an event circulation plan be developed to address event parking and traffic circulation with the input of the Radnor Township Police Department and Township traffic engineer outlining procedures, traffic patterns, parking configurations and

way-finding techniques for the various sporting and other events held at the University. Upon development of the event circulation plan, Villanova shall be responsible for constructing and/or installing such signs, structures, or other directional aids necessary to implement the event circulation plan – *an event circulation plan has been submitted and is pending Township Police and Township Traffic Engineer review.*

4. That Villanova University contributes the sum of One Hundred Seventy-Five Thousand Dollars (\$175,000.00) towards the design, approval and installation of a traffic adaptive signal system that would incorporate the following signalized intersections along Lancaster Avenue:
 - a. Sproul Road/Spring Mill Road; Aldwyn Lane/Kenilworth Street
 - b. Church Walk
 - c. Ithan Avenue
 - d. Lowrys Lane
 - e. Airdale Road
 - f. County Line Road

Township staff will confirm upon receipt of the required \$175,000.

5. During the land development process an emergency evacuation plan for the new student housing be developed – *an emergency evacuation plan for the new student housing has been submitted and is pending Township Police and Fire review.*
6. Appropriate fencing be provided on both the north and south sides of Lancaster Avenue in the area of the church walk pedestrian bridge in an effort to restrict pedestrian traffic from accessing the campus. A gate shall be provided for vehicular and pedestrian access during church events if approved by the Board of Commissioners during the land development approval process – *the plan needs to show the elevation view of the proposed fencing along Lancaster Avenue (unless it is proposed to be the ornamental metal picket fence shown on Sheet L2.2) so that the Township can determine if it is appropriate. The Township also needs to determine if the proposed safety fencing along the R-100 rail line and the safety fencing along Ithan Avenue are acceptable (see Safety Fence detail on Sheet L2.2).*
7. The University preserve the entire area known as the Aldwyn Triangle and restrict it as open space except for that portion of the area necessary to provide pedestrian activity and handicap accessibility improvements for the adjacent SEPTA rail line – *the plan shows nearly all of the Aldwyn Triangle property being proposed for preservation. The form of preservation needs to be indicated and documented to the Township when it is achieved.*
8. That a landscape and buffer plan be developed to comply with Section 280-68.1.D. (3)(b) of the Zoning Ordinance – *a landscaping plan and additional information have been submitted as part of the Housing and West Lancaster Parking land development plans. The view of the landscape buffer planting strips on the Housing and West Lancaster Parking plans in a south to the north direction is needed. Similarly, elevation views in an east to west direction from the Barley Cone*

Lane residences are needed. With that information in hand, it can be determined if the proposed buffer planting strips comply with Sections 280-4B, 280-68.1.D(3)(b) and 280-71.D of the zoning ordinance.

9. Villanova seek permission from PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the adjacent residential neighbors. Provided that the applicant receives permission, Villanova shall provide an installation and maintenance plan of the vegetation necessary for this screening during land development – *a response from PECO to Villanova’s inquiry was submitted with the latest packet of information. PECO indicates that its “guidelines call for a minimum of 32 feet of clearance from its transmission lines to the nearest trees on either side. Large trees situated within this area are removed, and trees situated beyond this distance are pruned to the 32 foot mark or the edge of the ROW.” Villanova needs to submit a scaled existing conditions plan of the area in question that includes an overlay of the 32 feet clearance dimension to show how much, if any, planting area exists for the purpose of planting landscaping that will visually screen the SEPTA bridge from the adjacent residences. The plan needs to show how and what kind of landscape plantings would fit in that area as well.*
10. Villanova shall provide Radnor Township a list of contractors, subcontractors and vendors and their addresses within twenty (20) days of the execution of any contracts by Villanova in connection with the development and/or construction of the proposed project. The purpose of this list is to permit the Township to audit for required business privilege/mercantile taxes – *such a list needs to be provided prior to any permit being issued for any of the improvements proposed in the land development plan including the 4 Phases Plan and then supplemented as each phase is pursued in turn. The Township will confirm receipt of each contractor list.*
11. During the land development process, the Applicant shall use its best efforts to develop and construct storm water management facilities, including green infrastructure practices and components that meet or exceed infiltration or retention requirements as currently required by the Radnor Township Stormwater Management Ordinance. The Applicant shall conduct soil testing as necessary to determine whether the site can accommodate volume management in excess of one (1) inch of run-off from all impervious surfaces resulting from the project. If soil testing indicates that it is possible to provide volume management in excess of one (1) inch of run-off, the Applicant shall construct such necessary storm water facilities on the site to accommodate this increased volume – *storm water information submitted by the applicant is under review by the Township Engineer who will ultimately confirm compliance with this condition.*
12. The Applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increased waste water disposal generated by the project – *applications to obtain revisions to the Radnor and Lower Merion Township Act 537 Plans must be submitted by the applicant with review and approval received from each Township and the PA Department of Environmental Protection.*
13. Applicant shall develop a traffic plan during the land development process delineating the paths by which the existing population of commuting and part-time students will be directed to and from parking for each phase of the construction – *a parking phasing plan including student foot-*

travel to and from the parking areas has been submitted and is under review by the Township Traffic Engineer.

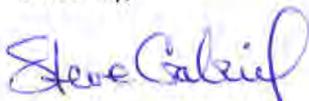
14. The Applicant shall permit parishioners to park, on a space available basis, on the north side of Lancaster Avenue on existing Villanova property adjacent to the church for church related events - *Villanova has indicated that it will permit parishioners to park on campus adjacent to the Church as needed. So that parishioners know which spaces are intended, Villanova provided as part of a September 10, 2014 response to residents regarding church parking an informal site plan (see attached) showing the particular areas adjacent to the church.*
15. The Applicant shall maintain a pedestrian crosswalk from the proposed project site to the existing church at the present church walk location if approved by PennDOT – *the proposed land development plan shows a pedestrian crosswalk at grade across Lancaster Avenue at Church Walk. Villanova indicated at the last Planning Commission meeting that the existing driveway located just east of the proposed pedestrian bridge can provide the necessary at-grade pedestrian access all the way to the church as described by this condition as well as Condition #6.*
16. The Applicant shall ensure that no amplified music or other excessive noise shall emanate from any of the south facing dormitories. During the land development process, the Township and applicant shall establish a permissible sound level at the property boundary of the Aldwyn Lane residential uses – *the land development plan needs to demonstrate: 1) how such noise will be buffered so as not to impact Aldwyn Lane residential uses; and 2) how such noise will be buffered to achieve the required sound level to be determined in concert with the Township.*
17. The Applicant's land development plans shall be in substantial conformity with the Conditional use plans dated May 2, 2014 as amended during the hearings – *the land development plan appears to be comparable to the applicant's conditional use plans at this stage. Review of compliance with Township ordinances is underway and will confirm compliance with this condition.*

COMPREHENSIVE PLAN CONSISTENCY

1. Our previous review indicated that Villanova's proposed development plan was generally consistent with various components of the Township's Comprehensive Plan including Institutional uses, Environment and Natural Resources, Transportation and Circulation, and Stormwater policies.

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

Page 8 of 8
Radnor Township
March 20, 2015
RETTEW Project No. 101442003
Lancaster Avenue Housing Land Development Preliminary Plan

Attachment

copy: Steve Norcini, Public Works Director
Suzan Jones
File

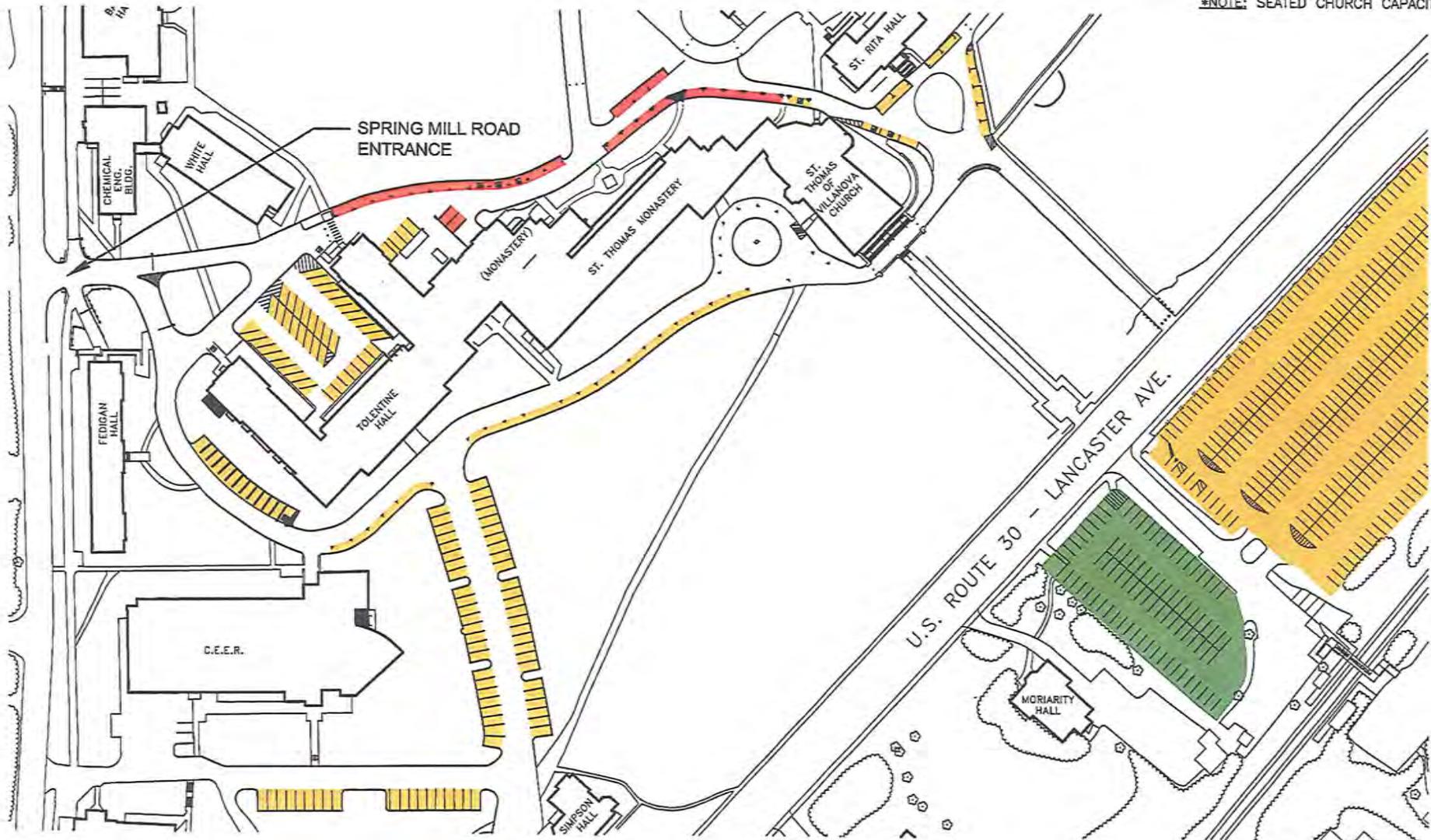
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ATTACHMENT 2: CURRENT CHURCH PARKING

LEGEND:

- 81 VISITOR LOT/CHURCH SERVICE PARKING
- 1289 AVAILABLE PARKING FOR CHURCH EVENTS
- 25 PRIORITY MONASTERY PARKING (AVAILABLE IF NECESSARY)

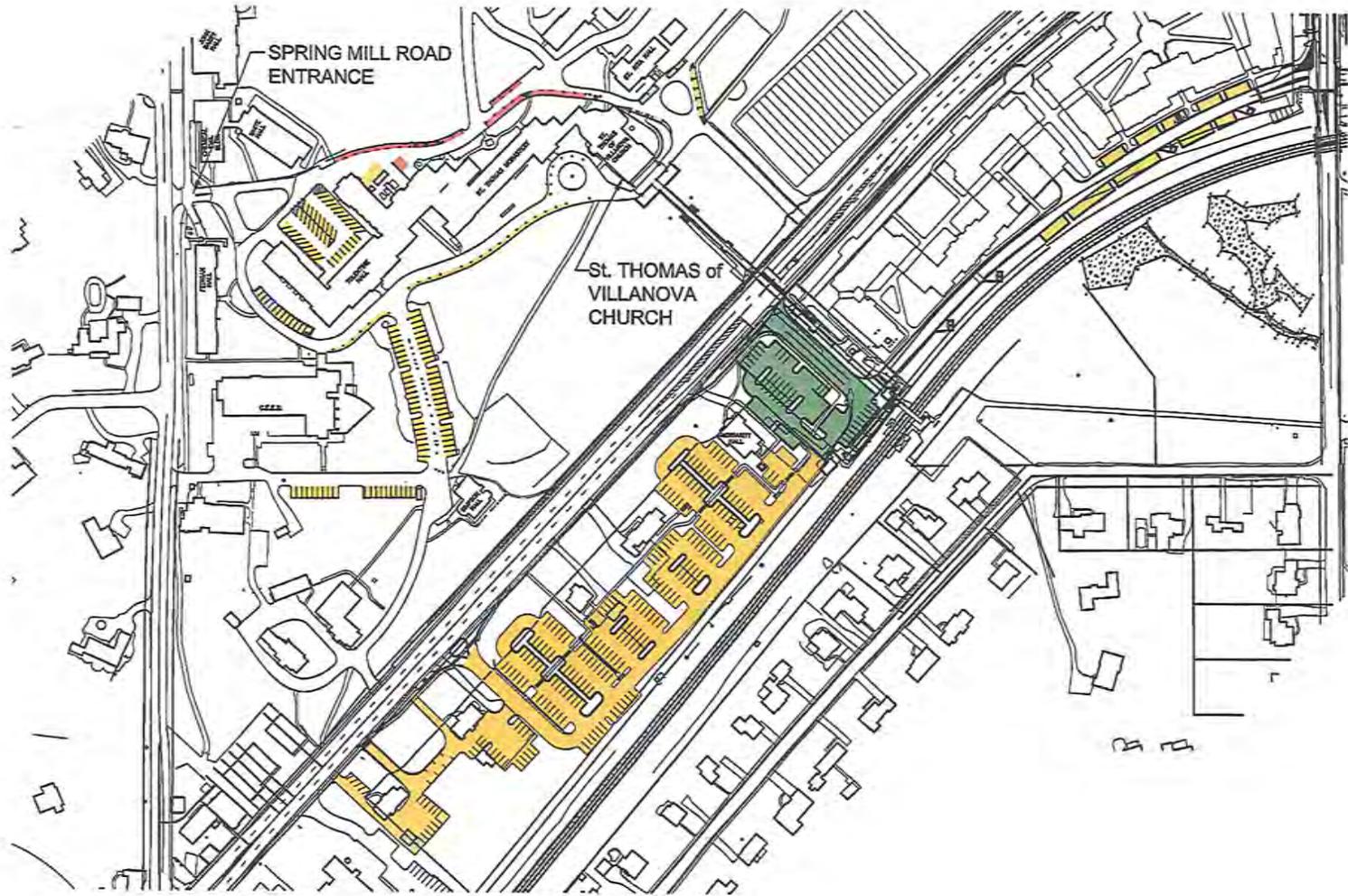
*NOTE: SEATED CHURCH CAPACITY = 550



ATTACHMENT 3: FUTURE CHURCH PARKING

LEGEND:

- 41 VISITOR LOT/CHURCH SERVICE PARKING
 - 475 AVAILABLE PARKING FOR CHURCH EVENTS
 - 25 PRIORITY MONASTERY PARKING (AVAILABLE IF NECESSARY)
- *NOTE: SEATED CHURCH CAPACITY = 550





MEMORANDUM

Date: March 20, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Transportation Services Manager

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Villanova University – Lancaster Avenue Redevelopment
Preliminary Land Development Review
Radnor Township, Delaware County, PA

G&A 12-04054

Gilmore & Associates, Inc. (G&A) has office received a submission from the applicant's engineer for the referenced project on Tuesday, March 10, 2015. The submission was in response to our review letter, dated January 28, 2015 on a previous submission for land development. It is our understanding that the applicant is scheduled to appear before the Radnor Township Planning Commission on Thursday, March 26 2015.

Given the complexity of the project and the voluminous submission materials received one week prior to reviews being due for the Planning Commission meeting, we are unable to provide a comprehensive review in advance of the scheduled meeting; however, we offer the following transportation issues that should be discussed during the scheduled planning commission meeting which could expedite the project through the land development process.

I. BACKGROUND

The applicant, Villanova University, intends to develop/redevelop several parcels located along Lancaster Avenue, southeast and southwest of the Ithan Avenue intersection, in Radnor Township, Delaware County. The project includes construction of student housing (1,135 bed apartment-style residence halls), retail shops (University Bookstore, bistro and small convenience store, size to be determined) along with 147 surface parking spaces to be located on the southwest corner of Lancaster Avenue and Ithan Avenue. In addition, the project includes construction of a Performing Arts Center (with 500 – 650 total seats in two theaters) and a multilevel parking structure (1,293 spaces) to be located on the southeast corner of Lancaster Avenue and Ithan Avenue. Villanova

University intends to eliminate many of the existing driveway accesses located on the south side of Lancaster Avenue, west of Ithan Avenue and construct a shared surface parking facility to the rear of the existing university buildings on Lancaster Avenue with limited access to Lancaster Avenue at the relocated signalized intersection of Church Walk and a new right in driveway, west of Church Walk.

II. REQUESTED WAIVERS

§255-27.H – The applicant has requested a waiver to permit a 25ft. radii curb on the southwest corner of Ithan Avenue and Lancaster Avenue. The corner is currently being evaluated for other improvements. We recommend the Township defer a decision regarding this waiver until an engineering consensus regarding the evaluation of this corner is complete.

III. DOCUMENTS REVIEWED

1. Preliminary Land Development Submission for Lancaster Avenue Housing, consisting of 35 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated December 5, 2014 and revised March 6, 2015.
2. Preliminary Land Development Submission for West Lancaster Parking, consisting of 28 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
3. Preliminary Land Development Submission for Church Walk and Bridge, consisting of 20 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 13, 2015.
4. Preliminary Land Development Submission for Pike Field Garage, consisting of 34 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
5. Preliminary Land Development Submission for Performing Arts Center, consisting of 18 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
6. Pedestrian Parking & Traffic Plan, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
7. Event Traffic Circulation Plan, consisting of 7 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
8. Lancaster Avenue residential Housing Evacuation Plan, consisting of 2 sheets, prepared for Villanova University, prepared by Voith & Mactavish Architects LLP, dated March 2, 2015.
9. Response Letter, prepared for Villanova University, prepared by Nave Newell, Inc., dated March 6, 2015.
10. Traffic Impact Study date March 12, 2015 prepared by F. Tavani Associates, Inc.

IV. CONSTRUCTION PHASING

The applicant has identified the following construction phasing Sheet 8 of 35 (C2.3) *Project Phasing Plan*.

1. Phase 1 Improvements
 - i. St. Augustines Center Garage Expansion
 - ii. Improvements to the West Lancaster Parking facilities

- iii. Ingress from Lancaster Avenue at existing driveways
- iv. Egress to Lancaster Avenue at signal at the existing Church Walk driveway
- v. Closure of Pike Lot surface parking field
- vi. Campus parking spaces: $5,130 - 4,932 = 198$ space deficiency

Comment: Phase 1 improvements may require signal timing modifications at the Church Walk intersection due to redistribution of traffic from Ithan Avenue to Church Walk signal. In addition, we recommend the elimination of the existing accesses along Lancaster Avenue during phase 1.

- 2. Phase 2 Improvements (includes Highway Occupancy Permitting)
 - i. Construction of the Pike Field Parking Garage
 - ii. Temporary improvements to Pike Lot surface lot at the site of the future Performing Arts Center – PAC
 - iii. Construction of the Pedestrian Bridge over Lancaster Avenue
 - iv. Improvements to visitor lot, west of existing Church Walk
 - v. Relocation of Church Walk
 - vi. Lancaster Avenue and Ithan Avenue improvements
 - vii. Campus parking spaces: $5,130 - 5,222 = 92$ space surplus
- 3. Phase 3 Improvements
 - i. Construction of Student Housing Complexes 1 and 2
 - ii. Continued use of Pike Lot surface lot at the site of the future Performing Arts Center – PAC
 - iii. Campus parking spaces: $5,130 - 5,284 = 154$ space surplus
- 4. Phase 4 Improvements (Upon Donor Funding)
 - i. Elimination of Pike Lot surface lot
 - ii. Construction of Performing Arts Center
 - iii. Campus parking spaces: $5,130 - 5,130 = \text{net zero}$

V. General Comments

- 1. The public sidewalk on the south side of Lancaster Avenue has been relocated outside the public legal right-of-way. In addition, the sidewalk is located behind a decorative fence open to public access. A sidewalk easement granting public access will be required from the applicant and must be shown the plans.
- 2. The current design identifies the Pedestrian Bridge and the street level pedestrian crosswalk on Lancaster Avenue at Church Walk will be located approximately 137' apart. We recommend relocating the Church Walk driveway further west and increasing the distance between the Church Walk pedestrian crossing and the Pedestrian Bridge. It appears a more favorable location for the Church Walk driveway is available approximately 540' west or 410' west of the Pedestrian Bridge. A greater distance between the Church Walk driveway and the Pedestrian Bridge will provide the following benefit:

- i. Create more parking spaces near the Pedestrian Bridge
- ii. Provide a greater stacking distance for Special Events.
- iii. Dissuade students from using the street level crosswalk at Church Walk driveway.
- iv. Provide better signal indication visibility for westbound motorists

We recommend further discussion between the Township, PennDOT, and the applicant.

VI. Lancaster Avenue Housing Plan Comments

Sheet 7 of 35 (C2.2)

1. The Ithan Avenue southbound left turn lane taper for the LAH driveway and the PAC driveway does not appear to meet industry standards.
2. The applicant has proposed a right-turn lane along Lancaster Road at the PAC driveway. The eastbound right-turn lane on Lancaster Avenue at Ithan Avenue is still being evaluated by PennDOT and Township staff.

VII. WEST LANCASTER PARKING COMMENTS

§255-29.A(1) The minimum aisle width allowed for parallel parking is 18 feet. The aisle between Stone and Farrell Hall is less than 18 feet. Revise the design of this parking area as needed and eliminate the access driveway to Lancaster Avenue as it is no longer necessary and is located within the right turn lane taper.

VIII. TRAFFIC IMPACT STUDY

Although the latest submission provided many of the auxiliary turn-lane length analyses, the analysis for the eastbound right turn lane on Lancaster Avenue at Ithan Avenue was not provided.

A comprehensive review of all submission materials will be completed by our office to verify that all of the comments from the January 28, 2015 letter have been addressed. Additional comments may be forthcoming, pending the completion of the comprehensive review.



March 6, 2015

VIA HAND DELIVERY

Stephen Norcini, P.E., Director of Public Works
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**Reference: Villanova University – Lancaster Avenue Housing
Preliminary Plan Resubmission
Nave Newell No. 2011-005.00**

Dear Mr. Norcini:

On behalf of Villanova University we are resubmitting the following documents for Preliminary Plan review. The quantities enclosed are listed after each item:

1. Lancaster Avenue Housing Preliminary Plan Set (11X17), last revised March 6, 2015 (21);
2. West Lancaster Parking Preliminary Plan Set (11X17), dated March 6, 2015 (21);
3. Pike Parking Garage Preliminary Plan Set (11X17), dated March 6, 2015 (21);
4. Performing Art Center Preliminary Plan Set (11X17), dated March 6, 2015 (21);
5. Lancaster Avenue Housing Preliminary Plan Set , last revised March 6, 2015 (3);
6. West Lancaster Parking Preliminary Plan Set, dated March 6, 2015 (3);
7. Pike Parking Garage Preliminary Plan Set, dated March 6, 2015 (3);
8. Performing Art Center Preliminary Plan Set, dated March 6, 2015 (3);
9. Storm Water Management Report and Site Drainage Calculations, last revised March 6, 2015 (digital only);
10. Pedestrian Circulation Plan during construction (21);
11. Event Circulation Plan (21);
12. Emergency Evacuation Plan (21);
13. PECO response letter concerning additional landscape material (3);
14. Thumb drive with electronic copies of above noted submission documents (30)

Copies of the Pedestrian Bridge Plan Set will be submitted at a later date. We are in receipt of the review letters from the Township Engineer, dated January 23, 2015; Township Traffic Engineer, dated January 28, 2015; and Township Planner, dated January 27, 2015; and offer the following responses in corresponding order:

Township Engineer Review (January 23, 2015)

I. Zoning

1. We have revised the drawings to include a chart of the typical room sizes to verify compliance with the minimum SF.
2. We have revised the plans to note all retail as "ground floor retail" and have provided size values for the locations.

3. We have revised the plan notes to verify that the total retail square footage is less than 5% of the total gross floor area, including the Performing Arts Center.
4. Sheet C2.0 provides all necessary information to confirm the 35.5% Building Coverage. In the Land Preservation Calculation, it identifies the total Building Area as 4.9 Ac. That value divided by Gross Lot Area of 13.81 Ac is 35.5%.
5. We have revised the Zoning Table to provide the individual building areas (which total the 4.9 Ac. noted above). Each individual value divided by 13.81 Ac. confirms the coverage is less than 10%, as required.
6. The existing parking lots, exclusive of Ithan Ave Right-of-Way, contain 10.8 Acres of impervious. Then Net Lot Area is 11.71 Acres. 10.8/11.71 is the 92% existing coverage. We have revised the Site Plans to label every building separation point.
7. We have revised the Site Plans to dimension the building separation distance between buildings 1C and 2A.
8. The area north of the railroad does not require a 20ft buffer. This portion of the property is adjacent to a railroad and lands also zoned PI, and it is not adjacent to residential zoning and therefore does not meet the standard for a required buffer. As specifically noted in the CICD ordinance "no buffer planting strip shall be required between the CICD and other properties of the applicant". The applicant owns the Aldwyn Triangle.
9. We have revised Sheet C2.0 to provide all values necessary to confirm the land preservation calculation.
10. The project provides the ordinance required parking and therefore does not need to execute a reserve parking agreement.
11. No response necessary.
12. No response necessary.
13. We have revised the landscape details to provide screening details.
14. We have provided lighting plans detailing the lighting design.
15. We have revised the landscape details to provide screening details.
16. The southern property line does not require a 20ft buffer. This portion of the property is adjacent to a railroad and lands also zoned PI, and it is not adjacent to residential zoning and therefore does not meet the standard for a required buffer. As specifically noted in the CICD ordinance "no buffer planting strip shall be required between the CICD and other properties of the applicant". The applicant owns the Aldwyn Triangle.
17. Villanova University has previously submitted the long range development plan.
18. We have revised the drawings to provide my detail on the Retail Uses to confirm the values within the Parking tabulation. Please refer to the footnotes to verify the required parking calculations.
 - a. (1) shows the project increase of 1,138 beds.
 - b. (2) shows the project's office increase which includes 2,240 SF within the PAC.
 - c. (3) shows the total retail proposed, which includes 9,369 SF bookstore, 2,877 SF convenience store and 125 SF retail within the lobby of the PAC. The 9,369 SF matches the retail SF value in Building 2C. the convenience is located within 2A, but is less than the SF labelled, the remaining SF is the 85 seat bistro noted in (4).

Steve Norcini, Radnor Township
Nave Newell No. 2011-005.00
March 6, 2015
Page 3

This calculations also eliminates the existing 6,250 SF of retail, which is the existing bookstore which was converted to "unspecified area" per (6).

- d. (4) shows the 85 seat bistro using the remaining SF of the retail in Building 2A. There are also 20 employees.
 - e. (5) shows the project increase of 400 seats of Assembly, which is the largest theater in the PAC.
 - f. (6) shows the conversion of the existing bookstore to "unspecified area"
19. No response necessary.
 20. We have revised the lighting plan to improve the legibility of the details and to resolve conflicts with the landscape plan.
 21. We have revised the landscape plans to provide the requested detail.
 22. We have revised to show the Steep Slopes areas. Please note there is disturbance proposed within the regulated 20%+ slopes along Ithan Ave. This disturbance is permitted as it is required for construction of a roadway with not alternative routing.
 23. See response 23.
 24. The Applicant will submit any necessary signage applicants separately from the Land Development process.

II. Subdivision and Land Development

1. We have revised the plans to label the zoning boundaries.
2. We have revised the plans to verify that the entry drive at Ithan Ave is wider than 25ft and then tapers to 22ft, which is the aisle width once you enter the parking lot.
3. We have revised the plans to depict the required tire bumpers.
4. We have submitted a revised Sheet L2.0.
5. We have revised the drawings to label the curb along the Mechanical Pit as depressed curb.
6. The Applicant will maintain the sewer as a private sewer and no easement in necessary.
7. No response necessary.
8. We have revised the landscape details to provide screening details.
9. No response necessary.
10. This calculation is based on Building Area, which is just the footprints of the buildings and the calculation should be revised by the Township.
11. This calculation is based on Building Area, which is just the footprints of the buildings and the calculation should be revised by the Township.
12. We have previously met with the Fire Marshall and have revised the drawings to depict the hydrant locations we agreed upon during our meeting.

III. Stormwater Management

1. The volume calculation summary and worksheet 4 have been revised. The recharge calculations do not include uncaptured impervious area. Submitted with this response are supporting calculations to verify the summaries provided.

2. We have the volume summary calculations to verify the volume shown in HydroCAD for each system. The hydrograph volume for each infiltration system is provided to show the elevation (below the outlet) at which the volume is extracted.
3. We have revised the Volume Management Plan (sheet 3 of 4) so that it is consistent with the Volume Summary in the Stormwater Report.
4. We have revised the Volume Summary to reconcile the Values for RG-7 and RG-10. It should be noted that RG-7 has been eliminated from POI 2A and is now draining to POI 1.
5. We have revised the report to provide supporting calculations to demonstrate that the Stormwater BMP's are able to completely drain within 96 hours.
6. We have revised the plans to include the requested note.
7. We have submitted all phases of the project for review.
8. We have revised the report to include a table outlining the areas associated with each sub-catchment areas, impervious areas and pervious areas.
9. We have revised the plans and reports to include all phases of the project, including the requested pipe capacity calculations.
10. We have submitted a composite Stormwater Report accounting for all Phases of the project at full build out.

IV. General Comments

1. We have revised the profile to depict the Route 30 storm sewer between S8 and S9.
2. Villanova University is working with the Township to resolve sewer service and Act 537 approvals for this development.

Township Traffic Engineer Review (January 28, 2015)

V. SALDO Comments

1. We request a waiver to allow the use of a 25ft radius in order to maintain the pedestrian crossing time at this intersection. We have provided the necessary turning templates that show this radius can accommodate the necessary delivery truck for the project.
2. The CICD ordinance permits the use of 9X19 parking stalls.
3. We have revised the plans to verify that the entry drive at Ithan Ave is wider than 25ft and then tapers to 22ft, which is the aisle width once you enter the parking lot.
4. We have revised the drawings to depict the required fire bumpers.
5. We have revised the layout of the dumpster enclosure to eliminate the radii noted.

VI. General Comments

1. As discussed with Police and Staff, the left turn into the garage from SB Ithan Avenue provides a benefit during non-events. The Police will block that they during events to reduce event traffic on Ithan Ave and require event traffic to utilize the PAC/Garage driveway, as the event circulation plans depict. We have revised Church Walk as noted.
2. We have revised the crosswalk striping.

3. We have revised the ARROW legend.
4. We have revised the plans to note the requirement of the pedestrian activated RRFB.
5. We have revised the plans to note the speed limits.
6. We have revised the plans to note the requirement of the pedestrian activated RRFB.
7. No response necessary.
8. We have submitted an event circulation plan.
9. We have discussed gate locations with the Police and determined that a gate is not required along the rear parking area behind the Housing.
10. We have submitted an event circulation plan.
11. We have revised the submission to include all phases of the project.
12. See below
 - i. We have revised the plans to include the requested note.
 - ii. We have revised the plans to note the proposed ADA ramp on the northern side of Lancaster Ave to receive the new crosswalk.
 - iii. We have reduced the crosswalks for Church Walk to a single crosswalk on the eastern side to eliminate left turn conflicts.
 - iv. We have revised the drawings to realign the Church Walk crosswalk.
 - v. We have revised the drawings to include stop bars at Church Walk.
13. See below
 - i. Per discussion with PennDOT, we have revised the plans to propose a right turn lane at the rear of the PAC into the garage driveway.
 - ii. We have revised the lane widths along Ithan Ave, as requested.
 - iii. We have revised the drawings to propose stop control for only the driveways.
 - iv. We have revised the drawings to include the ONLY for the left turn lane.
 - v. We have revised the drawings to include a sight line profile verifying the location of the crosswalk on the south side of the intersection is appropriate.
 - vi. We have revised the plans to dimension the sidewalks along Ithan Ave.
 - vii. We have revised the plans to label the depressed curb leading to the Mechanical Pit.
 - viii. Villanova can address any turning conflicts operationally with their vendors and users who park behind housing.
 - ix. Villanova can "police" any illegal parking within the Building 2C loading zone, without the need for a gate that would interfere with delivery traffic.
14. See below
 - i. We have revised the templates, as requested.
 - ii. We have revised the templates, as requested.
 - iii. We have revised the templates, as requested.
 - iv. We have revised the templates, as requested.
 - v. We have revised the templates, as requested.
15. See below
 - i. We have revised the detail sheet as requested.
 - ii. We have revised the crosswalk detail as requested.

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16. See below
 - i. Will comply
 - ii. Will comply
 - iii. Will comply
 - iv. We have submitted a pedestrian circulation plan during construction for review.
 - v. Will comply
 - vi. Villanova University has to be able to access South Campus for deliveries and cannot agree to restrict turning movements from the Housing driveway southbound on Ithan Ave.

Township Planner Review (January 27, 2015)

Zoning

1. We have submitted revised landscape plans, including the requested buffer profiles.
2. We have submitted revised landscape plans, including the requested buffer profiles.
3. We have submitted lighting plans for review.
4. We have revised the landscape details to provide screening details.
5. We have revised the plans to include a gated enclosure around the Building 1C loading dock and compactor.
6. We have revised the landscape plans to depict the streetscape features.
7. We have revised the Site Plans to depict pedestrian access paths to the bridge.
8. No response necessary.
9. We have revised the location of the access control fence.
10. We have revised the plans to note the areaways are for the Utility Basements.

Conditional Use Order Conditions

1. No response necessary.
2. No response necessary.
3. We have submitted an event circulation plan.
4. No response necessary.
5. We have submitted an emergency evacuation plan.
6. We have revised the landscape plans to include fencing details.
7. No response necessary.
8. No response necessary.
9. We have contacted PECO and received a response which has been included in this submission.
10. No response necessary.
11. We have submitted the Stormwater Management Narrative to the Township Engineer for review.
12. Villanova University is working with the Township to resolve sanitary sewer service and Act 537 approval for this development.
13. We have submitted parking phasing plans.



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14. The University will permit parishioners to park on campus adjacent to the Church, as needed.
15. We have maintained one crosswalk across to the north side of Lancaster Avenue at Church Walk. This condition does not require pedestrian crosswalk all the way to the Church, just to the north side of Lancaster Ave.
16. Villanova will work with the Township to demonstrate acceptable noise buffering.
17. No response necessary.

Please feel free to contact me at (610)265-8323 or via email at atweedie@navenewell.net if you should have any questions or need additional information.

Respectfully submitted,

A handwritten signature in black ink that reads "DATweedie".

D. Alexander Tweedie, PE

DAT/jjh
Enclosures

cc via email: Marilou Smith, LEED - Villanova University
Steve Hildebrand, P.E. - Villanova University
John Cluver, AIA, LEED AP - Voith & MacTavish Architects, LLP
Dan Chieco, RLA - Sikora Wells Appel
Nick Caniglia, Esq. - Pierce, Caniglia and Taylor

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Villanova University

Lancaster Avenue Residential Housing Evacuation Plan

There are (4) Courtyards for the 6 buildings, (3) smaller individual courtyards in the Building 1 complex and (1) large courtyard, which opens up to Lancaster Avenue in the Building 2 Complex. See attached plan for site layout.

In the event of a Large Scale Evacuation, information and direction will be sent to campus through NOVA Alert, email and the University website.

Those in need of transportation will be directed to areas to await transport to an off-campus site.

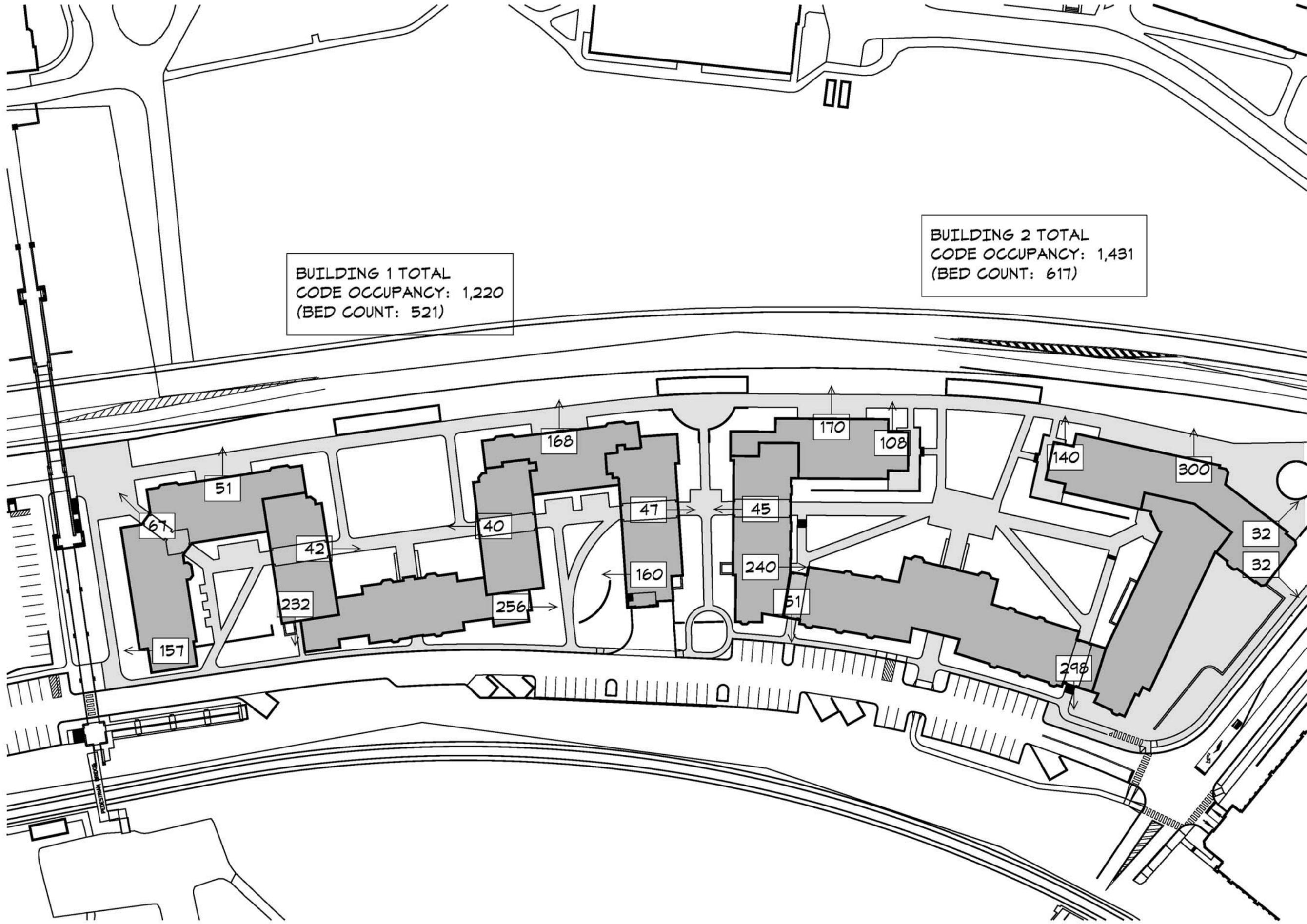
Fire

Should we have to evacuate Building Complex 1, which houses 521 students, they will evacuate the buildings as shown in the attachment plan and will be directed to the Building 2 Courtyard depending on the event. At which time Public Safety and Radnor Police will direct the students away from the event and to a safe area.

Should we have to evacuate Building Complex 2, which houses 617 students, they will evacuate the buildings as shown in the attachment plan and will be directed to the Building 1 Courtyards depending on the event. At which time Public Safety and Radnor Police will direct the students away from the event and to a safe area.

Shooter/Intruder

Shelter in place and evacuate when opportunity is safe.



Event Traffic Circulation Plan

Summary

Parking Assignment in general will be:

- Commuters will be assigned to WLA parking lot. Overflow will be assigned to Main Campus.
- Night School students who presently park in the Main Lot will be assigned Parking on Main Campus, in the following areas; CEER, Tolentine and Mendel Lots. In addition, they will have access to the Law School Parking Garage. This will reduce the lack of spaces available during the crossover times between night school and event arrivals.
- Faculty and Staff will be assigned to Main Campus, in Mendel, Tolentine, CEER, SAC and HSB parking areas.
- Season Ticket Holders will be assigned to specific parking lots and garages.
- Visitors will be assigned to the Visitor Lot and overflow will be directed to the New Pike Garage. The Garage is to be used to store (2) Levels (approximately 520 cars) for new residents of the LAH and for event/visitor parking only.
- Funeral and Wedding Parking/Access – Will be assigned to the Visitors Lot, WLA Lot, Main Campus and overflow will be directed to the Pike Garage. For these events Villanova will block off WLA for funeral parking only and will provide commuters with temporary passes to use the new Pike Garage for the day. Public Safety will man the WLA lot and the new Pike Garage on those days.
- Church Parking/Access – Will have access to the Visitor's lot, WLA lot and Main Campus. Overflow will be sent to the Pike Garage.

Parents/Homecoming Weekend

- Except for Public Safety employees, West Lancaster Avenue (WLA) should be empty for weekend use. Staffing in buildings on that side of Lancaster do not work on the weekends.
- Parking locations and availability will be communicated via, website information, Electronic /dynamic signage and other available communication methods.
- We will provide Krapft buses to shuttle people around.
- General and visiting team Tailgating will take place at the Law School Parking Lot
- Season Football ticket holder's tailgating will remain in the rear Pavilion Lot
- Event traffic will be captured at the first right turn lane at the New WLA parking lot.
- Event traffic will be captured at the second right turn lane at the new light on Route 30. This traffic will be directed to the Pike Garage. When the Pike Garage fills, any cars still stacked behind the housing will be directed Left on Ithan to cross over Route 30 and Right into VIP parking lot or Left onto Main Campus, where they can park in HSB, SAC or proceed onto the Law School, via way finding signage and other available communication methods that will give direction to each of the garages and an update of capacity available.
- Event traffic will be captured at the 3rd right turn lane after the light at Ithan Avenue at the PAC driveway. When the garage fills, the remaining stacked cars in the garage driveway,

will continue to the Right and Right out onto Ithan Avenue across Route 30 for additional parking on campus.

- See site drawings for traffic flows and way finding signage.

Freshman Move In and Departure

- Except for Public Safety employees, all staffing assigned parking in the West Lancaster Avenue (WLA) will be directed to use Main Campus parking assets.
- Parking locations and availability will be communicated via, website information, Electronic /dynamic signage and other available communication methods.
- Presently the event starts at 11:00 AM on a Wednesday, the week before classes begin. The upperclassmen check into their rooms and apartment Friday, Saturday and Sunday of that same week. The plan is to start the event at 8:30AM to get a head start and assign families times and lots to stage in. Each family will be allowed to unload once during the day and then will not be allowed to unload again until after 6:00 PM. We plan to stage in WLA and the Law School Parking Garage. This information will be clearly communicated with the families before arrival through mailings and the website. The University will communicate when to arrive, where to park, and how to get around for this 2 day event.
- Cars will be directed into (2) lanes behind the new housing for this event. The left lane will be directed into the garage, where the families will park (remained parked) and unload with VU volunteers to help them to their dormitories. The right lane will be issued a temporary parking pass for South Campus and will be directed to make a Right onto Ithan Avenue and a Left into South Campus, where they will unload their cars. When they have completed unloading their cars, their temporary parking pass will be removed and they will be directed to take a Right onto Ithan Avenue and park in Pike Garage. When Pike Garage fills, the cars will be directed to the Law School Garage. These (2) garages will be able to support 1889 cars.
- Public Safety will have shuttles running throughout campus and to and from Giant and Bed Bath and Beyond, to encourage people to stay parked while they attend the different functions on Campus.
- See site drawings for traffic flows and way finding signage.

Departure after the Freshman Welcome Mass

- Cars will be directed out of Pike Garage in (3) directions, one behind the new housing and out the church walk drive to Route 30. The other will be to make a Left on Ithan to Conestoga road, where they can find signs for Route 476, and the third will be to make a Right on Ithan to cross Route 30 or to make a Right onto Route 30.
- Cars Parked in the Law School lot will be directed out in (3) directions, one exit will be via the jug handle directed northbound on Spring Mill road, the other will be to make a Left onto County Line Road, where they will remain straight on County Line Road to a Right on Matsonford Road, to get on 476 or Route 76, and the third exit will be directed to the south bound entrance to Route 320.

Commencement

- Except for Public Safety employees, all staffing assigned parking in the West Lancaster Avenue (WLA) will be directed to use off Campus Parking sites (TBD each year).
- Each Graduate will receive (1) parking pass for their family to park at a Campus parking area. All other parking will be directed to an offsite parking area and shuttled to the University for the Events.
- Advertise and encourage train usage in all mailings.
- Parking locations and availability will be communicated via, mailings, invitations, website information, Electronic /dynamic signage and other available communication methods.
- See site drawings for traffic flows and way finding signage.

Basketball Weeknight and Weekend Events

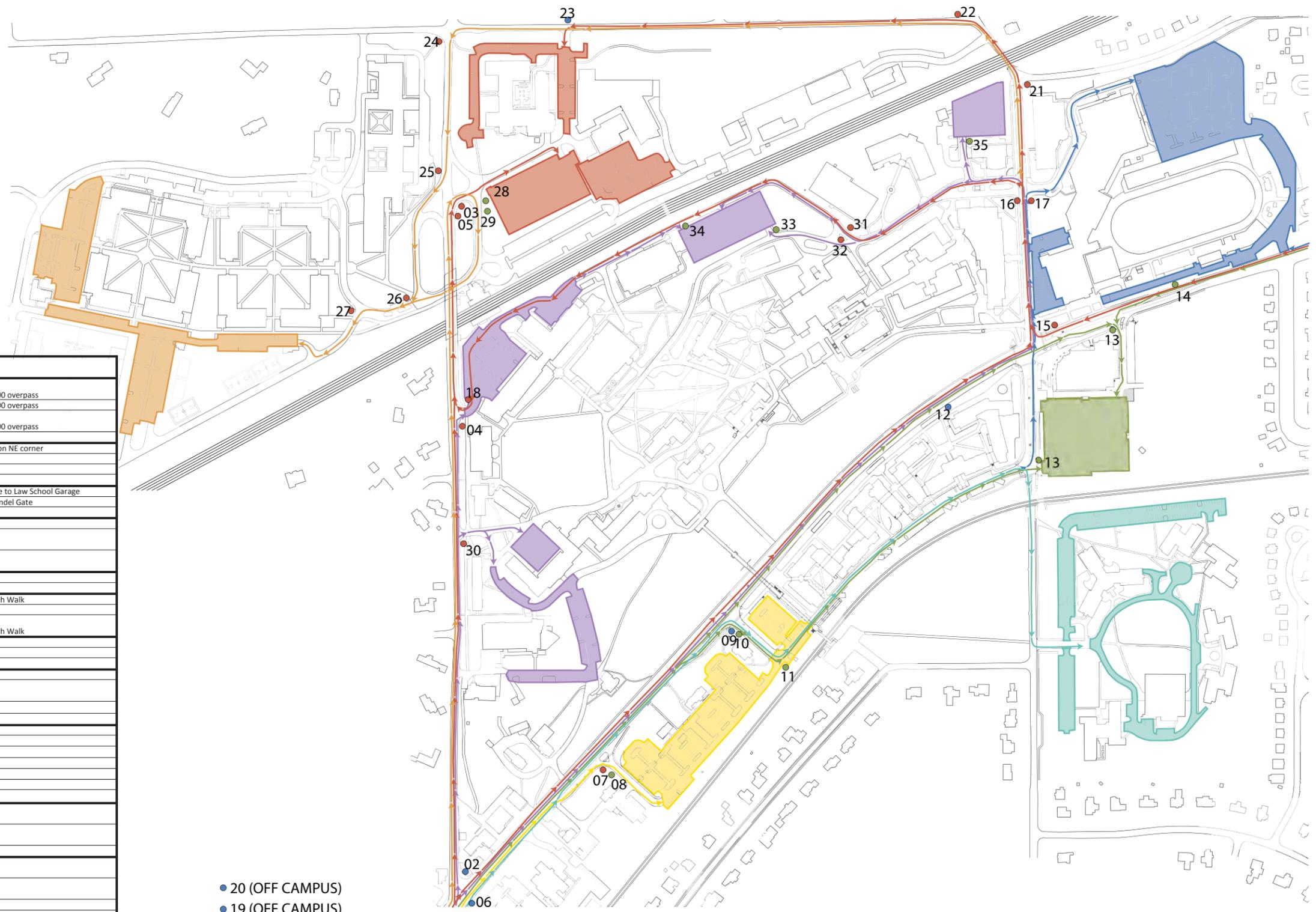
- Pike Garage will have approximately 750 spots available for event and visitor parking.
- Parking locations and availability will be communicated via, season tickets information, website information, Electronic /dynamic signage and other available communication methods.
- Season Ticket Holders will be assigned to specific parking lots and garages.
- Staff-1 and Caterers will be directed to park off campus and will be shuttled to the Pavilion

	NEW LAW SCHOOL LOT		PERMANANT SIGN
	WEST CAMPUS LOTS		EVENT SIGNAGE BOARD
	WEST LANCASTER AVE LOT		DYNAMIC MESSAGE SIGN
	PIKE MAIN GARAGE		
	DORM LOT		
	VIP LOT		
	ACADEMIC BUILDING LOTS		

Villanova University
Event Circulation Plan
COMMENCEMENT WEEKEND
Location and Message for Future Wayfinding Signs

Sign No.	Sign Type	Sign Message	Sign Orientation	Site Location
1	DMS	WELCOME TO VILLANOVA UNIVERSITY COMMENCEMENT WEEKEND PIKE GARAGE, WLA, VIP PARKING AHEAD WEST CAMPUS, LAW SCHOOL AND SAC PARKING LOTS LEFT LANE	Eastbound Eastbound Eastbound	Route 30 right before R100 overpass Route 30 right before R100 overpass Route 30 right before R100 overpass
2	DMS	WEST CAMPUS PARKING LEFT TURN SAC PARKING LEFT TURN LAW SCHOOL PARKING LEFT TURN	Eastbound	Rts 30 and 320 Intersection NE corner
3	ESB	WEST CAMPUS PARKING RIGHT TURN	Northbound	Route 320 at the Entrance to Law School Garage
4	ESB	SAC PARKING RIGHT TURN	Northbound	Route 320 before the Mendel Gate
5	ESB	LAW SCHOOL PARKING RIGHT TURN	Northbound	
6	DMS	EVENT PARKING AHEAD PIKE GARAGE FULL ADDITIONAL PARKING AHEAD LEFT TURN WLA PARKING LOT FULL ADDITIONAL PARKING AHEAD	Eastbound	West of WLA entrance
7	ESB	EVENT PARKING TURN RIGHT	Eastbound	WLA entrance
8	PS	WLA PARKING LOT	Eastbound	
9	DMS	EVENT PARKING RIGHT TURN PIKE GARAGE RIGHT TURN PIKE GARAGE FULL ADDITIONAL PARKING AHEAD LEFT TURN	Eastbound Eastbound Eastbound	Before New light at Church Walk Before New light at Church Walk
10	PS	PIKE GARAGE AND WLA PARKING		
11	PS	PIKE GARAGE LEFT TURN /WLA RIGHT TURN	Southbound	
12	DMS	PIKE GARAGE RIGHT AFTER LIGHT PIKE GARAGE FULL ADDITIONAL PARKING LEFT TURN SAC/VIP/LAW SCHOOL PARKING LEFT TURN	Eastbound Eastbound Eastbound	Before Ithan Avenue
13	PS	PIKE GARAGE	Eastbound/Westbound	2 sided sign
14	PS	PIKE GARAGE LEFT TURN	Westbound	
15	ESB	VIP/SAC/LAW SCHOOL PARKING RIGHT TURN	Westbound	
16	ESB	SAC/LAWSCHOOL PARKING GARAGES LEFT TURN	Northbound Ithan Ave	
17	ESB	VIP PARKING LOT RIGHT TURN	Northbound Ithan Ave	
18	ESB	LAW SCHOOL PARKING RIGHT TURN	Westbound	Mendel Lot exit
19	DMS	UNRESERVED PARKING FOR COMMENCEMENT LEFT TURN	Northbound	off 476 northbound
20	DMS	UNRESERVED PARKING FOR COMMENCEMENT LEFT TURN	Northbound ?	off 476 southbound
21	ESB	WEST CAMPUS/LAW SCHOOL PARKING AHEAD LEFT TURN	Northbound	
22	ESB	WEST CAMPUS/LAW SCHOOL PARKING AHEAD LEFT TURN	Northbound	
23	DMS	LAW SCHOOL PARKING LEFT TURN LAW SCHOOL PARKING LOT FULL ADDITIONAL PARKING AHEAD LEFT TURN	Westbound	
24	ESB	WEST CAMPUS PARKING AHEAD	Southbound	
25	ESB	WEST CAMPUS PARKING RIGHT TURN	Southbound	
26	ESB	WEST CAMPUS PARKING RIGHT TURN	Southbound	
27	ESB	WEST CAMPUS PARKING LEFT TURN	Westbound	WC Parking entrance
28	PS	LAW SCHOOL PARKING GARAGE		Law School Parking entrance
29	PS	WEST CAMPUS PARKING KEEP RIGHT		On roundabout
30	ESB	EVENT PARKING RIGHT TURN	Northbound	
31	ESB	LAW SCHOOL PARKING RIGHT TURN		
32	ESB	SAC PARKING LEFT TURN		
33	PS	SAC GARAGE		at SAC garage entrance
34	PS	SAC GARAGE		at SAC garage entrance
35	PS	HSB GARAGE		

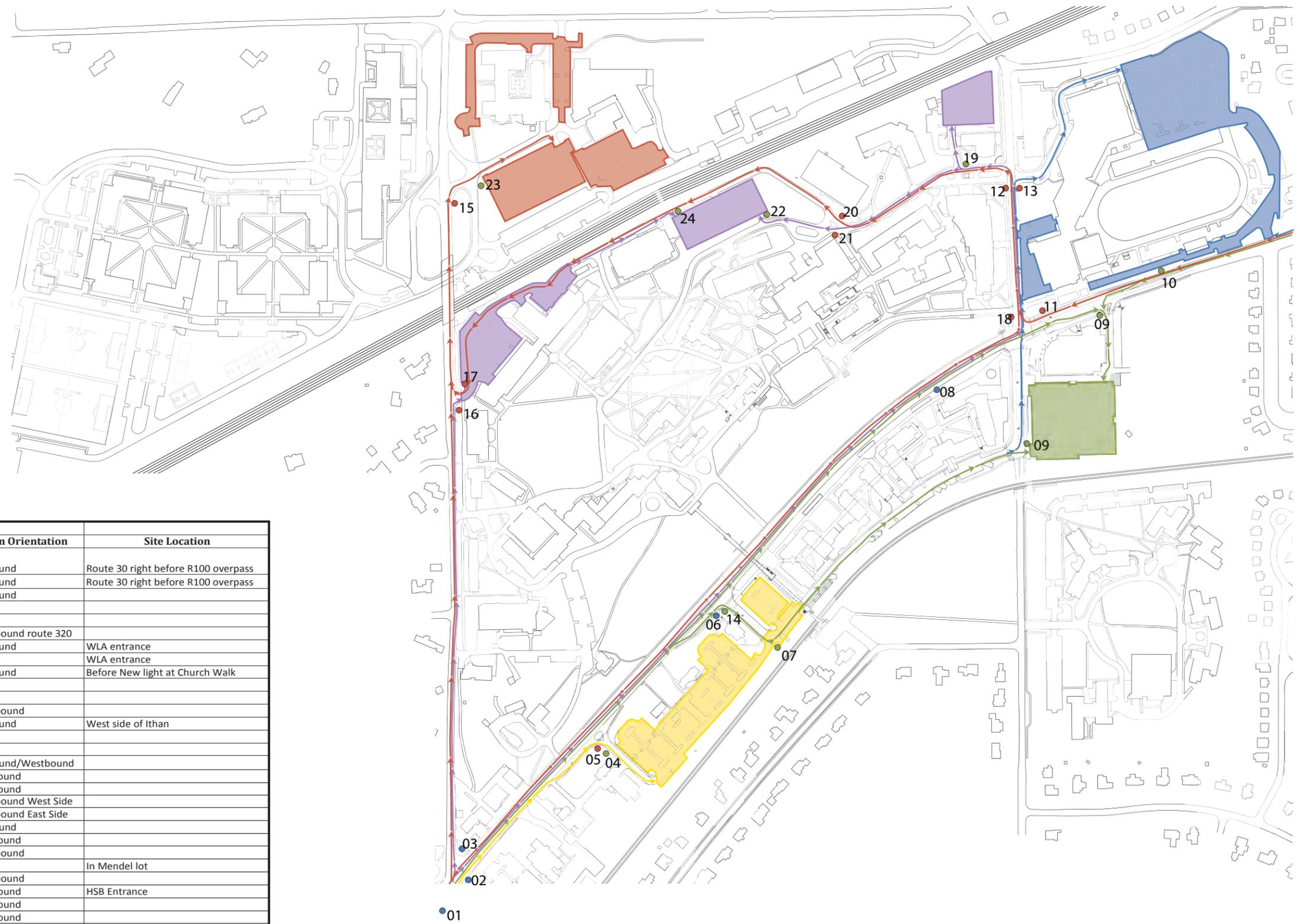
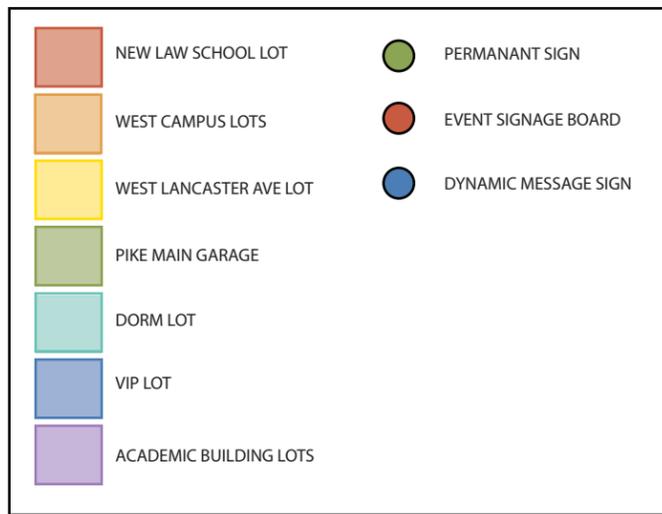
DMS= Dynamic Message Sign (DMS) - Portable
ESB= Event Signage Board
PS=Permanent Sign



- 20 (OFF CAMPUS)
- 19 (OFF CAMPUS)

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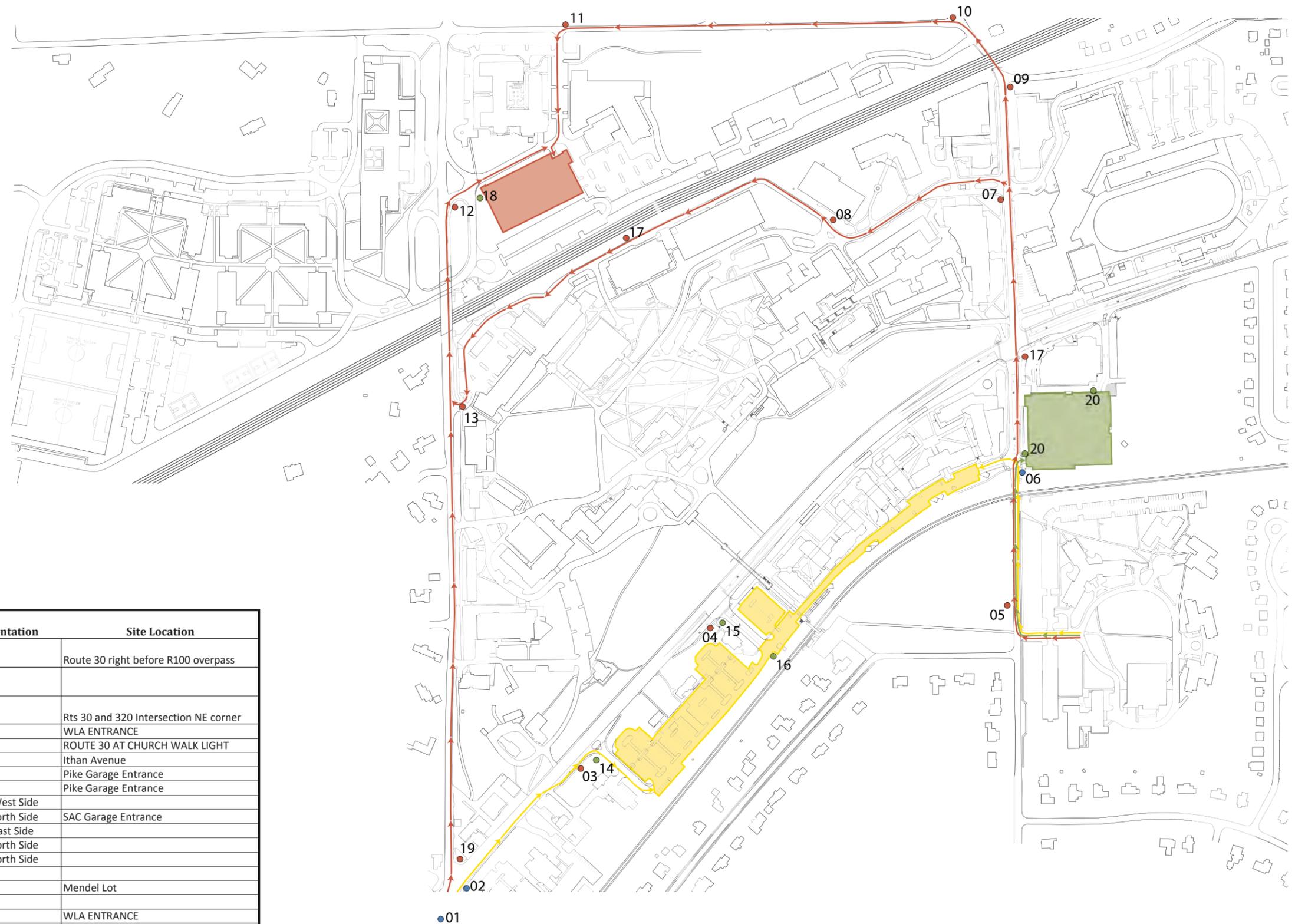
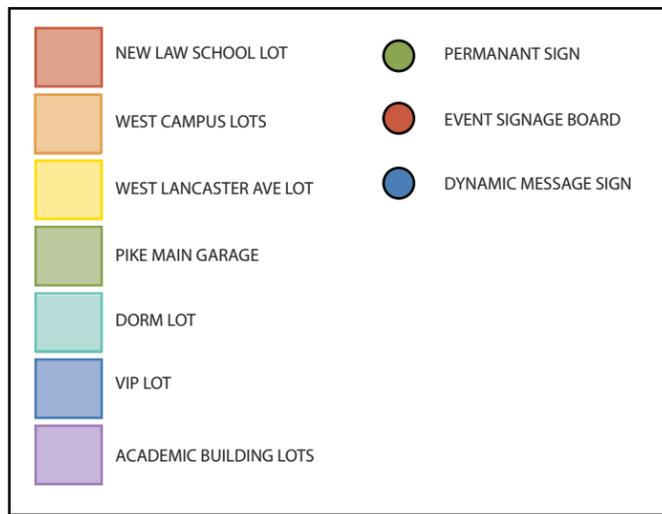
VILLANOVA LANCASTER AVENUE HOUSING
COMMENCEMENT WEEKEND CIRCULATION PLAN
MARCH 6, 2015



Villanova University
Event Circulation Plan
BASKETBALL WEEKNIGHT EVENTS and WEEKEND EVENTS
Location and Message for Future Wayfinding Signs

Sign No.	Sign Type	Sign Message	Sign Orientation	Site Location
1	DMS	WELCOME TO _____ AT VILLANOVA UNIVERSITY EVENT PARKING AHEAD	Eastbound	Route 30 right before R100 overpass
2	DMS	PIKE GARAGE FULL ADDITIONAL PARKING MAKE LEFT EVENT PARKING AHEAD WLA PARKING LOT FULL ADDITIONAL PARKING AHEAD PIKE GARAGE FULL ADDITIONAL PARKING AHEAD LEFT TURN	Eastbound	Route 30 right before R100 overpass
3	DMS	EVENT PARKING LEFT TURN	Northbound route 320	
4	ESB	EVENT PARKING RIGHT TURN	Eastbound	WLA entrance
5	PS	WLA PARKING LOT	Eastbound	WLA entrance
6	DMS	EVENT PARKING RIGHT TURN PIKE GARAGE PARKING RIGHT TURN PIKE GARAGE FULL ADDITIONAL PARKING AHEAD MAKE LEFT	Eastbound	Before New light at Church Walk
7	PS	PIKE GARAGE LEFT TURN WLA RIGHT TURN	Southbound	
8	DMS	PIKE GARAGE RIGHT TURN AHEAD PAST LIGHT PIKE GARAGE FULL ADDITIONAL PARKING MAKE LEFT SAC/VIP/LAW SCHOOL PARKING LEFT TURN	Eastbound	West side of Ithan
9	PS	PIKE GARAGE	Eastbound/Westbound	
10	PS	PIKE GARAGE LEFT TURN	Westbound	
11	ESB	SAC/VIP/LAW SCHOOL PARKING RIGHT TURN	Westbound	
12	ESB	SAC/HSB AND LAW SCHOOL PARKING LEFT TURN	Northbound West Side	
13	ESB	VIP PARKING RIGHT TURN	Northbound East Side	
14	PS	PIKE GARAGE AND WLA PARKING	Eastbound	
15	ESB	LAW SCHOOL PARKING RIGHT TURN	Westbound	
16	ESB	SAC PARKING RIGHT TURN	Northbound	
17	ESB	LAW SCHOOL PARKING RIGHT TURN		In Mendel lot
18	ESB	SAC/HSB/VIP PARKING LEFT TURN	Northbound	
19	PS	HSB GARAGE	Westbound	HSB Entrance
20	ESB	LAW SCHOOL PARKING RIGHT TURN	Westbound	
21	ESB	SAC PARKING LEFT TURN	Westbound	
22	PS	SAC PARKING GARAGE	Westbound	SAC Entrance
23	PS	LAW SCHOOL PARKING GARAGE	Eastbound	Law School Lot Entrance
24	PS	SAC PARKING GARAGE		SAC Entrance

DMS= Dyamic Message Sign (DMS) - Portable
ESB= Event Signage Board
PS = Pemanent sign



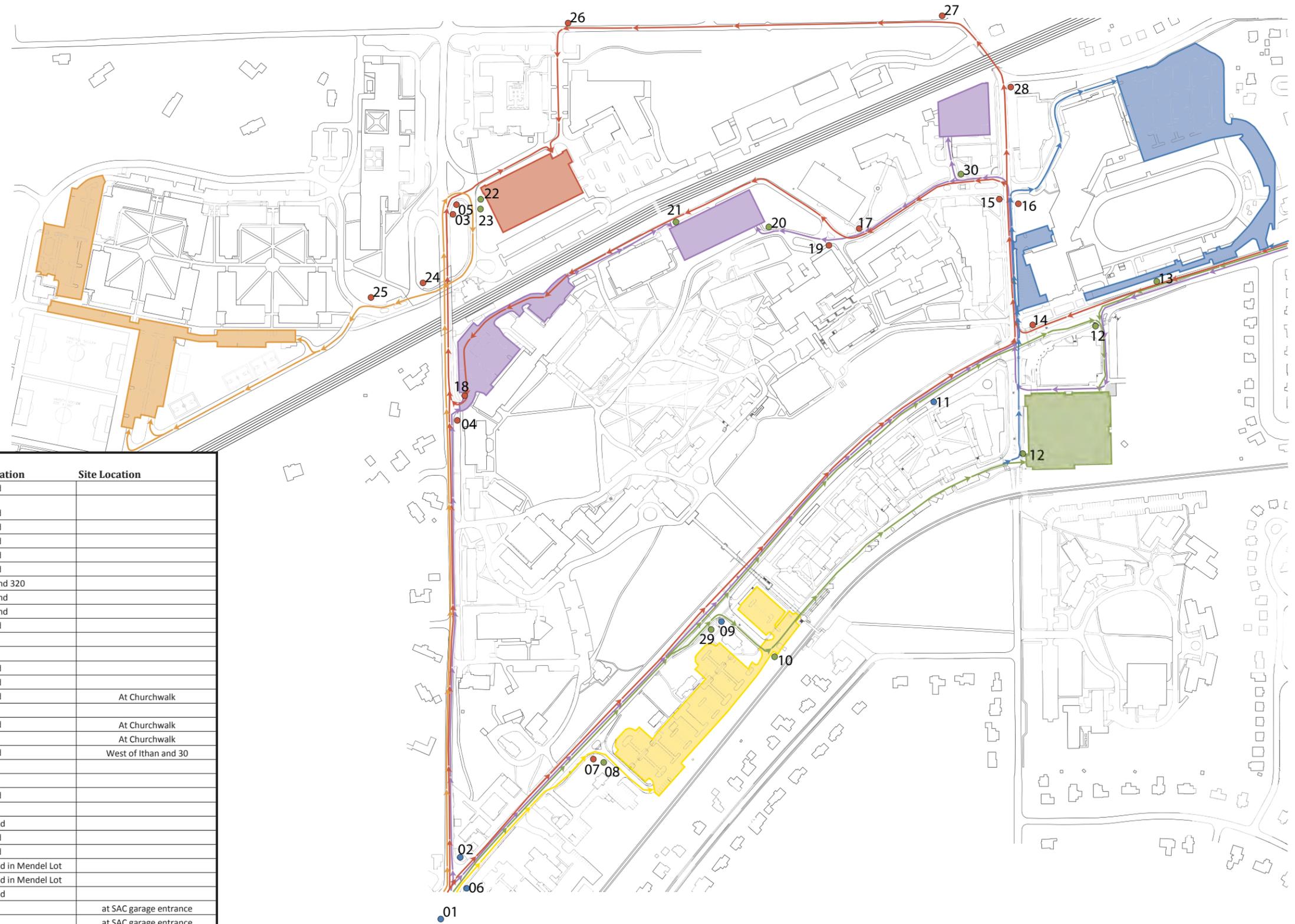
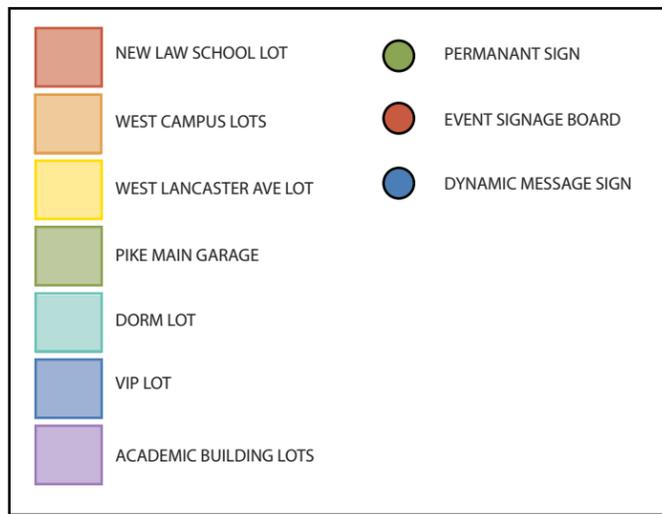
Villanova University
Event Circulation Plan
FRESHMAN MOVE IN AND DEPARTURE
Location and Message for Future Wayfinding Signs

Sign No.	Sign Type	Sign Message(s)	Sign Orientation	Site Location
1	DMS	WELCOME TO VILLANOVA UNIVERSITY FRESHMAN MOVE IN AHEAD LAW SCHOOL PARKING LEFT LANE WLA PARKING AHEAD	Eastbound	Route 30 right before R100 overpass
2	DMS	FRESHMAN MOVE IN PARKING AHEAD	Eastbound	Rts 30 and 320 Intersection NE corner
3	ESB	FRESHMAN MOVE IN TURN RIGHT	Eastbound	WLA ENTRANCE
4	ESB	FRESHMAN MOVE IN TURN RIGHT	Eastbound	ROUTE 30 AT CHURCH WALK LIGHT
5	ESB	FRESHMAN MOVE IN TURN LEFT	Southbound	Ithan Avenue
6	DMS	PARKING RIGHT TURN PIKE GARAGE FULL ADDITIONAL PARKING AHEAD	Northbound Northbound	Pike Garage Entrance Pike Garage Entrance
7	ESB	LAW SCHOOL PARKING LEFT TURN	Northbound West Side	
8	ESB	EVENT PARKING RIGHT TURN	Westbound North Side	SAC Garage Entrance
9	ESB	LAW SCHOOL PARKING LEFT TURN	Northbound East Side	
10	ESB	LAW SCHOOL PARKING LEFT TURN	Westbound North Side	
11	ESB	LAW SCHOOL PARKING LEFT TURN	Westbound North Side	
12	ESB	LAW SCHOOL PARKING RIGHT TURN	Northbound	
13	ESB	LAW SCHOOL PARKING RIGHT TURN	Westbound	Mendel Lot
14	PS	WLA PARKING LOT	Eastbound	
15	PS	PIKE GARAGE & WLA LOT	Eastbound	WLA ENTRANCE
16	PS	PIKE GARAGE LEFT TURN, WLA PARKING RIGHT TURN		WLA lot
17	ESB	EVENT PARKING AHEAD	Northbound	
18	PS	LAW SCHOOL PARKING GARAGE		Law school lot entrance
19	ESB	LAW SCHOOL PARKING LEFT TURN	Northbound	
20	PS	PIKE GARAGE		Pike Garage Entrance

Public Safety and Radnor Police will Man all parking areas at departure time and direct traffic according to site plans.

DMS= Dynamic Message Sign (DMS) - Portable
ESB= Event Signage Board
PS=Permanent Sign

VILLANOVA LANCASTER AVENUE HOUSING
FRESHMAN MOVE-IN AND DEPARTURE CIRCULATION PLAN
MARCH 6, 2015

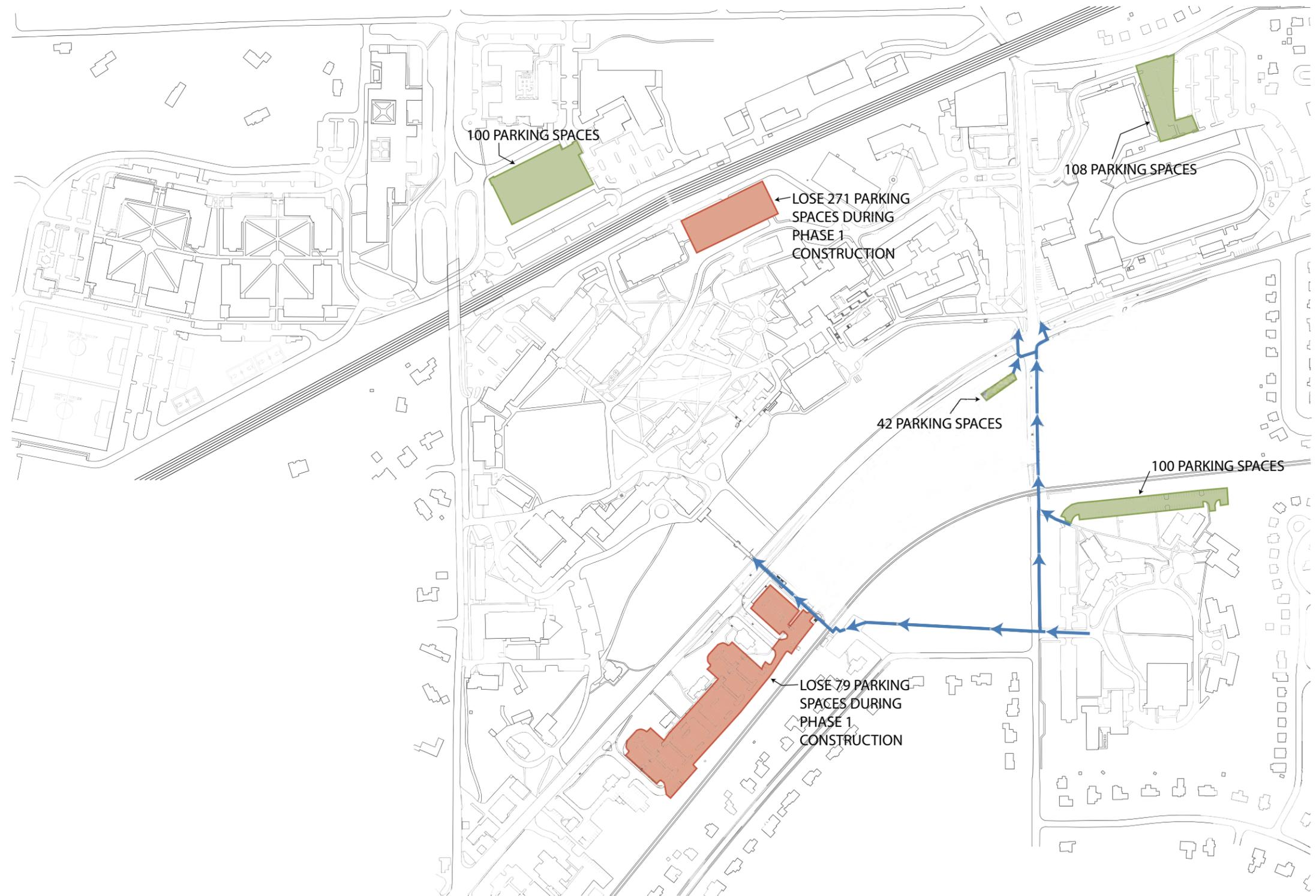
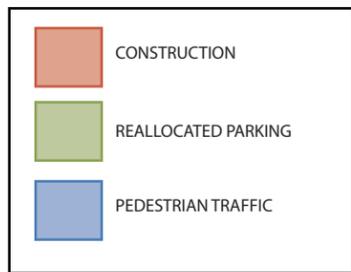


Villanova University
Event Circulation Plan
PARENTS WEEKEND/HOMECOMING EVENTS
Location and Message for Future Wayfinding Signs

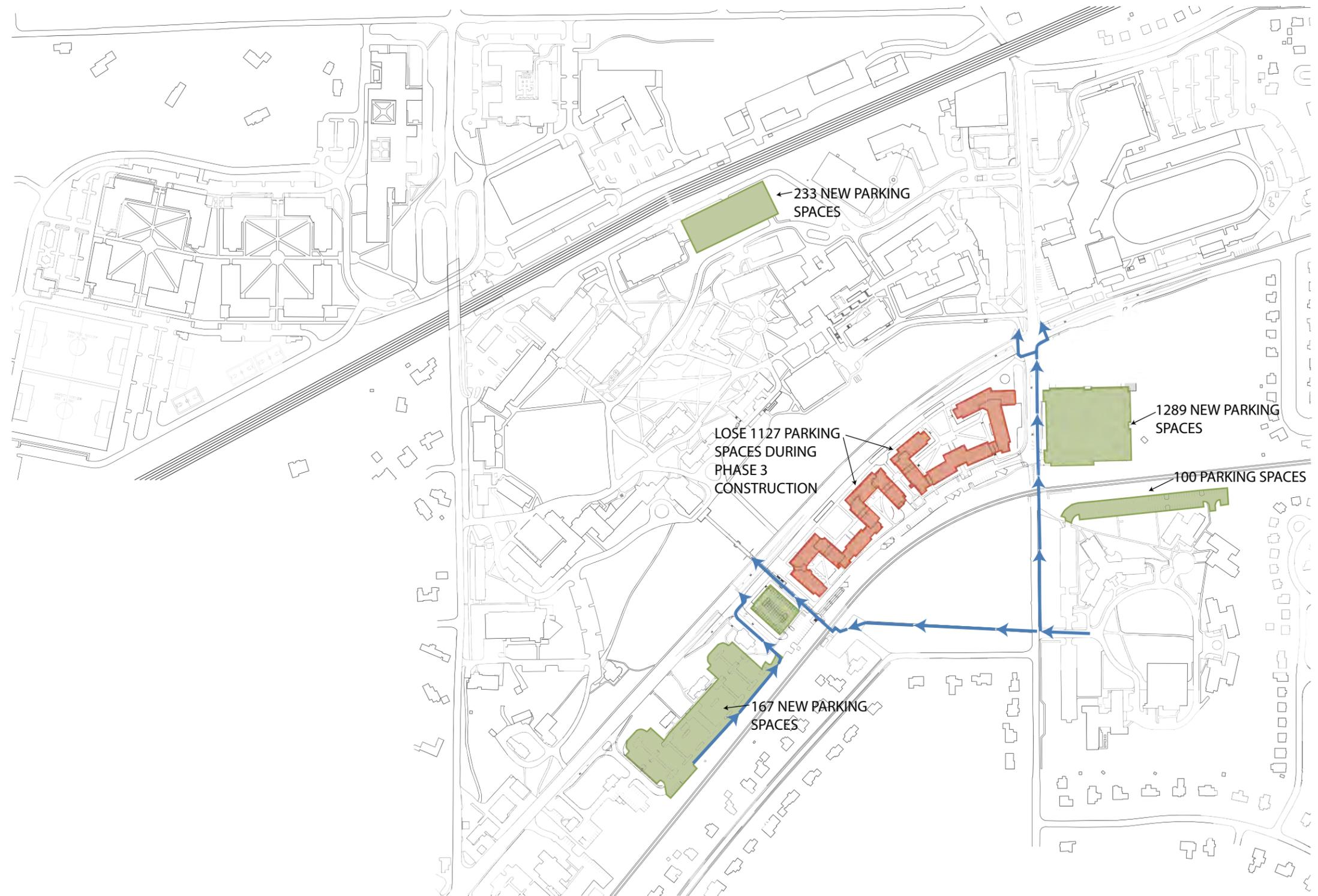
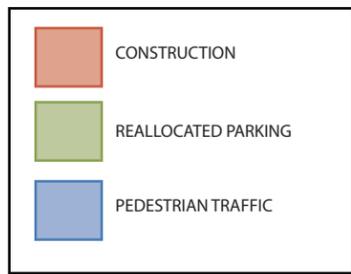
Sign No.	Sign Type	Sign Message	Sign Location	Site Location
1	DMS	TAILGATING LEFT TURN/EVENT PARKING AHEAD PIKE GARAGE FULL ADDITIONAL PARKING AHEAD LEFT TURN	Eastbound	
2	DMS	TAILGATING LOT FULL ADDITIONAL PARKING AHEAD TAILGATING LEFT TURN SAC PARKING LEFT TURN WEST CAMPUS PARKING LEFT TURN	Eastbound	
3	ESB	TAILGATING PARKING RIGHT TURN	Northbound 320	
4	ESB	SAC PARKING RIGHT TURN	Northbound	
5	ESB	WEST CAMPUS PARKING RIGHT TURN	Northbound	
6	DMS	EVENT PARKING AHEAD WLA PARKING LOT FULL ADDITIONAL PARKING AHEAD PIKE GARAGE FULL ADDITIONAL PARKING LEFT TURN	Eastbound	
7	ESB	EVENT PARKING TURN RIGHT	Eastbound	
8	PS	WLA PARKING LOT	Eastbound	
9	DMS	PIKE GARAGE RIGHT TURN WLA PARKING LOT FULL ADDITIONAL PARKING AHEAD	Eastbound	At Churchwalk
10	PS	PIKE GARAGE FULL ADDITIONAL PARKING LEFT TURN PIKE GARAGE LEFT TURN/WLA RIGHT TURN	Eastbound	At Churchwalk At Churchwalk
11	DMS	PIKE GARAGE RIGHT TURN PAST LIGHT PIKE GARAGE FULL ADDITIONAL PARKING LEFT TURN SAC/VIP/LAWSCHOOL PARKING LEFT TURN	Eastbound	West of Ithan and 30
12	PS	PIKE GARAGE	Eastbound	
13	PS	PIKE GARAGE LEFT TURN		
14	ESB	SAC/VIP/LAWSCHOOL PARKING RIGHT TURN	Westbound	
15	ESB	SAC/HSB AND LAW SCHOOL PARKING LEFT TURN	Eastbound	
16	ESB	VIP PARKING RIGHT TURN	Eastbound	
17	ESB	LAW SCHOOL PARKING RIGHT TURN	Westbound in Mendel Lot	
18	ESB	LAW SCHOOL PARKING RIGHT TURN	Westbound in Mendel Lot	
19	ESB	SAC PARKING KEEP LEFT	Westbound	
20	PS	SAC PARKING GARAGE		at SAC garage entrance
21	PS	SAC PARKING GARAGE		at SAC garage entrance
22	PS	LAW SCHOOL GARAGE		at law school parking entrance
23	PS	WEST CAMPUS PARKING RIGHT TURN	Southbound	Roundabout
24	ESB	WEST CAMPUS EVENT PARKING AHEAD	Westbound	
25	ESB	WEST CAMPUS EVENT PARKING LEFT TURN	Westbound	
26	ESB	LAW SCHOOL PARKING LEFT TURN	Westbound north side	
27	ESB	LAW SCHOOL PARKING AHEAD LEFT TURN	Westbound north side	
28	PS	LAW SCHOOL PARKING LEFT TURN	Northbound	
29	PS	PIKE GARAGE & WLA PARKING	Eastbound	at WLA entrance
30	PS	HSB PARKING GARAGE		at HSB entrance

DMS= Dyamic Message Sign (DMS) - Portable
ESB - Event Signage Board
PS=Permanent Sign

VILLANOVA LANCASTER AVENUE HOUSING
PARENTS/HOMECOMING WEEKEND CIRCULATION PLAN
MARCH 6, 2015

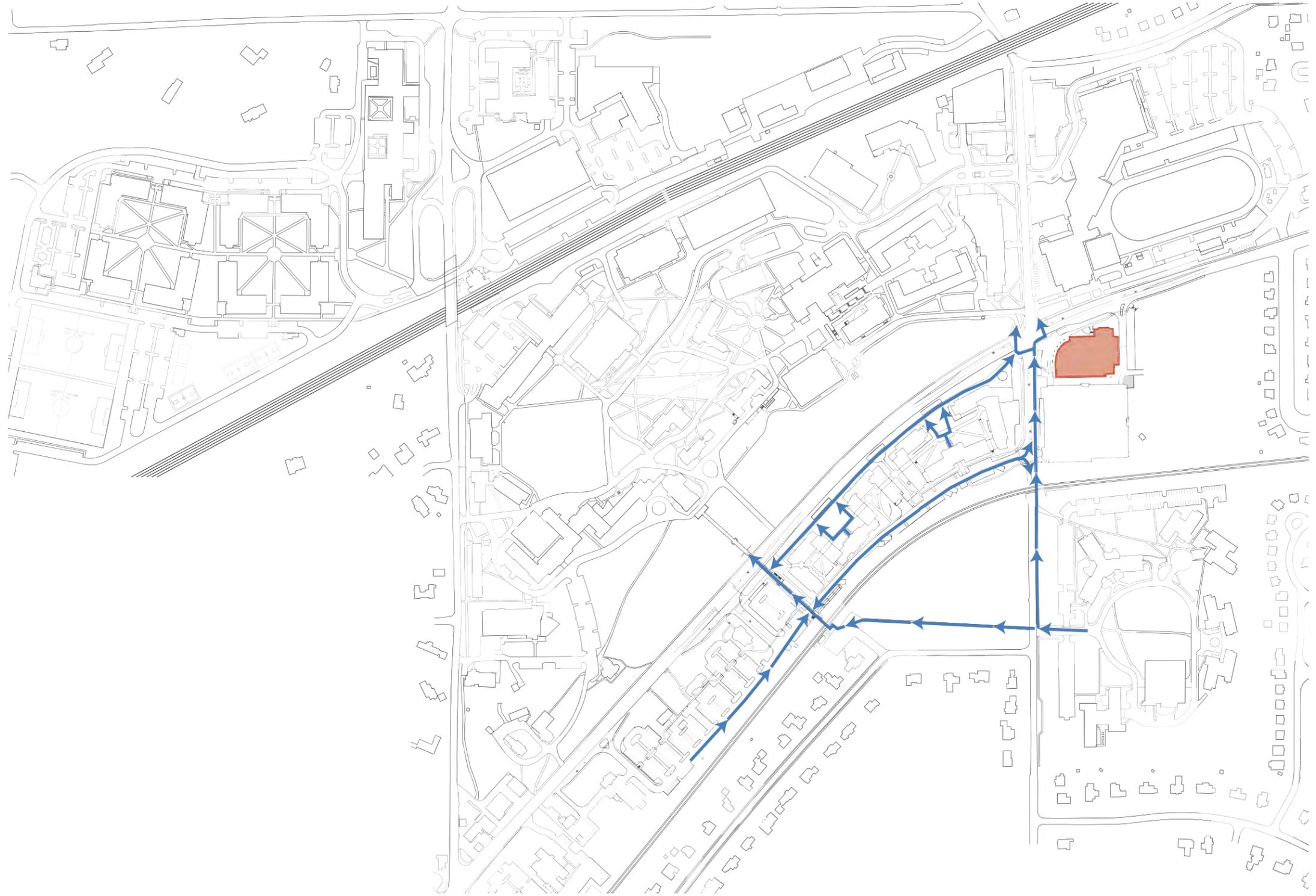


VILLANOVA LANCASTER AVENUE HOUSING
PEDESTRIAN PARKING & TRAFFIC PLAN
 PHASE 1 CONSTRUCTION: SAC GARAGE
 WEST LANCASTER AVENUE LOT
 PEDESTRIAN WALKWAY
MARCH 6, 2015



VILLANOVA LANCASTER AVENUE HOUSING
PEDESTRIAN PARKING & TRAFFIC PLAN
 PHASE 3 CONSTRUCTION: NEW HOUSING
 MARCH 6, 2015

	CONSTRUCTION
	REALLOCATED PARKING
	PEDESTRIAN TRAFFIC



VILLANOVA LANCASTER AVENUE HOUSING
PEDESTRIAN PARKING & TRAFFIC PLAN
PHASE 4 CONSTRUCTION: PERFORMING ARTS CENTER
PARKING NEUTRAL
MARCH 6, 2015



Mr. Robert Morro
Associate Vice President, Facilities Management
Villanova University
800 Lancaster Avenue
Villanova, PA 19085



Re: Your inquiry concerning vegetation plantings on or next to a PECO transmission line right-of-way

Dear Mr. Morro:

You recently inquired about the possibility of planting vegetation management on or near a PECO transmission right-of-way, for the purposes of visual screening. You particularly referenced a condition in Villanova's Proposed Conditions of Approval for expanded utility facilities, which states:

7. That, prior to the submission of final land development plans, the University shall seek the approval of PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the impacted residential neighbors and, if said permission is received, the installation and maintenance of the vegetation necessary to establish it.

I have conferred with PECO's Vegetation Management team, which has provided the following information:

PECO does not allow the planting of trees or shrubs on its transmission rights-of-way. Only low-growing herbaceous plants and grasses are permitted in the area below the lines. PECO's guidelines call for a minimum of 32 feet of clearance from the line to the nearest trees on either side. Large trees situated within this area are removed, and trees situated beyond this distance are pruned to the 32 foot mark or the edge of the right-of-way.

I also note that this right-of-way has active SEPTA train traffic, which creates an additional set of clearance requirements for the SEPTA facilities.

I hope this provides the information that you require.

Sincerely,

Joan Renye
Senior Account Executive
215-841-5503



DELAWARE COUNTY PLANNING COMMISSION

**COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063**

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 **FAX:** (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

PLANNING COMMISSION

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CHAIRMAN**

**THOMAS J. JUDGE
VICE CHAIRMAN**

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DAVID J. WHITE
MICHAEL F. CULP**

February 19, 2015

Mr. Robert Zienkowski
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Name of Dev't: Lancaster Avenue Housing
DCPD File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15
Developer: Villanova University
Location: South side of Lancaster Avenue, east and west sides of South Ithan Avenue
Recv'd in DCPD: 12/23/2014

Dear Mr. Zienkowski:

In accordance with the provisions of Section 502 of the Pennsylvania Municipalities Planning Code, the above described proposal has been sent to the Delaware County Planning Commission for review. At a meeting held on February 19, 2014, the Commission took action as shown in the recommendation of the attached review.

Please refer to the DCPD file number shown above in any future communications related to this application.

Very truly yours,

Linda F. Hill
Director

LFH/pmg

cc: Villanova University
Nave Newell, Inc.



DELAWARE COUNTY PLANNING DEPARTMENT

DCPD

Court House/ Government Center , 201 W. Front St., Media, PA 19063
Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

Date: February 19, 2015
File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

PLAN TITLE: Lancaster Avenue Housing

DATE OF PLAN: February 19, 2015

OWNER OR AGENT: Villanova University

LOCATION: South side of Lancaster Avenue,
east and west sides of South Ithan
Avenue

MUNICIPALITY: Radnor Township

TYPE OF REVIEW: Preliminary Land Development

ZONING DISTRICT: PI Planned Institutional / R-3
Residential

SUBDIVISION ORDINANCE: Local

PROPOSAL: Develop 9.5 acres with 403,464 sq.
ft. of dormitory space, plus
14,470 sq. ft. of retail space

UTILITIES: Public

RECOMMENDATIONS: Proceed to the preparation of
final plan incorporating the
following remarks

STAFF REVIEW BY: Michael Swidrak



Date: February 19, 2015

File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

REMARKS:

PREVIOUS ACTION

At its January 16, 2014 meeting, the Delaware County Planning Commission reviewed a Township zoning ordinance text amendment to create a new development option within the PI District titled "Comprehensive Integrated College Development." The Commission recommended approval.

CURRENT PROPOSAL

The current proposal is part of a larger redevelopment plan of Villanova University-owned parcels south of Lancaster Avenue (U.S. Route 30). This phase of the larger plan includes 9.5 acres of land proposed to be developed with 417,934 sq. ft. of dormitory space in 6 four-story structures, and 14,470 sq. ft. of retail space in two buildings. Parking facilities are placed in the back of the property (adjacent to the Norristown High Speed Line), and the proposed buildings are buffered from the property boundaries and from each other by landscaping.

SITE INFORMATION

The site of the proposed development is bound by Ithan Avenue to the east, the SEPTA Norristown High Speed Line to the south, approximately 50' east of Church Walk to the west, and Lancaster Avenue to the north. The site is completely contained within the PI - Planned Institutional district, which accommodates most of the Villanova University campus. A sliver of the site on the southwest corner is covered by R-3 Residential zoning. The current site is used as a surface parking lot by the university, and is nearly completely paved with asphalt, with the exception of a thin buffer of trees and vegetation that straddles the border of the SEPTA right-of-way at the back of property.

Date: February 19, 2015

File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

REMARKS (continued):

ZONING COMPLIANCE

COMPREHENSIVE INTEGRATED COLLEGE DEVELOPMENT (CICD)

The PI district was amended in 2014 to include Section 280-68.1, "Comprehensive integrated college development." The Planned Institutional district allows for dormitories as accessory uses, and does not allow commercial use, though the CICD provision was drafted to accommodate this type of the development as a conditional use. The CICD can be considered a "floating" overlay that is applied to one section of the PI district, that is between 10 and 15 acres, on campuses at least 75 acres in size (Villanova qualifies for a CICD). The proposal (9.5 acres) includes a portion or phase of Villanova's CICD.

The CICD allows as "subordinate uses" both retail establishments and college dormitories, which are the primary uses on the site. The types of retail uses allowed in the CICD are outlined in the provision.

In terms of the area and bulk requirements of the development, the proposal must meet several requirements for approval:

- Setbacks - The CICD provision requires a 35' setback for buildings along Lancaster Avenue, a 50' setback for the southern border of the parcel adjacent to the NHSL, and a 30' setback for buildings adjacent to all other portions of the property (North Ithan Road and Church Walk). It appears, according to the site plan, that all buildings are properly set back from adjacent rights-of-way, as well as adjacent residential properties (100' minimum).

Date: February 19, 2015

File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

REMARKS (continued):

- Building Length and Spacing - The CICD requires buildings and parking structures that are no more than 180', and spacing between buildings of 45'. All proposed buildings are separated by at least 45' and are less than 180' at any single façade (the buildings were designed not to have any long facades without articulation).
- Height - The maximum allowed height for the dormitories is 45', while the maximum for the retail space is 38'. No building on the site is more than four stories. Subsequent plans, however, should clarify proposed height.
- Building Coverage - The CICD requires that no more than 30% of the site be covered by structures, though it can be increased to 45% with measures taken to preserve open space on other lands owned by the applicant.

Adding together all of the building footprints, the total building square footage of the site is 119,021 sq. ft. With the 9.5-acre site equaling approximately 413,820 sq. ft., the building coverage is under the maximum 30%, at approximately 28.8%.

- Impervious Coverage - Because the existing site is a parking lot (near 100% impervious), the proposal must be 10% below the existing coverage, or about 90%. The green spaces and rain gardens in the proposal lower the impervious coverage to well below this threshold.

The portion of the site zoned R-3 Residential contains proposed dumpsters and recycling containers, which typically are not regarded as accessory structures and, therefore, within the purview of zoning provisions. Also, it is unclear, though it looks as if this part of the development exceeds the maximum 35%

Date: February 19, 2015

File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

REMARKS (continued):

impervious coverage (from rear automobile access lane behind the development). The applicant should consider requesting a zoning variance from the Township, and may consider asking for a rezoning of this portion of the development to PI, to address these zoning inconsistencies.

COMPREHENSIVE PLAN

The Township comprehensive plan of 2003 does not contain a standard future land use map, though it makes recommendations for future development. According to this plan, any new development that is adjacent to established neighborhoods should employ "careful buffering," as not to disturb the character of the adjacent neighborhood. The site plan shows that the nearest building to the edge of a nearby residential property is nearly 200', which can be considered substantial for separating the uses.

PEDESTRIAN ACCESS

The proposal generally encourages adequate pedestrian circulation and access, as automobile circulation is confined to the back edge of the property. In terms of connecting this development with the Villanova campus north of Lancaster Avenue, pedestrians are able to cross the arterial only at its intersection with North Ithan Avenue, though a proposed pedestrian bridge just past the western edge of the site should be included in a future development application.

There are two SEPTA bus stops for bus routes 105 and 106 on eastbound Lancaster Avenue at the intersections with Church Walk and Ithan Avenue. The applicant proposes to install a fence to control access by pedestrians along Lancaster Avenue and place the new sidewalk behind the fence. This would, in effect,

Date: February 19, 2015

File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

REMARKS (continued):

eliminate the two eastbound bus stops. The applicant should revise the plan to retain pedestrian access to the two bus stops and work with SEPTA Suburban Service Planning staff to accomplish this. SEPTA staff, Mark Cassel, can be contacted at (215) 580-7238.

SEWAGE FACILITIES

An additional building may increase sanitary sewer flow. Accordingly, the developer should contact the Pennsylvania Department of Environmental Protection for a determination as to whether or not the proposed development is eligible for an exemption or will require a revision to the municipality's Act 537 Sewage Facilities Plan.

STORMWATER MANAGEMENT

To control stormwater runoff, the plan shows several detention basins and infiltration basins, as well as "green infrastructure" in the form of rain gardens placed in front of some of the dormitories.

The Township Engineer must verify the adequacy of all existing as well all proposed stormwater management facilities.

CONCLUSION

Generally, the proposed plan appears consistent with adopted regulations governing the CICD. However, subsequent plans should addresses the following:

A wider right-of-way and cartway for both Lancaster Avenue and South Ithan Avenue. Specifically, a right-turn lane should be provided on eastbound Lancaster Avenue, thereby allowing right-turns onto S. Ithan Avenue. Deceleration/Right-turn lanes should be provided on S. Ithan Avenue in both directions; to

Date: February 19, 2015

File No.: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15

REMARKS (continued):

accommodate traffic turning into the current phase of development on the west side of S. Ithan and the future phase of development on the east side of S. Ithan Avenue (Performing Arts Center & Parking Garage).

The plan and plan notes should address buffering requirements to be applied to the southern property line on the north side of the Septa right-of-way to include evergreen and deciduous vegetation compliant with Section 280-71 of the Township zoning ordinance regarding buffer requirements.

Proposed stormwater management facilities should take into account an underground/intermittent stream located on the site.



DELAWARE COUNTY PLANNING DEPARTMENT

COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063

COUNCIL

THOMAS J. McGARRIGLE
CHAIRMAN

MARIO J. CIVERA, JR.
VICE CHAIRMAN

COLLEEN P. MORRONE
JOHN P. McBLAIN
DAVID J. WHITE

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

LINDA F. HILL
DIRECTOR

February 4, 2015

Mr. Robert A. Zienkowski
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

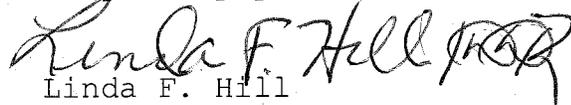
RE: Title: Lancaster Avenue Housing
Applicant(s): Villanova University
File Number: 34-1522-77-83-90-92-94-97-98-99-00-01-02-06-13-15
Meeting Date: 02/19/2015
Municipality: Radnor Township
Location: South side of Lancaster Avenue, east and west
sides of S. Ithan Avenue
Received: 12/23/2014

Dear Mr. Zienkowski,

This is to acknowledge receipt of the above referenced application for review and report. The Commission has tentatively scheduled consideration of the application for its public meeting on the date shown above at 4:00 p.m. in the Government Center Building, (Room 100), Court House Complex, Media, PA. Attendance is not required but is welcomed. If you have any questions concerning this matter, please contact Dennis DeRosa at (610) 891-5222.

NOTE: In order to avoid processing delays, the DCPD file number shown above MUST be provided in any transactions with the county regarding this or future applications related to this location.

Very truly yours,


Linda F. Hill
Director

LFH/DDR

cc: Villanova University
Nave Newell, Inc.





January 19, 2015

VIA Certified Mail #91 7108 2133 3933 8427 4338

Radnor Township Planning Commission
301 Iven Avenue
Wayne, PA 19087



**Reference: Villanova University CICD Development
Radnor Township, Delaware County, PA
Nave Newell No. 2011-005.00**

Dear Commissioners:

Acts 67, 68 and 127, which amended the Municipalities Planning Code (MPC), direct state agencies to consider comprehensive plans and zoning ordinances when reviewing applications for permitting of facilities or infrastructure, and specify that state agencies may rely upon comprehensive plans and zoning ordinances under certain conditions as described in Sections 619.2 and 1105 of the MPC. The Pennsylvania Department of Environmental Protection's Policy for Consideration of Local Comprehensive Plans and Zoning Ordinances in DEP Review of Permits for Facilities and Infrastructure (DEP's Land Use Policy) provides direction and guidance to DEP staff, permit applicants, and local and county governments for the implementation of Acts 67, 68, and 127 of 2000. This policy can be found at www.depweb.state.pa.us; keyword: Land Use.

In accordance with DEP's Land Use Policy, enclosed please find a Municipal Land Use Letter that is to be submitted with our NPDES permit application to DEP. Please complete the attached form and return within 30 days to:

Applicant Contact: Nave Newell, Inc.
Consultant for the Applicant
Attn: Gregory C. Newell, PE
900 West Valley Road, Suite 1100
Wayne, PA 19087

Project Location: Villanova University CICD Development – 800 E. Lancaster Ave, Villanova, PA

Project Description: Villanova University proposes construction of six (6) dormitory buildings and associated parking, a structured parking facility, a performance arts building, and additional campus parking.



Radnor Township Planning Commission
Nave Newell No. 2011-005.00
January 19, 2015
Page 2

Please do not send the form to DEP, as we must include the Municipal Land Use Letter with our permit application. If we do not receive a response from you **within 30 days**, we shall proceed to submit our permit application to DEP without the Municipal Land Use Letter. If the Municipal Land Use Letter is not submitted with our permit application, and we provide proof to DEP that we attempted to obtain it, DEP will assume there are no substantive land use conflicts and proceed with the normal application review process.

Attached are a copy of the proposed Site Plan and a copy of the conditional use approval.

Sincerely,

A handwritten signature in black ink that reads "Gregory C. Newell".

Gregory C. Newell, PE

GCN/jjh
Enclosure

cc via email: Marilou Smith – Villanova University

K:\11Proj\11005\Proj_Data\Support_Data\NPDES\Act 67 ltrs\2011-005.00_Township Act 67_ltr_15-01-19.doc

Date: _____

To: Villanova University
c/o Nave Newell, Inc.
900 West Valley Road, Suite 1100
Wayne, PA 19087

From: Radnor Township, Delaware County, PA

RE: Villanova University CICD Development

The Township of Radnor states that it:

_____ has adopted a municipal or multi-municipal comprehensive plan.

If yes, please provide date of adoption:

_____ has not adopted a municipal or multi-municipal comprehensive plan.

The Township of Radnor states that it:

_____ has adopted a county, a municipal or a joint-municipal zoning ordinance.

_____ has not adopted a county, a municipal or a joint-municipal zoning ordinance.

If applicable:

The Township of Radnor states that its zoning ordinance is generally consistent with its municipal comprehensive plan and the county comprehensive plan.

The above referenced proposed project

_____ meets the provisions of the local zoning ordinance

If zoning approval is required for the project to proceed, the above referenced project:

_____ has received zoning approval.

_____ has not received zoning approval.

If the proposed project has not received zoning approval:

What is the status of the zoning request for the proposed project? (e.g., Special Exception Approval from the Zoning Hearing Board required, Conditional Use approval from the Governing Body required)

Is there a legal challenge by the applicant with regard to zoning for the proposed project?

Name and Contact Information for Municipal Zoning Officer:

Additional Comments (attach additional sheets if necessary):

Submitted By:

Name	
Title	
Contact Information (Address & Phone)	
Signature	
Date	

J. LAWRENCE GRIM, JR.
JEFFREY G. TRAUGER
MARY C. EBERLE
JOHN B. RICE
DIANNE C. MAGEE *
DALE EDWARD CAYA
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KELLY L. EBERLE *
MATTHEW J. MCHUGH
ALISON PAIGE WASSERMAN *
MATTHEW E. HOOVER

* ALSO ADMITTED IN NEW JERSEY
* ALSO ADMITTED IN NEW YORK
† MASTERS IN TAXATION
* ALSO A CERTIFIED PUBLIC ACCOUNTANT

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PLEASE REPLY TO:
PERKASIE

John B. Rice
e-mail: jrice@grimlaw.com

JOHN FREDERIC GRIM, OF COUNSEL

104 S. SIXTH STREET
P.O. BOX 215
PERKASIE, PA. 18944-0215
(215) 257-6811
FAX (215) 257-5374

P.O. BOX 380
QUAKERTOWN, PA, 18951-0380
(215) 536-1200
FAX (215) 538-9588

P.O. BOX 1369
DOYLESTOWN, PA, 18901
(215) 348-2199
FAX (215) 348-2520

December 5, 2014

Sent via electronic correspondence

Nicholas Caniglia, Esquire
PIERCE, CANIGLIA & TAYLOR
125 Strafford Avenue, Suite 110, P.O. Box 312
Wayne, PA 19087

Sent via electronic correspondence

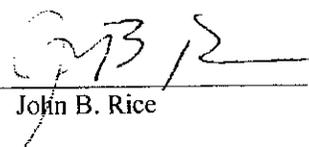
William J. Bolla, Esquire
McNAMARA, BOLLA & PANZER
116 E. Court Street
Doylestown, PA 18901

RE: Radnor Township - Villanova University Conditional Use Decision and Order

Dear Counsel and Individual Parties:

Enclosed please find a copy of the Township's Conditional Use Decision and Order with supporting Findings of Fact and Conclusions of Law. If anyone has any questions regarding the enclosed please feel free to call me.

Sincerely,
GRIM, BIEHN & THATCHER

By: 
John B. Rice

JBR/hlp
Enclosure

cc: Robert Zienkowski (via email)
Radnor Township Board of Commissioners (via email)
Tish Long (sent via certified mail)
Leslie Morgan (sent via certified mail)
Gayla McCloskey (sent via certified mail)
Rick Leonardi (sent via certified mail)
Jonathan Heckscher (sent via certified mail)
Anna Marie Hessman (sent via certified mail)
Sara Pilling (sent via certified mail)
Phillip Ahr (sent via certified mail)
Toni Bailey (sent via certified mail)
Jim Yannopoulos (sent via certified mail)

CONDITIONAL USE APPLICATION OF VILLANOVA UNIVERSITY

ORDER

AND NOW, this 24th day of November, 2014, after due deliberation and discussion at public hearings, the Radnor Township Board of Commissioners does hereby grant the Conditional Use Application of Villanova University, subject to the following conditions:

1. The applicant shall comply with all other applicable Township Ordinances and shall submit a land development plan pursuant to the Township's Subdivision and Land Development Ordinance prior to the construction of any facilities.

2. That the transportation, roadway and signalization and improvements necessary for the construction have full access to Ithan Avenue from both the Pike Lot Parking Garage and Lancaster Avenue housing parking area with provisions for stop control for both parking accesses to Ithan Avenue and a pedestrian activated signal including the new pedestrian crosswalk be required if approved by PennDOT, unless waived by the Board of Commissioners during the land development process.

3. That during the land development process an event circulation plan be developed to address event parking and traffic circulation with the input of the Radnor Township Police Department and Township traffic engineer outlining procedures, traffic patterns, parking configurations and way finding techniques for the various sporting and other events held at the University. Upon development of the event circulation plan, Villanova shall be responsible for constructing and/or installing such signs, structures, or other directional aids necessary to implement the event circulation plan.

4. That Villanova University contributes the sum of One Hundred Seventy-Five Thousand Dollars (\$175,000.00) towards the design, approval and installation of a traffic adaptive signal system that would incorporate the following signalized intersections along Lancaster Avenue:

- a. Sproul Road/Spring Mill Road; Aldwyn Lane/ Kenilworth Street
- b. Church Walk
- c. Ithan Avenue
- d. Lowrys Lane
- e. Airdale Road
- f. County Line Road

5. That during the land development process an emergency evacuation plan for the new student housing be developed.

6. That appropriate fencing be provided on both the north and south sides of Lancaster Avenue in the area of the church walk pedestrian bridge in an effort to restrict pedestrian traffic from accessing the campus. A gate shall be provided for vehicular and pedestrian access during church events if approved by the Board of Commissioners during the land development approval process.

7. That the University preserve the entire area known as the Aldwyn Triangle and restrict it as open space except for that portion of the area necessary to provide pedestrian activity and handicap accessibility improvements for the adjacent SEPTA rail line.

8. That a landscape and buffer plan be developed to comply with Section 280-68.1.D. (3)(b) of the Zoning Ordinance.

9. That Villanova seek permission from PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the adjacent residential neighbors. Provided that the applicant receives permission, Villanova shall provide an installation and maintenance plan of the vegetation necessary for this screening during land development.

10. Villanova shall provide Radnor Township a list of contractors, subcontractors and vendors and their addresses within twenty (20) days of the execution of any contracts by Villanova in connection with the development and/or construction of the proposed project. The purpose of this list is to permit the Township to audit for required business privilege/mercantile taxes.

11. During the land development process, the Applicant shall use its best efforts to develop and construct stormwater management facilities, including green infrastructure practices and components that meet or exceed infiltration or retention requirements as currently required by the Radnor Township Stormwater Management Ordinance. The Applicant shall conduct soil testing as necessary to determine whether the site can accommodate volume management in excess of 1-inch of run-off from all impervious surfaces resulting from the project. If soil testing indicates that it is possible to provide volume management in excess of 1-inch of run-off, the Applicant shall construct such necessary stormwater facilities on the site to accommodate this increased volume.

12. The Applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increased waste water disposal generated by the project.

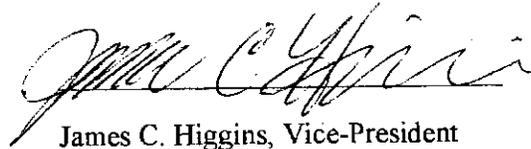
13. The Applicant shall develop a traffic plan during the land development process delineating the paths by which the existing population of commuting and part-time students will be directed to and from parking for each phase of the construction.

14. The Applicant shall permit parishioners to park, on a space available basis, on the north side of Lancaster Avenue on existing Villanova property adjacent to the church for church related events.

15. The Applicant shall maintain a pedestrian crosswalk from the proposed project site to the existing church at the present church walk location if approved by Penn Dot.

16. The Applicant shall insure that no amplified music or other excessive noise shall emanate from any of the south facing dormitories. During the land development process, the Township and applicant shall establish a permissible sound level at the property boundary of the the Aldwyn Lane residential uses.

17. The Applicant's land development plans shall be in substantial conformity with the Conditional use plans dated May 2, 2014 as amended during the hearings.



James C. Higgins, Vice-President

Radnor Township Board of Commissioners

Date of mailing 12/5/14

FACTUAL BACKGROUND, FINDINGS OF FACT AND CONCLUSIONS OF LAW

I. Background

Villanova University (the "***Applicant***") filed a Conditional Use Application on May 29, 2014 with Radnor Township for development of 13.81 acres on Lancaster Avenue near Ithan Avenue on the south side of the highway. The Conditional Use Application was advertised two times in the July 14th and July 21st, 2014 editions of the Delaware County Daily Times for an initial public hearing to be held on July 28, 2014. Stenographic record of the hearing was made by Norma Gerrity.

The Radnor Township Board of Commissioners held a series of public hearings on the Conditional Use Application on July 28, 2014, August 21, 2014, September 10, 2014, September 17, 2014, September 30, 2014, October 8, 2014, and October 23, 2014. The Board of Commissioners deliberated and rendered a decision and Order on November 24, 2014. These Findings of Fact and Conclusions of Law are in support of that decision and Order.

At hearing, the Applicant was represented by Nicholas J. Caniglia, Esquire. Tish Long & Leslie Morgan (on behalf of Friends to Preserve Radnor), Rick Leonardi, Jonathan Heckscher, Annamarie Hessman, Phillip Ahr (on behalf of the Garrett Hill Coalition), Gayla McCluskey (on behalf of the League of Women Voters), Sara Pilling, Toni Bailey, and James Yannopoulos requested and were granted party status. Commissioners James Higgins, Richard Booker, Donald Curley, John Fisher, John Nagle and William Spingler were present at the hearings, represented by the Township Solicitors, John B. Rice, Esquire and H. Peter Nelson, Esquire. Commissioner Elaine Schaefer voluntarily recused herself from consideration of the application. The Township's position was represented by Special Counsel, William J. Bolla, Esquire.

The following exhibits were admitted into testimony during the course of the hearings:

Applicant Exhibits:

- A.1.A Conditional Use Plan prepared by Nave Newell, Inc., 900 West Valley Road, Suite 1100, Wayne, PA, dated May 2, 2014, consisting of 11 sheets.
- A.1.B Conceptual Landscape Plan
- A.1.C Development Impact Statement consisting of 54 pages, dated May 2, 2014
- A.1.D Stormwater Narrative prepared by Nave Newell, Inc., dated May 2, 2014
- A.1.E Traffic Impact Assessment of F. Tavani and Associates, Inc., dated May, 2014
- A.2 CV of D. Alexander Tweedie

A.3.A	Campus Coverage Table
A.3.B	CICD Zoning Table
A.3.C	West Lancaster Ave. Zoning Table
A.4.A	Photo Main Lot
A.4.B	Photo Pike Lot
A.5	Aldwyn Triangle Site Plan
A.6.A	Site Access Plan
A.6.B	West Lancaster Ave. Site Plan
A.7	CV of Kevin Smith, Architect
A.8.A	Buffer Section @ Housing @ Installation
A.8.B	Buffer Section @ Housing @ 10 years
A.8.C	Buffer Section @ West Lanc. @ Installation
A.6.D	Buffer Section @ West Lanc. @ 10 years
A.9	Bridge Site Plan
A.10	CV of John Cluver, Architect
A.11	CV of Lee Huang, Economist
A.12	CV of Frank Tavani, Traffic Engineer
A.13	CV of Daniel Chieco, Landscape Architect
A.14	Buffering Drawings
A.14.A	Buffering Plan Example at West Lancaster Avenue Lot
A.14.B	Buffering Plan Example at Parking Structure
A.14.C	Key Plan for Buffering Sections
A.14.D	Buffering Section 1 at West Lancaster Avenue Lot
A.14.E	Buffering Section 2 at West Lancaster Avenue Lot
A.14.F	Buffering Section 3 at Student Housing

- A.14.G Buffering Section 4 at Student Housing
- A.14.H Buffering Section 5 at Parking Structure
- A.15 CV of Alice Lenthe, Occupational Safety & Environmental Compliance Consultant
- A.16 CV of Barbara Chance, Parking Management Consultant
- A.17 Special Event Parking Management Plan for Future Conditions
- A.18 Transportation Impact Study prepared by F. Tavani and Associates, Inc., dated September 16, 2014
- A.19 Truck Turning Templates
- A.20 SW Downstream Analysis
- A.21 Acentech correspondence to John Cluver dated September 26, 2014
- A.22 CICD Site Plan
- A.23 Screened Rooftop Mechanical Equipment plan locations
- A.23a Screened Rooftop Mechanical Equipment Lancaster Avenue Elevation
- A.23b Screened Rooftop Mechanical Equipment Ithan Avenue Elevation
- A.23c Screened Rooftop Cooling Towers Ithan Avenue Elevation with Mechanical Section
- A.23d Screened Rooftop Mechanical Equipment Lancaster/Ithan Avenues Elevation -2c
- A.23e Screened Rooftop Mechanical Equipment Lancaster Avenue Elevation
- A.23f Screened Rooftop Mechanical Equipment, Building 1C
- A.23g Screened Rooftop Mechanical Equipment, Building 1C
- A.24 Garage Elevation – Pike Field
- A.24a View Looking West from Pike Field
- A.25 CV of Terence M. Tyson, PE, of Accntech
- A.26 Parking management Entry Exit Plans

- A.27 VU Response to Gannett Fleming Letter dated, July 18, 2014
- A.28 VU Response to Gilmore Letter dated, July 23, 2014
- A.29 VU Response to Rettew Letter dated, August 19, 2014
- A.30 VU Response to Gilmore Letter dated, September 30, 2014
- A.31 VU Response to Rettew Letter dated, September 3, 2014-
- A.32 VU Response to Rettew Letter dated, September 30, 2014-
- A.33 Econsult Letter dated October 17, 2014
- A.34 Villanova Letter and Data – Enrollment
- A.35 F. Tavani and Associates, Inc., correspondence dated October 22, 2014

Township Exhibits:

- T-1 Gannett Fleming correspondence dated July 18, 2014
- T-2 Rettew correspondence dated August 19, 2014
- T-3 Gilmore and Associates, Inc. correspondence dated September 30, 2014
- T-4 Stormwater Memorandum Report by Michele Adams dated July 28, 2014
- T-5 Turn lane warrant and length analysis
- T-6 Traffic Signal clearances workbook
- T-7 Gilmore and Associates pedestrian timing chart and drawing for Lancaster Avenue and Ithan Avenue
- T-8 Memorandum from Jennifer W. Brown, Esquire dated October 20, 2014 regarding local tax impact
- T-9 Rettew Memorandum dated September 3, 2014
- T-10 Rettew Memorandum dated September 30, 2014

Additional Party Exhibits:

- N-1 Stormwater Memorandum Report by Michele Adams dated July 28, 2014
- N-2 Villanova Enrollment document
- B-1 Correspondence from Radnor League of Women Voters dated July 31, 2014

II. Findings of Fact

1. The Applicant is Villanova University.
2. The subject property is located at Ithan and Lancaster Avenues within the PI – Planned Institutional Zoning District of Radnor Township.
3. The Applicant proposes construction of new student residence halls, a 4-level parking structure, a performing arts center, retail space, and associated parking and landscaping improvements.
4. Applicant's Conditional Use Application designates a 13.81 acre parcel within the PI – Zoning District for a Comprehensive Integrated College Development use (CICD). The entire Villanova Campus consists of a total of 250.35 acres.
5. The Applicant proposes to construct 1,159 dormitory beds and a pedestrian bridge over Lancaster Avenue connecting to the main campus.
6. The composite of all the gross floor areas of the buildings, excluding the parking structure, is 479,800 gross square feet.
7. The retail subordinate uses do not exceed five percent of the total gross floor area of all of the buildings, the total gross floor area for the retail subordinate uses does not exceed 25,000 square feet, and none of the floor areas of any of the individual retail uses exceeds 10,000 square feet.
8. After the CICD development occurs, the campus as a whole will meet the underlying zoning provisions of the PI zoning district. The CICD development will contain 14.4 percent building coverage and will reduce the impervious coverage to 36 percent, in compliance with the existing PI standards. The proposed CICD development provides 37 percent building coverage and 69 percent impervious coverage in accordance with Ordinance No. 2014-21.
9. According to the applicant's parking analysis, the current parking on campus was reviewed against the code provisions for required parking, that currently 4,464 spaces are required and there are 5,130 spaces currently available, making a surplus of parking onsite of approximately 666 spaces.

10. With the CICD use, the total number of required parking spots is increased to 5,051 spaces, and the applicant will be providing a total of 5,149 spaces, making a surplus of 98 excess parking spaces throughout the campus as a whole.

11. The proposed CICD development project will reduce existing impervious coverage within the project area from 92% to 69%.

12. The Applicant's project proposes to preserve to 2 acres of land in the Aldwyn triangle.

13. The Applicant proposes to construct the overall project in 4 phases.

14. The Applicant's proposed plans meet the requirements for off-street loading in accordance with Section 280-68.1 D(3)(e)[2] of Ordinance No. 2014-21.

15. The Applicant's plan for screening or above ground level mechanicals meet the requirements of Section 280-68.1 D(3)(f)[2] of Ordinance No. 2014-21.

III. Applicable Case law

Section 913.2 of the Pennsylvania Municipalities Planning Code permits the governing body of a municipality to grant or deny a conditional use in accordance with express standards and criteria as set forth in its ordinance. Additionally, Section 913.2(a) permits a governing body to "attach such reasonable conditions and safeguards, in addition to those expressed in the ordinance, as it may deem necessary to implement the purposes of this act and the zoning ordinance." "Reasonable conditions are those that advance a valid zoning interest, are supported by the record, and *relate to the specific zoning ordinance at issue.*" In re Maibach, LLC, 26 A.3d 1213, 1216 (Pa. Cmwlth. 2011) (HHI Trucking & Supply, Inc. v. Borough Council of Borough of Oakmont, 990 A.2d 152 (Pa. Cmwlth. 2010)) (emphasis included). "[W]here a municipality imposes a condition to prevent 'harm' for which there is no evidence in the record, that condition is not reasonable. Stated otherwise, the municipality abuses its discretion when it imposes a condition without supporting evidence in the record." HHI Trucking & Supply, Inc., 990 A.2d at 160.

Conditional uses are similar to special exceptions in that both are permitted uses subject to additional scrutiny either before a Zoning Hearing Board when it is a special exception application, or before a governing body with respect to conditional uses." White Advertising Metro, Inc., v. Zoning Hearing Board of Susquehanna Township, 453 A.2d 29 (Pa. Cmwlth 1982). Because the law regarding conditional uses and special exceptions is virtually identical, the burden of proof standards are the same for both. Sheetz, Inc., v. Phoenixville Borough Council, 804 A.2d 113 (Pa. Cmwlth 2002), Petition for Allowance of Appeal denied, 573 Pa. 669, 820 A.2d 706 (2003).

IV. Conclusions of Law

1. On March 31, 2014 Radnor Township passed Ordinance No. 2014-21 amending Section 280-68 by providing for a new Comprehensive Integrated College Development use (CICD) within the PI - Planned Institutional Zoning District.

2. Section 280-68.1 sets forth the conditional use requirements for a CICD use within the PI- Planned Institutional Zoning District. Section 280.68.1 contains comprehensive performance standards, use regulations, dimensional requirements, and other development and special regulations for a CICD use.

3. Chapter 280, Article 23 sets forth general requirements for conditional use applications and standards for approval for conditional uses. The Applicant presented sufficient testimony and evidence indicating compliance with the specific requirements of Section 280-68.1 and the general requirements of the zoning ordinance for conditional uses.

4. 53 P.S. §10603(c)(2) provides for conditional uses to be allowed or denied by the governing body after hearing and pursuant to express standards and criteria set forth in a Zoning Ordinance.

5. 53 P.S. §10603(c)(2) permits the governing body to attach such reasonable conditions as safeguards other than those related to off-site transportation or road improvements and as expressed in the Zoning Ordinance in order to implement the purposes of the Township Zoning Ordinance.

6. The Applicant met its legal burden of proof by presenting testimony and evidence establishing sufficient compliance with Section 280-68.1 the conditional use requirements for a CICD use within the PI – Planned Institutional Zoning District.

7. The Applicant's proposed plan constitutes a land development and as such requires land development approval by the Board of Commissioners.



Date: January 23, 2015

To: Radnor Township Planning Commission

From: Roger Phillips, P.E.

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Steve Gabriel - Rettew
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official

RE: Villanova University – Lancaster Avenue Housing
Villanova University – Applicant

Date Accepted: January 6, 2015

90 Day Review: April 6, 2015

Gannett Fleming, Inc. has completed a review of the Villanova University Lancaster Avenue Housing Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

Conditional use approval was granted on November 24, 2014 to permit the development under CICD (decision attached). The applicant is proposing to construct a 1,135 bed student housing facility in six buildings with associated retail space.

Plans Prepared By: Nave Newell

Dated: 12/05/2015

I Zoning

1. §280-68.C.2 – A building or combination of buildings may be erected or used and a lot may be principally used or occupied for any accessory use on the same lot and may include a dormitory, provided that every room occupied for sleeping purposes by one occupant shall have a minimum gross floor area of at least 70 square feet. Every room occupied for sleeping purposes by more than one occupant shall contain at least 50 square feet of gross floor area for each occupant thereof. This size of the individual rooms must be indicated on the plans.

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

t: 610.650.8101 • f: 610.650.8190

www.gannettfleming.com



2. §280-68.1.D(1)(b)2 – Retail subordinate uses shall only be located on the ground floor or basement of a building. This plan must clearly indicate the location and size of the retail areas.
3. §280-68.1.D(1)(b)4 – Those areas in the CICD devoted to retail subordinate uses shall not exceed 5% of the total gross floor areas of all the building, not including parking structures in the CICD. Additional information on the total square footage of the performance art center and any subordinate retail use must be provided to ensure conformance with this section.
4. §280-68.1.D(2)(g)1 – Not more than 30% of CICD shall be occupied by buildings. The total building coverage may be increased to no greater than 45%, subject to the land preservation standards of this section, provided that in no event may the total building coverage of the applicant's entire campus within the PI zoning district exceed 30%. For purposes of calculating the total building coverage in the CICD, parking structures shall be included in the building area. A breakdown of the proposed 35.5% building coverage shown on the plans must be provided, including information from the other phases.
5. §280-68.1.D(2)(g)2 – No individual building nor group of buildings not separated from each other by the minimum required separation distance noted below shall occupy more than 10% of the CICD site. Parking structures are not required to be included in the calculations of individual building coverage. The plan indicates building coverages of 7.6% for Residence Hall 2, 8.5% for Residence Hall 1 and the Performing Arts Center is 5.6%. A detailed breakdown of this calculation must be provided.
6. §280-68.1.D(2)(h) – Not more than 45% of the CICD site may be covered by impervious surfaces; provided, however, if the CICD is redeveloping existing improved lands, then the maximum allowed impervious surface ratio shall be 45% or 10% less than the existing impervious surface ratio on the proposed CICD site, whichever is greater. In no event may the maximum allowed impervious surfaces on the applicants entire campus within the PI Zoning District exceed 45%. The plan indicates that the entire campus proposes 36.4%. The existing impervious surface calculation for the CICD indicates it is 92% impervious so the 82% is the maximum permitted. A detailed breakdown of how the 92% impervious was calculated must be provided.
7. §280-68.1.D(2)(j)1(a) – Building length shall measure the length of a single façade of a building or parking structure that is unbroken by variations/articulations in the façade for the entire height of the building. Such variations/articulations shall compromise a minimum six-foot horizontal offset depth. The variations/articulations shall have a minimum width to depth ratio of 4:1. All buildings and parking structures shall be a maximum of 180 feet. The plan shall clearly indicate the break point of buildings, with dimensions. The individual buildings must be clearly identified on the plans to indicate conformance with this section.

8. §280-68.1.D(2)(j)2(a) – Minimum building spacing. These standards shall apply to all existing and proposed building and parking structures within or outside of the limits of a CICD. The minimum spacing between 2 buildings shall be 45 feet. The individual buildings must be clearly identified on the plans to indicate conformance with this section.
9. §280-68.1.D(3)(b) – No buffer planting strip or screening shall be required within the CICD or between the CICD and other properties of the applicant. Where required, a twenty foot buffer planting strip shall be provided on the land owned by the applicant. In addition, a twenty foot buffer planting strip shall be provided anywhere within 200 feet of the CICD unless waived by the Board of Commissioners. The buffer planting strip as provided is not twenty feet wide in its entirety along the railroad. This must be revised.
10. §280-68.1.D(3)(c) – Requirements to preserve land. If the applicant wishes to increase its building area within the CICD to more than 30%, then for each square foot of building area proposed in excess of 30%, the applicant shall be required to preserve two square feet of open space on lands owned by the applicant. A breakdown of all building area within the CICD must be provided on the plans to ensure this project is in conformance with this section.
11. §280-68.3.D(3)(e)[1][c] – The applicant shall execute an agreement with the Township requiring the applicant to acquire, install, and/or construct additional off-street parking spaces in the event that the Board finds that additional parking is needed to service all proposed uses within the CICD within five years of occupancy of such project. If additional parking is needed in accordance with this subsection, parking shall meet all applicable area, dimensional and buffering requirements.
12. §280-68.1.D(3)(e)[2] – There shall be no off-street loading requirements except for retail subordinate uses. All off-street loading shall be adjacent to the use being served by the space; designated by the applicant; and approved during the conditional use approval process. The location of loading dock behind Building 1C was not provided on the plans during the conditional use approval. A loading area was proposed within the surface parking lot behind Building 1C, which is no longer proposed.
13. §280-68.1.D(3)(e)[5] – As specifically designated during the conditional use approval process, the required off-street parking spaces may be located within the boundaries of the CICD or on other areas of the entire campus, exclusive of areas within residential zoning districts. The location of the proposed parking areas differ slightly from what was approved during the conditional use process. There is no longer a parking area expansion proposed for the Health Services Center, and the Saint Augustine Garage (SAG) is proposed to have 2 additional levels. This increases the net number of parking spaces provided by the SAG by 27 spaces. The overall number of proposed parking spaces that was approved during conditional approval has been reduced by 19 for the entire site, however the parking provide still exceeds the minimum required.

14. §280-68.1.D(3)(f)[2] – Mechanical/electrical equipment and trash shall be screened from view. In addition, sound attenuation shall be installed on all equipment to minimize noise pollution at any adjacent residential property line. A detail of the dumpster/recycling area and the mechanical pit must be provided on the plans showing the screening.
15. §280-68.1.D(3)(g) – Light fixtures shall be shielded to reduce light spillage beyond the property line of the campus; provided, however, that at no point shall any light trespass onto adjacent residential properties or exceed 0.5 footcandles at the residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements. The plan must provide calculations that indicate it is in compliance.
16. §280-70.C. – Service, utility, maintenance and storage areas, including solid waste containers, loading and unloading areas and heating, ventilating and air condition equipment, shall be screened from view from public streets and abutting properties. This may be accomplished by means of enclosing walls, stone, brick or wood fences or a buffer planting strip. Visual screening so provided shall be of sufficient density so as not to be seen through and of sufficient height to constitute an effective screen. Detail of the dumpster/recycling area and the mechanical pit screenings must be provided on the plans.
17. §280-71.A. – Along rear and side property lines, a buffer planting strip as defined in §280-4B of this chapter shall be provided in accordance with the following regulation except when uses in a proposed development shall abut uses of a similar type and density. The owner shall place and continually maintain a planting strip not less than 20 feet in width containing berms, hedges, evergreens, shrubbery or suitable vegetation of sufficient panted density to produce a visual screening not to be seen through and of sufficient height to constitute an effective screen and give maximum protection and immediate visual screening to an abutting property or district. The proposed screening provided is not twenty feet in width along the southern property line.
18. §280-72 – An update of the Institutional long-range development plan must be provided.
19. §280-103 – Off-street parking – Detailed information must be provided regarding the existing and proposed required parking spaces. For example, retail stores required one space for 200 square feet of floor area on the ground floor, plus one space per 300 square feet of floor area on the other floors, plus one space for each two employees on the greatest shift. A detailed breakdown of the parking for the existing uses and additional information for the proposed uses must be provided.
20. §280-103A. – As a general requirement, each use in the Township shall provide sufficient off-street parking area to serve its users. The applicant has submitted a phasing narrative on sheet C2.3 that indicates the minimum required parking will be maintained during construction.

21. §280-105.E. – All outside lighting including sign lighting shall be directed in such a way as not to create a nuisance in any agricultural, institutional, or residential districts, and in every district all such lighting shall be arranged so as to protect the street or highway and adjoining property from direct glare or hazardous interference of any kind. Any luminary shall be equipped with some type of glare shielding device approved by the Township Engineer. The height of any luminary shall not exceed 25 feet. The detail for the luminary provided on the plan is difficult to read. A clearly legible detail must be provided. Also, the landscaping that is shown on the lighting plan appears to be inaccurate. This should be revised to remove the trees from the parking spaces
22. §280-109.A. – No fence or wall, except for retaining walls or the walls of a building as permitted under the terms of this chapter, shall exceed a height of six feet. Details of the proposed fence located along Lancaster Avenue and Ithan Avenue must be provided.
23. §280-112.B. – Any applicant for a building permit, preliminary subdivision plan approval on land which contains areas with a grade or slope of 14% or more shall be required to have the limits of such areas defined by a registered professional engineer. These areas must be labeled on the plans behind the main lot parking area.
24. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified.
25. §280-123 – Any signs proposed for this development must be in accordance with this section.

II Subdivision and Land Development

1. §255-20.B.(1)(d) – All applicable zoning districts for this land development must be provided on the plans.
2. §255-29.A.(12) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The entrance exit drive shown on the plan into the proposed parking area behind the student housing is 22 feet. This must be revised or a waiver from this requirement requested.
3. §255-29.A.(13) – Tire bumpers shall be installed as to prevent vehicle overhang on any sidewalk area. These must be shown on the plans for the parking spaces located in the rear of the student housing that are along the proposed sidewalk.
4. §255-29.B.(1) – All parking areas shall have at least one tree 2 ½ inches minimum in caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every parking space in double bay. A minimum of 10% of any parking lot facility over 2,000 square feet in gross area shall be devoted to landscaping, inclusive of required trees. There are 17 single bay parking spaces and 45 double bay parking spaces

located in the rear of the student housing. 9 trees are required to be in the parking facilities. The tree requirement table on sheet L2.0 must be revised to indicate this.

5. §255-30 – Off street loading facilities. There is proposed curbing shown crossing the access area of the proposed loading zone and mechanical pit area. Additional detail on the proposed curbing must be provided.
6. §255-35.A. –Easements with a minimum width of 20 feet shall be provided as necessary for utilities that are not privately owned. If the sanitary sewer is to be dedicated, the sanitary sewer must be centered within a 20 foot wide easement.
7. §255-38 – Street trees 2 ½ dhb and intervals of not more than 30 feet along both sides of new streets and along one or both sides of an existing street within the proposed subdivision or land development. An equivalent number may be planted in an informal arrangement, subject to the approval of the Board of Commissioners. Street trees have been provided in accordance with this section.
8. §255-41.H. – Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped. A detail of the dumpster/recycling area screening must be provided.
9. §255-42.A. – Buffer screens are required between subdivisions and land developments and along existing streets to soften visual impact, to screen glare and to create a visual barrier between conflicting land uses. The extent of screening required shall be determined by the type of use proposed and the adjacent uses of streets surrounding the proposed development.
10. §255-43.1.B(2) – For all nonresidential subdivision and/or land developments, the amount of land to be dedicated for park and recreational area shall be 2,500 square feet per 4,000 square feet of building area. The amount of land to be dedicated would be 270,252 square feet.
11. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. There is 432,404 proposed square feet of building area for this phase. The fee in lieu would be \$357,490. $(432,404/4,000) \times \$3,307$.
12. §255-54.B. – The system central water supply system shall be designed with adequate capacity and appropriately spaced fire hydrants for firefighting purposes pursuant to the specifications of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. There appear to be inconsistencies within the Stormwater report regarding the total area of new/replacement impervious. The Volume Calculation summary on page 20 and Worksheet #4 on page 25 indicate 212,810 SF of impervious, but the summed impervious area from the Drainage Area Summary table on page 233 is 218,418 SF of impervious. Reviewing the Recharge Calculations, there appears to be 206,724 SF of impervious. Please provide an explanation and a summary table for each drainage area, including uncaptured areas, indicating the total area, impervious area and pervious area for each drainage area.
2. There appear to be inconsistencies between the storage volume indicated for the cisterns and infiltration systems and the storage volumes within the HydroCAD Chamber Summaries. Please provide supporting calculations for the storage volumes indicated within the “Volume Summary” section on pages 21-23 of the Stormwater Report demonstrating how the storage volumes were calculated.
3. The values tabulated within the “Impervious Surfaces to BMPs” on Drainage Plan (Volume Management) Sheet 3 of 4 is not consistent with the values provided within the “Volume Summary” section on pages 21-23 of the Stormwater Report. Please provide an explanation or reconcile the inconsistency.
4. The values for RG-7 and RG-10 tabulated within the chart “Drainage Area” on page 233 of the Stormwater Report are not consistent with the values provided within the “Volume Summary” section on pages 21-23 of the Stormwater Report. Please provide an explanation or reconcile the inconsistency.
5. Please submit supporting calculations demonstrating that the Stormwater BMPs are able to completely drain within 96 hours. Per the Stormwater Report on page 4, infiltration tests of the native soils greater than 7-feet deep have not been provided at this time.
6. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be **submitted and approved** prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.
7. How will future phases of development address stormwater issues? Please include an explanation or phasing plan depicting how other phases of overall development will address stormwater.
8. A comparison of the “Routing Diagram for LAH SWM Report” and the drainage areas reported on the chart shown on p. 233 shows some inconsistencies with the areas reported. The areas used in the HydroCAD routing analysis appear to be less than the same drainage areas reported in the chart. Please provide an updated “Routing Diagram

for LAH SWM Report” indicating which rain gardens are associated with the “Rain Garden” sub catchments. Please include a table outlining the areas associated with each sub catchment including the overall area, impervious area and pervious areas.

9. Per Section 245-77.G – Storm sewers must be able to convey proposed conditions’ runoff from a twenty-five-year design without surcharging inlets. Please provide pipe capacity calculations for the new stormwater pipes in Drainage Area 2B.
10. The Composite Drainage Plan, Sheet 1 of 1, dated January 19, 2015 indicates that the overall drainage area, POI 2A, includes both the Lancaster Avenue Housing improvements and the area east of Ithan Avenue (Pike Garage). At this point, only stormwater calculations have been provided for the Lancaster Avenue Housing improvements. The stormwater analysis should be revised to include the drainage areas east of Ithan (Pike Garage) as 100% uncontrolled impervious to reflect existing conditions.

IV General Comments

1. The proposed storm sewer must be shown on the sanitary sewer profile between MH S-9 and S-8.
2. The applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increase wastewater disposal generated by the project.

We recommend that the plans be revised to address the comments stated above along with comments provided in the review memo from Gilmore and Associates prior to consideration for approval, or conditional approval shall include the applicant addressing the comments to the satisfaction of the Township Engineer.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager

ORDER

AND NOW, this 24th day of **November**, 2014, after due deliberation and discussion at public hearings, the Radnor Township Board of Commissioners does hereby grant the Conditional Use Application of Villanova University, subject to the following conditions:

1. The applicant shall comply with all other applicable Township Ordinances and shall submit a land development plan pursuant to the Township's Subdivision and Land Development Ordinance prior to the construction of any facilities.

2. That the transportation, roadway and signalization and improvements necessary for the construction have full access to Ithan Avenue from both the Pike Lot Parking Garage and Lancaster Avenue housing parking area with provisions for stop control for both parking accesses to Ithan Avenue and a pedestrian activated signal including the new pedestrian crosswalk be required if approved by PennDOT, unless waived by the Board of Commissioners during the land development process.

3. That during the land development process an event circulation plan be developed to address event parking and traffic circulation with the input of the Radnor Township Police Department and Township traffic engineer outlining procedures, traffic patterns, parking configurations and way finding techniques for the various sporting and other events held at the University. Upon development of the event circulation plan, Villanova shall be responsible for constructing and/or installing such signs, structures, or other directional aids necessary to implement the event circulation plan.

4. That Villanova University contributes the sum of One Hundred Seventy-Five Thousand Dollars (\$175,000.00) towards the design, approval and installation of a traffic adaptive signal system that would incorporate the following signalized intersections along Lancaster Avenue:

- a. Sproul Road/Spring Mill Road; Aldwyn Lane/ Kenilworth Street
- b. Church Walk
- c. Ithan Avenue
- d. Lowrys Lane
- e. Airdale Road
- f. County Line Road

5. That during the land development process an emergency evacuation plan for the new student housing be developed.

6. That appropriate fencing be provided on both the north and south sides of Lancaster Avenue in the area of the church walk pedestrian bridge in an effort to restrict pedestrian traffic from accessing the campus. A gate shall be provided for vehicular and pedestrian access during church events if approved by the Board of Commissioners during the land development approval process.

7. That the University preserve the entire area known as the Aldwyn Triangle and restrict it as open space except for that portion of the area necessary to provide pedestrian activity and handicap accessibility improvements for the adjacent SEPTA rail line.

8. That a landscape and buffer plan be developed to comply with Section 280-68.1.D. (3)(b) of the Zoning Ordinance.

9. That Villanova seek permission from PECO to plant screening on the south side of the PECO R-100 line to visually screen the SEPTA bridge from the adjacent residential neighbors. Provided that the applicant receives permission, Villanova shall provide an installation and maintenance plan of the vegetation necessary for this screening during land development.

10. Villanova shall provide Radnor Township a list of contractors, subcontractors and vendors and their addresses within twenty (20) days of the execution of any contracts by Villanova in connection with the development and/or construction of the proposed project. The purpose of this list is to permit the Township to audit for required business privilege/mercantile taxes.

11. During the land development process, the Applicant shall use its best efforts to develop and construct stormwater management facilities, including green infrastructure practices and components that meet or exceed infiltration or retention requirements as currently required by the Radnor Township Stormwater Management Ordinance. The Applicant shall conduct soil testing as necessary to determine whether the site can accommodate volume management in excess of 1-inch of run-off from all impervious surfaces resulting from the project. If soil testing indicates that it is possible to provide volume management in excess of 1-inch of run-off, the Applicant shall construct such necessary stormwater facilities on the site to accommodate this increased volume.

12. The Applicant shall obtain revisions to both the Radnor Township and Lower Merion Township Act 537 Plans in order to accommodate the increased waste water disposal generated by the project.

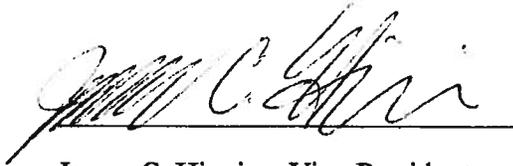
13. The Applicant shall develop a traffic plan during the land development process delineating the paths by which the existing population of commuting and part-time students will be directed to and from parking for each phase of the construction.

14. The Applicant shall permit parishioners to park, on a space available basis, on the north side of Lancaster Avenue on existing Villanova property adjacent to the church for church related events.

15. The Applicant shall maintain a pedestrian crosswalk from the proposed project site to the existing church at the present church walk location if approved by Penn Dot.

16. The Applicant shall insure that no amplified music or other excessive noise shall emanate from any of the south facing dormitories. During the land development process, the Township and applicant shall establish a permissible sound level at the property boundary of the the Aldwyn Lane residential uses.

17. The Applicant's land development plans shall be in substantial conformity with the Conditional use plans dated May 2, 2014 as amended during the hearings.



James C. Higgins, Vice-President

Radnor Township Board of Commissioners

Date of mailing _____



MEMORANDUM

Date: January 28, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Department Manager of Transportation

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Villanova University – Lancaster Avenue Redevelopment
Preliminary Land Development Transportation Impact Study Review #1
Radnor Township, Delaware County, PA

G&A 12-04054

Gilmore & Associates, Inc. (G&A) has completed the preliminary land development transportation review of the Traffic Impact Assessment dated September 16, 2014 and last revised December 4, 2014. The revisions included added correspondence since the initial date of the report and supplemental information included in Appendix M. G&A reviewed the submitted materials and offers the following comments for Radnor Township consideration:

I. BACKGROUND

The applicant, Villanova University, intends to develop/redevelop several parcels located along Lancaster Avenue, southeast and southwest of the Ithan Avenue intersection, in Radnor Township, Delaware County. The project includes construction of student housing (1,135 bed apartment-style residence halls), retail shops (University Bookstore, bistro and small convenience store, size to be determined) along with 147 surface parking spaces to be located on the southwest corner of Lancaster Avenue and Ithan Avenue. In addition, the project includes construction of a Performing Arts Center (with 500 – 650 total seats in two theaters) and a multilevel parking structure (1,293 spaces) to be located on the southeast corner of Lancaster Avenue and Ithan Avenue. Villanova University intends to eliminate many of the existing driveway accesses located on the south side of Lancaster Avenue, west of Ithan Avenue and construct a shared surface parking facility to the rear of the existing university buildings on Lancaster Avenue with limited access to Lancaster Avenue at the signalized intersection of Church Walk and a new right in driveway, west of Church Walk.

II. DOCUMENTS REVIEWED

The following documents were submitted to Gilmore & Associates for review:

1. Transportation Impact Study for Villanova University Lancaster Avenue Student Resident Halls, prepared by F. Tavani and Associates, Inc., dated September 16, 2014, revised December 4, 2014.
2. Response letter dated December 4, 2014 prepared by F. Tavani and Associates, Inc.

III. TRANSPORTATION IMPACT STUDY COMMENTS

1. As discussed at a coordination meeting on January 28, 2015 with PennDOT, Radnor Township, and Villanova University staff, revise the transportation impact study to investigate the following alternatives/information:
 - i. Include phased improvements in the report and any graphics to clarify what improvements are associated with each phase.
 - ii. Eliminate the southbound Ithan Avenue left turns into the Pike Lot Garage and include a deceleration lane on the eastbound departure of Lancaster Avenue at Ithan Avenue. This may reduce the need for a right turn lane on eastbound Lancaster Avenue at Ithan Avenue, provide more queuing space for the northbound left turn lane on Ithan Avenue at Lancaster Avenue, provide better circulation during special events and reduce the impact to pedestrians crossing Ithan Avenue near both parking accesses.
 - iii. Relocate the Church Walk traffic signal on Lancaster Avenue west of the current location. This will separate vehicular and pedestrian movements, encourage more pedestrians to utilize the pedestrian bridge, provide more parking near the pedestrian bridge, allow for vehicle and pedestrian movements during construction efforts and provide a less complicated construction staging for the pedestrian bridge.
2. The applicant will be required to provide a comprehensive Transportation Impact Study once all comments are resolved. The final documents accepted for the land development process should not include updates and modifications in the form of an Appendix. We understand while the study is under review it makes sense to allow individual submissions but once the TIS is considered acceptable a final document must be provided to the Township as a permanent, stand-alone complete document.
3. The applicant is required to provide a turn-lane length analysis for all auxiliary lanes including the eastbound right turn lane at the intersection of Ithan Avenue and Lancaster Avenue in accordance with the methodology included in PennDOT Publication 46 *Traffic Engineering Manual*. The applicant should utilize the

PennDOT turn lane analysis worksheet from the PennDOT Traffic Signal Portal website and include the analysis in the next submission.

Although the response letter accompanying the TIS submission indicated the preliminary PennDOT letter and the CU Decision and Order did not include this as a requirement, we remind the applicant that the PennDOT letter was a preliminary review letter (pre-HOP application) based on the limited information provided and the applicant is working through the land development process. Furthermore, it is our understanding that the conditional use decision does not limit township staff from requesting additional information or providing recommendations during the land development and highway occupancy permitting process.

4. Provide a table indicating the 95th percentile queues for all intersections using HCM2010 methodology. A queue analysis was only provided for five intersections. Minimally, the applicant should provide the information for the following intersections:
 - i. Conestoga Road and Sproul Road
 - ii. Conestoga Road and Ithan Avenue
 - iii. Conestoga Road and Lowrys Lane (northbound approach)
 - iv. County Line Road & Ithan Avenue North
 - v. County Line Road & Roberts Road (both north and southbound)

Although the submission letter indicated PennDOT requested a limited intersection scope, the township will be evaluating the scope of all intersections in the study area as discussed previously and the applicant is requested to provide the information for review.

5. Use the Synchro HCM2010 methodology for the analysis of the Church Walk and Lancaster Avenue intersection. Verify the Synchro software version is up to date as the latest update includes a shared lane algorithm to support an analysis of this type of intersection; this should resolve any error message associated with analyzing the intersection with HCM2010. In addition, verify the Church Lane approach is modeled in Synchro accurately and reflects the latest site plans (dated December 5, 2014).
6. The new trips for the retail portion of the development should be based on the Scenario 1 information provide in your response letter December 4, 2014, which includes 31 trips entering and 29 exiting trips during the AM peak hour and 51 entering and 48 trips during the PM peak hour. The analysis must be based on the most conservative traffic impact of the three alternatives since the exact use is unknown. Revise the report accordingly.
7. Verify the trip distribution for the retail portion of the development to and from the east. The current projections show all the retail site traffic to and from the east using the PAC Lot. The eastbound Lancaster Avenue traffic to the proposed retail portion of the development is more likely to turn left at Ithan Avenue from WB Lancaster Avenue and continue southbound on Ithan Avenue and then turn right in the surface parking lot, near the residential dormitories and retail area. In addition, the exiting

movement would likely turn left on northbound Ithan Road and turn right on Lancaster Avenue to continue east.

8. Redistribution Worksheet A1 and A7, the site trip traffic must be distributed through the entire network and not just at the seven intersections shown on the worksheet. Provide a Figure that shows the site generated trip throughout the entire study area.
9. The revised Redistribution Worksheet 6 and 12 indicate redistribution traffic occurs outside the seven intersections shown on the worksheets. For example, Redistribution Worksheet 12 indicates 43 trips were redistributed to the area prior to north of the HRB access shown on Ithan Avenue. Provide worksheets that show the anticipated redistributed traffic within the entire study.
10. Comparing the base condition traffic volumes to the future projected traffic volumes, it appears that some trips may have been removed and were not redistributed throughout the study area for the projected conditions. For example, at the intersection of Ithan Avenue and County Line Road, Figure 5: *2018 Base Conditions*, shows the southbound through movement decreases from 154 vehicles to 134 vehicles in Figure 11 *2018 Projected Conditions*. On the same two figures, the southbound movement on Ithan Avenue at Lancaster Avenue decreases from 217 to 118 vehicles for the *2018 Base Conditions* and *2018 Projected Conditions*, respectively. Additional information must be provided to explain the reduction. In addition, the applicant should verify the provided data for the future 2018 and 2023 analyses for both AM and PM conditions for similar discrepancies at the following intersections:
 - i. Ithan Avenue & Route 30
 - ii. Both County Line Road & Ithan Avenue intersections
 - iii. County Line Road & Spring Mill Road
11. As previously requested in our September 30, 2014 review letter under comment L, provide a right turn warrant analysis for the eastbound approach on Lancaster Avenue at Ithan Avenue in accordance with PennDOT Publication 46 Chapter 11 regardless of the level of service operation and pedestrian accommodations.
12. Revise Table 1 to include the delay in seconds where there are critical movements with LOS degradation particularly for intersections 1, 3, 4, and 9.
13. We understand PennDOT has requested a more limited scope to be submitted for review but to address the township concerns, critical movements must also be evaluated. Address the LOS drops for the critical movements and provide discussion of improvements which would be needed for mitigation of the critical movements. For example, there is an increase of over 100 seconds in delay for the intersection of Lancaster Avenue/Spring Mill Road/Kenilworth Road/Aldwyn Lane for the critical movement on the southbound through/right-turn movement during the PM 2018 and 2023 analyses from base conditions to projected conditions.

14. The applicant has previously proposed an all-way stop at the intersection Ithan Road and the Pike Parking Garage access. The applicant has provided an additional two-way stop analysis in Appendix M of the revised report. It is unclear which type of stop control is to be installed. The recommendations in the report must be updated to be clear on which type of stop control is to be installed. Based on the analysis a two way stop appears to operate at acceptable LOS. The traffic volumes do not appear to warrant an all-way stop in accordance with the MUTCD. Traffic calming measures or other pedestrian improvements should be considered in lieu of an all-way stop.
15. Provide the missing Synchro analysis for the No-Build analysis for the AM peak hour conditions for 2018 and 2023 in Appendix I.
16. Future submissions should include page numbers at the bottom of each page for consistency with the Table of Contents and to allow more efficient review and comment.
17. Incorporate all comments and supplemental items provided in Appendix M and submit a comprehensive TIS. Supplemental Appendices are not acceptable for the final TIS submission.
18. The applicant is required to submit a separate report for special events. Final approval of the TIS cannot be recommended until all comments regarding the special event report and the TIS are satisfied.



MEMORANDUM

Date: January 28, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Department Manager of Transportation

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: Villanova University – Lancaster Avenue Redevelopment
Preliminary Land Development Review #1
Radnor Township, Delaware County, PA

G&A 12-04054

Gilmore & Associates, Inc. (G&A) has completed the preliminary land development traffic review of the referenced project, dated September 16, 2014 and last revised December 4, 2014. The revisions included additional plan sheets identified in section **II. Documents Reviewed**. G&A reviewed the submitted materials offers the following comments for Radnor Township consideration:

I. BACKGROUND

The applicant, Villanova University, intends to develop/redevelop several parcels located along Lancaster Avenue, southeast and southwest of the Ithan Avenue intersection, in Radnor Township, Delaware County. The project includes construction of student housing (1,135 bed apartment-style residence halls), retail shops (University Bookstore, bistro and small convenience store, size to be determined) along with 147 surface parking spaces to be located on the southwest corner of Lancaster Avenue and Ithan Avenue. In addition, the project includes construction of a Performing Arts Center (with 500 – 650 total seats in two theaters) and a multilevel parking structure (1,293 spaces) to be located on the southeast corner of Lancaster Avenue and Ithan Avenue. Villanova University intends to eliminate many of the existing driveway accesses located on the south side of Lancaster Avenue, west of Ithan Avenue and construct a shared surface parking facility to the rear of the existing university buildings on Lancaster Avenue with limited access to Lancaster Avenue at the signalized intersection of Church Walk and a new right in driveway, west of Church Walk.

II. REQUESTED WAIVERS

No waivers were requested with this submission.

III. DOCUMENTS REVIEWED

1. Preliminary Land Development Submission for Lancaster Avenue Housing, consisting of 30 sheets, prepared for Villanova University, prepared by Nave Newell, Inc., dated December 5, 2014.
2. Additional sheets (3), *LAH C2.3 Project Phasing Plan*, *LAH Composite Drainage Plan*, both dated January 19, 2015.

IV. CONSTRUCTION PHASING

The applicant has identified the following construction phasing (Sheet C2.3 *Project Phasing Plan*)

1. Phase 1 Improvements

- i. St Augustines Center Garage Expansion
- ii. Improvements to the West Lancaster Parking facilities
- iii. Ingress from Lancaster Avenue at existing driveways
- iv. Egress to Lancaster Avenue at signal at Church Walk driveway
- v. Closure of Pike Lot surface parking field
- vi. Campus parking spaces: $5,130 - 4,943 = 187$ space deficiency

Comment: Phase 1 improvements may require signal timing modifications at the Church Walk intersection due to redistribution of traffic from Ithan Avenue to Church Walk signal. In addition, the elimination/modification to the existing accesses along Lancaster Avenue should be discussed with PennDOT.

2. Phase 2 Improvements (includes Highway Occupancy Permitting)

- i. Construction of the Pike Field Parking Garage
- ii. Temporary improvements to Pike Lot surface lot at the site of the future Performing Arts Center – PAC
- iii. Construction of the Pedestrian Bridge over Lancaster Avenue
- iv. Improvements to visitor lot, west of Church Walk
- v. Lancaster Avenue and Ithan Avenue improvements
- vi. Campus parking spaces: $5,130 - 5,245 = 115$ space surplus

3. Phase 3 Improvements

- i. Construction of Student Housing Complexes 1 and 2
- ii. Continued use of Pike Lot surface lot at the site of the future Performing Arts Center – PAC
- iii. Campus parking spaces: $5,130 - 5,307 = 177$ space surplus

4. Phase 4 Improvements (Upon Donor Funding)

- i. Elimination of Pike Lot surface lot
- ii. Construction of Performing Arts Center
- iii. Campus parking spaces: $5,130 - 5,130 =$ net zero

V. SALDO COMMENTS

1. §255-27.H (6) Minimum curb radii at street intersections shall be 25 feet for local streets; 30 feet for collectors; 35 feet for arterials; and 10 feet for driveways. The southwest corner radius of Lancaster Avenue and Ithan Avenue must be increased from 25' to 35' radius or a waiver requested.
2. §255-29.A(1) Revise the parking stall to a minimum of 9.5 feet x 20 feet or request a waiver. The parking stalls located in front of the student housing measure 9 feet by 19 feet.
3. §255-29.A(12) Driveway aisles must be a minimum of 25 feet for two-way use or a waiver must be requested; the applicant proposes a 22 foot driveway aisle.
4. §255-29.A(13) Tire bumpers are required to prevent vehicle overhang on sidewalk areas; provide tire bumpers along the parking stalls south of Dormitory Building 2B or request a waiver.
5. §255-29.A(14), No less than a five-foot radius of curvature shall be permitted for all curb lines in parking areas. Sheet 6 of 30 (C2.2) includes several deficient radii along the south side of parking lot, near the Proposed Dumpster and Recycle Area(s). Revise as required or request a waiver.

VI. GENERAL COMMENTS

1. As discussed at a coordination meeting on January 28, 2015 with PennDOT, Radnor Township, and Villanova University staff, the applicant should consider the following improvements:
 - i. Eliminate the southbound Ithan Avenue left turns into the Pike Lot Garage and include a deceleration lane on the eastbound departure of Lancaster Avenue at Ithan Avenue. This may reduce the need for a right turn lane on eastbound Lancaster Avenue at Ithan Avenue, provide more queuing space for the northbound left turn lane on Ithan Avenue at Lancaster Avenue, provide better circulation during special events and reduce the impact to pedestrians crossing Ithan Avenue near both parking accesses.
 - ii. Relocate the Church Walk traffic signal on Lancaster Avenue west of the current location. This will separate vehicular and pedestrian movements, encourage more pedestrians to utilize the pedestrian bridge, provide more parking near the pedestrian bridge, allow for vehicle and pedestrian movements during construction efforts and provide a less complicated construction staging for the pedestrian bridge.
2. All pedestrian crosswalks should be continental style without edgelines with 24" white pavement markings based on PennDOT Publication 111 *Traffic Control Pavement Markings and Signing Standards*, TC-8600.
3. Revise the ARROW legends, ARROW ONLY legends and gore striping based on PennDOT Publication 111 *Traffic Control Pavement Markings and Signing Standards*, TC-8600.

4. Item 2 from the Conditional Use Decision, dated November 24, 2014 indicates the applicant shall construct a pedestrian activated signal at the Ithan Avenue intersection with the parking driveway accesses. The preliminary plans should include this feature.
5. Include the posted speed limit on both Ithan Avenue and Lancaster Avenue.
6. Previous coordination meetings included the discussion of a pedestrian activated rectangular rapid flashing beacon (RRFB) crosswalk at the midblock crossing on Ithan Avenue near the South Campus dormitories and Aldwyn Park. The applicant should investigate a signal at this pedestrian crossing as it is anticipated additional pedestrians from the dormitories will cross at this location once the pedestrian bridge at Church Walk is constructed.
7. Traffic Calming: The strategy discussed in the Development Impact Study (DIS) includes moving traffic along Lancaster Avenue in an effort to reduce the cut-through traffic experienced in neighborhoods; however, the improvements along Lancaster Avenue are not likely to move traffic along any more quickly than is currently experienced. We recommend discussing potential traffic calming elements with nearby affected neighborhoods, particularly Aldwyn Lane residents.
8. The applicant is required to provide a special event plan.
9. Radnor Township Police Department has requested a mechanical gate for the Ithan Avenue accesses to both the surface lot and the Pike Garage; the gates will offer Radnor Township Police Department the ability to close or open the accesses during special events.
10. Details regarding the Pike Garage will be required with particular attend to the traffic flow during special events.
11. Sheet 2, 3 of 30: The plans should be modified to include all sites the applicant intends to improve regardless of the phasing. It appears the existing features only included the site work between Church Walk and Ithan Avenue; however, the existing site plan should include the West Lancaster Avenue parking site and extend to the west to include the entire Pike Field site. The plan should be inclusive of all site locations associated with Phase1 through Phase 4.
12. Sheet 5 of 30:
 - i. Include a note indicating the proposed gate for the church driveway north of Lancaster Avenue will remain closed during non-events.
 - ii. It does not appear that any ADA improvements are proposed for the sidewalk crossing the church driveway access north of Lancaster Avenue.
 - iii. We recommend eliminating the street level pedestrian crossing on Lancaster Avenue; minimally, eliminating the western crossing in favor of one pedestrian crossing on Lancaster Avenue, east of Church Walk.

- iv. Realign the pedestrian crosswalk on the Church Walk driveway near Lancaster Avenue to provide a direct crossing from east to west for the proposed sidewalks.
- v. Include stop bars on both parking aisle approaches to Church Walk. Adjust the location of the pedestrian crosswalks as needed.

13. Sheet 6 of 30:

- i. Include the right turn lane on Lancaster Avenue at Ithan Avenue; the right turn lane is warranted.
- ii. Adjust the lane widths on Ithan Avenue at Lancaster Avenue to provide 12.5' at the curbed lane and 11' for the center lane
- iii. Eliminate the stop bars on Ithan Avenue at the proposed driveways; this intersection is stop control on the proposed driveways.
- iv. Include the ONLY legend for the dedicated left turn on southbound Ithan Avenue at the parking garage driveway.
- v. Verify the sight distance is adequate for the crosswalks on Ithan Avenue at the parking driveways and consider moving the single pedestrian crosswalk to north of the intersection.
- vi. Identify and dimension all public sidewalks along Ithan Avenue and Lancaster Avenue.
- vii. Revise the curb details regarding the driveway access to Building 2C *Loading Zone and Mechanical Pit* and clarify what type of curbing is proposed.
- viii. The driveway access for Building 2C is located too close to Ithan Avenue and presents a blind corner for motorists entering and exiting the site via Ithan Avenue. Either relocate the driveway access to Building 2C or add a note to the plan restricting delivery hours to reduce the potential conflict with students arriving and departing the surface lot.
- ix. Include a mechanical gate for the internal access to Building 2C loading zone to discourage illegal parking.

14. Sheet 7 of 30:

- i. Exhibit 1: the WB-50 right turn template must turn into the right most curb lane
- ii. Exhibit 2: Adjust the location of the eastbound stop bars to allow for the left turn movement from both exit lanes or include signage prohibiting trucks in the left most, left turn lane exiting Church Walks
- iii. Exhibit 4: Adjust the WB-50 turn template to eliminate the encroachment of the north-most eastbound through lane or increase the turn radius of the corner, as needed.
- iv. Exhibit 5: The exit movement must also be provided to determine if the WB-50 movement will encroach on parking spaces. If the exit movement will be through the signal at Church Walk, all internal site turns required to gain access to the intersection of Church Walk and Lancaster Avenue must be provided.

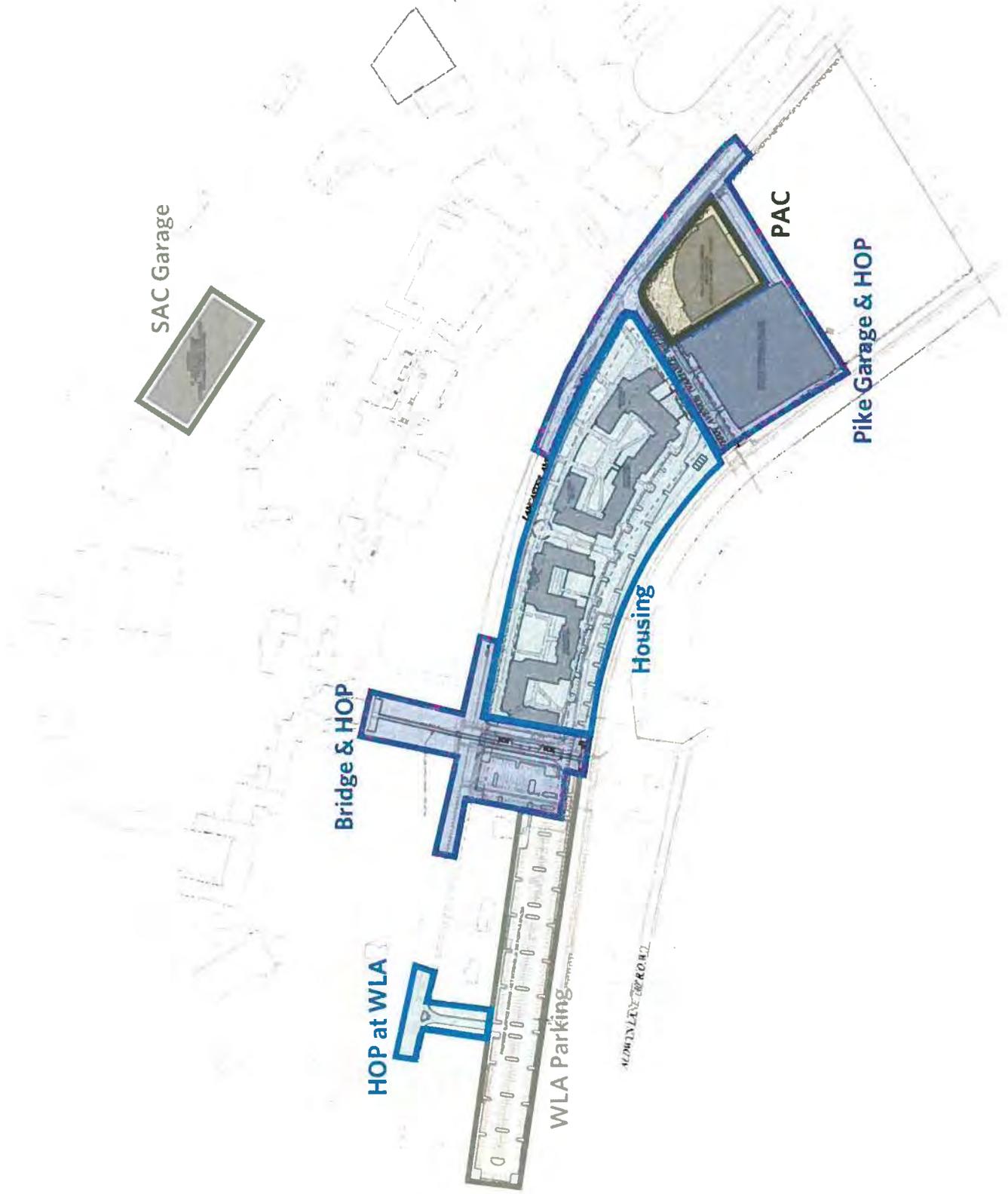
- v. Exhibit 7: The WB-50 truck template indicates the truck will encroach upon the southbound Ithan Avenue left turn lane at the Pike Lot garage. Revise to eliminate the encroachment or increase the northwest corner turn radius.

15. Sheet 23 of 30:

- i. Revise details to cite the applicable PennDOT Publication.
- ii. Revise the "PAINTED CROSSWALK" detail to PennDOT Publication 111, TC-8600 as discussed in our previous comment.

16. During final land development, each phase will require the following details:

- i. Details regarding the onsite pedestrian ramp to access the pedestrian bridge will be required for review and approval.
- ii. A Signage and Pavement Marking Plan will be required
- iii. Maintenance and protection of traffic details are required for both Ithan Avenue and Lancaster Avenue
- iv. Staging and details for maintaining pedestrian accommodations during construction will be required.
- v. Design details regarding the onsite pedestrian curb ramps and crosswalks (refer to PennDOT Publication *72M Roadway Construction Details, RC-67M* for information)
- vi. Include signage to prohibit all trucks from turning right out of the driveway access to continue southbound on Ithan Avenue, and to prohibit trucks from turning left into the driveway from northbound Ithan Avenue.



7-Jan-15

Villanova University
Lancaster Avenue Housing Development

Projects	Submissions									
	Land Development	Grading Permit	Planning	Shade Tree	Design Review	Building Permit	PennDot Approvals	Construction Start	Construction Completion	
SAC GARAGE								Sep-15	Dec-15	
WLA PARKING								Sep-15	Dec-15	
PIKE GARAGE & HOP								Jan-16	Dec-16	
BRIDGE & HOP								Apr-16	Dec-16	
HOP AT WLA								Mar-17	Aug-17	
HOUSING								Jan-17	Apr-19	
PAC								TBD	TBD	
RETAIL								Sep-18	Apr-19	
SANITARY SEWER - STREET PIPING								Mar-17	Oct-17	



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

January 2, 2015

Ms. Maria Goman
Nave Newell
900 West Valley Road, Suite 1100
Wayne, PA 19087

Re: Application for Planning Modules
Checklist Letter – Component 3
Villanova CICD Development
DEP Code No. 1-23013-246-3J
Radnor Township
Delaware County

Dear Ms. Goman:

In response to your application mailer, this checklist letter outlines what is required to be submitted to the municipality and the Department of Environmental Protection (DEP) as a complete module packet for the proposed development. Your development proposes a 1,135 bed dormitory, performance center, restaurant and retail space that will be served by a connection to public sewer.

Sewage Facilities Planning Module forms are available from our eLibrary as MS Word Form Fields files directly from DEP's website address located in the footer below. In the left-hand column, select the Water heading and then select Water Standards and Facility Regulation. In the right-hand column, select Wastewater Management and then select Act 537. Under Act 537, select Sewage Facilities Planning. Under Planning Forms, select the appropriate forms. The link will take you to the eLibrary location for the form.

Please select the following forms for this project and enter the above-referenced DEP Code Number on the first page of each form:

Sewage Facilities Planning Module Transmittal Letter, Form 3800-FM-BPNPSM0355
Sewage Facilities Planning Module Resolution, Form 3800-FM-BPNPSM0356
Sewage Facilities Planning Module Component 3, Form 3800-FM-BPNPSM0353

- Instructions
- Form

Sewage Facilities Planning Module Component 4

- 4A-Municipal Planning Agency Review, Form 3800-FM-BPNPSM0362A
- 4B-County Planning Agency Review, Form 3800-FM-BPNPSM0362B

Please submit the completed planning modules and supporting information to the municipality or municipalities in which the project is located. DEP must receive 1 copy of the completed planning module. Please answer all questions within the planning module. Do not simply answer "N/A" or "Not Applicable". If you feel a question does not apply, explain all reasons to support that answer. For this project, optional Section J must be completed.

Please refer to the Standard Operating Procedures (SOP) that govern Act 537 sewage facilities planning module reviews. The SOPs can be found on the DEP website at http://www.portal.state.pa.us/portal/server.pt/community/Permit_Decision_Guarantee/21215/SOPs/1294992. Consistent with the SOP, DEP may disapprove an administratively incomplete planning module submission. Please use the checklist provided in this letter below to guide both you and the municipality in providing an administratively complete planning module submission to DEP for review.

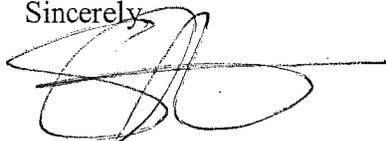
A copy of this letter should be attached to the planning module when submitted through the municipality to DEP. This letter is to be used by the applicant (or the applicant's authorized representative) as a checklist and guide to completing the planning modules and does not supersede the rules and regulations found in Chapter 71. The municipality must submit a complete module package. (See end of letter for applicant and municipal certification statements.)

NOTE: DEP should be notified at least ten days prior to soils testing activities for this project.

In all cases, address the immediate and long range sewage disposal needs of the proposal and comply with 25 Pa. Code, Chapter 71, Subchapter C relating to New Land Development Plan Revisions.

If you have any questions concerning the information required, please contact me at 484.250.5186.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stefanie Rittenhouse', with a horizontal line extending to the right from the end of the signature.

Stefanie Rittenhouse
Sewage Planning Specialist 2
Clean Water

cc: Delaware County Planning Department
Radnor Township
Villanova University
RHM
Springfield Township
Upper Darby Township
DCJA
DELCORA
Mr. Ponert-City of Philadelphia Water Department
Planning Section
Re 30(GJE15CLW)002-10

Applicant Checklist (✓ or N/A)	Materials Required to be Included in the Planning Package	DEP Completeness Review
DEP Checklist Letter		
	DEP checklist letter is attached with items checked off by the applicant (or applicant's authorized representative) as included	
	DEP checklist letter certification statement completed and signed	
Transmittal Letter (Form 3800-FM-BPNPSM0355)		
	Transmittal Letter is attached, completed and the appropriate boxes in Section (i) are checked.	
	Transmittal Letter is signed by the municipal secretary	
Resolution of Adoption (Form 3800-FM-BPNPSM0356)		
	Resolution of Adoption is attached and completed	
	Resolution of Adoption is signed by the municipal secretary	
	Resolution of Adoption has a visible municipal seal	
Component 4A - Municipal Planning Agency Review (Form 3800-FM-BPNPSM0362A)		
	Component 4A is attached, completed and signed	
	Municipal Responses to Component 4A comments are included	
Component 4B - County Planning Agency Review (Form 3800-FM-BPNPSM0362B)		
	Component 4B is attached, completed and signed	
	Municipal Responses to Component 4B comments are included	
Component 4C - County or Joint Health Department Review (Form 3800-FM-BPNPSM0362C)		
	Component 4C is attached, completed and signed	
	Municipal Responses to Component 4C comments are included	
Component 3 Sewage Facilities Planning Module (Form 3800-FM-BPNPSM0353)		
<i>Section A: Project Information</i>		
	Section A.1. The Project Name is completed	
	Section A.2. The Brief Project Description is completed	
<i>Section B: Client Information</i>		
	Client Information is completed	
<i>Section C: Site Information</i>		
	Site Information is completed	
	A copy of the 7.5 minute USGS Topographic map is attached with the development site outlined, as required by the instructions and the checklist	
<i>Section D: Project Consultant Information</i>		
	Project Consultant Information is completed	

<i>Section E: Availability of Drinking Water Supply</i>		
	The appropriate box is checked in Section E	
	For existing public water supplies, the name of the company is provided	
	For public water supplies, the certification letter from the public water company is attached	
<i>Section F: Project Narrative</i>		
	The Project Narrative is attached	
	All information required in the module directions has been addressed	
<i>Section G: Proposed Wastewater Disposal Facilities</i>		
	Section G.1.a. The collection system boxes are checked	
	The Pennsylvania Clean Streams Law (CSL) permit number is provided for existing systems	
	Section G.1.b. The questions on the collection system are completed	
	Section G.2.a. The appropriate treatment facility box is checked	
	For existing treatment facilities, the name is provided	
	For existing treatment facilities, the NPDES permit number is provided	
	For existing treatment facilities, the CSL permit number is provided	
	For new treatment facilities, the discharge location is provided	
	Section G.2.b. The certification statement has been completed and signed by the wastewater treatment facility permittee or their representative	
	Section G.3. The plot plan is attached and contains all items in the module instructions under Section G.3	
	The plot plan will show the proposed sewer facilities, sewer extension and/or point of connection to the existing sewer line or point of discharge	
	Copies of easement(s) or right-of-way(s) are attached	
	Section G.4. The boxes are checked regarding Wetland Protection	
	Section G.5. The boxes are checked regarding Primary Agricultural Land	
	Section G.6. The boxes are checked confirming consistency with the Historic Preservation Act	
	The Cultural Resources Notice (CRN) (Form 0120-PM-PY0003) is attached	
	A return receipt for its submission to the Pennsylvania Historical and Museum Commission (PHMC) is attached	

<i>Section G: Proposed Wastewater Disposal Facilities</i>		
	The PHMC review letter is attached	
	Section G.7. The boxes are checked regarding Pennsylvania Natural Diversity Inventory (PNDI)	
	Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt is attached	
	PNDI Review Receipt, if no potential impacts identified, is not older than 2 years	
	All supporting resolution documentation from jurisdictional agencies (when necessary) is attached and not older than 2 years	
	A completed PNDI Large Project Form (PNDI Form) (Form 8100-FM-FR0161) is attached with all supplemental materials and DEP is requested to complete the search.	
<i>Section H: Alternative Sewage Facilities Analysis</i>		
	The Alternative Sewage Facilities Analysis is attached	
	All information required in the module directions has been addressed	
<i>Section I: Compliance with Water Quality Standards and Effluent Limitations</i>		
	The box is checked regarding Waters Designated for Special Protection	
	The Social or Economic Justification is attached	
	The box is checked regarding Pennsylvania Waters Designated As Impaired	
	The box is checked regarding Interstate and International Waters	
	The box is checked regarding Tributaries to the Chesapeake Bay and the required information is provided	
	The Name of Permittee Agency, Authority, Municipality and the Initials of Responsible Agent are provided	
	If discharge to an intermittent stream, dry swale or manmade ditch is proposed, provide evidence that a certified letter has been sent to each owner of property over which the discharge will flow until perennial conditions are met	
<i>Section J: Chapter 94 Consistency Determination</i>		
	A map showing the path of the sewage to the treatment facility and the location of the discharge is provided	
	Section J.1. The Project Flows are provided	
	Section J.2. The permitted, existing, and projected average and peak flows are provided in the table for collection, conveyance and treatment facilities	
	Section J.3.a. The appropriate box is checked indicating capacity in the Collection and Conveyance Facilities	

<i>Section J: Chapter 94 Consistency Determination</i>		
	Section J.3.b. The Collection System information is completed, signed and dated	
	Section J.3.b. The Conveyance System information is completed, signed and dated	
	Section J.4.a. The appropriate box is checked regarding projected overloads at the Treatment Facility	
	Section J.4.b. The Treatment Facility information is completed, signed and dated	
	The Permittee of the wastewater treatment facility has submitted a Chapter 94 Wasteload Management Report, which includes the information for the collection and conveyance system to serve this project	
	An acceptable Wasteload Management Report Corrective Action Plan (CAP) and schedule has been submitted, as well as a connection management plan	
	A letter from the permittee, which grants allocations to the project consistent with the CAP, and a copy of the connection management plan has been submitted	
	Letter indicating the treatment plant is an interim regional treatment facility is attached	
<i>Section K: Treatment and Disposal Options</i>		
	For proposed treatment facilities, the appropriate box is checked indicating the selected Treatment and Disposal Option	
<i>Section L: Permeability Testing</i>		
	The Permeability Testing information is attached	
<i>Section M: Preliminary Hydrogeologic Study</i>		
	The Preliminary Hydrogeologic Study is attached	
	The Preliminary Hydrogeologic Study is signed and sealed by a Professional Geologist	
<i>Section N: Detailed Hydrogeologic Study</i>		
	The Detailed Hydrogeologic Study is attached	
	The Detailed Hydrogeologic Study is signed and sealed by a Professional Geologist	
<i>Section O: Sewage Management</i>		
	Section O.1. The box is checked indicating municipal or private facilities	
	If municipal, the remainder of Section O is not applicable	
	If private, the required analysis and evaluation of sewage management options is attached	
	Section O.2. The appropriate box is checked regarding the use of nutrient credits or offsets	

<i>Section O: Sewage Management</i>		
	Section O.3. The Project Flows for the private facilities are provided	
	Section O.4.a. The appropriate box is checked indicating capacity in the existing private Collection and Conveyance Facilities	
	Section O.4.b. The private Collection System information is completed, signed and dated	
	Section O.4.c. The private Conveyance System information is completed, signed and dated	
	Section O.5.a. The appropriate box is checked regarding projected overloads at the private Treatment Facility	
	Section O.5.b. The private Treatment Facility information is completed, signed and dated	
	Section O.6. The box is checked indicating the municipality will assure proper operation and maintenance of the proposed private facilities	
	The required documentation of sewage management is attached	
<i>Section P: Public Notification Requirement</i>		
	All Public Notification boxes in this section are checked	
	The public notice is attached, if public notification is necessary	
	All comments received as a result of the notice are attached	
	The municipal responses to these comments are attached	
	The box is checked indicating that no comments were received, if valid	
<i>Section Q: False Swearing Statements</i>		
	The planning module preparer's false swearing statement is completed and signed	
<i>Section R: Planning Module Review Fee</i>		
	The correct fee has been calculated	
	The correct fee has been paid	
	The request for fee exemption has been checked	
	The deed reference information is provided to support the fee exemption	
<i>Completeness Checklist</i>		
	The module completeness checklist is included	
	All completeness items have been checked as included by the municipality, as appropriate	
	The Municipal Official has signed and dated the checklist	

CERTIFICATION STATEMENT

I certify that this submittal is complete and includes all requested items. I understand that failure to submit a complete module package may result in a denial of the application.

Signed: _____ Date: _____
Applicant (or Applicant's authorized representative)

Signed: _____ Date: _____
Municipal Secretary

ELAINE P. SCHAEFER
President

JAMES C. HIGGINS
Vice-President

WILLIAM A. SPINGLER

DONALD E. CURLEY

JOHN FISHER

JOHN NAGLE

RICHARD F. BOOKER



RADNOR TOWNSHIP
301 IVEN AVENUE
WAYNE, PENNSYLVANIA 19087-5297

Phone (610) 688-5600
Fax (610) 971-0450
www.radnor.com

ROBERT A. ZIENKOWSKI
Township Manager
Township Secretary

JOHN B. RICE, ESQ.
Solicitor

JOHN E. OSBORNE
Treasurer

December 12, 2014

Steven Hildebrand
Villanova University
800 East Lancaster Ave.
Villanova, PA 19085

**RE: Land Development Application #2014-D-07 Preliminary Plan Submission
Villanova University – Lancaster Avenue Housing**

Dear Mr. Hildebrand:

In accordance with Section 255-14 of the Subdivision of Land Code of the Township of Radnor, we have reviewed your preliminary plan application to construct 1,135 bed student housing in six buildings with associated retail space under CICD use and have found it complete. Therefore, I have accepted the application for preliminary plan for review by the Township Staff, Shade Tree Commission, Planning Commission, and Board of Commissioners.

These plans are available for public viewing in the Engineering Department. The date that the Planning Commission will review these plans has yet to be determined. The date will be provided to you once it is placed on the Agenda. Subsequent to the Planning Commission meeting, your plan will be reviewed by the Board of Commissioners. You or your representative should plan to attend all scheduled meetings.

If you have any questions or required any additional information, please contact me.

Sincerely,

Roger Phillips, P.E.
Township Engineer

Cc: Nave Newell



December 5, 2014

VIA HAND DELIVERY (610)688-5600

Suzan Jones
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**Reference: Villanova University – Lancaster Avenue Housing
Preliminary Plan Submission
Nave Newell No. 2011-005.00**

Dear Ms. Jones:

On behalf of Villanova University we are submitting the following documents for Preliminary Plan review and respectfully request to be placed on the Planning Commission's January meeting agenda. The quantities enclosed are listed after each item:

1. Preliminary Plan Set (Sheets 1-12, 15-30 of 30) dated December 5, 2014 (22);
2. Notarized Preliminary Plan Set (Sheets 1-12, 15-30 of 30) dated December 5, 2014 (8);
3. Reduced Size copies of Preliminary Plan Set (11X17), dated December 5, 2014 (15);
4. Storm Water Management Report and Site Drainage Calculations dated December 5, 2014 (2);
5. Radnor Township Land Development Application (1);
6. Delaware County Application for Act 247 Review (1);
7. Check No. 16133853 in the amount of \$15,000.00 and check No. 16133854 in the amount of \$4,600.00 made payable to Radnor Township for the Land Development escrow and review fee (1 each);
8. Check No. 16133883 in the amount of \$10,650.00 made payable to Treasurer of Delaware County for the Act 247 review fee (1);
9. Deed of Record for subject property (1);
10. Digital copy of Title Report for Subject Property (1);
11. Transportation Impact Study prepared by F. Tavani and Associates, dated 12/4/2014 (2).
12. Act 537 Sewage Planning Module application (1);
13. Aqua Pennsylvania Inc. will serve letter (1); and,
14. Thumb drive with electronic copies of above noted submission documents (1).

As the total scope of improvements recently authorized by the conditional use approval is being phased, the Applicant will be submitting multiple independent applications for the project improvements. This Preliminary Land Development Application is related to the housing component of the CICD development within the limits of the "Main Lot". Additional Township applications will be forthcoming for the Pike Parking Garage, West Lancaster Avenue Parking Lot, Pedestrian Bridge, St. Augustine Center Parking Garage Expansion, and upon receipt of funding, the Land Development Application for the Performing Arts Center.



Suzan Jones, Radnor Township
Nave Newell No. 2011-005.00
December 5, 2014
Page 2

If you have any questions regarding this submission, please contact me at (610)265-8323 or via email at atweedie@navenewell.net.

Respectfully submitted,

A handwritten signature in black ink that reads "D. Alexander Tweedie". The signature is stylized with a large, sweeping "D" and a long horizontal line extending to the right.

D. Alexander Tweedie, PE

DAT/jjh
Enclosures

cc via email: Marilou Smith - Villanova University
Steven Hildebrand - Villanova University
Nicholas Caniglia, Esq. - Pierce Caniglia & Taylor
John Cluver - Voith Mactavish Architects
Zeke Balan - Robert A.M. Stern Architects
Frank Tavani, PE - F. Tavani and Associates

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**RADNOR TOWNSHIP
301 IVEN AVE.
WAYNE, PA 19087
610 688 5600
WWW.RADNOR.COM**

SUBDIVISION AND LAND DEVELOPMENT SUBMISSION GUIDELINES

1. Complete the enclosed Radnor Township Subdivision and Land Development application form and the Delaware County Planning Department application form.
2. Submit the completed application forms, the three (3) required filing fees, and the appropriate number of copies of plans to the Township Engineer. **ALL DOCUMENTS MUST BE SUBMITTED NOT LESS THAN 31 CALENDAR DAYS PRIOR TO THE NEXT PLANNING COMMISSION MEETING DATE IN ORDER TO BE PLACED ON THE AGENDA.**
3. The applicant or his/her representative must be present at all meetings when the application is scheduled as an agenda item.
4. When approved or disapproved by the Planning Commission the application will go before the Radnor Township Board of Commissioners for their approval/disapproval. This will not occur any sooner than forty-five (45) days after first regular meeting of Planning Commission or until receipt of the Delaware County Planning Commission's comments.
5. The application will be approved/disapproved by the Township's Board of Commissioners within (90) days from the date of the first regular meeting of the Planning Commission, unless an extension is granted by the applicant.

Meeting Dates:

All meetings are held at the Township Municipal Building – 301 Iven Ave, Wayne, Pa.

Planning Commission - Regular Meetings – 1st Monday of the month – 7:00 PM

Board of Commissioner's - Regular Meetings – 2nd & 4th Monday of the month – 6:30 PM (except summer)

All meetings subject to change during summer months and around holidays

Required Dimensions and Number of Plans for Submission:

Plan Scale: Not less than 1"= 100'

**Plan Size: Maximum 24" x 36" for all submissions.
Minimum 18" x 30"**

THIRTY (30) complete sets of plans FOLDED and STAPLED are required for all stages of plan reviews; Sketch Plan, Preliminary Plan and Final Plan. Notarized signature of owner on eight (8) of the 24" X 36" copies.

FIFTEEN (15) complete sets of plans @ 11 x 17 and at least ONE (1) thumb drive of all the plans submitted.

Two (2) copies of any calculations/reports.

Any Waivers to the SALDO must be submitted **in writing at the time of the application.**

Copy of the deed or copy of sales agreement shall accompany this submission.

Title Report with all attachments required Not a title policy

Application Fee:

Three (3) checks are required – (1) Delaware County Planning Department Review (payable to DCPD), (1) Radnor Township Application Fee, and (1) Radnor Township Escrow Fee (Both payable to Radnor Township).

(The Fee Schedule on file at the Township Bldg. and website)

Revised 11/3/14

RADNOR TOWNSHIP
301 IVEN AVE
WAYNE PA 19087
P) 610 688-5600
F) 610 971-0450
WWW.RADNOR.COM

SUBDIVISION ~ LAND DEVELOPMENT

Location of Property 800 East Lancaster Ave.

Zoning District PI Application No. _____
(Twp. Use)

Fee \$4,600.00 Ward No. 4 Is property in HARB District no

Applicant: (Choose one) Owner x Equitable Owner _____

Name Villanova University

Address 800 East Lancaster Ave.

Telephone 610-519-4500 Fax _____ Cell _____

Email steven.hildebrand@villanova.edu

Designer: (Choose one) Engineer x Surveyor _____

Name Gregory C. Newell, PE
Nave Newell, Inc.

Address 900 West Valley Road, Suite 1100, Wayne, PA 19087

Telephone 610-265-8323 Fax 610-265-4299

Email gnewell@navenewell.net

Area of property 240 ac. Area of disturbance 9.5 ac.

Number of proposed buildings 6 Proposed use of property CICD / Student Housing

Number of proposed lots 1 (existing campus)

Plan Status: Sketch Plan _____ Preliminary x Final _____ Revised _____
Are there any requirements of Chapter 255 (SALDO) that are not in compliance with?

Are there any requirements of Chapter 255 (SALDO) not being adhered to?
Explain the reason for noncompliance.

n/a

Are there any infringements of Chapter 280 (Zoning), and if so what and why?

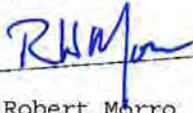
n/a

Individual/Corporation/Partnership Name

Villanova University

I do hereby certify that I am the owner, equitable owner or authorized representative of the property which is the subject of this application.

Signature



Print Name

Robert Morro

Associate Vice President of Facilities Management

By filing this application, you are hereby granting permission to Township officials to visit the site for review purposes.

NOTE:

All requirements of Chapter 255 (Subdivision of Lane) of the Code of the Township of Radnor must be complied with whether or not indicated in this application.

DELAWARE COUNTY PLANNING COMMISSION

APPLICATION FOR ACT 247 REVIEW

Incomplete applications will be returned and will not be considered "received" until all required information is provided.

Please type or print legibly

DEVELOPER/APPLICANT

Name Villanova University E-mail steven.hildebrand@villanova.edu

Address 800 East Lancaster Ave., Villanova, PA 19085 Phone 610-519-4500

Name of Development Lancaster Avenue Housing

Municipality Radnor Township

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm Nave Newell, Inc. Phone 610-265-8323

Address 900 West Valley Road, Suite 1100, Wayne, PA 19087

Contact D. Alexander Tweedie, PE E-mail atweedie@navenewell.net

Type of Review	Plan Status	Utilities		Environmental Characteristics
		Existing	Proposed	
<input type="checkbox"/> Zoning Change	<input type="checkbox"/> Sketch	<input type="checkbox"/> Public Sewerage	<input checked="" type="checkbox"/> Public Sewerage	
<input checked="" type="checkbox"/> Land Development	<input checked="" type="checkbox"/> Preliminary	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Wetlands
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Final	<input type="checkbox"/> Public Water	<input checked="" type="checkbox"/> Public Water	<input type="checkbox"/> Floodplain
<input type="checkbox"/> PRD	<input type="checkbox"/> Tentative	<input type="checkbox"/> Private Water	<input type="checkbox"/> Private Water	<input type="checkbox"/> Steep Slopes

Zoning District PI

Tax Map # 36 / 24 / 33

Tax Folio # 36 / 04 / 02400 / 10

STATEMENT OF INTENT

WRITING "SEE ATTACHED PLAN" IS NOT ACCEPTABLE.

Existing and/or Proposed Use of Site/Buildings:

Existing Use = asphalt parking lot

Proposed Use = construction of 1,135 bed student housing in six buildings with associated retail space under CICD use

of PI Zoning.

Total Site Area	9.5	Acres
Size of All Existing Buildings	0	Square Feet
Size of All Proposed Buildings	96,638	Square Feet
Size of Buildings to be Demolished	0	Square Feet

Robert Morro, Assoc. Vice President of Facilities Mgt.

Print Developer's Name
Villanova University


Developer's Signature

MUNICIPAL SECTION

ALL APPLICATIONS AND THEIR CONTENT ARE A MUNICIPAL RESPONSIBILITY.

Local Planning Commission Regular Meeting _____

Local Governing Body Regular Meeting _____

Municipal request for DCPD staff comments prior to DCPC meeting, to meet municipal meeting date:

Actual Date Needed _____

IMPORTANT: If previously submitted, show assigned DCPD File # _____

Print Name and Title of Designated Municipal Official _____

Phone Number _____

Official's Signature _____

Date _____

FOR DCPD USE ONLY

Review Fee: Check # _____ Amount \$ _____ Date Received _____

Applications with original signatures must be submitted to DCPD.

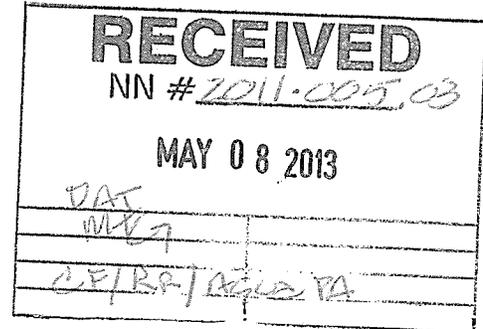


Aqua Pennsylvania, Inc.
762.W. Lancaster Avenue
Bryn Mawr, PA 19010

www.aquaamerica.com

May 6, 2013

Maria T. Goman
Nave Newell
357 South Gulph Road, Suite 300
King of Prussia, PA 19406



Re: Water Availability
Villanova University Housing
Radnor Township, Delaware County, Pennsylvania

Dear Ms. Goman:

This letter will serve as confirmation that the above referenced property is situated within Aqua Pennsylvania Inc.'s service territory. Service would be provided in accordance with Aqua Pennsylvania Inc.'s Rules and Regulations.

Please contact Deanne L. Ciotti, Aqua Pennsylvania Inc.'s New Service Representative at 610-541-4160 for further information on service alternatives that will meet your domestic and fire service needs. Ms. Ciotti will provide you with the appropriate service applications.

Please note that if any additional public hydrants are required, or any need to be relocated, for this project that it will be handled separately by me with the issuance of a Fire Hydrant Agreement or Relocation Agreement for execution. If required, please forward a drawing with the hydrant dimensioned in both directions showing any utilities that could be encountered by us in running the hydrant lead pipe. Similarly this also applies for our existing mains on a parcel, except that your firm would be required to prepare a drawing for us.

Flow data information may be obtained from our Production Department so that you may determine the adequacy of our supply for your project needs. Please fax a written request to Lisa Thomas Oliva at 610-645-1162 containing the address, street, cross street and municipality and all pertinent contact information.

If I can be of further assistance, you may contact me at (610) 645-4230.

Sincerely,

Gary J. Horne
New Business Representative

This indenture made the eighth day of April in the year of our Lord one thousand nine hundred and eleven (1911) between Franklin A. Plummer of the City of New York, State of New York, unmarried (hereinafter called the grantor of the one part) and

The Augustinian College of St. Vincent in the State of Pennsylvania (hereinafter called the grantee) of the other part

Witnesseth that the said grantor for and in consideration of the sum of One dollar (and other good and valuable considerations) lawful money of the United States of America, unto him well and truly paid by the said grantee at and before the sealing and delivery of these presents the receipt whereof is hereby acknowledged, hath granted, bargained, sold, aliened, conveyed, released and confirmed, and by these presents doth grant, bargain, sell, alien, convey, release and confirm unto the said grantee its successors and assigns.

All that certain tract or piece of land situate in the Township of Radnor, County of Delaware and State of Pennsylvania, bounded and described according to a survey and plan thereof made by Milton R. Yerkes, Civil Engineer, on the twenty fourth day of April A. D. 1905, as follows to wit:

Beginning at a spike in the middle of Lancaster Avenue a corner of land of Dr. George Z. Baker; thence by said Baker's land South sixty six (66) degrees twenty four minutes (24) West six hundred and ninety six and ninety three one hundredths (66 93) feet to a stake; thence continuing partly by said Baker's land and partly by land of George H. McFadden, South sixty six (66) degrees forty five (45) minutes West one thousand one hundred and ninety three and two tenths (1193.2) feet to a stake; thence by said McFadden's land North and twenty three (23) degrees thirty eight (38) minutes West eight hundred and eighteen and eight tenths (818.8) feet to a stake in the middle of John Avenue passing over a stone one and four tenths (1.5) feet from said stake; thence along the middle line of said Avenue, by land now formerly of Joseph M. Dehan and others, North sixty six (66) degrees twenty six (26) minutes East four hundred and thirty six (436.1) feet to a stake; thence continuing by the last mentioned land, North twenty four (24) degrees six (6) minutes West eight hundred and sixty four and three tenths (864.3) feet to a stake a corner of land of Mrs. John Kent Kane; thence by the last mentioned land North nineteen (19) degrees two (2) minutes East three hundred and twenty six and forty five (376.45) feet to a spike in the middle of Lancaster Avenue above mentioned; thence along the middle line of said Avenue by other land of The Augustinian College of St. Vincent the six next following courses and distances to wit: South seventy degrees forty two (72) minutes East six hundred and fifty two and six tenths (652.6) feet to a spike South sixty six (66) degrees fifty seven (57) minutes East two hundred and thirty one and eight tenths (231.8) feet to a spike, South sixty (60) degrees forty eight minutes (48) East two hundred and thirty (230) feet to a spike, South fifty six (56) degrees three (3) minutes East two hundred (200) feet to a spike, South fifty one (51) degrees one (1) minute East one hundred and fifty (150) feet to a spike at the intersection of the middle line of Lancaster Avenue and St. Thomas Avenue and thence South forty one (41) degrees six (6) minutes East eight hundred and sixty nine and three tenths (869.3) feet to the place of beginning, containing fifty one and twenty eight one hundredths (51.28) acres.

Being one of the same parcel premises which E. Everett Sproul, High Sheriff by Deed, did bearing date the seventh day of March A. D. 1910, and recorded in the Office for the Recording of Deeds in and for the County of Delaware at Media in Deed Book B, No. 14, page 148, granted and conveyed unto the said Franklin A. Plummer in fee.

Together with the uninterupted right, use and privilege at all times hereafter, forever of St. Thomas Road (forty feet in width), Stella Nova Road (forty feet in width) and Barclay Road (forty feet in width) now open and in use as shown on plan of Stella Nova tract and recorded at Media in Deed Book E, No. 12, pages 14, or any other road or roads that may hereafter be laid out or substituted for the roads herebefore mentioned, excepting therefrom such

S 66° 24' W
606'

center
south
campus

portions thereof are more included in the tracks and pieces of land granted and conveyed by the Atlantic Real Estate Company to the Philadelphia and Western Railway Company by indenture bearing date the 31st day of December A.D. 1908 and recorded in the Office for the Recording of Deeds in and for the County of Delaware at Media in Book S No. 17, page 443. Bounded and described as follows to wit:

All that certain lot or piece of ground situate in the Township of Radnor, County of Delaware and State of Pennsylvania, bounded and described as follows to wit: A strip of land extending from the division line between the lands now or late of E. L. S. W. Baker and lands late of The Augustinian College of St. Thomas of Villa Nova, across the lands late of said college to the division line between said lands late of said college and the lands late of Joseph M. Dehon, et al. and being ninety (90) feet wide extending forty five (45) feet each side of and parallel with the center line of the Philadelphia & Western Railroad, except at said division line, said center line being described as follows:

(26)

Beginning at Station 387+03.5 where the center line crosses the dividing line between the lands now or late of E. L. S. W. Baker and said Augustinian College of St. Thomas of Villa Nova; thence North twenty eight degrees fifteen minutes West (N 28° 15' 15" W) seven hundred and thirty five (735) feet to Station 394+28.8; thence by a five degree (5°) curve to the left nine hundred and three (903) feet to Station 403+31.8; thence North seventy three degrees twenty four minutes West (N 73° 24' W) two hundred and twenty five (225) feet and two tenths (225.2) feet to Station 405+57, being the point where the center line of railroad crosses the dividing line between the lands of said college and the lands now or late of Joseph M. Dehon and Frank B. Rhoads. The last above described strip of land being eighteen hundred and fifty three and four tenths (1853.5) feet long more or less, and containing three and eighty three one hundredths (383) acres more or less.

Also all three two certain lots or pieces of ground situate in the Township of Radnor, County of Delaware and State of Pennsylvania, bounded and described as follows to wit:

Beginning at a point on the northerly right of way line of the railway at its intersection with the dividing line between the lands formerly of Villa Nova College and the lands now or late of Margaret P. Mann; thence along the said dividing line North nineteen degrees fifty eight minutes thirty seconds East (N 19° 58' 30" E) forty five (45) feet to a point; thence by land formerly of Villa Nova College the three following courses and distances South seventy three degrees twenty four minutes East (S 73° 24' E) thirty one and nine tenths (31.91) feet to a point; thence by a curve to the left having a radius of sixty (60) feet a distance of ninety and sixty five one hundredths (90.65) feet to a point; thence North nineteen degrees fifty nine minutes East (N 19° 59' E) two hundred and twenty and eighty eight one hundredths (212.88) feet to a point in the center of the Lancaster Juniper; thence along the center line of the Lancaster Juniper, South sixty nine degrees forty five minutes thirty seconds East (S 69° 45' 30" E) forty (40) feet to a point; thence by land formerly of Villa Nova College the following five courses and distances South nineteen degrees fifty nine minutes West (S 19° 59' W) two hundred and eight and thirty one hundredths (208.30) feet to a point; thence by a curve to the left having a radius of sixty (60) feet a distance of ninety seven and eight tenths (97.8) feet to a point; thence South seventy three degrees twenty four minutes East (S 73° 24' E) one hundred and eighty six and forty one hundredths (186.40) feet to a point; thence South sixty three degrees twenty nine minutes East (S 63° 29' E) one hundred and thirty (130) feet to a point; thence South nine degrees thirty nine minutes West (S 19° 59' W) fifty one (51) feet to a point on the northerly right of way line. Thence along the northerly right of way line the following two courses and distances by a curve to the left having a radius of eleven hundred and ninety one and twenty eight one hundredths (1191.28) feet a distance of two hundred and eighty two and two tenths (282.2) feet to a point; thence North seventy three degrees twenty four minutes West (N 73° 24' W) two hundred and fifty six and seven tenths (256.7) feet to the point of beginning containing eight hundred

Septa 100

and thirty six thousandths (0.835) of an acre.

Beginning at a point on the Southern right of way line at its intersection with the dividing line between the lands formerly of Villa Nova College and the lands formerly of Joseph M. Bohan and Frank B. Rhodes; thence along the Southern right of way line the following two courses and distances: South seventy three degrees twenty four minutes East (73° 24' 6") one hundred and eighty six and four tenths (186.4) feet to a point; thence by a curve to the right having a radius of eleven hundred and one and twenty eight one hundredths (1101.28) feet a distance of one hundred and fifteen (115) feet to a point; thence by land formerly of Villa Nova College the following two courses and distances: North eighty seven degrees twenty two minutes West (N. 87° 22' 17") one hundred and sixty one and six tenths (161.5) feet to a point; thence South sixteen degrees thirty six minutes West (S. 16° 36' 17") one hundred and twenty seven and nine tenths (127.9) feet to a point in St. Thomas Road; said point being seven and two tenths (7.2) feet from the center line of said road; thence along the dividing line between the lands formerly of Villa Nova College and the lands formerly of Bohan and Rhodes North twenty three degrees nine minutes thirty seven West (N. 23° 09' 37") sixty two and seventy five one hundredths (62.75) feet to a point; thence by land formerly of Villa Nova College the following two courses and distances: North sixteen degrees thirty six minutes East (N. 16° 36' 17") seventy four and fifty four one hundredths (74.54) feet to a point; thence North seventy three degrees twenty four minutes West (N. 73° 24' 17") sixty two and two tenths (62.2) feet to a point; thence along the dividing line between the lands formerly of Villa Nova College and the lands formerly of Bohan and Rhodes North twenty three degrees nine minutes thirty seven West (N. 23° 09' 37") sixty five and fifty five one hundredths (65.55) feet to the point of beginning containing three hundred and nineteen thousandths (0.319) of an acre.

Together with all and singular the improvements, streets, alleys, passages, ways, waters, water courses, profits, liberties, privileges, hereditaments and appurtenances whatsoever thereunto belonging in anywise appertaining and the reversions and remainders, rents, issues and profits thereof and all the estate, right, title, interest, property, claim and demand whatsoever of him the said grantor in law, equity or otherwise howsoever of, in and to the same and every part thereof.

So have and to hold the said tract or piece of land above described hereditaments and premises hereby granted or mentioned and intended to be, with the appurtenances unto the said grantee its successors and assigns to and for the only proper use and behoof of the said grantee its successors and assigns forever, freed and discharged from all and every obligation to adhere to or conform with any plan of subdivision of said premises or any part thereof heretofore made, excepting as provided.

And the said

Franklin A. Plummer for himself and for his heirs, executors and administrators, doth by these presents covenant, grant and agree to and with the said grantee its successors and assigns that in the said Franklin A. Plummer and his heirs, all and singular the hereditaments and premises heretofore described and granted or mentioned and intended to be, with the appurtenances unto the said grantee its successors and assigns, against him the said Franklin A. Plummer and his heirs, and against all and every other person or persons whomsoever lawfully claiming or to claim the same or any part thereof, by, from or under him, them or any of them, shall and will excepting as aforesaid, warrant and forever defend.

In witness whereof the said parties to these presents have hereto interchangeably set their hands and seals, the day and year first hereinbefore written.

Sealed and delivered

in the presence of us

James W. Deery

for Jernan

Franklin A. Plummer. ©

**PLANNING MODULE DRAFT
DEP CODE #1-23013-???-3J**

**LANCASTER AVENUE HOUSING
RADNOR TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA**

VILLANOVA UNIVERSITY

**Issued: December 5, 2014
Nave Newell No.: 2011-005.00**

**SEWAGE FACILITIES PLANNING MODULE
SUMMARY OF CONTENTS**

**Villanova University CICD Development
Radnor Township, Delaware County, Pennsylvania**

Section	Title
I.	Transmittal Letter
II.	Township Resolution
III.	Project Narrative and Alternative Analysis
IV.	Sewage Facilities Planning Module Component 3
V.	Sewage Facilities Planning Module Components 4A and 4B
VI.	Supporting Documentation and Correspondence <ul style="list-style-type: none">• PHMC Notification and Response• Aqua Will Serve Letter• PNDI Search• USGS Map
VII.	Public Notice
VIII.	Pennsylvania Department of Environmental Protection <ul style="list-style-type: none">• Checklist Letter
Appendix	<ul style="list-style-type: none">• West Campus Schematic Sewer Relocation Plan Sewer Capture Area Exhibit• West Campus Schematic Sewer Relocation Plan Exhibit• Lancaster Avenue Proposed Sewer Map Exhibit

l.



**TRANSMITTAL LETTER
 FOR SEWAGE FACILITIES PLANNING MODULE**

DEP USE ONLY				
DEP CODE #	APS ID #	CLIENT ID #	SITE ID #	AUTH. ID #

TO: Approving Agency (DEP or delegated local agency)
 Department of Environmental Protection
 2 East Main Street
 Norristown, PA 19401

Date _____

Dear Sir:

Attached please find a completed Sewage Facilities Planning Module prepared by Gregory C. Newell, PE
 Principal _____ for Villanova University CICD Development
 a subdivision, commercial, or industrial facility located in Radnor Township
Delaware _____ County.

 (City, Borough, Township)

Check one

- (i) The Planning Module, as prepared and submitted by the applicant, is approved by the municipality as a proposed revision supplement for new land development to its "Official Sewage Facilities Plan", and is adopted for submission to the Department of Environmental Protection transmitted to the delegated local agency for approval in accordance with the requirements of Chapter 71 and the Sewage Facilities Act, OR
- (ii) The Planning Module will not be approved by the municipality as a proposed revision or supplement for new land development to its "Official Sewage Facilities Plan" because the project described therein is unacceptable for the reason(s) checked below.

Check Boxes

- Additional studies are being performed by or on behalf of this municipality which may have an effect on the Planning Module as prepared and submitted by the applicant. Attached hereto is the scope of services to be performed and the time schedule for completion of said studies.
- The Planning Module as submitted by the applicant fails to meet limitations imposed by other laws or ordinances, officially adopted comprehensive plans and/or environmental plans (e.g., zoning, land use, Chapter 71). Specific reference or applicable segments of such laws or plans are attached hereto.
- Other (attach additional sheet giving specifics)

Municipal Secretary: Indicate below by checking appropriate boxes which components are being transmitted to the Approving Agency.

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Resolution of Adoption | <input checked="" type="checkbox"/> 3. Sewage Collection/Treatment Facilities | <input checked="" type="checkbox"/> 4.A. Municipal Planning Agency Review |
| <input type="checkbox"/> 2. Individual and Community Onlot Disposal of Sewage | <input type="checkbox"/> 3s. Small Flow Treatment Facilities | <input checked="" type="checkbox"/> 4.B. County Planning Agency Review |
| <input type="checkbox"/> 2m. Sewage Management Program | | <input type="checkbox"/> 4.C. County or Joint Health Department Review |

 Municipal Secretary (print) Signature Date

Note: Please remove and recycle the Instructions portion of the Sewage Facilities Planning Module prior to mailing the appropriate completed components and supporting documents to the approving agency.

II.

RESOLUTION FOR PLAN REVISION FOR NEW LAND DEVELOPMENT

RESOLUTION OF THE (SUPERVISORS) (COMMISSIONERS) (COUNCILMEN) of Radnor
(TOWNSHIP) (BOROUGH) (CITY), Delaware COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act", as Amended, and the rules and Regulations of the Pennsylvania Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters of the Commonwealth and/or environmental health hazards from sewage wastes, and to revise said plan whenever it is necessary to determine whether a proposed method of sewage disposal for a new land development conforms to a comprehensive program of pollution control and water quality management, and

WHEREAS Villanova University
land developer has proposed the development of a parcel of land identified as

Villanova University CICD Development, and described in the attached Sewage Facilities Planning Module, and
name of subdivision

proposes that such subdivision be served by: (check all that apply), sewer tap-ins, sewer extension, new treatment facility, individual onlot systems, community onlot systems, spray irrigation, retaining tanks, other, (please specify). _____

WHEREAS, Radnor Township
municipality finds that the subdivision described in the attached

Sewage Facilities Planning Module conforms to applicable sewage related zoning and other sewage related municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the (Supervisors) (Commissioners) (Councilmen) of the (Township) (Borough) (City) of Radnor hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Sewage Facilities Plan" of the municipality the above referenced Sewage Facilities Planning Module which is attached hereto.

I _____, Secretary, _____
(Signature)

Township Board of Supervisors (Borough Council) (City Councilmen), hereby certify that the foregoing is a true copy of the Township (Borough) (City) Resolution # _____, adopted, _____, 20 _____.

Municipal Address:

301 Iven Avenue

Wayne, PA 19087

Telephone 610-688-5600

Seal of

Governing Body

III.

**Project Narrative and Alternative Analysis
Villanova University Lancaster Avenue Housing
Planning Module Code # 1-23013-???-3J
Radnor Township, Delaware County**

Villanova University is an existing educational campus located along Lancaster Avenue (Business Route 30) in Radnor Township Delaware County. The campus encompasses approximately 240 acres of land which contains educational, administrative, recreational and spiritual buildings along with supporting infrastructure, parking and landscaping. The campus is surrounded by existing residential housing developments with some commercial development along Lancaster Avenue. Business Route 30 (Lancaster Avenue) and SEPTA train tracks bisect the campus as shown on the attached plans.

This development project proposes to construct six dormitories with a total of 1,138 bed spaces, a performing arts center which will house a 400 seat theater, a 200 seat black box performance space and classrooms for the theater department and associated retail space. Sewage flow is expected to increase by 93,015 gallons per day (gpd). The total flow from the proposed project is calculated as shown below:

Use	Flow per Unit (gpd)	Unit	Flow per Use (gpd)
Dormitory	75	1,138 Bed spaces	85,350
100 Seat Restaurant	12	400 Patrons*	4,800
"grab and go" convenience store	0.1	2,500 SF	250
Performing Arts Ctr	5	400 seats**	2,000
Retail	0.1	6,150 SF	615
		Total Flow	93,015

* assumes an average of 2 lunch and 2 dinner turnovers

**largest performance space used for calculation

The expected flow of 93,015 gpd translates into 233 EDU utilizing DEP's definition of 400 gpd per EDU or 355 EDU's utilizing Radnor Township's definition of 262.5 gpd per EDU. For consistency 355 EDUs will be used throughout this proposal to achieve compliance with township requirements.

The chosen method of sewage disposal for this project is a connection to the public sewerage system located at the border of the existing Villanova Campus. The sewage will travel through the collection and conveyance system owned by Lower Merion Township and into the conveyance system owned by the City of Philadelphia. Eventual treatment and disposal will be at the City of Philadelphia Southwest Wastewater Treatment Facility.

In order to accommodate the anticipated increase in flow, Lower Merion Township has requested the project redirect equivalent or greater existing flows being generated from West Campus to a manhole located in Clairemont Road as shown on attached West Campus Schematic Sewer Relocation Plan Exhibit. Flows from this area are calculated as shown below:

Use	Flow per Unit (gpd)	Unit	Flow per Use (gpd)
Dormitory	75	1,216 Bed Space	91,200
Admin office (Picotte Hall at Dundale)	0.1	24,000 SF	2,400
Residence (Burns Hall)	262.5	EDU	262.5
St. Mary's Dining Hall & Convenience Store	10	2,500 meals (700 Dining + 1800 Convenience)	25,000
		Total Flow	118,862.5

Flows from the 8 dormitory buildings, Picotte Hall at Dundale, Burns Hall (residential use) and the St. Mary's dining hall will be redirected from the County Line/Ithan Avenue Interceptor to the Clairemont Road Interceptor to offset the anticipated increase from the CICD development area. Flows from CICD development will be directed to a manhole in County Line Road as shown on the Lancaster Avenue Housing Proposed Sewer Map Exhibit.

This area including the existing campus and surrounding/adjacent residential and commercial properties are within the public sewer service area. The existing sewage facility plan for this area indicates public sewer service will be provided. Alternative routing of the sewers through Radnor Township with connection to CDCA and ultimate treatment at the City of Philadelphia Southwest WWTF was considered and evaluated for this proposal. Conveyance issues in the downstream portion of the Radnor system made the routing to Philadelphia undesirable as an alternative. As capacity exists within the Lower Merion conveyance and the City of Philadelphia treatment system it was decided to connect this project to the Lower Merion system. Portions of the Villanova campus are already connected to Lower Merion's sewerage system; therefore, no new inter-municipal agreements are needed to move this project forward.

Villanova will construct and maintain the collection system within the proposed project area and the new pump station and force main in West Campus to redirect the flows to Clairemont Drive. A new public sewer or private force main will be constructed within North Ithan Avenue that will be owned and maintained by either Radnor Township or Villanova University. The owners of the downstream sewerage and treatment facility will continue to own and operated their respective facilities.

IV.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

Code No.

SEWAGE FACILITIES PLANNING MODULE

Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY				
DEP CODE #	CLIENT ID #	SITE ID #	APS ID #	AUTH ID #
1-23013-???-3J				

This planning module component is used to fulfill the planning requirements of Act 537 for the following types of projects: (1) a subdivision to be served by sewage collection, conveyance or treatment facilities, (2) a tap-in to an existing collection system with flows on a lot of 2 EDU's or more, or (3) the construction of, or modification to, wastewater collection, conveyance or treatment facilities that will require DEP to issue or modify a Clean Streams Law permit. Planning for any project that will require DEP to issue or modify a permit cannot be processed by a delegated agency. Delegated agencies must send their projects to DEP for final planning approval.

This component, along with any other documents specified in the cover letter, must be completed and submitted to the municipality with jurisdiction over the project site for review and approval. All required documentation must be attached for the Sewage Facilities Planning Module to be complete. Refer to the instructions for help in completing this component.

REVIEW FEES: Amendments to the Sewage Facilities Act established fees to be paid by the developer for review of planning modules for land development. These fees may vary depending on the approving agency for the project (DEP or delegated local agency). Please see section R and the instructions for more information on these fees.

NOTE: All projects must complete Sections A through I, and Sections O through R. Complete Sections J, K, L, M and/or N if applicable or marked .

A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name Villanova CICD Development

2. Brief Project Description The project will construct 1138 bed dormitory space, a performing arts center and associated retail space along with infrastructure, stormwater, parking and landscaping facilities on an existing parking lot.

B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)

Municipality Name	County	City	Boro	Twp
Radnor	Delaware	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
Zienkowski	Robert			Township Manager
Additional Individual Last Name	First Name	MI	Suffix	Title
Municipality Mailing Address Line 1	Mailing Address Line 2			
301 Iven Avenue				
Address Last Line -- City	State	ZIP+4		
Wayne	PA	19087-5297		
Area Code + Phone + Ext.	FAX (optional)	Email (optional)		
610-688-5600	610-688-1279			

C. SITE INFORMATION (See Section C of instructions)

Site (Land Development or Project) Name

Villanova University

Site Location Line 1

800 East Lancaster Avenue

Site Location Line 2

Site Location Last Line -- City

Villanova

State

PA

ZIP+4

19085

Latitude

40.034547

Longitude

-75.345139

Detailed Written Directions to Site From the SERO: Take I-476 South/Chester to Exit 13 (US 30 St. Davids/Villanova) to Route 30 East, also known as Lancaster Avenue. Take Route 30 East (Lancaster Avenue) for one-half mile and at the fifth traffic light you will see Villanova's parking lot on the right.

Description of Site Existing educational campus

Site Contact (Developer/Owner)

Last Name

Hildebrand

First Name

Steven

MI Suffix

Phone

610-519-4589

Ext.

Site Contact Title

Facilities Management

FAX

Site Contact Firm (if none, leave blank)

Villanova University

Email

steven.hildebrand@villanova.edu

Mailing Address Line 1

800 East Lancaster Avenue

Mailing Address Line 2

Mailing Address Last Line -- City

Wayne

State

PA

ZIP+4

19085

D. PROJECT CONSULTANT INFORMATION (See Section D of instructions)

Last Name

Newell

First Name

Gregory

MI

C

Suffix

P.E.

Title

Principal

Consulting Firm Name

Nave Newell, Inc

Mailing Address Line 1

900 West Valley Road

Mailing Address Line 2

Suite 1100

Address Last Line -- City

Wayne

State

PA

ZIP+4

19087

Country

USA

Email

gnewell@navenewell.net

Area Code + Phone

610-265-8323

Ext.

Area Code + FAX

610-265-4299

E. AVAILABILITY OF DRINKING WATER SUPPLY

The project will be provided with drinking water from the following source: (Check appropriate box)

- Individual wells or cisterns.
- A proposed public water supply.
- An existing public water supply.

If existing public water supply is to be used, provide the name of the water company and attach documentation from the water company stating that it will serve the project.

Name of water company: Aqua Pennsylvania, Inc

F. PROJECT NARRATIVE (See Section F of instructions)

- A narrative has been prepared as described in Section F of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section F of the instructions.

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (See Section G of instructions)

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter 93 (relating to wastewater treatment requirements).

1. COLLECTION SYSTEM

a. Check appropriate box concerning collection system

- New collection system Pump Station Force Main
 Grinder pump(s) Extension to existing collection system Expansion of existing facility

Clean Streams Law Permit Number _____

b. Answer questions below on collection system

Number of EDU's and proposed connections to be served by collection system. EDU's 354

Connections 2

Name of:

existing collection or conveyance system _____

owner Lower Merion Township

existing interceptor _____

owner _____

2. WASTEWATER TREATMENT FACILITY

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter(s) 91 (relating to general provisions), 92 (relating to national Pollution Discharge Elimination System permitting, monitoring and compliance) and 93 (relating to water quality standards).

a. Check appropriate box and provide requested information concerning the treatment facility

- New facility Existing facility Upgrade of existing facility Expansion of existing facility

Name of existing facility Philadelphia Southwest WWTF

NPDES Permit Number for existing facility _____

Clean Streams Law Permit Number _____

Location of discharge point for a new facility. Latitude _____ Longitude _____

b. The following certification statement must be completed and signed by the wastewater treatment facility permittee or their representative.

As an authorized representative of the permittee, I confirm that the City of Philadelphia Southwest (Name from above) sewage treatment facilities can accept sewage flows from this project without adversely affecting the facility's ability to achieve all applicable technology and water quality based effluent limits (see Section I) and conditions contained in the NPDES permit identified above.

Name of Permittee Agency, Authority, Municipality _____

Name of Responsible Agent _____

Agent Signature _____ Date _____

(Also see Section I, 4.)

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (Continued)

3. PLOT PLAN

The following information is to be submitted on a plot plan of the proposed subdivision.

- a. Existing and proposed buildings.
- b. Lot lines and lot sizes.
- c. Adjacent lots.
- d. Remainder of tract.
- e. Existing and proposed sewerage facilities. Plot location of discharge point, land application field, spray field, COLDS, or LVCOLDS if a new facility is proposed.
- f. Show tap-in or extension to the point of connection to existing collection system (if applicable).
- g. Existing and proposed water supplies and surface water (wells, springs, ponds, streams, etc.)
- h. Existing and proposed rights-of-way.
- i. Existing and proposed buildings, streets, roadways, access roads, etc.
- j. Any designated recreational or open space area.
- k. Wetlands - from National Wetland Inventory Mapping and USGS Hydric Soils Mapping.
- l. Flood plains or Flood prone areas, floodways, (Federal Flood Insurance Mapping)
- m. Prime Agricultural Land.
- n. Any other facilities (pipelines, power lines, etc.)
- o. Orientation to north.
- p. Locations of all site testing activities (soil profile test pits, slope measurements, permeability test sites, background sampling, etc. (if applicable).
- q. Soils types and boundaries when a land based system is proposed.
- r. Topographic lines with elevations when a land based system is proposed

4. WETLAND PROTECTION

YES NO

- a. Are there wetlands in the project area? If yes, ensure these areas appear on the plot plan as shown in the mapping or through on-site delineation.
- b. Are there any construction activities (encroachments, or obstructions) proposed in, along, or through the wetlands? If yes, identify any proposed encroachments on wetlands and identify whether a General Permit or a full encroachment permit will be required. If a full permit is required, address time and cost impacts on the project. Note that wetland encroachments should be avoided where feasible. Also note that a feasible alternative **MUST BE SELECTED** to an identified encroachment on an exceptional value wetland as defined in Chapter 105. Identify any project impacts on streams classified as HQ or EV and address impacts of the permitting requirements of said encroachments on the project.

5. PRIME AGRICULTURAL LAND PROTECTION

YES NO

- Will the project involve the disturbance of prime agricultural lands?
If yes, coordinate with local officials to resolve any conflicts with the local prime agricultural land protection program. The project must be consistent with such municipal programs before the sewage facilities planning module package may be submitted to DEP.
If no, prime agricultural land protection is not a factor to this project.
- Have prime agricultural land protection issues been settled?

6. HISTORIC PRESERVATION ACT

YES NO

- Sufficient documentation is attached to confirm that this project is consistent with DEP Technical Guidance 012-0700-001 *Implementation of the PA State History Code* (available online at the DEP Web site at www.dep.state.pa.us, select "subject" then select "technical guidance"). As a minimum this includes copies of the completed Cultural Resources Notice (CRN), a return receipt for its submission to the PHMC and the PHMC review letter.

7. PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES

Check one:

- The "Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt" resulting from my search of the PNDI database and all supporting documentation from jurisdictional agencies (when necessary) is/are attached.
- A completed "Pennsylvania Natural Diversity Inventory (PNDI) Project Planning & Environmental Review Form," (PNDI Form) available at www.naturalheritage.state.pa.us, and all required supporting documentation is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning module will be considered incomplete upon submission to the Department and that the DEP review will not begin, and that processing of my planning module will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials _____

H. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (See Section H of instructions)

- An alternative sewage facilities analysis has been prepared as described in Section H of the attached instructions and is attached to this component.
The applicant may choose to include additional information beyond that required by Section H of the attached instructions.

I. COMPLIANCE WITH WATER QUALITY STANDARDS AND EFFLUENT LIMITATIONS (See Section I of instructions) (Check and complete all that apply.)

1. Waters designated for Special Protection

- The proposed project will result in a new or increased discharge into special protection waters as identified in Title 25, Pennsylvania Code, Chapter 93. The Social or Economic Justification (SEJ) required by Section 93.4c. is attached.

2. Pennsylvania Waters Designated As Impaired

- The proposed project will result in a new or increased discharge of a pollutant into waters that DEP has identified as being impaired by that pollutant. A pre-planning meeting was held with the appropriate DEP regional office staff to discuss water quality based discharge limitations.

3. Interstate and International Waters

- The proposed project will result in a new or increased discharge into interstate or international waters. A pre-planning meeting was held with the appropriate DEP regional office staff to discuss effluent limitations necessary to meet the requirements of the interstate or international compact.

4. Tributaries To The Chesapeake Bay

- The proposed project result in a new or increased discharge of sewage into a tributary to the Chesapeake Bay. This proposal for a new sewage treatment facility or new flows to an existing facility includes total nitrogen and total phosphorus in the following amounts: _____ pounds of TN per year, and _____ pounds of TP per year. Based on the process design and effluent limits, the total nitrogen treatment capacity of the wastewater treatment facility is _____ pounds per year and the total phosphorus capacity is _____ pounds per year as determined by the wastewater treatment facility permittee. The permittee has determined that the additional TN and TP to be contributed by this project (as modified by credits and/or offsets to be provided) will not cause the discharge to exceed the annual total mass limits for these parameters. Documentation of compliance with nutrient allocations is attached.

Name of Permittee Agency, Authority, Municipality _____

Initials of Responsible Agent (See Section G 2.b) _____

See *Special Instructions* (Form 3800-FM-WSFR0353-1) for additional information on Chesapeake Bay watershed requirements.

☒ J. CHAPTER 94 CONSISTENCY DETERMINATION (See Section J of instructions)

Projects that propose the use of existing municipal collection, conveyance or wastewater treatment facilities, or the construction of collection and conveyance facilities to be served by existing municipal wastewater treatment facilities must be consistent with the requirements of Title 25, Chapter 94 (relating to Municipal Wasteload Management). If not previously included in Section F, include a general map showing the path of the sewage to the treatment facility. If more than one municipality or authority will be affected by the project, please obtain the information required in this section for each. Additional sheets may be attached for this purpose.

1. Project Flows 93015 _____ gpd
2. Total Sewage Flows to Facilities (pathway from point of origin through treatment plant)

When providing "treatment facilities" sewage flows, use Annual Average Daily Flow for "average" and Maximum Monthly Average Daily Flow for "peak" in all cases. For "peak flows" in "collection" and "conveyance" facilities, indicate whether these flows are "peak hourly flow" or "peak instantaneous flow" and how this figure was derived (i.e., metered, measured, estimated, etc.).

- a. Enter average and peak sewage flows for each proposed or existing facility as designed or permitted.
- b. Enter the average and peak sewage flows for the most restrictive sections of the existing sewage facilities.
- c. Enter the average and peak sewage flows, projected for 5 years (2 years for pump stations) through the most restrictive sections of the existing sewage facilities. Include existing, proposed (this project) and future project (other approved projects) flows.

To complete the table, refer to the instructions, Section J.

	a. Design and/or Permitted Capacity (gpd)		b. Present Flows (gpd)		c. Projected Flows in 5 years (gpd) (2 years for P.S.)	
	Average	Peak	Average	Peak	Average	Peak
Collection						
Conveyance						
Treatment						

3. Collection and Conveyance Facilities

The questions below are to be answered by the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities. These questions should be answered in coordination with the latest Chapter 94 annual report and the above table. The individual(s) signing below must be legally authorized to make representation for the organization.

YES NO

- a. This project proposes sewer extensions or tap-ins. Will these actions create a hydraulic overload within five years on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until all inconsistencies with Chapter 94 are resolved or unless there is an approved Corrective Action Plan (CAP) granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the module package.

If no, a representative of the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not affect that status.

b. Collection System

Name of Agency, Authority, Municipality Lower Merion Township

Name of Responsible Agent _____

Agent Signature _____ Date _____

J. CHAPTER 94 CONSISTENCY DETERMINATION (Continued)

c. Conveyance System

Name of Agency, Authority, Municipality Lower Merion Township

Name of Responsible Agent _____

Agent Signature _____

Date _____

4. Treatment Facility

The questions below are to be answered by a representative of the facility permittee in coordination with the information in the table and the latest Chapter 94 report. The individual signing below must be legally authorized to make representation for the organization.

YES NO

- a. This project proposes the use of an existing wastewater treatment plant for the disposal of sewage. Will this action create a hydraulic or organic overload within 5 years at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this inconsistency with Chapter 94 is resolved or unless there is an approved CAP granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the planning module.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not impact that status.

- b. Name of Agency, Authority, Municipality City of Philadelphia Water Department

Name of Responsible Agent _____

Agent Signature _____

Date _____

K. TREATMENT AND DISPOSAL OPTIONS (See Section K of instructions)

This section is for land development projects that propose construction of wastewater treatment facilities. Please note that, since these projects require permits issued by DEP, these projects may **NOT** receive final planning approval from a delegated local agency. Delegated local agencies must send these projects to DEP for final planning approval.

Check the appropriate box indicating the selected treatment and disposal option.

- 1. Spray irrigation (other than individual residential spray systems (IRSIS)) or other land application is proposed, and the information requested in Section K.1. of the planning module instructions are attached.
- 2. Recycle and reuse is proposed and the information requested in Section K-2 of the planning module instructions is attached.
- 3. A discharge to a dry stream channel is proposed, and the information requested in Section K.3. of the planning module instructions are attached.
- 4. A discharge to a perennial surface water body is proposed, and the information requested in Section K.4. of the planning module instructions are attached.

L. PERMEABILITY TESTING (See Section L of instructions)

- The information required in Section L of the instructions is attached.

M. PRELIMINARY HYDROGEOLOGIC STUDY (See Section M of instructions)

- The information required in Section M of the instructions is attached.

N. DETAILED HYDROGEOLOGIC STUDY (See Section N of instructions)

The detailed hydrogeologic information required in Section N. of the instructions is attached.

O. SEWAGE MANAGEMENT (See Section O of instructions)

(1-3 for completion by the developer(project sponser), 4-5 for completion by the non-municipal facility agent and 6 for completion by the municipality)

Yes No

1. Is connection to, or construction of, a DEP permitted, non-municipal sewage facility or a local agency permitted, community onlot sewage facility proposed.

If Yes, respond to the following questions, attach the supporting analysis, and an evaluation of the options available to assure long-term proper operation and maintenance of the proposed non-municipal facilities. If No, skip the remainder of Section O.

2. Project Flows _____ gpd

Yes No

3. Is the use of nutrient credits or offsets a part of this project?

If yes, attach a letter of intent to purchase the necessary credits and describe the assurance that these credits and offsets will be available for the remaining design life of the non-municipal sewage facility;

(For completion by non-municipal facility agent)

4. Collection and Conveyance Facilities

The questions below are to be answered by the organization/individual responsible for the non-municipal collection and conveyance facilities. The individual(s) signing below must be legally authorized to make representation for the organization.

Yes No

- a. If this project proposes sewer extensions or tap-ins, will these actions create a hydraulic overload on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, a representative of the organization responsible for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with Chapter 71 §71.53(d)(3) and that this proposal will not affect that status.

- b. Collection System
Name of Responsible Organization _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

- c. Conveyance System
Name of Responsible Organization _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

5. Treatment Facility

The questions below are to be answered by a representative of the facility permittee. The individual signing below must be legally authorized to make representation for the organization.

Yes No

- a. If this project proposes the use of an existing non-municipal wastewater treatment plant for the disposal of sewage, will this action create a hydraulic or organic overload at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with §71.53(d)(3) and that this proposal will not impact that status.

- b. Name of Facility _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

(For completion by the municipality)

6. The **SELECTED OPTION** necessary to assure long-term proper operation and maintenance of the proposed non-municipal facilities is clearly identified with documentation attached in the planning module package.

P. PUBLIC NOTIFICATION REQUIREMENT (See Section P of instructions)

This section must be completed to determine if the applicant will be required to publish facts about the project in a newspaper of general circulation to provide a chance for the general public to comment on proposed new land development projects. This notice may be provided by the applicant or the applicant's agent, the municipality or the local agency by publication in a newspaper of general circulation within the municipality affected. Where an applicant or an applicant's agent provides the required notice for publication, the applicant or applicant's agent shall notify the municipality or local agency and the municipality and local agency will be relieved of the obligation to publish. The required content of the publication notice is found in Section P of the instructions.

To complete this section, each of the following questions must be answered with a "yes" or "no". Newspaper publication is required if any of the following are answered "yes".

Yes No

1. Does the project propose the construction of a sewage treatment facility ?
2. Will the project change the flow at an existing sewage treatment facility by more than 50,000 gallons per day?
3. Will the project result in a public expenditure for the sewage facilities portion of the project in excess of \$100,000?
4. Will the project lead to a major modification of the existing municipal administrative organizations within the municipal government?
5. Will the project require the establishment of *new* municipal administrative organizations within the municipal government?
6. Will the project result in a subdivision of 50 lots or more? (onlot sewage disposal only)
-

P. PUBLIC NOTIFICATION REQUIREMENT cont'd. (See Section P of instructions)

- 7. Does the project involve a major change in established growth projections?
 - 8. Does the project involve a different land use pattern than that established in the municipality's Official Sewage Plan?
 - 9. Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)?
 - 10. Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in §71.21(a)(5)(i), (ii), (iii)?
 - 11. Will sewage facilities discharge into high quality or exceptional value waters?
- Attached is a copy of:
- the public notice,
 - all comments received as a result of the notice,
 - the municipal response to these comments.
- No comments were received. A copy of the public notice is attached.

Q. FALSE SWEARING STATEMENT (See Section Q of instructions)

I verify that the statements made in this component are true and correct to the best of my knowledge, information and belief. I understand that false statements in this component are made subject to the penalties of 18 PA C.S.A. §4904 relating to unsworn falsification to authorities.

Gregory C. Newell, PE

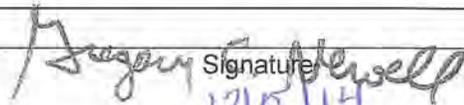
Name (Print)

Principal

Title

900 West Valley Road, Suite 1100
Wayne, PA 19087

Address



Signature

12/15/14
Date

6102658323

Telephone Number

R. REVIEW FEE (See Section R of instructions)

The Sewage Facilities Act establishes a fee for the DEP planning module review. DEP will calculate the review fee for the project and invoice the project sponsor **OR** the project sponsor may attach a self-calculated fee payment to the planning module prior to submission of the planning package to DEP. (Since the fee and fee collection procedures may vary if a "delegated local agency" is conducting the review, the project sponsor should contact the "delegated local agency" to determine these details.) Check the appropriate box.

- I request DEP calculate the review fee for my project and send me an invoice for the correct amount. I understand DEP's review of my project will not begin until DEP receives the correct review fee from me for the project.
- I have calculated the review fee for my project using the formula found below and the review fee guidance in the instructions. I have attached a check or money order in the amount of \$17,750 payable to "Commonwealth of PA, DEP". Include DEP code number on check. I understand DEP will not begin review of my project unless it receives the fee and determines the fee is correct. If the fee is incorrect, DEP will return my check or money order, send me an invoice for the correct amount. I understand DEP review will NOT begin until I have submitted the correct fee.
- I request to be exempt from the DEP planning module review fee because this planning module creates **only** one new lot and is the **only** lot subdivided from a parcel of land as that land existed on December 14, 1995. I realize that subdivision of a second lot from this parcel of land shall disqualify me from this review fee exemption. I am furnishing the following deed reference information in support of my fee exemption.

County Recorder of Deeds for _____ County, Pennsylvania

Deed Volume _____ Book Number _____

Page Number _____ Date Recorded _____

R. REVIEW FEE (continued)

Formula:

1. For a new collection system (with or without a Clean Streams Law Permit), a collection system extension, or individual tap-ins to an existing collection system use this formula.

$$\#355 \text{ Lots (or EDUs) X } \$50.00 = \$ 17,750$$

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
- For community sewer system projects, one EDU is equal to a sewage flow of 400 gallons per day.

2. For a surface or subsurface discharge system, use the appropriate one of these formulae.

- A. A new surface discharge greater than 2000 gpd will use a flat fee:

$$\begin{aligned} & \$ 1,500 \text{ per submittal (non-municipal)} \\ & \$ 500 \text{ per submittal (municipal)} \end{aligned}$$

- B. An increase in an existing surface discharge will use:

$$\# \text{ _____ Lots (or EDUs) X } \$35.00 = \$ \text{ _____}$$

to a maximum of \$ 1,500 per submittal (non-municipal) or \$ 500 per submittal (municipal)

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
- For community sewage system projects one EDU is equal to a sewage flow of 400 gallons per day.
- For non-single family residential projects, EDUs are calculated using projected population figures

- C. A sub-surface discharge system that requires a permit under The Clean Streams Law will use a flat fee:

$$\begin{aligned} & \$ 1,500 \text{ per submittal (non-municipal)} \\ & \$ 500 \text{ per submittal (municipal)} \end{aligned}$$

v.



**SEWAGE FACILITIES PLANNING MODULE
COMPONENT 4A - MUNICIPAL PLANNING AGENCY REVIEW**

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the existing local municipal planning agency for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name

Villanova University CDCI Development

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by municipal planning agency. _____

2. Date review completed by agency. _____

SECTION C. AGENCY REVIEW (See Section C of instructions)

Yes **No**

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, <i>et seq.</i>)? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Is this proposal consistent with the comprehensive plan for land use?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Is this proposal consistent with the use, development, and protection of water resources?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Does this project propose encroachments, obstructions, or dams that will affect wetlands?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Will any known historical or archaeological resources be impacted by this project?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Will any known endangered or threatened species of plant or animal be impacted by this project?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Is there a municipal zoning ordinance? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Is this proposal consistent with the ordinance?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance? |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Have all applicable zoning approvals been obtained? |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Is there a municipal subdivision and land development ordinance? |

**SEWAGE FACILITIES PLANNING MODULE
 COMPONENT 4B - COUNTY PLANNING AGENCY REVIEW
 (or Planning Agency with Areawide Jurisdiction)**

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning package and one copy of this *Planning Agency Review Component* should be sent to the existing county planning agency or planning agency with areawide jurisdiction for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name

Villanova University CICD Development

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by county planning agency. _____
2. Date plan received by planning agency with areawide jurisdiction _____
 Agency name _____
3. Date review completed by agency _____

SECTION C. AGENCY REVIEW (See Section C of instructions)

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Is there a county or areawide comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101 <i>et seq.</i>)? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Is this proposal consistent with the comprehensive plan for land use? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Does this proposal meet the goals and objectives of the plan?
If no, describe goals and objectives that are not met _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Is this proposal consistent with the use, development, and protection of water resources?
If no, describe inconsistency _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Is this proposal consistent with the county or areawide comprehensive land use planning relative to Prime Agricultural Land Preservation?
If no, describe inconsistencies: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Does this project propose encroachments, obstructions, or dams that will affect wetlands?
If yes, describe impact _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Will any known historical or archeological resources be impacted by this project?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Will any known endangered or threatened species of plant or animal be impacted by the development project? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Is there a county or areawide zoning ordinance? |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Does this proposal meet the zoning requirements of the ordinance?
If no, describe inconsistencies _____ |

VI.

November 26, 2014

VIA CERTIFIED MAIL #91 7108 3933 8427 4451

Pennsylvania Historical and Museum Commission
State Historical Preservation Office
400 North Street
Commonwealth Keystone Building, 2nd Floor
Harrisburg, PA 17120-0093



**Reference: PHMC Project Review Request
Villanova CICD Development
Radnor Township, Delaware County
Nave Newell No. 2011-005.03**

To Whom It May Concern:

We are requesting a review of potential historical resources on a property located at 800 East Lancaster Avenue, Radnor Township, Delaware County, Pennsylvania. To aide in your review enclosed please find the following;

1. Project Review Form;
2. USGS Norristown Quadrangle with the project location indicated; and,
3. Campus Boundary Plan (CU1.00) with the area of interest highlighted, the plan is dated May 2, 2014 last revised August 16, 2014.

Villanova University is an existing school located at 800 East Lancaster Avenue, Wayne, PA. This project involves the construction of dormitory space for 1,135 students, a 400 seat performing arts center and restaurant and retail space on approximately 13.81 acres of existing parking lot located along East Lancaster Avenue. No alterations to the existing school buildings are proposed. The campus contains 240 acres, of which 13.81 acres will be subject to earth disturbance due to the proposed construction.

I look forward to receiving the results of your review. Should you have any questions or need additional information please contact me at mgoman@navenewell.net or (610)265-8323.

Thank you for your consideration of this request.

Sincerely,

A handwritten signature in black ink that reads 'Maria T. Goman'. The signature is written in a cursive, flowing style.

Maria T. Goman

MTG/jjh
Enclosure

\\NNA-DATA\1\Proj_Info\11Proj\11005\RevResp\Other\PHMC_14-11-26.docx

November 26, 2014

VIA CERTIFIED MAIL #91 7108 3933 8427 4451



Pennsylvania Historical and Museum Commission
State Historical Preservation Office
400 North Street
Commonwealth Keystone Building, 2nd Floor
Harrisburg, PA 17120-0093

**Reference: PHMC Project Review Request
Villanova CICD Development
Radnor Township, Delaware County
Nave Newell No. 2011-005.03**

To Whom It May Concern:

We are requesting a review of potential historical resources on a property located at 800 East Lancaster Avenue, Radnor Township, Delaware County, Pennsylvania. To aide in your review enclosed please find the following:

1. Project Review Form;

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature  <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
1. Article Addressed to: Penna. Hist. & Museum Comm. State Historical Preserv. Office 400 North St. Commonwealth Keystone Bldg. 2nd fl. Harrisburg, PA 17120	B. Received by (Printed Name)	C. Date of Delivery DEC 01 2014
2. Article Number (Transfer from service label)	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
PS Form 3811, February 2004	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
Domestic Return Receipt	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
91 7108 2133 3933 8427 4451		
102595-02-M-1540		

and, dated, the plan is dated

venue, Wayne, PA. This 400 seat performing of existing parking lot school buildings are be subject to earth

ny questions or need (610)265-8323.

Maria T. Goman

MTG/jih
Enclosure

\\NNA-DATA\Proj_Info\11Proj\11005\RevResp\Other\PHMC_14-11-26.docx



PROJECT REVIEW FORM

Request to Initiate SHPO Consultation on
State and Federal Undertakings

SHPO USE ONLY	
DATE RECEIVED:	
ER NUMBER:	

REV: 5/2012

SECTION A: GENERAL PROJECT INFORMATION

Is this a new submittal? YES NO OR This is additional information for ER Number:

Project Name Villanova University CICD Development County Delaware

Project Address 800 East Lancaster Avenue

City/State/ Zip Villanova PA 19085 Municipality Radnor Township

SECTION B: PRIMARY CONTACT INFORMATION

Name Alex Tweedie Phone (610) 265-8323

Company Nave Newell, Inc Fax (610) 265-4299

Street/P.O. Box 357 South Gulph Road; Suite 300 Email atweedie@navenewell.net

City/State/Zip King of Prussia PA 19406

SECTION C: PROJECT DESCRIPTION

This project is located on: Federal property State property Municipal property Private property
(check all that apply)

List all Federal and State agencies and programs (funding, permits, licenses) involved in this project	Agency Type	Agency/Program/Permit Name	Project/Permit/Tracking Number (if applicable)
	State	DEP/water quality/ Act 537 planning	
	State	DEP/Watershed mgnt/Stormwater NPDES	

Proposed Work – Attach project description, scope of work, site plans, and/or drawings

Project includes (check all that apply): Construction Demolition Rehabilitation Disposition

Total acres of project area: 13.81 Total acres of earth disturbance: 13.81

Are there any buildings or structures within the project area? Yes No Approximate age:

This project involves properties listed in or eligible for listing in the National Register of Historic Places, or designated as historic by a local government	Yes	No	Unsure	Name of historic property or historic districts
	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	

<p>Please print and mail completed form and all attachments to:</p> <p>PHMC State Historic Preservation Office 400 North St. Commonwealth Keystone Building, 2nd Floor Harrisburg, PA 17120-0093</p>	<p style="text-align: center;">Attachments – Please include the following information with this form</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;"><input checked="" type="checkbox"/></td> <td>Map – 7.5' USGS quad showing project boundary and Area of Potential Effect</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Description/Scope – Describe the project, including any ground disturbance and previous land use</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan</td> </tr> </table>	<input checked="" type="checkbox"/>	Map – 7.5' USGS quad showing project boundary and Area of Potential Effect	<input checked="" type="checkbox"/>	Description/Scope – Describe the project, including any ground disturbance and previous land use	<input checked="" type="checkbox"/>	Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area	<input type="checkbox"/>	Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan
<input checked="" type="checkbox"/>	Map – 7.5' USGS quad showing project boundary and Area of Potential Effect								
<input checked="" type="checkbox"/>	Description/Scope – Describe the project, including any ground disturbance and previous land use								
<input checked="" type="checkbox"/>	Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area								
<input type="checkbox"/>	Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan								

SHPO DETERMINATION (SHPO USE ONLY)	SHPO REVIEWER:
<input type="checkbox"/> There are NO HISTORIC PROPERTIES in the Area of Potential Effect <input type="checkbox"/> The project will have NO EFFECT on historic properties <input type="checkbox"/> The project will have NO ADVERSE EFFECTS on historic properties:	<input type="checkbox"/> The project will have NO ADVERSE EFFECTS WITH CONDITIONS (see attached) <input type="checkbox"/> SHPO REQUESTS ADDITIONAL INFORMATION (see attached)

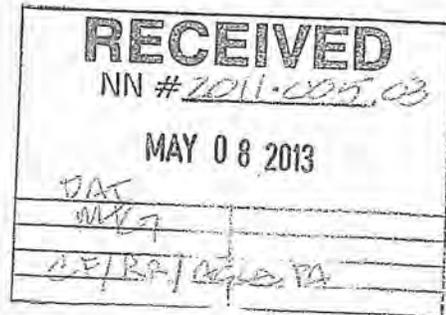
A UA™

Aqua Pennsylvania, Inc.
762.W. Lancaster Avenue
Bryn Mawr, PA 19010

www.aquaamerica.com

May 6, 2013

Maria T. Goman
Nave Newell
357 South Gulph Road, Suite 300
King of Prussia, PA 19406



Re: Water Availability
Villanova University Housing
Radnor Township, Delaware County, Pennsylvania

Dear Ms. Goman:

This letter will serve as confirmation that the above referenced property is situated within Aqua Pennsylvania Inc.'s service territory. Service would be provided in accordance with Aqua Pennsylvania Inc.'s Rules and Regulations.

Please contact Deanne L. Ciotti, Aqua Pennsylvania Inc.'s New Service Representative at 610-541-4160 for further information on service alternatives that will meet your domestic and fire service needs. Ms. Ciotti will provide you with the appropriate service applications.

Please note that if any additional public hydrants are required, or any need to be relocated, for this project that it will be handled separately by me with the issuance of a Fire Hydrant Agreement or Relocation Agreement for execution. If required, please forward a drawing with the hydrant dimensioned in both directions showing any utilities that could be encountered by us in running the hydrant lead pipe. Similarly this also applies for our existing mains on a parcel, except that your firm would be required to prepare a drawing for us.

Flow data information may be obtained from our Production Department so that you may determine the adequacy of our supply for your project needs. Please fax a written request to Lisa Thomas Oliva at 610-645-1162 containing the address, street, cross street and municipality and all pertinent contact information.

If I can be of further assistance, you may contact me at (610) 645-4230.

Sincerely,

Gary J. Horne
New Business Representative

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

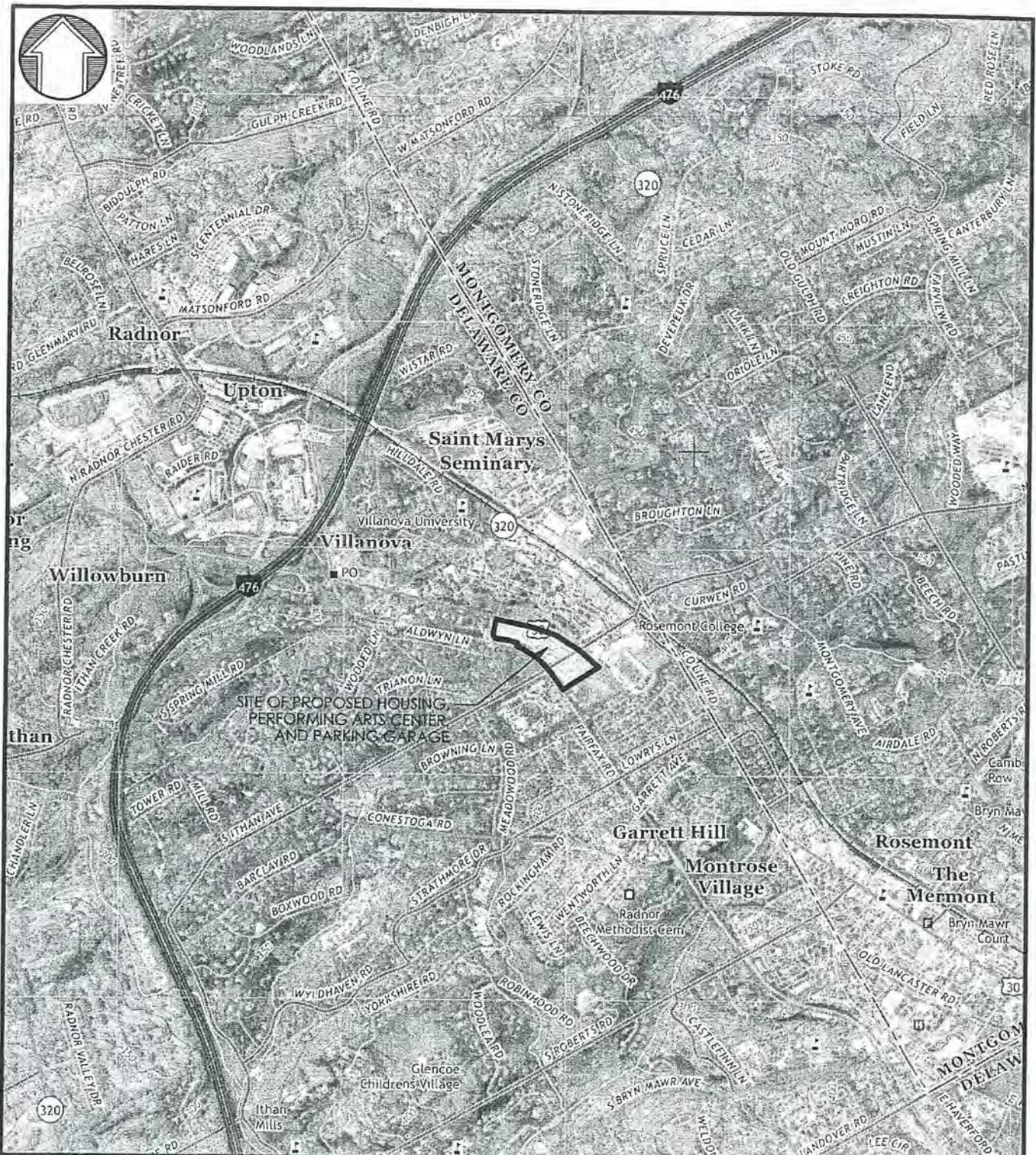
U.S. Fish and Wildlife Service

RESPONSE: No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special

concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.



 <p>Where Ideas Get Down to Earth</p> <p>910 West Valley Road • Suite 1100 Wayne, PA 19087-1830 P 610.265.8323 F 610.265.4299 www.nave-newell.com</p>	DRAWING NAME: USGS MAP - "NORRISTOWN" QUADRANGLE			<h1>1 of 1</h1>
	PROJECT NAME: VILLANOVA UNIVERSITY CICD DEVELOPMENT			
SCALE: 1" = 2000'	DRAWN BY: MMB	PROJECT NUMBER: 2011-005	SHEET	
CHK'D BY: DAT	APPROV. BY: GCN	DATE: 11/26/14		

VII.

Public Notice

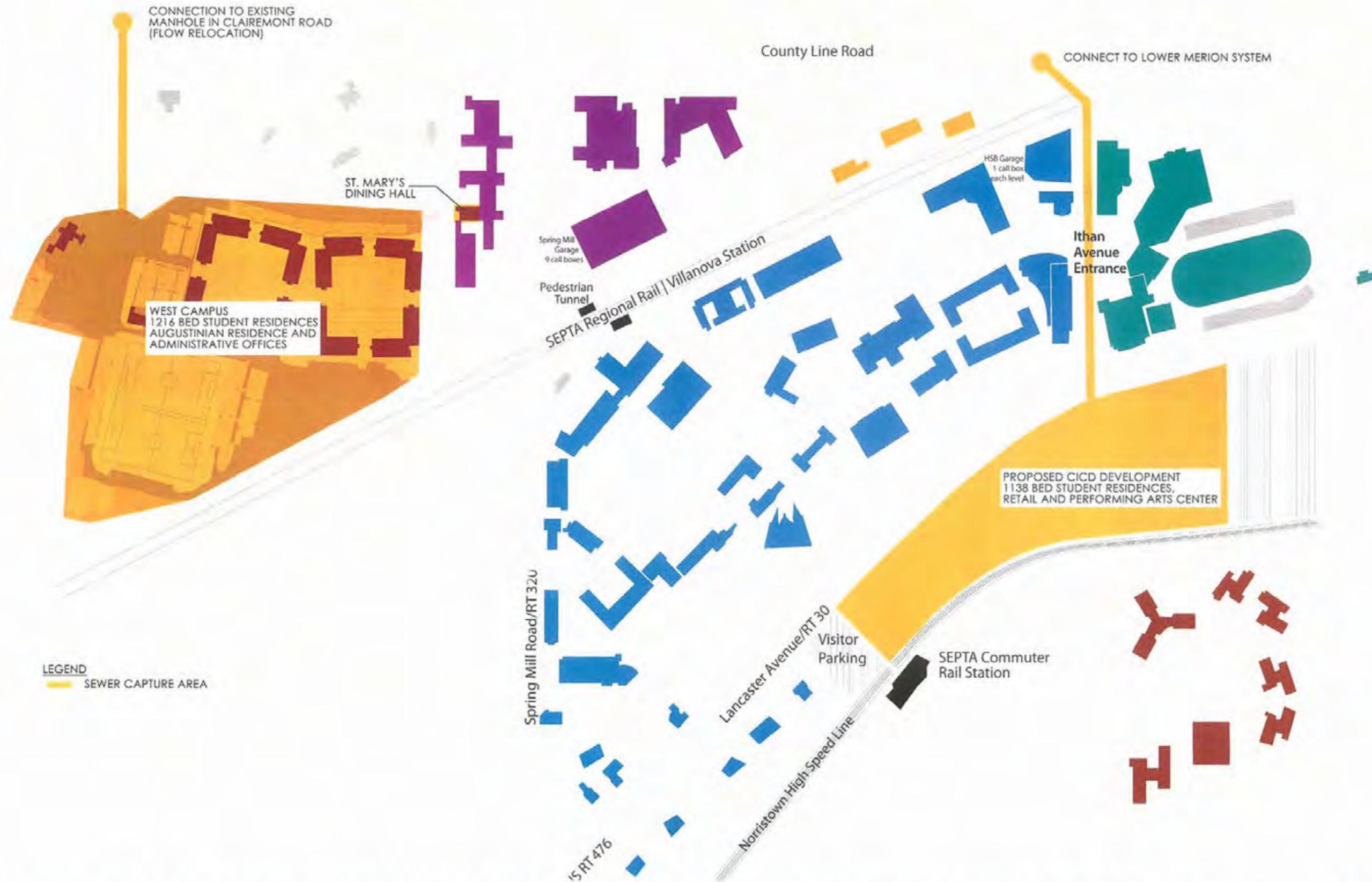
The Pennsylvania Department of Environmental Protection Rules and Regulations require public notice be given to allow the general public to provide comments regarding the proposed redevelopment of approximately 13.81 acres of land on the existing Villanova Campus in Radnor Township, Delaware County, Pennsylvania. The project is known as Villanova University CICD development. This development project proposes to construct dormitories, a performing arts center, a restaurant, and a "grab and go" retail food store. Sewage flow is expected to increase by 92,015 gallons per day. The development will be served by public water provided by Aqua PA and a public sewerage system with final treatment and disposal of the effluent at the City of Philadelphia Southwest Water Pollution Control Facility. This publication is required as the project will generate 93,015 gallons per day of sewage flow.

A 30-day comment period has been established to allow the general public an opportunity to comment on the consistencies with applicable laws and acts. The Sewage Facilities Planning Module documents and plans can be viewed at the Radnor Township building, 301 Iven Avenue, Wayne, PA 19087; Monday through Friday from 8 AM to 4 PM by appointment. Please address any comments within 30 days of the date of this publication to Radnor Township, Steve Norcini, Public Works Director, at the above address.

VIII.

Note to reviewer: DEP checklist letter will be inserted here when received

Appendix



VILLANOVA UNIVERSITY: WEST CAMPUS SCHEMATIC SEWER RELOCATION PLAN

SEWER CAPTURE AREA EXHIBIT

2011005
DECEMBER 5, 2014

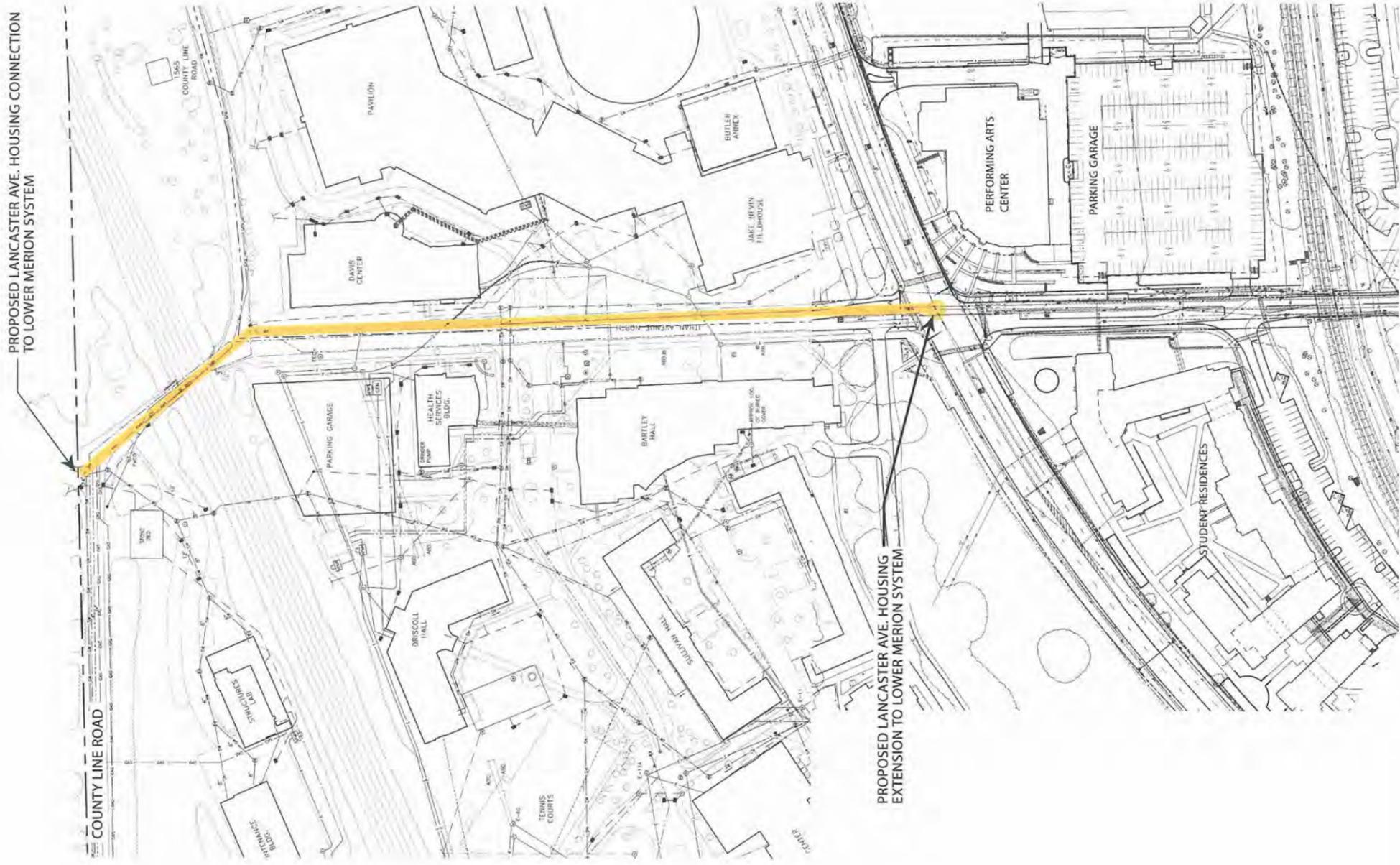


VILLANOVA UNIVERSITY: WEST CAMPUS SCHEMATIC SEWER RELOCATION PLAN

EXHIBIT

2011005
DECEMBER 5, 2014





LEGEND
 PROPOSED SEWER LINE OR FORCE MAIN



VILLANOVA UNIVERSITY: LANCASTER AVENUE PROPOSED SEWER MAP-EXHIBIT

2011005.00
 DECEMBER 5, 2014

900 West Valley Road, Suite 1100, Wayne, PA 19087 • 610.265.8323 • fax: 610.265.4299 • www.navenewell.com



Where Ideas Get Down to Earth

**Radnor Township Planning Commission
Minutes of the Meeting of April 6, 2015
301 Iven Ave., Wayne, Pa**

Chairman Steve Cooper called the meeting to order with the following Commission members present: Kathy Bogosian, Charles Falcone, Skip Kunda, John Lord, Doug McCone, Elizabeth Springer, and Susan Stern. Attendance included: Roger Phillips, PE, Township Engineer; Amy Kaminski, PE, Township Traffic Engineer; Peter Nelson, Esq.; Kevin Kochanski, Director of Community Development; Stephen Norcini, PE, Director of Public Works; and Planner Stephen Gabriel. Regina Majercak was absent.

Minutes of the February 25, 2015 meeting

John Lord moved to approve the minutes. Seconded by Susan Stern, the motion carried.

Minutes of the March 2, 2015 meeting

Susan Stern moved to approve the minutes. Seconded by John Lord, the motion carried.

Minutes of the March 10, 2015 meeting

Susan Stern moved to approve the minutes. Seconded by John Lord, the motion carried.

Minutes of the March 26, 2015 meeting

Susan Stern moved to approve the minutes. Seconded by John Lord, the motion carried.

Subdivision and Land Development Applications

***SD # 2014-D-07 Villanova University 800 E. Lancaster Ave. (Preliminary Plan)
Construction of 1,135 bed student housing in six buildings with associated retail space
under CICD Use with Phase-in construction.***

Charlie Falcone recused himself. Alex Tweedie, PE appeared on behalf of the applicant and addressed the items from the engineer's comments. The applicant will comply with most of the comments. The remainder will require the request of waivers. The subject of the installation and necessity of sidewalks in the area of Church Walk was discussed. A barrier is proposed to be placed in the driveway to restrict vehicle access. This will be opened only during special occasions, such as funerals and some weddings. They are meeting with PennDOT and will comply with their recommendations. Susan Stern asked what the corner would look like if the Performing Arts Center was not constructed. It has been stated that the Center will be constructed if the funds permit it. She also asked about the stormwater management system requirements if the Center isn't built. This information will be researched and reported at a future meeting. She also questioned the possible disturbance of steep slopes in the area of the widening of the driveway.

Public Comment –

Toni Bailey of Rosemont questioned the reduction of the parking with respect to Sunday Church services and special events.

Rick Leonardi of Villanova stated that the nearest Pizza restaurant is on the North Side of Lancaster Avenue and the students will use the crosswalk to access the other side of the street. He also feels that the height of the bridge is a 20' gain not a 12' gain as previously stated.

Board Comment-

Susan Stern mentioned the waiver request on the 35' radius at South Ithan Avenue, the 22' vs 25' drive width behind the housing development, and the neighbors are having a meeting with PennDOT tomorrow evening and they still need to hear comments from that meeting. She also inquired on snow and ice removal will occur on the bridge.

Steve Norcini stated that any issues raised tomorrow night can be addressed at the Board of Commissioners Caucus meeting. Any recommendation this evening can reflect the statement that PennDOT's comments be considered, etc.

Elizabeth Springer mentioned the Aldwyn Triangle and it's maintenance as well as a previous comment about alternate parking.

Susan Stern moved to recommend approval of the Preliminary Plan with the following conditions: a denial of the waiver request for Section 255-27.H, to permit a 25' radius curb on the southwest corner of Ithan Avenue and Route 30, that the applicant meet all outstanding staff comments and review letters, or request waivers from comments, that the applicant install an enhanced stormwater management plan as detailed to the staff, the public, and the Planning Commission at the March 26th meeting. This enhanced stormwater management system is to include infiltration and improved water quality as outlined at the March 26 meeting and that the applicant seek any and all easements necessary for the construction, maintenance and access to the pedestrian bridge. Seconded by Doug McCone, the motion carried.

Susan Stern moved that Steve Norcini bring the following memo to the PennDOT meeting tomorrow night. *The Planning Commission strongly supports staff and neighbors recommendations of a right-turn lane at the southwest corner of Route 30 and Ithan Avenue.* Seconded by John Lord, the motion carried.

***SD # 2014-D-02 (Preliminary Plan) BioMed (BMR – 145 King of Prussia Road, LP)
Demolition of existing office/research buildings and redevelopment of property with proposed office
buildings and associated parking located at 145 King of Prussia Road***

George Kroclicik, Esq. stated that the revised plan has additional vehicles being included in sub-surface parking that were once counted in surface parking. This plan now complies with Code and has been accepted by Peter Nelson. However, there was discussion regarding the ambiguity of this issue. Surface parking has been removed to increase more green space. Several buildings have been moved forward to the parking area and the square footage has been shared between the buildings now. A greenways trail plan has been incorporated throughout the development and a sidewalk has been added.

John Wichner, McMahon Assoc., stated that King of Prussia Road is proposed to be widened to 4 lanes in the area. All revised traffic improvements were detailed to the board including traffic adaptive

signals which will be part of a grant. The 2009 approved plan included no roadway improvements. The revised 2013 plan includes many roadway improvements.

Alex Tweedie, PE, on behalf of the applicant stated they will comply with many of the comments. He listed the items where they are requesting waivers. He went over all consultants memos and they will comply with all of Rettew's comments.

Susan Stern asked the applicant if they plan on construction the stormwater management system that will exceed what is required by Code.

Mr. Wichner responded to several of Amy Kaminski's comments on the TIS. Susan Stern asked if a dedicated left turn lane could be extended in the morning for vehicles entering the high school heading north from Route 30. Several proposed enhancements by the applicant, and working with PennDOT, should assist vehicle movement in the area. Examples of what the applicant is proposing to do include: restriping the exit ramp off Route 476, the additional turn lane at King of Prussia Road and Route 30, and the traffic signal adaptive program.

Steve Norcini mentioned happy to see the applicant doing off-site improvements on an application that doesn't necessarily require it. He is concerned with the adaptive program where it stops with respect to other traffic signals. The two signals at Raider Road and Radnor Chester Road are not included in this loop. The applicant will look into including the two signals that are not included.

There was a lot of discussion regarding the level of service now and after future development. The current level is an 'F'. In the future with the adaptive system, it is expected to become an 'F+'. Right-Of-Ways' need to be obtained from both PennDOT and the Radnor Township School District to widen King Of Prussia Road at Route 30.

Public Comment-

On behalf of Brandywine Entities, George Broseman addressed the Board. He questioned many issues including: was there a TIS study done for the 2009 TIS with regards to parking spaces, waiver to use ITE trip generation rather than the Code, if the waiver wasn't granted would trip generation be higher, the cartway width waiver, 65' shown on plan, are green roofs being included as landscape area, is the area on plan that green over the parking area considered 'green', and the waiver with regard to landscape area. Roger Phillips stated the numbers would change depending on the smaller right of way waiver request. Infiltration tests need to work before proposing large stormwater management systems. He wondered if the underground parking garage had been approved by the fire officials, what was the fire access and did this plan pass the public safety acceptance and approval. He doesn't feel the underground parking complies with the code for allowable underground parking. He asked the Board to recommend denial of the plan based on the unanswered questions.

Also from Brandywine, Jeff DeVuono, asked the Board to look at this plan from a practical observation. Radnor Financial Center has been compared to the BioMed site on numerous issues. He asked the Board to look at the plan from the practical side.

Skip Kunda has concerns with the process. At this point, these are the best plans that they've seen so far. Kathy Bogosian agrees. John Lord agrees, however, more parking should be put underground.

Elizabeth Springer sees a lot of positives, but feels this plan isn't quite there yet. Charlie Falcone has issues with traffic.

The applicant was asked if they would consider tabling the plan. They responded feeling that they've provided what has been expected and want to move forward.

Many items were discussed as to what this plan needs: stormwater issues, satisfaction of staff, compliance with the stormwater ordinance, right-of-ways on both sides of King of Prussia Road, removal of more surface parking, and safety and fire concerns of underground parking, to name a few.

Charles Falcone moved to recommend preliminary plan approval based on the points, that the applicant must secure the right of way necessary for the traffic construction proposed, stormwater issues particularly infiltration have to completely satisfy staff, that the underground parking structure meet code and is safe and fire safe, that traffic issues are primary concern of the commission and we hope that the board of commissioners address that when they vote to approve or deny and recommend that the applicant remove more surface parking. Seconded by John Lord, the motion carried 5-2. Kathy Bogosian and Elizabeth Springer opposed. Susan Stern had previously left the meeting.

APPEAL #2932 The applicant, David Semerjian Builders, LLC, property located at 415 and 501 Maplewood Avenue, 255 Highland Avenue – Lots 4 and 5, Central Avenue – Lot 15 and 16, and 253 Highland Avenue and zoned R5, seeks a variance, in order to construct 12 townhomes which is a permitted use, from Section 280-35(B)(9) regarding Impervious Coverage or contends that the relief is permitted as of right since it is not increasing the existing non-conformity on Impervious Coverage. Applicant further seeks any other zoning or alternative relief required pursuant to the Plans presented with this Application. A Special Exception pursuant to Section 280-101(A), or contends that the relief is permitted as of right since it is not increasing the existing non-conformity in order to construct townhomes on the premises. Applicant further seeks any other zoning or alternative relief required pursuant to the Plans presented with the Application.

Nick Caniglia, Esq. appeared on behalf of the applicant. The sites are proposed to be merged. The applicant is proposing to reduce the amount of impervious on site; however, the new impervious numbers are still slightly higher than the permitted amount. Kevin Kochanski stated that he is asking the solicitor's office to oppose this application with respect to the 'ownership' status of the paper street. Whether or not the Township has any rights to the paper street with respect to access to the Township Trail situated behind this site needs to be researched. Paperwork which has been submitted regarding ownership has not yet been seen by staff.

John Lord moved to reject the plan based on the impervious coverage, the open issue regarding Central Avenue and the ownership of that street and the belief that there are too many proposed structures on the property. Seconded by Kathy Bogosian, the motion carried.

APPEAL #2941 The applicants, Peter McKenna and Peter Flint, property located at 125 Bloomingdale Avenue and zoned CO, seeks Special Exceptions pursuant to Sections 280-101(A)(2) regarding expansions of a non-conforming use and 280-105(F) regarding parking in the front-yard setback to convert the existing 3 apartments to 3 condominium units. In the alternative applicant seeks a variance from 280-42. Applicant further seeks any other zoning or alternative relief required necessary for the conversion of the apartments to condominiums pursuant to the Plans presented with the Application.

Nick Caniglia, Esq. appeared on behalf of the applicant. He is meeting tomorrow with the Zoning Officer with the current property owners and will discuss the current usages thereof. Three small additions are proposed as well as some parking expansion. There should be no impervious coverage issues.

Public Comment-

Baron Gemmer lives across the street. He has questions regarding the impervious surface numbers and would like to see some of the parking spaces moved.

Doug McCone feels that the Bloomingdale entrance should be eliminated due to the impact on two large trees and the applicant should just use the two-way in and out off of West Wayne Avenue. He would like to see this plan denied due to the impervious issue and asks that the applicant reconfigure the plans. Kevin Kochanski reminded the board that the impervious issue is not part of the zoning hearing board issue, only the special exception for use and front yard setback. If impervious comes into play, then the applicant will have to either reappear for that relief or reconfigure the plans accordingly. Kathy Bogosian doesn't see anything wrong with the plans. Charles Falcone agreed.

John Lord moved to recommend approval of the plans. Seconded by Kathy Bogosian, the motion carried 4-2. Skip Kunda and Doug McCone opposed. The motion carried.

Old Business

New Business

Public Comment

Adjournment

Respectfully submitted,

**RESOLUTION NO. 2015-53
RADNOR TOWNSHIP**

A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, APPROVING THE PRELIMINARY PLAN OF BMR-145 KING OF PRUSSIA ROAD, L.P. FOR A PROPERTY LOCATED AT 145 KING OF PRUSSIA ROAD PURSUANT TO PLANS PREPARED BY NAVE NEWELL CONSISTING OF THIRTY (30) SHEETS DATED SEPTEMBER 3, 2014 LAST REVISED MARCH 17, 2015.

WHEREAS, BMR-145 King of Prussia Road, L.P. (“Applicant”) submitted a Preliminary Land Development Plan for a proposed office project located at 145 King of Prussia Road within the Township’s PLO Zoning District (“Property”); and

WHEREAS, the proposed office project consists of 474,600 square feet, a subsurface parking structure, surface parking areas and related improvements all as set forth on plans consisting of thirty (30) sheets prepared by Nave Newell dated September 3, 2014, last revised March 17, 2015 (“Plan”).

WHEREAS, the proposed preliminary plan has been reviewed by both the Radnor Township Planning Commission and the Delaware County Planning Commission.

NOW, THEREFORE, it is hereby **RESOLVED** that the Board of Commissioners of Radnor Township does hereby approve the Preliminary Plan of land development for 145 King of Prussia Road subject to the following conditions:

1. The Applicant shall comply with the April 7, 2015 correspondence of the Township Engineer, Gannett Fleming, a copy of which is attached hereto as *Exhibit “A”*.
2. The Applicant shall comply with the April 7, 2015 correspondence of Gilmore & Associates, Inc., a copy of which is attached hereto as *Exhibit “B”* including the construction of the following traffic improvements:
 - A. King of Prussia Road and Lancaster Avenue (U.S. Route 30)/I-476 NB Off-Ramp-
 - i. Widen southbound King of Prussia Road to provide a second right-turn lane within the existing right-of-way. If additional right-of-way from the Radnor Township School District is necessary and cannot be acquired from the School District, the currently proposed traffic signal located at the southern driveway to the site shall be relocated to the northern driveway to the site. If this relocated signal occurs, the applicant shall update its traffic impact study and shall revise its internal circulation plans to the satisfaction of the Township Engineer and approved by the Board of Commissioners.

- ii. Restripe northbound I-476 off-ramp for a shared through/right-turn lane.
- B. King of Prussia Road and Raider Road-
 - i. Construct a new traffic signal.
- C. King of Prussia Road and Southern Site Access-
 - i. Provide one ingress lane and two egress lanes.
 - ii. Install a traffic signal, which is warranted during the weekday afternoon peak hour. This traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
 - iii. Provide 45-foot curb radii (at minimum), or larger if necessary for the anticipated delivery traffic.
 - iv. Widen northbound King of Prussia Road to provide a separate right-turn lane, contingent upon the ability to secure right-of-way from PennDOT. If additional right-of-way cannot be acquired from PennDOT, the currently proposed traffic signal located at the southern driveway to the site shall be relocated to the northern driveway to the site. If this relocated signal occurs, the applicant shall update its traffic impact study and shall revise its internal circulation plans to the satisfaction of the Township Engineer and Township Traffic Engineer.
- D. King of Prussia Road and SEPTA Access/Northern Site Access-
 - i. Provide one ingress lane and two egress lanes.
 - ii. Construction of a northbound King of Prussia Road right turn deceleration lane.
 - iii. Construction of a southbound King of Prussia Road left turn lane.
 - iv. Construct a bus shelter on King of Prussia Road on the southeast of the SEPTA Access/Site Access.
 - v. Construct sidewalks from the site to the R-100 Station at the rear of the property.
 - vi. Construct a new traffic signal, if the necessary additional right-of-way cannot be acquired from Radnor School District or PennDOT as discussed above. If this relocated signal occurs, the applicant shall update its traffic impact study and shall revise its internal circulation plans to the satisfaction of

the Township Engineer and Township Traffic Engineer.

E. King of Prussia Road-

- i. Provide a four-lane cross section along the property's site frontage along King of Prussia Road (between the southern site access and the northern site Access).
- ii. Construct 5 foot wide sidewalks along the entire property frontage on King of Prussia Road.

F. Traffic Adaptive Signal Coordination at the following intersections, subject to PennDOT review and approval:

- i. Route 30 & I-476/King of Prussia Road.
- ii. Route 30 & I-476 Southbound Ramps.
- iii. Route 30 & Radnor-Chester Road.
- iv. King of Prussia Road & Radnor-Chester Road.
- v. King of Prussia Road & Matsonford Road.
- vi. Matsonford Road & South Centennial Drive.
- vii. Matsonford Road & North Centennial Drive.
- viii. King of Prussia Road & Raider Road.
- ix. King of Prussia Road & Southern Driveway (if signalized).
- x. King of Prussia Road & Northern Driveway (if signalized).
- xi. Radnor Chester and Raider Road
- xii. Radnor Chester and TD Bank

G. Construct a trail extension from the Southern Driveway through the existing PennDOT Right-of-Way, southeast of the site with connections to the existing Route 30 sidewalks. The location, width and composition of the path materials shall be approved by the Public Works Director.

3. The Applicant shall comply with the March 31, 2015 correspondence of Gilmore & Associates, Inc., a copy of which is attached hereto as ***Exhibit "C"***.

4. The Applicant shall comply with the March 26, 2015 correspondence of RETTEW, a copy of which is attached hereto as *Exhibit "D"* with respect to the following provisions in that letter:
 - A. Compliance with subdivision comment 1 with respect to Section 255-29.A.(6).
 - B. Compliance with subdivision comment 2 with respect to Section 255-29.B.(1).
 - C. Compliance with general planning review comment 1 with respect to the need for additional sidewalks from the entrance and exit for buildings 2a and 2b.
 - D. Compliance with general planning review comment 3 which permits the Board of Commissioners to require pedestrian lighting in accordance with Section 255-37.E. The applicant shall provide for a comprehensive pedestrian lighting plan in accordance with this comment.
5. The Applicant shall pay \$393,533.00 in park and recreation fees based on a total square footage of 474,600 in lieu of dedication of park land. All fees are due and payable upon execution of development and financial security agreements.
6. Applicant shall comply with current IBC and NFPA guidelines for all new construction. The Applicant shall provide sufficient vehicle access to all buildings as recommended by the Township Fire Marshall. Additionally, the Applicant shall research and provide to the Township information and/or training guidelines for firefighting issues which may arise upon construction, and operation of the underground parking structure prior to final plan approval. Applicant shall also provide all tenants with emergency egress procedures for utilization of the underground parking structure to be reviewed and approved by the Township Fire Marshall.
7. The Applicant shall comply with all other Township, County, State, and Federal ordinances, statutes, rules and regulations.
8. The Applicant shall execute development and financial security agreements in a form and manner to be approved by the Township Solicitor. Additionally, all surface parking areas removed and placed underground shall be restricted from further development or disturbance in a manner approved by the Township Solicitor.

In addition to the foregoing conditions of preliminary plan approval, the Board's determination with respect to the following waivers is as follows:

1. SLDO §255-20.B(5)(d)[4] to permit the use of ITE current trip generation rates.

_____ Approved _____ Denied

2. SLDO §255-27.C(1) to permit a 44 foot wide cartway along King of Prussia Road in lieu of a 48 foot wide cartway.

_____ Approved _____ Denied

3. SLDO §255-27.H to permit an intersection which is not at a 90 degree alignment.

_____ Approved _____ Denied

4. SLDO §255-229.A(6) to permit painted gore markings in lieu of concrete curb parking stalls.

_____ Approved _____ Denied

5. SLDO §255-229.A(12)(b) to permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

_____ Approved _____ Denied

SO RESOLVED, at a duly convened meeting of the Board of Commissioners of Radnor Township conducted on this _____ day of _____, 2015.

RADNOR TOWNSHIP

By: _____
Name: William A. Spingler
Title: President

ATTEST: _____



MEMORANDUM

Date: April 7, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: 145 King of Prussia Road
Biomed Realty Trust, Inc. – Applicant

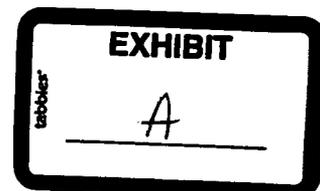
Date Accepted: October 6, 2014
90 Day Review: January 4, 2015 Extended to April 30, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct office buildings at 474,600 gross square footage and three buildings. This project is located in the PLO district of the Township.

The applicant appeared before the Planning Commission on April 6, 2015. The Planning Commission recommended approval of the plans based on the following conditions:

- The applicant must secure the right of way necessary for the traffic construction proposed.
- Stormwater issues particularly infiltration have to completely satisfy staff.
- The underground parking structure meet code and is safe and fire safe.
- Traffic issues are a primary concern of the commission and we hope that the Board of Commissioners address that when they vote to approve or deny and recommend that the applicant remove more surface parking.



Gannett Fleming

The applicant has reduced the number of office buildings from four to three and the gross square footage of office space from 533,247 square feet to 474,600 square feet. Surface parking has been reduced to 335 parking spaces from 446 surface parking spaces on the previous submission.

The applicant has indicated that the following waivers will be requested from the Subdivision and Land Development Code:

- §255-20.B(5)(d)[4]– To permit the use of ITE Trip Generation Rates.
- §255-27.C(1) – To permit a 44 wide cartway along King of Prussia Road.
- §255-27.H – To permit an intersection which is not a 90 degree alignment.
- §255-29.A(6) – To permit painted gore marking in lieu of concrete curb for parking stalls along the concrete ramp due to drainage concerns.
- §255-29.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

Plans Prepared By: Nave Newell
Dated: 09/03/2014, revised 03/17/2015

I Zoning

1. §280-6.C(5) – Refer to legal interpretation memo dated January 23, 2015 prepared by John B. Rice and Peter Nelson with regard to nonconformance with this Section.
2. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 14.4% and the minimum landscape area is 47.3%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code. The applicant has revised the zoning chart to include this information.
3. §280-64.D(3) – In no case shall the width of the building or accessory structures or the aggregate width of buildings or accessory structures fronting on a street on the same lot exceed 80% of the width of the lot. The applicant has provided the calculation on the zoning table to indicate that the width provided is 73.4%.
4. §280-70.C – Service, utility, maintenance and storage areas, including solid waste containers, loading and unloading areas and heating, ventilating and air condition equipment, shall be screened from view from public streets and abutting properties. This may be accomplished by means of enclosing walls, stone, brick or wood fences or a buffer planting strip. Visual screening so provided shall be of sufficient density so as not to be seen through and of sufficient height to constitute an effective screen. Detail of the

dumpster/recycling area and the mechanical pit screenings must be provided on the plans. The applicant has indicated that this will be provided during Final Land Development

5. §280-112.B. – Any applicant for a building permit, preliminary subdivision plan approval on land which contains areas with a grade or slope of 14% or more shall be required to have the limits of such areas defined by a registered professional engineer. These areas must be shown on the plans. The applicant has shown the location of these areas on the plans
6. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. The applicant has shown the location of these areas on the plans and has indicated that these slopes were classified as exempt during the 2009 plan approval.
7. §280-132.B. – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts. The applicant has revised the zoning chart to include this information.

II Subdivision and Land Development

1. §255-41.H. – Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped. A detail of the dumpster/recycling area screening must be provided. The applicant has indicated that this will be provided with the final land development plan submission.
2. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. The applicant must conform to this section.
3. §255-27.C.(1) – King of Prussia Road is designated as a major collector and has a required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements. The ultimate right of way shown on the plans is 65 feet. Curbing and sidewalk for a major collector road shall be provided as recommended by Penn DOT. The applicant has requested a waiver to allow a 44 foot wide cartway along King of Prussia Road.

Gannett Fleming

4. §255-29.A.(12)(b) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The two way drive located in the rear of the property is 22 feet wide. This must be revised. The applicant has requested a waiver to permit a 22 foot wide drive aisle in areas without parking to maintain a roadside vegetative swale. The applicant must provide specific locations for where the waiver will be requested.
5. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every ten parking spaces in double bay. The applicant has revised the landscaping plan to accurately reflect the tree requirement.
6. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. §245-22.A.1 - Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests. The applicable modifications to the drainage report must also be completed reflecting the revised sizing and configurations of the buildings. The applicant has indicated that this will be provided during the final land development submission.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: April 7, 2015

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Preliminary Land Development Transportation Impact Study Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the referenced project and offers the following comments for Township consideration:

I. PROJECT OVERVIEW:

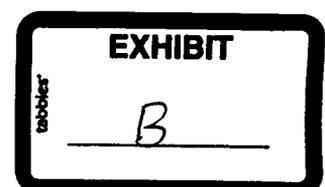
Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 475,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. SUBMISSION

1. Response letter regarding the Gilmore & Associates, Inc. February 23, 2015 review memorandum, prepared by McMahon Associates, Inc., dated March 17, 2015.
2. Transportation Impact Study, prepared by McMahon Associates, Inc., dated March, 2015, received March 26, 2015.

III. IDENTIFIED IMPROVEMENTS

1. King of Prussia Road and Lancaster Avenue (U.S. Route 30)/I-476 NB Off-Ramp



- i. Widen southbound King of Prussia Road to provide a second right-turn lane, contingent upon the ability to secure right-of-way from Radnor Township School District.
 - ii. Restripe northbound I-476 off-ramp for a shared through/right-turn lane.
 2. King of Prussia Road and Raider Road
 - i. Construct a new traffic signal.
 3. King of Prussia Road and Southern Site Access
 - i. Provide one ingress lane and two egress lanes.
 - ii. Install a traffic signal, which is warranted during the weekday afternoon peak hour. This traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
 - iii. Provide 45-foot curb radii (at minimum), or larger if necessary for the anticipated delivery traffic.
 - iv. Widen northbound King of Prussia Road to provide a separate right-turn lane, contingent upon the ability to secure right-of-way from PennDOT.
 4. King of Prussia Road and SEPTA Access/Site Access
 - i. Provide one ingress lane and two egress lanes.
 - ii. Construction of a northbound King of Prussia Road right turn deceleration lane.
 - iii. Construction of a southbound King of Prussia Road left turn lane.
 - iv. Construct a bus shelter on King of Prussia Road on the southeast of the SEPTA Access/Site Access
 - v. Construct sidewalks from the site to the R-100 Station at the rear of the property.
 5. King of Prussia Road
 - i. Provide a four-lane cross section along the property's site frontage along King of Prussia Road (between the southern site access and the shared SEPTA/Site Access).
 - ii. Construct 5 foot sidewalks along the entire property frontage on King of Prussia Road.
 6. Traffic Adaptive Signal Coordination at the following intersections, subject to PennDOT review and approval:
 - i. Route 30 & I-476/King of Prussia Road
 - ii. Route 30 & I-476 Southbound Ramps
 - iii. Route 30 & Radnor-Chester Road
 - iv. King of Prussia Road & Radnor-Chester Road
 - v. King of Prussia Road & Matsonford Road
 - vi. Matsonford Road & South Centennial Drive
 - vii. Matsonford Road & North Centennial Drive
 - viii. King of Prussia Road & Raider Road
 - ix. King of Prussia Road & Southern Driveway

7. Construct a trail extension from the Southern Driveway through the existing PennDOT Right-of-Way, southeast of the site with connections to the existing Route 30 sidewalks.

IV. WAIVERS REQUESTED

1. §255-20.b(5)(d)[4] – To permit the use of ITE Trip Generation Rates in the Transportation Impact Study.
2. §255-27.C(1) – To permit a 44 foot wide cartway along King of Prussia Road.
3. §255-27.H. – To permit an intersection which is not a 90 degree alignment.
4. §255-229.A(6) – To permit painted gore marking in lieu of a concrete curb for parking stalls along the concrete ramp due to drainage concerns.
5. §255-229.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

V. TRANSPORTATION IMPACT STUDY REVIEW COMMENTS

1. Provide a comparison of the trip generation numbers based on ITE Land Use Code (LUC) 720 Medical Office Use. During a recent meeting with the applicant, this may be a possible tenant and the trip making characteristics for this type of use is more significant than the LUC 710 General Office used in the Transportation Impact Study (TIS); therefore, a worst case scenario must be provided for review.
2. A Signal Warrant Analysis was provided for both proposed signals on King of Prussia Road in in Appendix F. Although the applicant evaluated both the peak hour and four-hour traffic signal warrants for both intersections, only the Peak Hour Warrant (Warrant 3) was met. PennDOT requires Central Office approval if only the Peak Hour Warrant is met for an intersection being considered for signalization. We recommend the applicant perform the following:
 - i. Re-evaluate both intersections to determine if either intersection meets warrant conditions for 8 hour warrant analysis. This may require additional traffic counts that should be obtained prior to school releasing for summer break.
 - ii. Submit a copy of both traffic signal warrant analyses (including the above discussed 8 hour warrant) to PennDOT for review and consideration.
3. Appendix F *Traffic Signal and Auxiliary Turn Lane Warrant Worksheets* identifies the following improvements are warranted:
 - i. King of Prussia Road and Raider Road: A 275 foot northbound left turn lane and taper on King of Prussia Road at Raider Road.
A northbound left turn lane at Raider Road is not offered as an improvement.
 - ii. King of Prussia Road and Southern Access:
 - (1) A 100 foot southbound left turn lane and taper

(2) A 375 foot northbound right turn lane and taper

No southbound left turn lane is proposed, and a 100 foot northbound right turn lane with an 85 foot taper is proposed.

- iii. Investigate the left turn conflict factor worksheets for both proposed traffic signals; adjust the proposed traffic signal timings as needed.
- iv. Route 30 and King of Prussia Road:

(1) Provide an auxiliary turn lane analysis for the southbound right-turn lane on King of Prussia Road at Route 30 to determine the maximum required storage length. The proposed storage length should be the greater of the auxiliary turn lane length analysis or the 95 percentile queue length analyses, based on the Future Build conditions.

A 200 foot southbound right turn lane and 100 foot taper is currently proposed.

- 4. The **Executive Summary** should be updated to include the auxiliary lane information discussed above.
- 5. Appendix L: *Concept Plans & Cost Estimates*: The provided cost estimates do not appear to include the improvements at Raider Road and the proposed trail improvements
- 6. **Lancaster Ave/King of Prussia Rd/I-476 Northbound off Ramp**: The applicant proposed southbound King of Prussia Road dual right turn lanes and restriping the northbound right turn lane from I-476 to a share through/right lane. These improvements will improve the overall delay at the intersection but not all critical lane movement deficiencies will be mitigated. Other capacity improvements are likely infeasible due to the physical constraints at the intersection such as the overpasses. The improvements at this intersection will be subject to the review and approval of PennDOT.



GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

MEMORANDUM

Date: March 31, 2015

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Preliminary Land Development Transportation Review 2
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

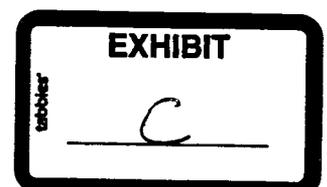
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1. Response letter regarding the Gilmore & Associates, Inc. February 23, 2015 review memorandum, prepared by Nave Newell, dated March 17, 2015.
2. Response letter regarding the Gilmore & Associates, Inc. February 23, 2015 review memorandum, prepared by McMahon Associates, Inc., dated March 17, 2015.
3. Preliminary Land Development Plan for 145 King of Prussia Road, prepared by Nave Newell, Inc., dated September 3, 2014 and last revised March 17, 2015, 35 sheets.



4. Transportation Impact Study, prepared by McMahon Associates, Inc., dated March, 2015, received March 26, 2015.

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5. §255-29.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

V. PLAN REVIEW

1. Several onsite stop bars are located less than 4 feet from proposed pedestrian crosswalks. Verify and adjust as necessary.
2. Adjust the design of the proposed pedestrian crosswalk near the southern access and parking garage access to continue north through the gore striping.
3. Refer to PennDOT Publication 111, TC-8600 for the following standards:
 - i. Include 24" gore striping on roadways and driveways. Although the plan includes call-out a 24" SYL @ 45°, spaced every 4'; the plans do not appear to reflect the correct spacing and width.
 - ii. Revise C7.4 (18 of 30) *Construction Detail* pavement marking arrows.
4. Sheet C3.0 (5 of 30): Provide contiguous right-of-way lines on the west side of King of Prussia Road, near Route 30.
5. Sheet C3.1 (6 of 30):
 - i. Include typical midblock signage for the pedestrian crosswalk at the proposed Trail and the Southern Access. (W11-2 *Pedestrian Sign* and W16-7P *Diagonal Downward Point Arrow Plaque*)
 - ii. Provide pedestrian ramps at the following locations:
 - (i) The pedestrian crosswalk located in the southwest corner of the parking lot near Office Building 1C.
 - (ii) The pedestrian crosswalk from the Atrium between Office Building 3A and 3B to the surface lot. In addition, provide an ADA accessible route from the same pedestrian crosswalk to the

proposed handicapped parking spaces.

- iii. Provide a sidewalk/pedestrian path from the southwest corner of the parking lot to sidewalk proposed along King of Prussia Road.
6. Sheet C3.2 (7 of 30):
 - i. Provide details for all proposed Raised Pedestrian Crosswalk located near Office Building 1A, 2A, 2B and south of Office Building 2A connecting to the parking facilities.
 - ii. Complete the pedestrian route from the SEPTA facility to the entrance of Office Building 2A.
 7. Sheet C3.3 (8 of 30):
 - i. Prepare side by side turning templates for the dual right turns from southbound King of Prussia Road to westbound Route 30. Adjust stop bars and the concrete island as needed to accommodate a WB-67 or based on PennDOT requirements.
 - ii. Provide a WB-67 truck template for the right turn out of the SEPTA/Northern Access to King of Prussia Road.
 - iii. Provide side by side turning templates for the dual left turns from the Southern Access to southbound King of Prussia Road.
 8. Sheet C7.1 (15 of 30):
 - i. Provide a legend on the plan sheet.
 - ii. Provide dimensions on the plan sheet
 9. Sheet C7.4 (18 of 30):
 - i. Revise all references for PennDOT Publication 67 to PennDOT Pub 236; although most of the references were eliminated, several remain along the bottom of sheet C7.4.
 - ii. Revise the OM1-1 Object Marker referenced detail to OM1-3 Object Marker. Refer to PennDOT 236 for an updated detail. Remove the reflectorized domes from the detail.
 10. Final Land Development

The following comments are provided as placeholders:

- i. Provide construction details related to ADA curb ramps, including spot elevations, dimensions and slopes.
- ii. Provide a separate pavement marking and signage plan. Include all right-of-way lines, lane lengths, widths, bay taper lengths, lane line colors, lane line widths.
- iii. All improvements and/or modifications located within the PennDOT right-of-way will require a Highway Occupancy Permit Application. The Township requests the opportunity to attend any meetings with PennDOT and to concurrently review any PennDOT submissions.
- iv. Traffic Signal Construction and Permit Plans must be provided to the

Township and PennDOT for review and approval.

- v. All new or modified signal permit plans require a completed TE-160 form and resolution.

VI. TRANSPORTATION IMPACT STUDY REVIEW

Given the complexity of the project and late receipt of the Transportation Impact Study (March 26, 2015), we were unable to provide a comprehensive review in advance of the scheduled meetings. The review will be provided under separate cover.



We answer to you.

3020 Columbia Avenue, Lancaster, PA 17603 • Phone: (717) 394-3721
E-mail: rettew@rettew.com • Web site: rettew.com

Engineers
Planners
Surveyors
Landscape
Architects
Environmental
Consultants

March 26, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: 145 King of Prussia Road
Preliminary Land Development Plan
Review No. 3
RETTEW Project No. 101442004

Dear Steve:

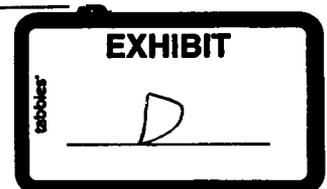
We have completed our review of the above referenced plan as prepared by Nave Newell. Our review was of the following information received electronically on March 18, 2015:

1. Thirty (30) plan sheets entitled "Preliminary Land Development Plan for 145 King of Prussia Road," dated September 3, 2014 and last revised March 17, 2015; and,
2. Plan reviews response letters dated March 17, 2015.

Project Overview:

<u>Applicant:</u>	BMR – 145 King of Prussia Road, L.P.
<u>Requested Action/Use:</u>	Preliminary Land Development Plan Review
<u>Zoning District:</u>	Planned Laboratory - Office District
<u>Location and Size:</u>	Property near the intersection of the Blue Route (I-476) and Lancaster Avenue (SR 0030), and is accessed off of King of Prussia Road. It has a combined gross area of 26.96 acres and a combined net site area at the proposed right-of-way lines of 18.28 acres.
<u>Proposed Use:</u>	Office

This Preliminary Land Development Plan for 145 King of Prussia Road proposes the redevelopment of the site referred to as the BioMed site. The applicant is proposing two access drives, three office building complexes (down from four in the previous plan submittal), surface and underground parking, stormwater management to include green roofs and subsurface detention facilities, and pedestrian sidewalk connections. A total of 474,600 square feet of office space is now proposed, down from the 533,247 square feet of the previous plan submittal.



We have performed a review of the plan for compliance with the comments from our previous review letter of February 20, 2015, as well as a few related land development items. We have the following comments for your consideration:

ZONING

1. Per the January 23, 2015 memorandum from Township Solicitors John Rice and Peter Nelson, the proposed **building lengths** have been found to comply with the zoning ordinance in Section 280-64.D.
2. The proposed **underground parking** is a permitted accessory use. Per the January 23, 2015 memorandum from John Rice and Peter Nelson, the proposed underground parking exceeds the number of spaces allowed under the provision "A parking structure, when constructed as an accessory structure for the purpose of eliminating allowable surface parking" (Section 280-63.C(5)). However, the applicant contends that the above provision does not stipulate a particular amount of surface parking that must be eliminated nor does it restrict the amount of underground parking to be provided.

SUBDIVISION

1. The plan needs to clarify that the curbed areas interrupting rows of surface parking spaces contain landscaping of some sort (Section 255-29.A(6)).
2. The proposed landscaping for the surface parking areas does not appear to meet the standards for numbers of trees planted within single and double rows of parking spaces (Section 255-29.B(1)) and the required minimum landscaped area of 10% of the area of parking lot facilities greater than 2000 square feet (Section 255-29.B(1)). See Sheets C9.1 and C9.2.

COMPREHENSIVE PLAN CONSISTENCY REVIEW

1. The Open Space and Recreation section of the comprehensive plan contains an objective to "create a Township-wide trail marking" or "**wayfinding**" system for trail and pedestrian facilities. This type of signage could be beneficial to encourage increased use of public transit adjacent to and up King of Prussia Road from the site, which is identified as a goal in the Transportation and Circulation Section of the Comprehensive Plan. *The applicant has indicated that wayfinding signage will be provided as an operational item with the ultimate tenants of the property.*
2. The Transportation and Circulation Plan identified the Lancaster Avenue and King of Prussia Road/Radnor-Chester Road intersections as having operating deficiencies and an overall poor level of service for multiple movements during peak hours. The Transportation and Circulation Plan calls for, as a short term improvement, optimizing signal timings to reduce delay and improve progression along Lancaster Avenue. As part of its proposed development plan, the applicant needs to evaluate its proposed King of Prussia Road signalized intersection's impact on the roadway network in that area and address any **signal coordination** that may be required. *The applicant indicated at the March 10 Planning Commission meeting and in its Traffic Engineer's March 17 response letter to Gilmore Engineering's review of the Traffic Impact Study that the*

applicant will install a traffic adaptive signal system including 9 intersections in the vicinity of the site. Its sufficiency is pending Gilmore Engineering's review.

3. The applicant needs to compare the level of **impact on traffic flow** the proposed southern entrance signal will have versus its impact were it located at an entrance/exit opposite Raider Road or the shared with SEPTA driveway. *The applicant has added a proposed second right-turn lane from southbound King of Prussia Road onto westbound Lancaster Avenue and is proposing to include its proposed two traffic signals on King of Prussia Road as part of a traffic adaptive signal system by the applicant covering 9 intersections in the vicinity. Resolution of this item is pending Gilmore Engineering's review of this latest proposal and its impact on traffic flow including the applicant's original Synchro analysis that shows southbound King of Prussia Road traffic at Lancaster Avenue backing up through the proposed signal at the southern entrance to the site.*
4. The Transportation and Circulation Plan also contains a goal to support **ride sharing or carpooling**, as well as other trip reduction strategies to reduce single occupancy, private vehicle commuting by employees of major businesses. *The applicant has indicated that carpooling incentives will be provided as an operational item with the ultimate tenants of the property.*

RADNOR GREENWAYS & OPEN SPACE NETWORK PLAN CONSISTENCY REVIEW

1. The Township's Greenways Plan proposes multiuse trails along the west and north boundaries of the property (along King of Prussia Road and connecting to the train station) and also along Browns Run south of the property. These trail segments are designated as High Priority. *The plan now shows sidewalk running along the frontage of the site on King of Prussia Road and connecting to a sidewalk that leads up to the R-100 train station. The plan also proposes a trail running to the southeast along Brown's Run, under I-476, and connecting the site to Lancaster Avenue.*

GENERAL PLANNING REVIEW

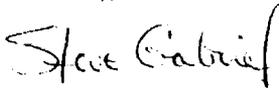
1. **Sidewalk** is needed from the entrance/exit for Buildings 2A and 2B for occupants to safely walk to the R-100 station (and for commuters to walk from the station to Buildings 2A and 2B). *The plan now shows new sidewalk running along the frontage of the site along the SEPTA driveway and parking lot to the R-100 station. However, a short sidewalk section is still needed to connect the sidewalk in front of the entrance to Buildings 2A and 2B to the sidewalk fronting the SEPTA driveway and parking lot. With sidewalk added in that manner, completely continuous sidewalk (plus crosswalks) will exist from the doors to Buildings 2A and 2B to the R-100 station.*
2. To help **mitigate the development's traffic generation**, and to encourage the use of public transit by building occupants, the plan should incorporate elements that would discourage employees from feeling a need to drive away from the site on their breaks or over lunch. Within the PLO zoning district, such elements that are permitted as accessory uses may include a landscaped courtyard, small recreational area, cafeteria complex, and outdoor seating and dining area. *The applicant has indicated that accessory uses similar to those noted will be provided as an operational item with the ultimate tenants of the property. Any present intent to provide such accessory uses on the site should be included on the development plan and be part of the*

Township's review of the development's compliance with zoning. At a minimum, the addition of such accessory uses in the future will be subject to a zoning permit application and review.

3. The plan needs to encourage people to feel safe walking from the office complex to the various public transit options. Such improvements would include appropriate **pedestrian-scaled lighting** along pedestrian routes to transit stops. The Subdivision Ordinance specifies that sidewalks and pedestrian paths should be adequately lighted, if required by the Board of Commissioners (§ 255-37.E). No pedestrian lighting is shown on the plan along the existing walkway at the rear of proposed Office Complex 2 that leads directly to the R-100 station and more lighting will likely be needed along the walkway at the rear of Office Complex 3. *The applicant has indicated that walkway lighting will be provided as an operational item with the ultimate tenants of the property. Because this aspect of the development relates to users' safety as well as to a provision of the subdivision ordinance, such lighting needs to be included on the development plan and be part of the Township's review of the development's ordinance compliance.*

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Suzan Jones – sjones@radnor.org
Kevin Kochanski, RLA, CZO – kkochanski@radnor.org
Roger Phillips, PE – rphillips@gfnet.com
Amy Kaminski, PE – akaminski@gilmore-assoc.com
John B. Rice, Esq. – jrice@grimlaw.com

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MEMORANDUM

Date: April 20, 2015

To: Steve Norcini, P.E.
Radnor Township Public Works Director

From: Amy Kaminski, P.E., PTOE
Department Manager of Transportation

cc: Kevin Kochanski, ASLA, R.L.A., Director of Community Development
Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Steve Gabriel, PP, RETTEW
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: 145 King of Prussia Road L.P. Biomed Redevelopment
Preliminary Land Development Waivers
Radnor Township, Delaware County, PA

G&A 12-06069

At the request of the Board of Commissioners of Radnor Township, Gilmore & Associates, Inc. (G&A) offers the following discussion regarding the various requested waivers for the redevelopment of 145 King of Prussia Road within the Township's PLO Zoning District.

1. **Waiver:** §255-20.B(5)(d)[4] to permit the use of ITE current trip generation rates.

Discussion: §255 Attachment 4 is referenced in this section of the SALDO and is based on various publications dated from 1970 through 1975. These same publications were eventually included in the first edition of the *Institute of Transportation Engineers (ITE) Trip Generation Information Report* published in 1976. The most recent ITE Trip Generation report is the 9th edition, and was published in 2012. The trip generation rates included in §255 Attachment 4 are outdated and do not include as many samplings as the most recent publication; therefore, we recommend support of this waiver for the applicant to use the current 9th edition ITE trip generation rates instead of the trip generation rates included in the Township code.

2. **Waiver:** §255-27.C(1) to permit a 44 foot wide cartway along King of Prussia Road in lieu of a 48 foot wide cartway.

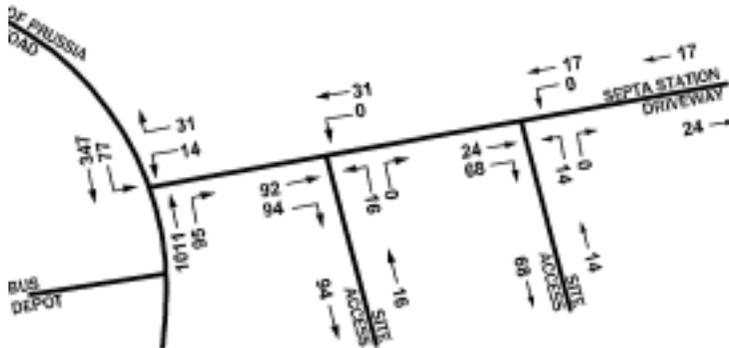
Discussion: The posted speed on King of Prussia Road is 35 MPH and the proposed 10.5 inside travel lanes and 11.5 foot curbed travel lanes are adequate to efficiently move traffic through this section of King of Prussia Road. We have no objections to the requested waiver as long as the applicant is able to continue to provide bus and truck turning templates to ensure turn movements do not encroach on adjacent or opposing travel lanes.

3. **Waiver:** §255-27.H to permit an intersection which is not at a 90 degree alignment.

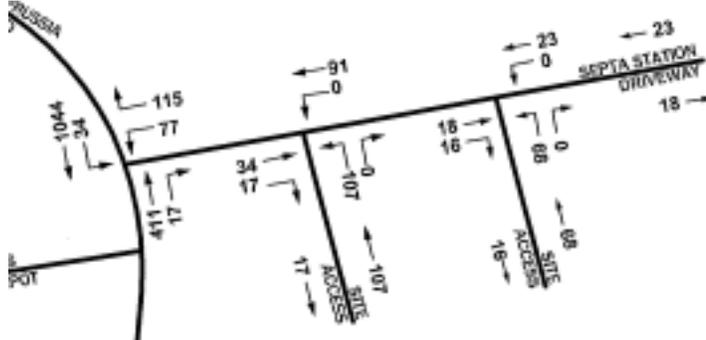
Discussion: The preliminary land development plans do not match the vehicular turning movements analyzed in the transportation impact study at the northern access/SEPTA Station Driveway to King of Prussia Road; the TIS must reflect the land development design for consistency.

Given that the internal access (1st internal access, east of King of Prussia Road) to the site from the Southern Access/SEPTA Station Driveway is one way eastbound, we have no engineering objection to this waiver; however, the 2nd internal access to the site from the Southern Access/SEPTA Station Driveway is a full movement access and the alignment should be adjusted to a minimum 70° alignment. The revised TIS will include approximately 175 left turns from the internal site access to the Southern Access/SEPTA Station Driveway and sight lines must be improved to the greatest extent possible.

AM Peak Hour 2017 Build



PM Peak Hour 2017 Build



4. **Waiver:** §255-229.A(6) to permit painted gore markings in lieu of concrete curb parking stalls.

Discussion: The request for the waiver is based on concerns regarding drainage on the ramp for the subsurface parking. We have no objections to the requested waiver.

5. **Waiver:** §255-229.A(12)(b) to permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

Discussion: We have no objections to the requested waiver as long as the applicant is able to continue to provide bus and truck turning templates to ensure turn movements do not encroach on adjacent or opposing travel lanes.



April 27, 2015

VIA EMAIL

William A. Spingler
Board of Commissioners - President
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

**Reference: BioMed Realty Trust - Waiver Request
145 King of Prussia Road, Radnor Township, Delaware County, PA
Nave Newell No. 2007-011.03**

Dear Mr. Spingler:

In accordance with the Township Consultant review letters, we are hereby requesting five waivers from the Subdivision and Land Development Ordinance. Please find the waiver justifications below.

Section 255-20.b(5)(d)[4] – Radnor Township Trip Generation Rates

The Ordinance states *“Transportation impact of the development. Estimation of vehicular trips to result from the proposal shall be completed for both the street system and the development-generated peak hours(s). Vehicular trip generation rates to be used for this calculation shall be obtained from the Trip Generation Rates Table, below.”*

The vehicular trip generation rates used in various studies for the proposed development were based on data contained in the Institution of Transportation Engineer's (ITE) *Trip Generation Manual*, 9th Edition, 2012. These rates are consistent with industry-accepted standards for Land Use Code 710 (General Office Space), and are consistently accepted by PennDOT and municipalities throughout southeastern Pennsylvania, including those in Delaware County. The Trip Generation Rate Table included in the Ordinance was prepared in the 1970's and the Township Consultants agree that ITE rates better reflect current trip generation rates. In addition, this methodology has been discussed with, and deemed acceptable by, the Township Traffic Consultant in several review letters and memorandums issued since 2012.

Lastly, as noted in the Preliminary Land Development Transportation Review Memorandum, dated February 23, 2015, by Gilmore & Associates, Inc., Gilmore states *“The Applicant has utilized the Institute of Transportation Engineers Trip Generation Version 9 rates which we believe are more appropriate in this case. The applicant will need to request a waiver; we support a waiver of this requirement.”*

Section 255-27.C(1) – Dimension of Streets

The Ordinance states *the dimensional standards of the cartway for a street classified as a Major Collector shall be 48 ft. in width.*



William A. Spingler, Radnor Township
Nave Newell No. 2007-011.03
April 27, 2015
Page 2

There exist today mature oak trees along King of Prussia Road which the Shade Tree Commission requested the applicant preserve. The requested waiver to permit a 44 ft. wide cartway in lieu of a 48 ft. wide cartway for King of Prussia Road will permit the installation of a 5 ft. wide sidewalk along King of Prussia Road, while still permitting the preservation of the existing mature oak trees. The Applicant has discussed the requested waiver with Township Staff and Consultants and they have no objection to the 44 ft. cartway width, as they stated at the April 13th Caucus Meeting.

Section 255-27.H – Street Intersections

The Ordinance states *“Streets shall be laid out to intersect as nearly as possible at right angles. No Street shall intersect another at an angle of less than 70°.”*

The location of the request is an internal parking lot intersection and not a Street intersection, but the applicant is still requesting a waiver to be conservative. The location of the waiver request is designed as a 3-way stop intersection and includes advance signage identifying the proper lanes for access to the traveler’s destination, to provide sufficient operation of the intersection. Due to the topography in the area of this intersection and the associated slopes of the internal drive lanes as well as the nature and minimal volume of traffic that has the SEPTA NHSL Station as a destination, the proposed parking lot intersection alignment is being proposed. Township staff and consultants have not objected to this alignment and waiver request.

Section 255-29.A(6) – Parking facilities

The Ordinance states *“No more than 10 parking spaces shall be permitted in a continuous row without being interrupted by landscaping and concrete curb.”*

The location of this waiver request is within a concrete ramp to the sub-surface parking facility and the Township Engineer as well as the Applicant would have concerns about drainage in the area of any proposed concrete curb on the ramp. In order to provide adequate drainage the applicant is proposing a painted island in lieu of the concrete curb and landscaping. Township Staff supports this waiver request to preserve drainage along the ramp.

Section 255-29.A(12)(b) – Entry and Exit Drives

The Ordinance states *“The width of entry and exit drives shall be a minimum of 25 feet for two way use.”*



William A. Spingler, Radnor Township
Nave Newell No. 2007-011.03
April 27, 2015
Page 3

The location of this request is an internal drive aisle and not an entry and exit drive, but the applicant is still requesting a waiver to be conservative. The proposed plan provides a 22 ft. drive aisle through the site which is the same dimension used in areas of drive aisles adjacent to parking stalls. This proposed dimension for the drive aisle permits the preservation of a vegetative drainage swale between the proposed drive aisle and I-476 as well as a consistent on-site drive aisle dimension internal to the property with the areas with parking stalls adjacent to the drive aisle.

Should you have any questions with respect to these requests, please contact me at (610)265-8323 or via email at atweedie@navenewell.net.

Sincerely,

A handwritten signature in black ink that reads "D. Alexander Tweedie".

D. Alexander Tweedie, P.E.

DAT/jjh
Enclosures

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Gannett Fleming

100 Years

of Excellence Delivered As Promised

MEMORANDUM

Date: April 7, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: 145 King of Prussia Road
Biomed Realty Trust, Inc. – Applicant

Date Accepted: October 6, 2014

90 Day Review: January 4, 2015 Extended to April 30, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct office buildings at 474,600 gross square footage and three buildings. This project is located in the PLO district of the Township.

The applicant appeared before the Planning Commission on April 6, 2015. The Planning Commission recommended approval of the plans based on the following conditions:

- The applicant must secure the right of way necessary for the traffic construction proposed.
- Stormwater issues particularly infiltration have to completely satisfy staff.
- The underground parking structure meet code and is safe and fire safe.
- Traffic issues are a primary concern of the commission and we hope that the Board of Commissioners address that when they vote to approve or deny and recommend that the applicant remove more surface parking.

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

t: 610.650.8101 • f: 610.650.8190

www.gannettfleming.com



The applicant has reduced the number of office buildings from four to three and the gross square footage of office space from 533,247 square feet to 474,600 square feet. Surface parking has been reduced to 335 parking spaces from 446 surface parking spaces on the previous submission.

The applicant has indicated that the following waivers will be requested from the Subdivision and Land Development Code:

- §255-20.B(5)(d)[4]– To permit the use of ITE Trip Generation Rates.
- §255-27.C(1) – To permit a 44 wide cartway along King of Prussia Road.
- §255-27.H – To permit an intersection which is not a 90 degree alignment.
- §255-29.A(6) – To permit painted gore marking in lieu of concrete curb for parking stalls along the concrete ramp due to drainage concerns.
- §255-29.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

Plans Prepared By: Nave Newell
Dated: 09/03/2014, revised 03/17/2015

I Zoning

1. §280-6.C(5) – Refer to legal interpretation memo dated January 23, 2015 prepared by John B. Rice and Peter Nelson with regard to nonconformance with this Section.
2. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 14.4% and the minimum landscape area is 47.3%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code. The applicant has revised the zoning chart to include this information.
3. §280-64.D(3) – In no case shall the width of the building or accessory structures or the aggregate width of buildings or accessory structures fronting on a street on the same lot exceed 80% of the width of the lot. The applicant has provided the calculation on the zoning table to indicate that the width provided is 73.4%.
4. §280-70.C – Service, utility, maintenance and storage areas, including solid waste containers, loading and unloading areas and heating, ventilating and air condition equipment, shall be screened from view from public streets and abutting properties. This may be accomplished by means of enclosing walls, stone, brick or wood fences or a buffer planting strip. Visual screening so provided shall be of sufficient density so as not to be seen through and of sufficient height to constitute an effective screen. Detail of the

dumpster/recycling area and the mechanical pit screenings must be provided on the plans. The applicant has indicated that this will be provided during Final Land Development

5. §280-112.B. – Any applicant for a building permit, preliminary subdivision plan approval on land which contains areas with a grade or slope of 14% or more shall be required to have the limits of such areas defined by a registered professional engineer. These areas must be shown on the plans. The applicant has shown the location of these areas on the plans
6. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. The applicant has shown the location of these areas on the plans and has indicated that these slopes were classified as exempt during the 2009 plan approval.
7. §280-132.B. – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts. The applicant has revised the zoning chart to include this information.

II Subdivision and Land Development

1. §255-41.H. – Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped. A detail of the dumpster/recycling area screening must be provided. The applicant has indicated that this will be provided with the final land development plan submission.
2. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. The applicant must conform to this section.
3. §255-27.C.(1) – King of Prussia Road is designated as a major collector and has a required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements. The ultimate right of way shown on the plans is 65 feet. Curbing and sidewalk for a major collector road shall be provided as recommended by Penn DOT. The applicant has requested a waiver to allow a 44 foot wide cartway along King of Prussia Road.

4. §255-29.A.(12)(b) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The two way drive located in the rear of the property is 22 feet wide. This must be revised. The applicant has requested a waiver to permit a 22 foot wide drive aisle in areas without parking to maintain a roadside vegetative swale. The applicant must provide specific locations for where the waiver will be requested.
5. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every ten parking spaces in double bay. The applicant has revised the landscaping plan to accurately reflect the tree requirement.
6. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. §245-22.A.1 - Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests. The applicable modifications to the drainage report must also be completed reflecting the revised sizing and configurations of the buildings. The applicant has indicated that this will be provided during the final land development submission.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: April 7, 2015

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Preliminary Land Development Transportation Impact Study Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the referenced project and offers the following comments for Township consideration:

I. PROJECT OVERVIEW:

Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 475,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. SUBMISSION

1. Response letter regarding the Gilmore & Associates, Inc. February 23, 2015 review memorandum, prepared by McMahon Associates, Inc., dated March 17, 2015.
2. Transportation Impact Study, prepared by McMahon Associates, Inc., dated March, 2015, received March 26, 2015.

III. IDENTIFIED IMPROVEMENTS

1. King of Prussia Road and Lancaster Avenue (U.S. Route 30)/I-476 NB Off-Ramp

- i. Widen southbound King of Prussia Road to provide a second right-turn lane, contingent upon the ability to secure right-of-way from Radnor Township School District.
 - ii. Restripe northbound I-476 off-ramp for a shared through/right-turn lane.
 2. King of Prussia Road and Raider Road
 - i. Construct a new traffic signal.
 3. King of Prussia Road and Southern Site Access
 - i. Provide one ingress lane and two egress lanes.
 - ii. Install a traffic signal, which is warranted during the weekday afternoon peak hour. This traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
 - iii. Provide 45-foot curb radii (at minimum), or larger if necessary for the anticipated delivery traffic.
 - iv. Widen northbound King of Prussia Road to provide a separate right-turn lane, contingent upon the ability to secure right-of-way from PennDOT.
 4. King of Prussia Road and SEPTA Access/Site Access
 - i. Provide one ingress lane and two egress lanes.
 - ii. Construction of a northbound King of Prussia Road right turn deceleration lane.
 - iii. Construction of a southbound King of Prussia Road left turn lane.
 - iv. Construct a bus shelter on King of Prussia Road on the southeast of the SEPTA Access/Site Access
 - v. Construct sidewalks from the site to the R-100 Station at the rear of the property.
 5. King of Prussia Road
 - i. Provide a four-lane cross section along the property's site frontage along King of Prussia Road (between the southern site access and the shared SEPTA/Site Access).
 - ii. Construct 5 foot sidewalks along the entire property frontage on King of Prussia Road.
 6. Traffic Adaptive Signal Coordination at the following intersections, subject to PennDOT review and approval:
 - i. Route 30 & I-476/King of Prussia Road
 - ii. Route 30 & I-476 Southbound Ramps
 - iii. Route 30 & Radnor-Chester Road
 - iv. King of Prussia Road & Radnor-Chester Road
 - v. King of Prussia Road & Matsonford Road
 - vi. Matsonford Road & South Centennial Drive
 - vii. Matsonford Road & North Centennial Drive
 - viii. King of Prussia Road & Raider Road
 - ix. King of Prussia Road & Southern Driveway

7. Construct a trail extension from the Southern Driveway through the existing PennDOT Right-of-Way, southeast of the site with connections to the existing Route 30 sidewalks.

IV. WAIVERS REQUESTED

1. §255-20.b(5)(d)[4] – To permit the use of ITE Trip Generation Rates in the Transportation Impact Study.
2. §255-27.C(1) – To permit a 44 foot wide cartway along King of Prussia Road.
3. §255-27.H. – To permit an intersection which is not a 90 degree alignment.
4. §255-229.A(6) – To permit painted gore marking in lieu of a concrete curb for parking stalls along the concrete ramp due to drainage concerns.
5. §255-229.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

V. TRANSPORTATION IMPACT STUDY REVIEW COMMENTS

1. Provide a comparison of the trip generation numbers based on ITE Land Use Code (LUC) 720 Medical Office Use. During a recent meeting with the applicant, this may be a possible tenant and the trip making characteristics for this type of use is more significant than the LUC 710 General Office used in the Transportation Impact Study (TIS); therefore, a worst case scenario must be provided for review.
2. A Signal Warrant Analysis was provided for both proposed signals on King of Prussia Road in in Appendix F. Although the applicant evaluated both the peak hour and four-hour traffic signal warrants for both intersections, only the Peak Hour Warrant (Warrant 3) was met. PennDOT requires Central Office approval if only the Peak Hour Warrant is met for an intersection being considered for signalization. We recommend the applicant perform the following:
 - i. Re-evaluate both intersections to determine if either intersection meets warrant conditions for 8 hour warrant analysis. This may require additional traffic counts that should be obtained prior to school releasing for summer break.
 - ii. Submit a copy of both traffic signal warrant analyses (including the above discussed 8 hour warrant) to PennDOT for review and consideration.
3. Appendix F *Traffic Signal and Auxiliary Turn Lane Warrant Worksheets* identifies the following improvements are warranted:
 - i. King of Prussia Road and Raider Road: A 275 foot northbound left turn lane and taper on King of Prussia Road at Raider Road.

A northbound left turn lane at Raider Road is not offered as an improvement.
 - ii. King of Prussia Road and Southern Access:
 - (1) A 100 foot southbound left turn lane and taper

(2) A 375 foot northbound right turn lane and taper

No southbound left turn lane is proposed, and a 100 foot northbound right turn lane with an 85 foot taper is proposed.

iii. Investigate the left turn conflict factor worksheets for both proposed traffic signals; adjust the proposed traffic signal timings as needed.

iv. Route 30 and King of Prussia Road:

(1) Provide an auxiliary turn lane analysis for the southbound right-turn lane on King of Prussia Road at Route 30 to determine the maximum required storage length. The proposed storage length should be the greater of the auxiliary turn lane length analysis or the 95 percentile queue length analyses, based on the Future Build conditions.

A 200 foot southbound right turn lane and 100 foot taper is currently proposed.

4. The **Executive Summary** should be updated to include the auxiliary lane information discussed above.
5. Appendix L: *Concept Plans & Cost Estimates*: The provided cost estimates do not appear to include the improvements at Raider Road and the proposed trail improvements
6. **Lancaster Ave/King of Prussia Rd/I-476 Northbound off Ramp**: The applicant proposed southbound King of Prussia Road dual right turn lanes and restriping the northbound right turn lane from I-476 to a share through/right lane. These improvements will improve the overall delay at the intersection but not all critical lane movement deficiencies will be mitigated. Other capacity improvements are likely infeasible due to the physical constraints at the intersection such as the overpasses. The improvements at this intersection will be subject to the review and approval of PennDOT.



MEMORANDUM

Date: March 31, 2015

To: Radnor Township Planning Commission

From: Roger Phillips, P.E.

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Steve Gabriel - Rettew
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official

RE: 145 King of Prussia Road
Biomed Realty Trust, Inc. – Applicant

Date Accepted: October 6, 2014

90 Day Review: January 4, 2015 Extended to April 30, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct office buildings at 474,600 gross square footage and three buildings. This project is located in the PLO district of the Township.

The applicant appeared before the Planning Commission on November 3, 2014. The Planning Commission recommended denial of the plan based on discussion during the meeting.

The applicant has reduced the number of office buildings from four to three and the gross square footage of office space from 533,247 square feet to 474,600 square feet. Surface parking has been reduced to 335 parking spaces from 446 surface parking spaces on the previous submission.

The applicant has indicated that the following waivers will be requested from the Subdivision and Land Development Code:

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

t: 610.650.8101 • f: 610.650.8190

www.gannettfleming.com



- §255-20.B(5)(d)[4]– To permit the use of ITE Trip Generation Rates.
- §255-27.C(1) – To permit a 44 wide cartway along King of Prussia Road.
- §255-27.H – To permit an intersection which is not a 90 degree alignment.
- §255-29.A(6) – To permit painted gore marking in lieu of concrete curb for parking stalls along the concrete ramp due to drainage concerns.
- §255-29.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

Plans Prepared By: Nave Newell

Dated: 09/03/2014, revised 03/17/2015

I Zoning

1. §280-6.C(5) – Refer to legal interpretation memo dated January 23, 2015 prepared by John B. Rice and Peter Nelson with regard to nonconformance with this Section.
2. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 16.1% and the minimum landscape area is 45.1%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code. The applicant has revised the zoning chart to include this information.
3. §280-64.D(3) – In no case shall the width of the building or accessory structures or the aggregate width of buildings or accessory structures fronting on a street on the same lot exceed 80% of the width of the lot. The applicant has provide the calculation on the zoning table to indicate that the width provided is 73.4%.
4. §280-70.C. – Service, utility, maintenance and storage areas, including solid waste containers, loading and unloading areas and heating, ventilating and air condition equipment, shall be screened from view from public streets and abutting properties. This may be accomplished by means of enclosing walls, stone, brick or wood fences or a buffer planting strip. Visual screening so provided shall be of sufficient density so as not to be seen through and of sufficient height to constitute an effective screen. Detail of the dumpster/recycling area and the mechanical pit screenings must be provided on the plans. The applicant has indicated that this will be provided during Final Land Development
5. §280-112.B. – Any applicant for a building permit, preliminary subdivision plan approval on land which contains areas with a grade or slope of 14% or more shall be required to have the limits of such areas defined by a registered professional engineer. These areas must be shown on the plans. The applicant has shown the location of these areas on the plans

6. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified. The applicant has shown the location of these areas on the plans and has indicated that these slopes were classified as exempt during the 2009 plan approval.
7. §280-132.B. – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts. The applicant has revised the zoning chart to include this information.

II Subdivision and Land Development

1. §255-41.H. – Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped. A detail of the dumpster/recycling area screening must be provided. The applicant has indicated that this will be provided with the final land development plan submission.
2. §255-43.1.E(2) – Where, upon agreement with the applicant or developer, it is determined that the dedication of all or any portion of the land area required for park and recreation purposes is not feasible, the applicant or developer shall pay a fee in lieu of dedication of any such land to the Township. The fee for non-residential subdivisions or land developments shall be \$3,307 per 4,000 square feet of building area. The applicant must conform to this section.
3. §255-27.C.(1) – King of Prussia Road is designated as a major collector and has a required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements. The ultimate right of way shown on the plans is 65 feet. Curbing and sidewalk for a major collector road shall be provided as recommended by Penn DOT. The applicant has requested a waiver to allow a 44 foot wide cartway along King of Prussia Road.
4. §255-29.A.(12)(b) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The two way drive located in the rear of the property is 22 feet wide. This must be revised. The applicant has requested a waiver to permit a 22 foot wide drive aisle in areas without parking to maintain a roadside vegetative swale. The applicant must provide specific locations for where the waiver will be requested.
5. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in

caliper for every ten parking spaces in double bay. The applicant has revised the landscaping plan to accurately reflect the tree requirement.

6. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. §245-22.A.1 - Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests. The applicable modifications to the drainage report must also be completed reflecting the revised sizing and configurations of the buildings. The applicant has indicated that this will be provided during the final land development submission.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: March 31, 2015

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Preliminary Land Development Transportation Review 2
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the referenced project and offers the following comments for Township consideration:

I. PROJECT OVERVIEW:

Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 475,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. SUBMISSION

1. Response letter regarding the Gilmore & Associates, Inc. February 23, 2015 review memorandum, prepared by Nave Newell, dated March 17, 2015.
2. Response letter regarding the Gilmore & Associates, Inc. February 23, 2015 review memorandum, prepared by McMahon Associates, Inc., dated March 17, 2015.
3. Preliminary Land Development Plan for 145 King of Prussia Road, prepared by Nave Newell, Inc., dated September 3, 2014 and last revised March 17, 2015, 35 sheets.

4. Transportation Impact Study, prepared by McMahon Associates, Inc., dated March, 2015, received March 26, 2015.

III. IDENTIFIED IMPROVEMENTS

1. King of Prussia Road and Lancaster Avenue (U.S. Route 30)/I-476 NB Off-Ramp
 - i. Widen southbound King of Prussia Road to provide a second right-turn lane, contingent upon the ability to secure right-of-way.
 - ii. Restripe northbound I-476 off-ramp for a shared through/right-turn lane.
2. King of Prussia Road and Raider Road
 - i. Construct a new traffic signal.
3. King of Prussia Road and Southern Site Access
 - i. Provide one ingress lane and two egress lanes.
 - ii. Install a traffic signal, which is warranted during the weekday afternoon peak hour. This traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system
 - iii. Provide 45-foot curb radii (at minimum), or larger if necessary for the anticipated delivery traffic.
 - iv. Widen northbound King of Prussia Road to provide a separate right-turn lane, contingent upon the ability to secure right-of-way.
4. King of Prussia Road and SEPTA Access/Site Access
 - i. Provide one ingress lane and two egress lanes.
 - ii. Construction of a northbound King of Prussia Road right turn deceleration lane.
 - iii. Construction of a southbound King of Prussia Road left turn lane.
 - iv. Construct a bus shelter on King of Prussia Road on the southeast of the SEPTA Access/Site Access
 - v. Construct sidewalks from the site to the R-100 Station at the rear of the property
5. King of Prussia Road
 - i. Provide a four-lane cross section along the property's site frontage along King of Prussia Road (between the southern site access and the shared SEPTA/Site Access).
 - ii. Construct 5 foot sidewalks along the entire property frontage on King of Prussia Road
6. Traffic Adaptive Signal Coordination at the following intersections, subject to PennDOT review and approval:
 - i. Route 30 & I-476/King of Prussia Road
 - ii. Route 30 & I-476 Southbound Ramps
 - iii. Route 30 & Radnor-Chester Road
 - iv. King of Prussia Road & Radnor-Chester Road
 - v. King of Prussia Road & Matsonford Road
 - vi. Matsonford Road & South Centennial Drive

- vii. Matsonford Road & North Centennial Drive
 - viii. King of Prussia Road & Raider Road
 - ix. King of Prussia Road & Southern Driveway
7. Construct a trail extension from the Southern Driveway through the existing PennDOT Right-of-Way, southeast of the site with connections to the existing Route 30 sidewalks

IV. WAIVERS REQUESTED

1. §255-20.b(5)(d)[4] – To permit the use of ITE Trip Generation Rates in the Transportation Impact Study
2. §255-27.C(1) – To permit a 44 foot wide cartway along King of Prussia Road
3. §255-27.H. – To permit an intersection which is not a 90 degree alignment.
4. §255-29.A(6) – To permit painted gore marking in lieu of a concrete curb for parking stalls along the concrete ramp due to drainage concerns.
5. §255-29.A(12)(b) – To permit a 22 foot drive aisle in areas without parking to maintain a roadside vegetative drainage swale.

V. PLAN REVIEW

1. Several onsite stop bars are located less than 4 feet from proposed pedestrian crosswalks. Verify and adjust as necessary.
2. Adjust the design of the proposed pedestrian crosswalk near the southern access and parking garage access to continue north through the gore striping.
3. Refer to PennDOT Publication 111, TC-8600 for the following standards:
 - i. Include 24" gore striping on roadways and driveways. Although the plan includes call-out a 24" SYL @ 45°, spaced every 4'; the plans do not appear to reflect the correct spacing and width.
 - ii. Revise C7.4 (18 of 30) *Construction Detail* pavement marking arrows.
4. Sheet C3.0 (5 of 30): Provide contiguous right-of-way lines on the west side of King of Prussia Road, near Route 30.
5. Sheet C3.1 (6 of 30):
 - i. Include typical midblock signage for the pedestrian crosswalk at the proposed Trail and the Southern Access. (W11-2 *Pedestrian* Sign and W16-7P *Diagonal Downward Point Arrow* Plaque)
 - ii. Provide pedestrian ramps at the following locations:
 - (i) The pedestrian crosswalk located in the southwest corner of the parking lot near Office Building 1C.
 - (ii) The pedestrian crosswalk from the Atrium between Office Building 3A and 3B to the surface lot. In addition, provide an ADA accessible route from the same pedestrian crosswalk to the

proposed handicapped parking spaces.

- iii. Provide a sidewalk/pedestrian path from the southwest corner of the parking lot to sidewalk proposed along King of Prussia Road.
6. Sheet C3.2 (7 of 30):
 - i. Provide details for all proposed Raised Pedestrian Crosswalk located near Office Building 1A, 2A, 2B and south of Office Building 2A connecting to the parking facilities.
 - ii. Complete the pedestrian route from the SEPTA facility to the entrance of Office Building 2A.
 7. Sheet C3.3 (8 of 30):
 - i. Prepare side by side turning templates for the dual right turns from southbound King of Prussia Road to westbound Route 30. Adjust stop bars and the concrete island as needed to accommodate a WB-67 or based on PennDOT requirements.
 - ii. Provide a WB-67 truck template for the right turn out of the SEPTA/Northern Access to King of Prussia Road.
 - iii. Provide side by side turning templates for the dual left turns from the Southern Access to southbound King of Prussia Road.
 8. Sheet C7.1 (15 of 30):
 - i. Provide a legend on the plan sheet.
 - ii. Provide dimensions on the plan sheet
 9. Sheet C7.4 (18 of 30):
 - i. Revise all references for PennDOT Publication 67 to PennDOT Pub 236; although most of the references were eliminated, several remain along the bottom of sheet C7.4.
 - ii. Revise the OM1-1 Object Marker referenced detail to OM1-3 Object Marker. Refer to PennDOT 236 for an updated detail. Remove the reflectorized domes from the detail.
 10. Final Land Development

The following comments are provided as placeholders:

- i. Provide construction details related to ADA curb ramps, including spot elevations, dimensions and slopes.
- ii. Provide a separate pavement marking and signage plan. Include all right-of-way lines, lane lengths, widths, bay taper lengths, lane line colors, lane line widths.
- iii. All improvements and/or modifications located within the PennDOT right-of-way will require a Highway Occupancy Permit Application. The Township requests the opportunity to attend any meetings with PennDOT and to concurrently review any PennDOT submissions.
- iv. Traffic Signal Construction and Permit Plans must be provided to the

Township and PennDOT for review and approval.

- v. All new or modified signal permit plans require a completed TE-160 form and resolution.

VI. TRANSPORTATION IMPACT STUDY REVIEW

Given the complexity of the project and late receipt of the Transportation Impact Study (March 26, 2015), we were unable to provide a comprehensive review in advance of the scheduled meetings. The review will be provided under separate cover.

March 26, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: 145 King of Prussia Road
Preliminary Land Development Plan
Review No. 3
RETTEW Project No. 101442004

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell. Our review was of the following information received electronically on March 18, 2015:

1. Thirty (30) plan sheets entitled "Preliminary Land Development Plan for 145 King of Prussia Road," dated September 3, 2014 and last revised March 17, 2015; and,
2. Plan reviews response letters dated March 17, 2015.

Project Overview:

<u>Applicant:</u>	BMR – 145 King of Prussia Road, L.P.
<u>Requested Action/Use:</u>	Preliminary Land Development Plan Review
<u>Zoning District:</u>	Planned Laboratory - Office District
<u>Location and Size:</u>	Property near the intersection of the Blue Route (I-476) and Lancaster Avenue (SR 0030), and is accessed off of King of Prussia Road. It has a combined gross area of 26.96 acres and a combined net site area at the proposed right-of-way lines of 18.28 acres.
<u>Proposed Use:</u>	Office

This Preliminary Land Development Plan for 145 King of Prussia Road proposes the redevelopment of the site referred to as the BioMed site. The applicant is proposing two access drives, three office building complexes (down from four in the previous plan submittal), surface and underground parking, stormwater management to include green roofs and subsurface detention facilities, and pedestrian sidewalk connections. A total of 474,600 square feet of office space is now proposed, down from the 533,247 square feet of the previous plan submittal.



We have performed a review of the plan for compliance with the comments from our previous review letter of February 20, 2015, as well as a few related land development items. We have the following comments for your consideration:

ZONING

1. Per the January 23, 2015 memorandum from Township Solicitors John Rice and Peter Nelson, the proposed **building lengths** have been found to comply with the zoning ordinance in Section 280-64.D.
2. The proposed **underground parking** is a permitted accessory use. Per the January 23, 2015 memorandum from John Rice and Peter Nelson, the proposed underground parking exceeds the number of spaces allowed under the provision "A parking structure, when constructed as an accessory structure for the purpose of eliminating allowable surface parking" (Section 280-63.C(5)). However, the applicant contends that the above provision does not stipulate a particular amount of surface parking that must be eliminated nor does it restrict the amount of underground parking to be provided.

SUBDIVISION

1. The plan needs to clarify that the curbed areas interrupting rows of surface parking spaces contain landscaping of some sort (Section 255-29.A(6)).
2. The proposed landscaping for the surface parking areas does not appear to meet the standards for numbers of trees planted within single and double rows of parking spaces (Section 255-29.B(1) and the required minimum landscaped area of 10% of the area of parking lot facilities greater than 2000 square feet (Section 255-29.B(1)). See Sheets C9.1 and C9.2.

COMPREHENSIVE PLAN CONSISTENCY REVIEW

1. The Open Space and Recreation section of the comprehensive plan contains an objective to "create a Township-wide trail marking" or "**wayfinding**" system for trail and pedestrian facilities. This type of signage could be beneficial to encourage increased use of public transit adjacent to and up King of Prussia Road from the site, which is identified as a goal in the Transportation and Circulation Section of the Comprehensive Plan. *The applicant has indicated that wayfinding signage will be provided as an operational item with the ultimate tenants of the property.*
2. The Transportation and Circulation Plan identified the Lancaster Avenue and King of Prussia Road/Radnor-Chester Road intersections as having operating deficiencies and an overall poor level of service for multiple movements during peak hours. The Transportation and Circulation Plan calls for, as a short term improvement, optimizing signal timings to reduce delay and improve progression along Lancaster Avenue. As part of its proposed development plan, the applicant needs to evaluate its proposed King of Prussia Road signalized intersection's impact on the roadway network in that area and address any **signal coordination** that may be required. *The applicant indicated at the March 10 Planning Commission meeting and in its Traffic Engineer's March 17 response letter to Gilmore Engineering's review of the Traffic Impact Study that the*

applicant will install a traffic adaptive signal system including 9 intersections in the vicinity of the site. Its sufficiency is pending Gilmore Engineering's review.

3. The applicant needs to compare the level of **impact on traffic flow** the proposed southern entrance signal will have versus its impact were it located at an entrance/exit opposite Raider Road or the shared with SEPTA driveway. *The applicant has added a proposed second right-turn lane from southbound King of Prussia Road onto westbound Lancaster Avenue and is proposing to include its proposed two traffic signals on King of Prussia Road as part of a traffic adaptive signal system by the applicant covering 9 intersections in the vicinity. Resolution of this item is pending Gilmore Engineering's review of this latest proposal and its impact on traffic flow including the applicant's original Synchro analysis that shows southbound King of Prussia Road traffic at Lancaster Avenue backing up through the proposed signal at the southern entrance to the site.*
4. The Transportation and Circulation Plan also contains a goal to support **ride sharing or carpooling**, as well as other trip reduction strategies to reduce single occupancy, private vehicle commuting by employees of major businesses. *The applicant has indicated that carpooling incentives will be provided as an operational item with the ultimate tenants of the property.*

RADNOR GREENWAYS & OPEN SPACE NETWORK PLAN CONSISTENCY REVIEW

1. The Township's Greenways Plan proposes multiuse trails along the west and north boundaries of the property (along King of Prussia Road and connecting to the train station) and also along Browns Run south of the property. These trail segments are designated as High Priority. *The plan now shows sidewalk running along the frontage of the site on King of Prussia Road and connecting to a sidewalk that leads up to the R-100 train station. The plan also proposes a trail running to the southeast along Brown's Run, under I-476, and connecting the site to Lancaster Avenue.*

GENERAL PLANNING REVIEW

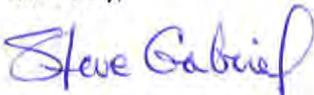
1. **Sidewalk** is needed from the entrance/exit for Buildings 2A and 2B for occupants to safely walk to the R-100 station (and for commuters to walk from the station to Buildings 2A and 2B). *The plan now shows new sidewalk running along the frontage of the site along the SEPTA driveway and parking lot to the R-100 station. However, a short sidewalk section is still needed to connect the sidewalk in front of the entrance to Buildings 2A and 2B to the sidewalk fronting the SEPTA driveway and parking lot. With sidewalk added in that manner, completely continuous sidewalk (plus crosswalks) will exist from the doors to Buildings 2A and 2B to the R-100 station.*
2. To help **mitigate the development's traffic generation**, and to encourage the use of public transit by building occupants, the plan should incorporate elements that would discourage employees from feeling a need to drive away from the site on their breaks or over lunch. Within the PLO zoning district, such elements that are permitted as accessory uses may include a landscaped courtyard, small recreational area, cafeteria complex, and outdoor seating and dining area. *The applicant has indicated that accessory uses similar to those noted will be provided as an operational item with the ultimate tenants of the property. Any present intent to provide such accessory uses on the site should be included on the development plan and be part of the*

Township's review of the development's compliance with zoning. At a minimum, the addition of such accessory uses in the future will be subject to a zoning permit application and review.

3. The plan needs to encourage people to feel safe walking from the office complex to the various public transit options. Such improvements would include appropriate **pedestrian-scaled lighting** along pedestrian routes to transit stops. The Subdivision Ordinance specifies that sidewalks and pedestrian paths should be adequately lighted, if required by the Board of Commissioners (§ 255-37.E). No pedestrian lighting is shown on the plan along the existing walkway at the rear of proposed Office Complex 2 that leads directly to the R-100 station and more lighting will likely be needed along the walkway at the rear of Office Complex 3. *The applicant has indicated that walkway lighting will be provided as an operational item with the ultimate tenants of the property. Because this aspect of the development relates to users' safety as well as to a provision of the subdivision ordinance, such lighting needs to be included on the development plan and be part of the Township's review of the development's ordinance compliance.*

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Suzan Jones – sjones@radnor.org
Kevin Kochanski, RLA, CZO – kkochanski@radnor.org
Roger Phillips, PE – rphillips@gfnet.com
Amy Kaminski, PE – akaminski@gilmore-assoc.com
John B. Rice, Esq. – jrice@grimlaw.com

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PIERCE, CANIGLIA & TAYLOR

ATTORNEYS AT LAW

125 STRAFFORD AVENUE - SUITE 110

P. O. Box 312

WAYNE, PENNSYLVANIA 19087

**JAMES M. PIERCE
NICHOLAS J. CANIGLIA
KENNETH C. TAYLOR**

**TELEPHONE
(610) 688-2626
FAX
(610) 688-5761**

March 19, 2015

Susan Jones
Engineering Department
Township of Radnor
301 Iven Avenue
Wayne, Pa. 19087

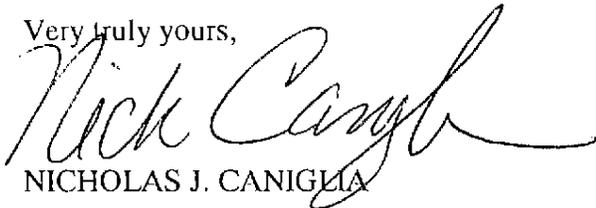
**RE: BMR – 145 King of Prussia Road, LP
Number: 2014-D-02
Preliminary Plan**

Dear Sue:

As you know I represent the above applicant. This letter grants the Board of Commissioners an extension of time until April 30, 2015 to take action on the above Application.

Thank you for your time and consideration.

Very truly yours,



NICHOLAS J. CANIGLIA

c. Peter Nelson, Esquire
John Rice, Esquire
Roger Phillips, P.E.
Kevin Kochanski
Steve Norcini, P.E.



March 17, 2015

VIA HAND DELIVERY

Stephen Norcini, P.E., Director of Public Works
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**Reference: 145 King of Prussia Road
Preliminary Land Development
Nave Newell No. 2007-011.03**

Dear Mr. Norcini:

On behalf of BMR-145 King of Prussia Road, LP we are resubmitting the Preliminary Land Development Plans based upon Township Staff Preliminary Plan reviews and respectfully request to be placed on the Commission's April meeting agenda to discuss these comments and responses. The quantities enclosed are listed after each item:

1. Preliminary Plan Set (Sheets 1-14, 19-32, 34-35 of 35), last revised March 17, 2015 (35);
2. Comment response letter by McMahan Associates, dated March 17, 2015 (2); and,
3. Thumb drive of submission documents (1).

We are in receipt of the review letters from the Township Engineer, dated February 23, 2015; Township Traffic Engineer, dated February 23, 2015; Township Planner, dated February 20, 2015; as well as comments from the Township Planning Commission during their March 2, 2015 meeting. We offer the following responses to those review letters and comments in corresponding order:

Township Engineer Review (February 23, 2015)

i. Zoning

1. We disagree with the Solicitor's memo dated January 23, 2015. Further, §280-63(c)(5) permits parking structures as an accessory use "for the purpose of eliminating allowable surface parking". There is nothing in that section requiring an applicant to eliminate a specific amount of surface spaces before it can build a parking structure. Therefore, because all doubts concerning the interpretation of a zoning ordinance must be resolved in favor of the landowner, a showing that at least some portion of allowable surface parking has been eliminated satisfies the parking requirement.
2. We have revised the zoning chart to include details for the building and landscape coverage calculations.
3. We will provide the requested dumpster area details during Final Land Development.

Stephen Norcini, Radnor Township
Nave Newell No. 2007-011.03
March 17, 2015
Page 2

4. We have revised the plans to depict the steep slope areas, as requested. It should be noted that these slopes were classified as exempt during the 2009 plan approval and are noted as such on Sheet C2.1, note 12.
5. We have revised the plans to depict the steep slope areas, as requested. It should be noted that these slopes were classified as exempt during the 2009 plan approval and are noted as such on Sheet C2.1, note 12.
6. See response No. 2.

II. Subdivision and Land Development

1. We will provide the requested dumpster area details during Final Land Development.
2. We have revised the Park and Recreation Land Requirement based on the revisions to building footprint for the project.
3. We have revised the drawings to propose a 44 ft. wide cartway for King of Prussia Road with a 5 ft. sidewalk along the property frontage. We have requested a waiver from the required 48 ft. wide cartway to preserve existing street trees along King of Prussia Road, while still providing the requested frontage sidewalk.
4. We are requesting a waiver to permit a 22 ft. wide drive aisle, after the intersection widening, to allow preservation of the existing drainage swale along the PennDOT Right-of-Way.
5. We have revised the landscape chart on the Plans to clarify the parking area requirement calculation.
6. We have revised the utility plans to depict water service connections to each building and fire hydrant locations. We await further comment from the Township Fire Marshal.

III. Stormwater Management

1. We will provide the necessary infiltration test results, as requested by the Township Engineer, during Final Land Development.

Township Traffic Engineer Review (February 23, 2015)

IV. SALDO Comments

1. We have revised the drawings to propose a 44 ft. wide cartway for King of Prussia Road with a 5 ft. sidewalk along the property frontage. We have requested a waiver from the required 48 ft. wide cartway to preserve existing street trees along King of Prussia Road, while still providing the requested frontage sidewalk.
2. The Applicant is not proposing any new streets; therefore, we do not believe this comment applies to the submitted plans but as requested we have provided profiles of our driveway intersections with King of Prussia Road. Please note, the SEPTA driveway is an existing profile that cannot be modified since the Applicant only owns half the driveway.

Stephen Norcini, Radnor Township
Nave Newell No. 2007-011.03
March 17, 2015
Page 3

3. We have revised the striping and stop control of the Northern driveway access to propose a 3-way stop control intersection. We have also revised the plans to include a directional sign in advance of the intersection to identify destinations for each lane. This intersection functions safely without a 90 degree angle intersection. We are requesting a waiver from this code section.
4. We have revised the plans to label the angle of this parking to depict compliance with the code section.
5. We will revise the Final Land Development Plans to include the requested crosswalk details upon agreement on the final locations of pedestrian crosswalks.
6. We have requested a waiver from this code section. The Township Engineer has concerns about a concrete curb island affecting drainage on the ramp to the subsurface parking.

V. Plan Review

- A. Refer to the response letter prepared by McMahon Associates.
- B. We have revised the Plans to depict the additional right turn lane at Route 30, in conjunction with the proposed traffic signal at the Southern driveway
- C. We have revised the plans to include portions of Segment 9B and Segment 12A, as depicted on the Radnor Greenways & Open Space Network Plan.
- D. We will provide the requested ADA detailed designs during Final Land Development once the crosswalk and ramp locations have been finalized.
- E. We have revised the plans to depict the requested sidewalk along the Southern side of the SEPTA driveway.
- F. We will provide the requested signal plans during Final Land Development.
- G. We will provide the requested system plan during Final Land Development.
- H. Refer to the response letter prepared by McMahon Associates.
- I. We have reviewed the turning templates at this intersection and the required lane widths. To provide adequate turning maneuvers, the size of the island would be less than 75 sq. ft. and therefore not comply with design guidance. We have maintained the gore marking at this intersection in lieu of the mountable curb island.
- J. We will provide a detailed King of Prussia Road plan, during Final Land Development.
- K. We have revised the stop bar locations, as requested.
- L. We have revised the gore striping, as requested.
- M. We have revised the pavement markings, as requested.
- N. We will provide construction stationing, as requested.
- O. We have revised the proposed curb line to be within the proposed right-of-way.
- P. We have revised the gore striping, as requested.
- Q. We have revised the sidewalk location as requested.
- R. We have revised Sheet C3.1, as requested.
 1. The stall in question is not 3.5 ft. wide, but rather the remainder is within the subsurface parking. Refer to the subsurface parking detail for the continuation of this stall.
 2. We have revised the plan to eliminate the 4" SWL.

Stephen Norcini, Radnor Township
Nave Newell No. 2007-011.03
March 17, 2015
Page 4

3. We have verified all stalls, exclusive of ADA stalls, have a 9.5 ft. width.
4. We have revised the one-way signage as requested.
- S. We have revised the sign locations, as requested.
- T. We have revised Sheet C7.4, as requested.
- U. We will provide the requested signal plans during Final Land Development.

Township Planner Review (February 20, 2015)

Zoning

1. No response necessary.
2. We disagree with the Solicitor's memo dated January 23, 2015. Further, §280-63(c)(5) permits parking structures as an accessory use "for the purpose of eliminating allowable surface parking". There is nothing in that section requiring an applicant to eliminate a specific amount of surface spaces before it can build a parking structure. Therefore, because all doubts concerning the interpretation of a zoning ordinance must be resolved in favor of the landowner, a showing that at least some portion of allowable surface parking has been eliminated satisfies the parking requirement. We disagree with the Solicitor's memo dated January 23, 2015. Further, §280-63(c)(5) permits parking structures as an accessory use "for the purpose of eliminating allowable surface parking". There is nothing in that section requiring an applicant to eliminate a specific amount of surface spaces before it can build a parking structure. Therefore, because all doubts concerning the interpretation of a zoning ordinance must be resolved in favor of the landowner, a showing that at least some portion of allowable surface parking has been eliminated satisfies the parking requirement.

Comprehensive Plan Consistency Review

1. The Applicant will provide any wayfinding signage as an operational item with the ultimate tenants of the property.
2. Refer to response letter prepared by McMahon Associates.
3. Refer to response letter prepared by McMahon Associates.
4. The Applicant will provide any carpooling incentives as an operational item with the ultimate tenants of the property.

Draft Radnor Greenways & Open Space Network Plan Consistency Review

1. We have revised the drawings to propose a 44 ft. wide cartway for King of Prussia Road with a 5 ft. sidewalk along the property frontage. We have requested a waiver from the required 48 ft. wide cartway to preserve existing street trees along King of Prussia Road, while still providing the requested frontage sidewalk.

General Planning Review

1. We have revised the Plans to provide the requested sidewalk connection.
2. The Applicant will coordinate any accessory uses similar to those noted as an operational item with the ultimate tenants of the property.



Stephen Norcini, Radnor Township
Nave Newell No. 2007-011.03
March 17, 2015
Page 5

3. The Applicant will provide any necessary walkway lighting as an operational item coordinated with the building lighting and with the ultimate tenants of the property.

Planning Commission Member Comments (March 2, 2015)

1. We have revised the Zoning Table to include the 80% maximum frontage calculation.
2. We have revised the building layouts to clarify the atrium connections and their inclusion in the maximum 160 ft. length calculations.

Please feel free to contact me at (610)265-8323 or via email at atweedie@navenewell.net if you should have any questions or need additional information.

Respectfully submitted,

A handwritten signature in black ink that reads 'D. Alexander Tweedie'.

D. Alexander Tweedie, PE

DAT/jih
Enclosures

cc via email: Michael Devine - BioMed Realty Trust, Inc.
George J. Kroclic, Esq. – Duane Morris LLP
Nicholas Caniglia, Esq. - Pierce Caniglia & Taylor
Ross Cole, AIA, IFMA - BAM Studio
John Wichner, PE, PTOE - McMahon Assoc.

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MEMORANDUM

Date: March 3, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: 145 King of Prussia Road
Biomed Realty Trust, Inc. – Applicant

Date Accepted: October 6, 2014
90 Day Review: January 4, 2015 Extended to March 31, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct four office buildings at 533,247 gross square footage and four buildings. This project is located in the PLO district of the Township.

The applicant appeared before the Planning Commission on November 3, 2014 and March 3, 2015. The Planning Commission recommended denial of the plan based on discussion during the meeting.

Plans Prepared By: Nave Newell
Dated: 09/03/2014, revised 01/30/2015

I Zoning

1. §280-6.C(5) – Refer to legal interpretation memo dated January 23, 2015 prepared by John B. Rice and Peter Nelson with regard to nonconformance with this Section.



2. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 16.1% and the minimum landscape area is 45.1%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code. The applicant has indicated that this will be provided.
3. §280-70.C. – Service, utility, maintenance and storage areas, including solid waste containers, loading and unloading areas and heating, ventilating and air condition equipment, shall be screened from view from public streets and abutting properties. This may be accomplished by means of enclosing walls, stone, brick or wood fences or a buffer planting strip. Visual screening so provided shall be of sufficient density so as not to be seen through and of sufficient height to constitute an effective screen. Detail of the dumpster/recycling area and the mechanical pit screenings must be provided on the plans.
4. §280-112.B. – Any applicant for a building permit, preliminary subdivision plan approval on land which contains areas with a grade or slope of 14% or more shall be required to have the limits of such areas defined by a registered professional engineer. These areas must be shown on the plans.
5. §280-112.C. – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified.
6. §280-132.B. – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts. The applicant has indicated that this will be provided.

II Subdivision and Land Development

1. §255-41.H. – Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped. A detail of the dumpster/recycling area screening must be provided.
2. §255-43.1.E.(2) – The applicant has indicated on sheet C3.1 that a fee in lieu of \$443,138 will be provided for the Park and Recreation Land Requirement. This was calculated based on the total square footage of the buildings and not the building area. The fee should be based on total building area which is 188,695 square feet. The total park and recreation fee should be \$158,736.

3. §255-27.C.(1) – King of Prussia Road is designated as a major collector and has a required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements. The ultimate right of way shown on the plans is 65 feet. Curbing and sidewalk for a major collector road shall be provided as recommended by Penn DOT.
4. §255-29.A.(12)(b) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The two way drive located in the rear of the property is 22 feet wide. This must be revised.
5. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every ten parking spaces in double bay. The applicant has indicated on the landscape plan (sheet c9.1) that there will be 32 trees required for double bay parking and 14 streets required for the single bay parking for a total of 395 spaces. (32 x 10 double (320) 14x5 single (75). The plans indicate a total 446 surface parking spaces on sheet C3.1. The total parking should be revised to be consistent.
6. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

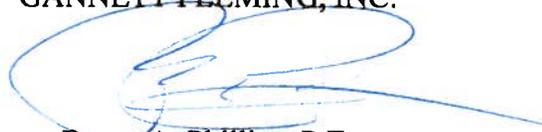
III Stormwater Management

1. §245-22.A.1 - Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests. The applicant has indicated that this will be provided during the final land development submission.

In addition to the above comments, attached and included by reference is a letter from Amy Kaminski, Township Traffic Engineer, Gilmore and Associates. We have also included by attachment review comments from Ray Daly, Building Codes Official/Fire Codes Official. We suggest that consideration of approval be conditioned upon adequately addressing the comments referenced above and in the attached letters.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: February 23, 2014

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Preliminary Land Development Transportation Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the Transportation Impact Study (TIS) prepared by McMahon Associates Inc., dated January 2015, and Preliminary Land Development Plans prepared by Nave Newell, Inc., dated September 3, 2014, and last revised January 30, 2015.

I. Project Overview:

Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 551,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. Submission:

- A. Transportation Impact Study, prepared by McMahon Associates, Inc., dated January 2015.
- B. Preliminary Land Development Plans, prepared by Nave Newell, Inc., dated September 3, 2014 and last revised January 30, 2015.
- C. Response Letter, prepared by McMahon Associates, Inc., dated January 30, 2015.
- D. Response Letter, prepared by Nave Newell, dated January 30, 2015
- E. Parking Study Feasibility Study, prepared by Tim Haahs, Engineers and

Architects.

III. Identified Improvements

- A. King of Prussia Road and Lancaster Avenue (U.S. Route 30)/I-76 NB Off-Ramp: widen southbound King of Prussia Road to provide a second right-turn lane.
- B. King of Prussia Road and Raider Road: install a new traffic signal
- C. Remove existing driveway on King of Prussia Road, opposite the Radnor High School access (Raider Road).
- D. King of Prussia Road and Southern Site Access:
 - 1. Construct one ingress lane and two egress lanes
 - 2. Install a traffic signal; this traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
- E. King of Prussia Road and SEPTA Access/Northern Site Access: construct one ingress lane and two egress lanes.
- F. King of Prussia Road: provide a four-lane cross section along site frontage from the Southern Site Access to the Northern Site Access. The second northbound lane transitions into a dedicated right turn lane at the Northern Site Access.

IV. SALDO Comments

- A. §255-27.C(1) – Include sidewalks along the site frontage for King of Prussia Road.
- B. §255-27.G – Provide profiles for each street and intersection to verify that adequate street grades are achievable.
- C. §255-27.H – No street shall intersect another at an angle of less than 70 degrees. Revise the intersection of the SEPTA access and Site Access to intersect as nearly as possible to 90 degrees.
- D. §255-29.A(1) Ninety degree (90°) is prohibited in one way aisles. Revise the handicap spaces east of Building 1C.
- E. §255-29.A(16) – Provide sidewalk connections, with appropriate ADA elements, at each raised pedestrian crosswalk. The plans must include details for the proposed raised pedestrian crosswalks. Details must be provided in the Final Land Development Plan set.
- F. §255-29.A(6) No more than ten parking spaces shall be permitted in a continuous row unless separated by landscaping or a concrete curb. Revise the lot in front of Building 4B and 4C

V. Plan Review

- A. We do not support the proposed traffic signal at the intersection of King of Prussia Road and the Southern Access Driveway. We recommend the applicant revise the location of the proposed traffic signal from the Southern Access Driveway to the Northern Access Driveway for the following reasons:
 - 1. The proposed signal would be located an undesirable distance from the Lancaster Avenue & King of Prussia Road signalized

- intersection(less than 500').
2. The proposed location provides no benefit except for the onsite traffic.
 3. Relocating the signal from the Southern to the Northern Access Driveway would provide a more regional benefit by providing signalization to the SEPTA train station users.
 4. Radnor Township School District (RTSD) may want to consider relocating the RTSD Bus Yard Access Driveway(s) to take access to King of Prussia Road, opposite the Northern Access Driveway on King of Prussia Road.
- B. Revise the land development plans to include any proposed improvements at the intersection of Lancaster Ave and King of Prussia Road. The transportation impact study identifies a dual right turn lane is proposed on the southbound approach of King of Prussia Road but the improvements were not included in the current plan set. This improvement will require a Highway Occupancy Permit application and traffic signal modifications through PennDOT.
 - C. The Applicant should coordinate with the Township to determine if any of the recommendations from the Radnor Greenways & Open Space Network Plan could be incorporated into this project. We note that the plan currently proposes a multi-use trail along the King of Prussia Road frontage.
 - D. Construction plans showing spot elevations, dimensions and slopes, must be provided for each proposed curb ramp during Final Land Development.
 - E. Provide sidewalk along the south side of the Northern Access/Septa driveway from King of Prussia Road to the Septa Station.
 - F. Submit a traffic signal construction plans for any proposed or altered traffic signals.
 - G. Provide a revised system plan for the Lancaster Avenue System and a King of Prussia Road System for review and comment.
 - H. The intersection of Southern access/King of Prussia Road warrants a right turn deceleration lane and a separate left-turn lane based on the Transportation Impact Study. The lanes must be included in the land development plans.
 - I. The gore striped channelized island along King of Prussia Road at the Septa driveway must modified to concrete channelized island with mountable curbing.
 - J. Provide a separate pavement marking plan and signage plan. Include all right-of-way lines, lane lengths, widths, bay taper lengths, lane line colors, lane line widths and etc.
 - K. Revise all stop bar locations with a minimum separation of 4 feet from pedestrian crosswalks.
 - L. Provide consistent pavement gore striping for handicap spaces to consistently show a 4" width between C7.5 detail sheet, and site plan sheets C3.1 and C3.2. Revise as necessary.
 - M. Refer to PennDOT Publication 111, TC-8600 for all standard pavement markings. Include 24" gore striping on roadways and driveways.

- N. Provide survey/construction stationing along King of Prussia Road.
- O. Verify the proposed ultimate right-of-way line and revise as necessary. It appears King of Prussia Road cartway, south of Raider Road, is located outside the ultimate right-of-way.
- P. Revise the direction of the median gore striping per PennDOT Publication 111, TC-8600.
- Q. Adjust the location of the sidewalk closer to the parking lot, in front of Building 1A.
- R. Sheet C3.1:
 - 1. Revise the parking layout to eliminate the approximate 3.5 foot wide space in the northeast corner of the parking lot in front of Building 4B
 - 2. Eliminate the 4"SWL line on the one-way driveway south of Building 4C.
 - 3. Verify all parking stalls have a minimum 9.5 foot width.
 - 4. Install a second R6-6 BEGIN ONE WAY at the beginning of the one-way driveway located in front of Building 4C at the beginning of the circle area and include the sign on the detail sheet (C7.4). Eliminate the R6-2 ONE WAY sign as it is unnecessary.
- S. All signs mounted on the back of a STOP sign must remain within the borders of the STOP Sign. Revise as necessary.
- T. Sheet C7.4:
 - 1. Revise all references for PennDOT Pub 67 to PennDOT Pub 236.
 - 2. Revise pavement marking arrows in accordance with PennDOT Publication 111, TC-8600.
 - 3. Eliminate the reference to W16-1 for the Object Marker. Refer to PennDOT 236 for an updated detail for OM1-3.
- U. Traffic Signal Plans must be provide to the Township and PennDOT for review and approval. TE-160 form and resolution will be required with the traffic signal plan submissions.

VI. Transportation Impact Study Review

- A. §255-20.b(5)(d)[4] – This section requires the vehicular trip generation rates to be calculated utilizing SALDO Attachment 4, Township of Radnor Trip Generation Rates. The Applicant has utilized the Institute of Transportation Engineers Trip Generation Version 9 rates which we believe are more appropriate in this case. The applicant will need to request a waiver; we support a waiver of this requirement.
- B. A separate figure must be provided for the site traffic from the Villanova Commons development expansion.
- C. A figure must be provided documenting the reassignment of traffic from the

center site access to the northern and southern accesses.

- D. Table 3 and 4: The AM peak hour trips entering and exiting do not sum up to the total for the transit and new trips. Verify and revise Table 3 and Table 4 as needed.
- E. Provide a queue analysis table for all movements at the signalized intersections.
- F. The Manual of Uniform Traffic Control Devices (MUTCD) Signal Warrant Analysis provided in Appendix F indicates only the Peak Hour Warrant (Warrant 3) was evaluated at the two proposed traffic signals. All warrants must be evaluated. PennDOT Publication 46 requires Central Office approval is required if only the Peak Hour Warrant is met for signalization.
- G. We do not support the proposed signalization of King of Prussia Road and the Southern Access Driveway.
 - 1. The Southern Access Driveway is a less than desirable distance from the existing signal at Lancaster Avenue and King of Prussia Road (less than 500').
 - 2. The Synchro analysis indicates that the southbound queue on King of Prussia Road will back up through this intersection for several analysis periods.
- H. The analysis worksheets for the two proposed traffic signals are provided using the McTrans HCM 2010 software in lieu of Synchro software which is provided at all other intersections. For consistency and to determine the effect coordination will have at the two proposed intersections, Synchro print reports using HCM methodology must be provided.
- I. Provide the electronic Synchro Files for review with the next submission.
- J. Provide a turn lane analysis at King of Prussia Road and Raider Road to determine if a northbound left-turn lane is warranted.
- K. The study indicates that left-turn and right-turn deceleration lanes are warranted along King of Prussia Road at the site accesses. Provide the lengths of the turn lanes and bay tapers needed. At the southern access, provide a southbound left-turn and a northbound right-turn lane on the plans as warranted.
- L. It appears that several of the intersections studied require mitigation measures as noted below:
 - 1. King of Prussia Rd/Radnor-Chester Rd – A second eastbound left-turn lane is necessary for Radnor-Chester Rd. The applicant should also provide mitigation measures for the northbound left-turn movement.
 - 2. Lancaster Ave/King of Prussia Rd/I-476 Northbound Off Ramp – The development traffic can be mitigated by providing a second right-turn lane southbound on King of Prussia Rd and a second through lane northbound from the off-ramp.
 - 3. Conceptual plans and cost estimates should be prepared for each of these improvements. We recommend the Applicant and Township staff explore an alternative transportation plan to offset any infeasible mitigation measures identified in the report. Note: Outside of the

improvements listed above, no offsite improvements are proposed in connection with this development.

- M. Radnor Township will be installing a traffic adaptive signal system along Lancaster Avenue. We recommend the Township discuss a traffic adaptive system for the King of Prussia Road corridor.



RADNOR TOWNSHIP

MEMORANDUM

TO: MR. STEVE NORCINI
FROM: RAY DALY
SUBJECT: 145 KING OF PRUSSIA ROAD
DATE: FEBRUARY 25, 2015
CC: MR. PHILLIPS

Mr. Norcini;

As stated in the 9/26/14 SAC comments, I have concerns with the building perimeter coverage for the Fire service. Access to the front of buildings 1-A and 2-C is limited and not accessible. Again I know this can be addressed at a later time however we just want to make our concerns known early on in the process.

The flow for Emergency services on the south end of the complex is very tight and confusing. The circle and turning access points should be addressed for better serviceability to large trucks and multiple Emergency vehicles.

Continuity of the service drive is needed. The driveway seems to remain at 22', however at the corners the turning radius narrows because of curbing and parking spaces, could this be addressed? Also at the north end of the drive the width changes to 18' from the 22', this need to be consistent.

On page C3.2, on King of Prussia at the drive entrance there is a curb, is that a mountable curb?

The note on the plan states the underground parking as concept. Again I know we have time to comment later, however there are limited details on underground parking facilities. Comments made later will affect the basic layout and traffic flow at the entrances and exits from the garage.

Respectfully,

Ray Daly

Building Codes Official/Fire Codes Official



MEMORANDUM

Date: February 23, 2015

To: Radnor Township Planning Commission

From: Roger Phillips, P.E.

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Steve Gabriel - Rettew
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official

RE: 145 King of Prussia Road
Biomed Realty Trust, Inc. – Applicant

Date Accepted: October 6, 2014
90 Day Review: January 4, 2015 Extended to March 31, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct four office buildings at 533,247 gross square footage and four buildings. This project is located in the PLO district of the Township.

The applicant appeared before the Planning Commission on November 3, 2014. The Planning Commission recommended denial of the plan based on discussion during the meeting.

Plans Prepared By: Nave Newell
Dated: 09/03/2014, revised 01/30/2015

I Zoning

1. §280-6.C(5) – Refer to legal interpretation memo dated January 23, 2015 prepared by John B. Rice and Peter Nelson with regard to nonconformance with this Section.

Gannett Fleming, Inc.

Valley Forge Corporate Center • 1010 Adams Avenue • Audubon, PA 19403-2402

t: 610.650.8101 • f: 610.650.8190

www.gannettfleming.com



2. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 16.1% and the minimum landscape area is 45.1%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code. The applicant has indicated that this will be provided.
3. §280-70.C – Service, utility, maintenance and storage areas, including solid waste containers, loading and unloading areas and heating, ventilating and air condition equipment, shall be screened from view from public streets and abutting properties. This may be accomplished by means of enclosing walls, stone, brick or wood fences or a buffer planting strip. Visual screening so provided shall be of sufficient density so as not to be seen through and of sufficient height to constitute an effective screen. Detail of the dumpster/recycling area and the mechanical pit screenings must be provided on the plans.
4. §280-112.B – Any applicant for a building permit, preliminary subdivision plan approval on land which contains areas with a grade or slope of 14% or more shall be required to have the limits of such areas defined by a registered professional engineer. These areas must be shown on the plans.
5. §280-112.C – Areas of steep slopes containing slopes steeper than 14% shall be outlined as following (1) Areas containing slopes steeper than 14% but less than 20% shall be distinguished from the areas containing slopes of 20% or steeper. (2) Areas containing slopes of 20% and steeper shall be separately identified.
6. §280-132.B – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts. The applicant has indicated that this will be provided.

II Subdivision and Land Development

1. §255-41.H – Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be screened from view and landscaped. A detail of the dumpster/recycling area screening must be provided.
2. §255-43.1.E.(2) – The applicant has indicated on sheet C3.1 that a fee in lieu of \$443,138 will be provided for the Park and Recreation Land Requirement. This was calculated based on the total square footage of the buildings and not the building area. The fee should be based on total building area which is 188,695 square feet. The total park and recreation fee should be \$158,736.

3. §255-27.C.(1) – King of Prussia Road is designated as a major collector and has a required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements. The ultimate right of way shown on the plans is 65 feet. Curbing and sidewalk for a major collector road shall be provided as recommended by Penn DOT.
4. §255-29.A.(12)(b) – The width of entrance and exit drives shall be a minimum of 25 feet for two-way use. The two way drive located in the rear of the property is 22 feet wide. This must be revised.
5. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every ten parking spaces in double bay. The applicant has indicated on the landscape plan (sheet c9.1) that there will be 32 trees required for double bay parking and 14 streets required for the single bay parking for a total of 395 spaces. (32 x 10 double (320) 14x5 single (75). The plans indicate a total 446 surface parking spaces on sheet C3.1. The total parking should be revised to be consistent.
6. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.

III Stormwater Management

1. §245-22.A.1 - Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests. The applicant has indicated that this will be provided during the final land development submission.

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: February 23, 2014

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Preliminary Land Development Transportation Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the Transportation Impact Study (TIS) prepared by McMahon Associates Inc., dated January 2015, and Preliminary Land Development Plans prepared by Nave Newell, Inc., dated September 3, 2014, and last revised January 30, 2015.

I. Project Overview:

Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 551,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. Submission:

- A. Transportation Impact Study, prepared by McMahon Associates, Inc., dated January 2015.
- B. Preliminary Land Development Plans, prepared by Nave Newell, Inc., dated September 3, 2014 and last revised January 30, 2015.
- C. Response Letter, prepared by McMahon Associates, Inc., dated January 30, 2015.
- D. Response Letter, prepared by Nave Newell, dated January 30, 2015
- E. Parking Study Feasibility Study, prepared by Tim Haahs, Engineers and

Architects.

III. Identified Improvements

- A. King of Prussia Road and Lancaster Avenue (U.S. Route 30)/I-76 NB Off-Ramp: widen southbound King of Prussia Road to provide a second right-turn lane.
- B. King of Prussia Road and Raider Road: install a new traffic signal
- C. Remove existing driveway on King of Prussia Road, opposite the Radnor High School access (Raider Road).
- D. King of Prussia Road and Southern Site Access:
 - 1. Construct one ingress lane and two egress lanes
 - 2. Install a traffic signal; this traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
- E. King of Prussia Road and SEPTA Access/Northern Site Access: construct one ingress lane and two egress lanes.
- F. King of Prussia Road: provide a four-lane cross section along site frontage from the Southern Site Access to the Northern Site Access. The second northbound lane transitions into a dedicated right turn lane at the Northern Site Access.

IV. SALDO Comments

- A. §255-27.C(1) – Include sidewalks along the site frontage for King of Prussia Road.
- B. §255-27.G – Provide profiles for each street and intersection to verify that adequate street grades are achievable.
- C. §255-27.H – No street shall intersect another at an angle of less than 70 degrees. Revise the intersection of the SEPTA access and Site Access to intersect as nearly as possible to 90 degrees.
- D. §255-29.A(1) Ninety degree (90°) is prohibited in one way aisles. Revise the handicap spaces east of Building 1C.
- E. §255-29.A(16) – Provide sidewalk connections, with appropriate ADA elements, at each raised pedestrian crosswalk. The plans must include details for the proposed raised pedestrian crosswalks. Details must be provided in the Final Land Development Plan set.
- F. §255-29.A(6) No more than ten parking spaces shall be permitted in a continuous row unless separated by landscaping or a concrete curb. Revise the lot in front of Building 4B and 4C

V. Plan Review

- A. We do not support the proposed traffic signal at the intersection of King of Prussia Road and the Southern Access Driveway. We recommend the applicant revise the location of the proposed traffic signal from the Southern Access Driveway to the Northern Access Driveway for the following reasons:
 - 1. The proposed signal would be located an undesirable distance from the Lancaster Avenue & King of Prussia Road signalized

- intersection(less than 500').
2. The proposed location provides no benefit except for the onsite traffic.
 3. Relocating the signal from the Southern to the Northern Access Driveway would provide a more regional benefit by providing signalization to the SEPTA train station users.
 4. Radnor Township School District (RTSD) may want to consider relocating the RTSD Bus Yard Access Driveway(s) to take access to King of Prussia Road, opposite the Northern Access Driveway on King of Prussia Road.
- B. Revise the land development plans to include any proposed improvements at the intersection of Lancaster Ave and King of Prussia Road. The transportation impact study identifies a dual right turn lane is proposed on the southbound approach of King of Prussia Road but the improvements were not included in the current plan set. This improvement will require a Highway Occupancy Permit application and traffic signal modifications through PennDOT.
 - C. The Applicant should coordinate with the Township to determine if any of the recommendations from the Radnor Greenways & Open Space Network Plan could be incorporated into this project. We note that the plan currently proposes a multi-use trail along the King of Prussia Road frontage.
 - D. Construction plans showing spot elevations, dimensions and slopes, must be provided for each proposed curb ramp during Final Land Development.
 - E. Provide sidewalk along the south side of the Northern Access/Septa driveway from King of Prussia Road to the Septa Station.
 - F. Submit a traffic signal construction plans for any proposed or altered traffic signals.
 - G. Provide a revised system plan for the Lancaster Avenue System and a King of Prussia Road System for review and comment.
 - H. The intersection of Southern access/King of Prussia Road warrants a right turn deceleration lane and a separate left-turn lane based on the Transportation Impact Study. The lanes must be included in the land development plans.
 - I. The gore striped channelized island along King of Prussia Road at the Septa driveway must modified to concrete channelized island with mountable curbing.
 - J. Provide a separate pavement marking plan and signage plan. Include all right-of-way lines, lane lengths, widths, bay taper lengths, lane line colors, lane line widths and etc.
 - K. Revise all stop bar locations with a minimum separation of 4 feet from pedestrian crosswalks.
 - L. Provide consistent pavement gore striping for handicap spaces to consistently show a 4" width between C7.5 detail sheet, and site plan sheets C3.1 and C3.2. Revise as necessary.
 - M. Refer to PennDOT Publication 111, TC-8600 for all standard pavement markings. Include 24" gore striping on roadways and driveways.

- N. Provide survey/construction stationing along King of Prussia Road.
- O. Verify the proposed ultimate right-of-way line and revise as necessary. It appears King of Prussia Road cartway, south of Raider Road, is located outside the ultimate right-of-way.
- P. Revise the direction of the median gore striping per PennDOT Publication 111, TC-8600.
- Q. Adjust the location of the sidewalk closer to the parking lot, in front of Building 1A.
- R. Sheet C3.1:
 - 1. Revise the parking layout to eliminate the approximate 3.5 foot wide space in the northeast corner of the parking lot in front of Building 4B
 - 2. Eliminate the 4"SWL line on the one-way driveway south of Building 4C.
 - 3. Verify all parking stalls have a minimum 9.5 foot width.
 - 4. Install a second R6-6 BEGIN ONE WAY at the beginning of the one-way driveway located in front of Building 4C at the beginning of the circle area and include the sign on the detail sheet (C7.4). Eliminate the R6-2 ONE WAY sign as it is unnecessary.
- S. All signs mounted on the back of a STOP sign must remain within the borders of the STOP Sign. Revise as necessary.
- T. Sheet C7.4:
 - 1. Revise all references for PennDOT Pub 67 to PennDOT Pub 236.
 - 2. Revise pavement marking arrows in accordance with PennDOT Publication 111, TC-8600.
 - 3. Eliminate the reference to W16-1 for the Object Marker. Refer to PennDOT 236 for an updated detail for OM1-3.
- U. Traffic Signal Plans must be provide to the Township and PennDOT for review and approval. TE-160 form and resolution will be required with the traffic signal plan submissions.

VI. Transportation Impact Study Review

- A. §255-20.b(5)(d)[4] – This section requires the vehicular trip generation rates to be calculated utilizing SALDO Attachment 4, Township of Radnor Trip Generation Rates. The Applicant has utilized the Institute of Transportation Engineers Trip Generation Version 9 rates which we believe are more appropriate in this case. The applicant will need to request a waiver; we support a waiver of this requirement.
- B. A separate figure must be provided for the site traffic from the Villanova Commons development expansion.
- C. A figure must be provided documenting the reassignment of traffic from the

center site access to the northern and southern accesses.

- D. Table 3 and 4: The AM peak hour trips entering and exiting do not sum up to the total for the transit and new trips. Verify and revise Table 3 and Table 4 as needed.
- E. Provide a queue analysis table for all movements at the signalized intersections.
- F. The Manual of Uniform Traffic Control Devices (MUTCD) Signal Warrant Analysis provided in Appendix F indicates only the Peak Hour Warrant (Warrant 3) was evaluated at the two proposed traffic signals. All warrants must be evaluated. PennDOT Publication 46 requires Central Office approval is required if only the Peak Hour Warrant is met for signalization.
- G. We do not support the proposed signalization of King of Prussia Road and the Southern Access Driveway.
 - 1. The Southern Access Driveway is a less than desirable distance from the existing signal at Lancaster Avenue and King of Prussia Road (less than 500').
 - 2. The Synchro analysis indicates that the southbound queue on King of Prussia Road will back up through this intersection for several analysis periods.
- H. The analysis worksheets for the two proposed traffic signals are provided using the McTrans HCM 2010 software in lieu of Synchro software which is provided at all other intersections. For consistency and to determine the effect coordination will have at the two proposed intersections, Synchro print reports using HCM methodology must be provided.
- I. Provide the electronic Synchro Files for review with the next submission.
- J. Provide a turn lane analysis at King of Prussia Road and Raider Road to determine if a northbound left-turn lane is warranted.
- K. The study indicates that left-turn and right-turn deceleration lanes are warranted along King of Prussia Road at the site accesses. Provide the lengths of the turn lanes and bay tapers needed. At the southern access, provide a southbound left-turn and a northbound right-turn lane on the plans as warranted.
- L. It appears that several of the intersections studied require mitigation measures as noted below:
 - 1. King of Prussia Rd/Radnor-Chester Rd – A second eastbound left-turn lane is necessary for Radnor-Chester Rd. The applicant should also provide mitigation measures for the northbound left-turn movement.
 - 2. Lancaster Ave/King of Prussia Rd/I-476 Northbound Off Ramp – The development traffic can be mitigated by providing a second right-turn lane southbound on King of Prussia Rd and a second through lane northbound from the off-ramp.
 - 3. Conceptual plans and cost estimates should be prepared for each of these improvements. We recommend the Applicant and Township staff explore an alternative transportation plan to offset any infeasible mitigation measures identified in the report. Note: Outside of the

improvements listed above, no offsite improvements are proposed in connection with this development.

- M. Radnor Township will be installing a traffic adaptive signal system along Lancaster Avenue. We recommend the Township discuss a traffic adaptive system for the King of Prussia Road corridor.

February 20, 2015

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: 145 King of Prussia Road
Preliminary Land Development Plan
Review No. 2
RETTEW Project No. 101442004

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell. Our review was of the following information received on February 12, 2015:

1. Thirty-four (34) plan sheets entitled "Preliminary Land Development Plan for 145 King of Prussia Road," dated September 3, 2014 and revised January 30, 2015;
2. A plan review response letter dated January 30, 2015;
3. A BioMed parking feasibility study; and,
4. Miscellaneous plan application materials.

Project Overview:

<u>Applicant:</u>	BMR – 145 King of Prussia Road, L.P.
<u>Requested Action/Use:</u>	Preliminary Land Development Plan Review
<u>Zoning District:</u>	Planned Laboratory-Office District
<u>Location and Size:</u>	Property near the intersection of the Blue Route (SR 0476) and Lancaster Avenue (SR 0030), and is accessed off of King of Prussia Road. It has a combined gross area of 26.96 acres and a combined net site area at the proposed right-of-way lines of 18.28 acres.
<u>Proposed Use:</u>	Office

This Preliminary Land Development Plan for 145 King of Prussia Road proposes the redevelopment of the site referred to as the BioMed site. The applicant is proposing two access drives, four office buildings, surface and underground parking, stormwater management to include green roofs and subsurface detention facilities, and pedestrian sidewalk connections.



We have performed a review of the plan for compliance with the comments from our initial review letter of September 29, 2014. We have the following comments for your consideration:

ZONING

1. Per the January 23, 2015 memorandum from Township Solicitors John Rice and Peter Nelson, the proposed **building lengths** have been found to comply with the zoning ordinance in Section 280-64.D.
2. The proposed **underground parking** is a permitted accessory use but it appears to exceed the number of spaces allowed under the provision "A parking structure, when constructed as an accessory structure for the purpose of eliminating allowable surface parking" (Section 280-63.C(5) and per the January 23, 2015 memorandum from John Rice and Peter Nelson).

COMPREHENSIVE PLAN CONSISTENCY REVIEW

1. The Open Space and Recreation section of the comprehensive plan contains an objective to "create a Township-wide trail marking" or "**wayfinding**" system for trail and pedestrian facilities. This type of signage could be beneficial to encourage increased use of public transit adjacent to and up King of Prussia Road from the site, which is identified as a goal in the Transportation and Circulation Section of the Comprehensive Plan. *The applicant has indicated that wayfinding signage will be provided as an operational item with the ultimate tenants of the property.*
2. The Transportation and Circulation Plan identified the Lancaster Avenue and King of Prussia Road/Radnor-Chester Road intersections as having operating deficiencies and an overall poor level of service for multiple movements during peak hours. The Transportation and Circulation Plan calls for, as a short term improvement, optimizing signal timings to reduce delay and improve progression along Lancaster Avenue. As part of its proposed development plan, the applicant needs to evaluate its proposed King of Prussia Road signalized intersection's impact on the roadway network in that area and address any **signal coordination** that may be required. *Resolution of this item is pending the applicant's response to Gilmore Engineering's September 29, 2014 review comment #16 under Transportation Impact Study where the applicant indicates that signal coordination will be explored and incorporated if feasible.*
3. The applicant needs to compare the level of **impact on traffic flow** the proposed southern entrance signal will have versus its impact were it located at an entrance/exit opposite Raider Road or the shared with SEPTA driveway. *Resolution of this item is pending the applicant's resubmittal of its Transportation Impact Study analysis per Gilmore Engineering's September 29, 2014 review comment #10 under Transportation Impact Study that the applicant's Synchro analysis indicates that southbound traffic on King of Prussia Road at Lancaster Avenue will back up through the proposed signal at the southern entrance to the site.*
4. The Transportation and Circulation Plan also contains a goal to support **ride sharing or carpooling**, as well as other trip reduction strategies to reduce single occupancy, private vehicle commuting by employees of major businesses. *The applicant has indicated that carpooling incentives will be provided as an operational item with the ultimate tenants of the property.*

RADNOR GREENWAYS & OPEN SPACE NETWORK PLAN CONSISTENCY REVIEW

1. The Township's Greenways Plan proposes multiuse trails along the west and north boundaries of the property (along King of Prussia Road and connecting to the train station) and also along Browns Run south of the property. These trail segments are designated as High Priority. The proposed site plan is not consistent with the Draft Radnor Greenways & Open Space Network Plan as it does not show multi-use trail connections in these areas.

Sidewalk is necessary across the site's King of Prussia Road frontage for the following reasons:

- The existing sidewalk across the street on the western frontage of King of Prussia Road that might be used by some pedestrians does not have a crosswalk or traffic control at the SEPTA R-100 station driveway access.
- General pedestrian access to the R-100 station via the proposed traffic signal and crosswalk at the site's southern entrance will require pedestrians to venture deep onto private property and immediately adjacent to rear of the Office Complexes 3 and 4 buildings and loading areas at the rear of the site. Pedestrians who do not work at the site are not likely to use such a pathway.

The applicant has indicated that a sidewalk along the site's frontage will negatively impact existing trees that are to remain. Review of the existing and proposed landscape plans indicate that many new trees are proposed to be planted where a sidewalk would be situated, but barring any changes to the proposed landscaping, there is a good deal of room behind the proposed new trees and the existing trees to remain for the placement of a sidewalk.

Sidewalks are to be constructed along existing streets per Section 255-51 of the Subdivision Ordinance and according to the chart at Section 255-27.C. That chart displays the required dimensional standards for streets, curbs and sidewalks. For Major Collector roadways, the chart does not preclude sidewalks (as it does for sidewalks along Expressways) but indicates that the required dimensional standard will be subject to recommendation from PennDOT.

In addition, per the Greenways Plan, **multi-use trail needs to be shown** on the plan crossing the southern entrance drive at the ADA crosswalk to follow the approximate route of the existing gravel access drive shown on the plan. The trail should cross under I-476 across the applicant's property to connect to Lancaster Avenue (the Browns Run segment).

GENERAL PLANNING REVIEW

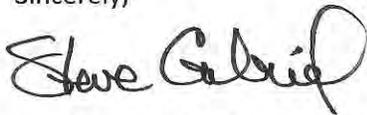
1. **Sidewalk** is needed to run from the entrance/exit for Buildings 3A and 3B for occupants to safely walk to the R-100 station (and for commuters to walk from the station to Buildings 3A and 3B) just as sidewalk is proposed to run from that entrance/exit to the proposed bus stop landing on King of Prussia Road.
2. To help **mitigate the development's traffic generation**, and to encourage the use of public transit by building occupants, the plan should incorporate elements that would discourage employees from feeling a need to drive away from the site on their breaks or over lunch. Within the PLO

zoning district, such elements that are permitted as accessory uses may include a landscaped courtyard, small recreational area, cafeteria complex, and outdoor seating and dining area. *The applicant has indicated that accessory uses similar to those noted will be provided as an operational item with the ultimate tenants of the property.*

3. The plan needs to encourage people to feel safe walking from the office complex to the various public transit options. Such improvements would include appropriate **pedestrian-scaled lighting** along pedestrian routes to transit stops. The Subdivision Ordinance specifies that sidewalks and pedestrian paths should be adequately lighted, if required by the Board of Commissioners (§255-37.E). No pedestrian lighting is shown on the plan along the existing walkway at the rear of proposed Office Complex 3 that leads directly to the R-100 station and more lighting will likely be needed along the walkway at the rear of Office Complex 4. *The applicant has indicated that walkway lighting will be provided as an operational item with the ultimate tenants of the property.*

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Suzan Jones – sjones@radnor.org
Kevin Kochanski, RLA, CZO – kkochanski@radnor.org
Roger Phillips, PE – rphillips@gfnet.com
Amy Kaminski, PE – akaminski@gilmore-assoc.com
John B. Rice, Esq. – jrice@grimlaw.com

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PIERCE, CANIGLIA & TAYLOR

ATTORNEYS AT LAW

125 STRAFFORD AVENUE - SUITE 110

P. O. Box 313

WAYNE, PENNSYLVANIA 19087

JAMES M. PIERCE
NICHOLAS J. CANIGLIA
KENNETH C. TAYLOR

TELEPHONE
(610) 688-2636
FAX
(610) 688-5761

February 10, 2015

Susan Jones
Engineering Department
Township of Radnor
301 Iven Avenue
Wayne, Pa. 19087

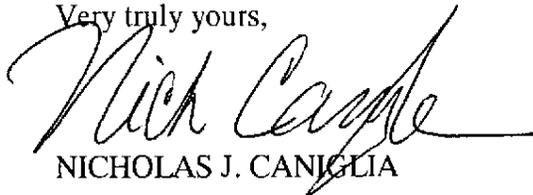
RE: BMR – 145 King of Prussia Road, LP
Number: 2014-D-02
Preliminary Plan

Dear Sue:

As you know I represent the above applicant. This letter grants the Board of Commissioners an additional extension until March 31, 2015 to act on this Plan.

Thank you for your time and consideration.

Very truly yours,



NICHOLAS J. CANIGLIA

c. John B. Rice, Esquire
Steve Norcini, P.E.
Roger Phillips, P.E.



January 30, 2015

VIA HAND DELIVERY (610)688-5600

Stephen Norcini, P.E., Director of Public Works
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**Reference: 145 King of Prussia Road
Nave Newell No. 2007-011.03**

Dear Mr. Norcini:

On behalf of BMR-145 King of Prussia Road, LP we are resubmitting the Preliminary Land Development Plans based upon Township Staff Preliminary Plan reviews and respectfully request to be placed on the Commission's March meeting agenda to discuss these comments and responses. The quantities enclosed are listed after each item:

1. Preliminary Plan Set (Sheets 1-13, 18-31, 33-34 of 34), last revised January 30, 2015 (35);
2. Traffic Impact Study prepared by McMahon Associates, last revised 09/2015 (2);
3. Comment response letter by McMahon Associates, dated January 30, 2015 (2);
4. Parking Facility Plans (11"X17") prepared by Timothy Haahs & Assoc, dated January 26, 2015 (35);
5. Architectural Detail Exhibit of Atrium Building Connection (11"X17") prepared by BAM Architecture Studio, dated January 30, 2015 (35);
6. Architectural Detail Exhibit of Façade Offset prepared by BAM Architecture Studio, dated January 30, 2015 (35);
7. Thumb drive of submission documents (1).

We are in receipt of the review letters from the Township Engineer, dated September 29, 2014; Township Traffic Engineer, dated September 29, 2014; Township Planner, dated September 30, 2014; as well as a memo from the Township Fire Code Official, dated September 26, 2014 and offer the following responses in corresponding order:

Township Engineer Review (September 29, 2014)

1. Zoning

1. We will provide the Township Engineer a calculation exhibit including a detailed building and landscape coverage calculation chart to support the values shown on the zoning table.
2. We have submitted revised plans indicating the connection points of each individual building with a 1 story Atrium along with lengths of each individual building verifying that no individual building exceeds 160 feet in length and no greater than 3 buildings are attached, as permitted by code.

Steve Norcini, Radnor Township
Nave Newell No. 2007-011.03
January 30, 2015
Page 2

3. We have revised the plans with an updated parking tabulation to correct the typographical error as well as the calculation methodology as clarified by Township Staff to count the first 50,000 SF of building areas only once for the required calculations.
4. See response 1.

II. Subdivision and Land Development

1. We have revised the sheet borders to include the relationship to the total number of sheets.
2. We have revised the Park and Recreation Land Requirement based on the revisions to building square footage for the project.
3. The submitted plans included the code required Right-of-Way width and cartway width for King of Prussia Road.
4. We have revised the Site Plans to indicate the missing tire bumpers as requested.
5. We have clarified the Site Plans to note that the area in question is a ramp that continues into the parking garage and not a dead-end parking stall as noted in the letter.
6. We have provided the requested Underground Parking Facility layout design by Timothy Haahs Associates.
7. We have revised the landscape chart on the Plans to clarify the parking area requirements.
8. We have revised the plans to note that the sanitary sewer system will be a private system.
9. We have revised the landscape chart to eliminate the SEPTA driveway; it is a private driveway and does not require Street Trees.
10. We have revised the utility plans to depict water service connections to each building and fire hydrant locations.
11. See comment 10.
12. We have revised the utility plans to clarify that the sanitary sewer services for Buildings 3 and 4 are routed internally through Buildings 1 and 2 and utilize the connections shown on the plans.

III. Stormwater Management

1. We will provide the necessary infiltration test results, as requested by the Township Engineer, during Final Land Development.
2. We have revised the drawings with the requested note.

Township Traffic Engineer Review (September 29, 2014)

IV. SALDO Comments

1. The Applicant is not proposing any new streets; therefore, we do not believe this comment applies to the submitted plans.
2. The Applicant is providing sufficient on-site pedestrian circulation networks to connect the users of the property to all surrounding transit points, including the existing sidewalk

on the west side of King of Prussia Road along the High School frontage. We have created a safer and aesthetically pleasing on-site pedestrian pathway system that provides access to all regional transit stops and sidewalks, while minimizing impacts to the streetscape vegetation, as requested by the Shade Tree Commission. The inclusion of the frontage sidewalk would be of limited benefit and would require the removal of a number of large existing trees that the Shade Tree Commission has requested we attempt to preserve.

3. We have revised the striping and stop control of the Northern driveway access to propose a 3-way stop control intersection. We have also revised the plans to include a directional sign in advance of the intersection to identify destinations for each lane.
4. We have revised the plans to include the requested site triangles.
5. We will revise the Final Land Development Plans to include the requested crosswalk details upon agreement on the final locations of pedestrian crosswalks.
6. We have revised the sidewalk ramps at the noted location to eliminate the "diagonal ramp".

V. Plan Review

- A. Refer to response letter prepared by McMahon Associates.
- B. The Applicant has proposed sufficient pedestrian circulation on-site for the users of the property to access all regional transit locations and adjoining sidewalks. The Applicant will coordinate with the Township to determine if any of the recommendations from the Radnor Greenways & Open Space Network Plan should be incorporated into this project.
- C. We have revised the drawing to expand the heavy duty paving section as requested.
- D. We will provide the requested ADA detailed designs during Final Land Development once the crosswalk and ramp locations have been finalized.
- E. The ADA ramp noted is located on private property that is not owned by the Applicant, we will contact the adjoining property owner to discuss the Township's request for reconstruction of this ramp. We have revised the plans to show the conceptual reconstruction of the ramp and the required easement that would be required.
- F. We will coordinate with Township Staff and Consultants on the locations of crosswalks along King of Prussia Road. The intersection noted is unsignalized and we do not recommend a crosswalk at this location.
- G. We have revised the plan set to include truck turning exhibits.
- H. We have revised the sign details, as requested.
- I. The Applicant will submit the required Signal Construction Plans during Final Land Development Submission.

Township Planner Review (September 30, 2014)

Zoning

1. We have submitted revised plans indicating the connection points of each individual building with a 1 story Atrium along with lengths of each individual building verifying that no individual building exceeds 160 feet in length and no greater than 3 buildings are attached, as permitted by code. The Township Code has no requirements for the minimum width or depth of the façade offset; therefore, the "notches" provided along the façades are sufficient since they "visibly offset" the façade. As guidance, since the Township Code does not contain façade offset requirements, we have revised the offsets to match those of the recently adopted CICD ordinance with a 6ft depth and a 24ft width.
2. We have revised the landscape plans to note the mature height of evergreen vegetation.
3. We have revised the parking tabulation to correct the typographical error as well as the calculation methodology as clarified by Township Staff to count the first 50,000 SF of building areas only once for the required calculations.
4. The property has no natural areas with a grade or slope of 14% or more. During the 2009 land development approval for the property all slopes on the property were determined to be exempt. We have included note 12 on Sheet 2.1, which was the note from the 2009 Approved Plans relative to steep slopes for the property.
5. We have revised the plans to label and dimension the loading spaces.

Comprehensive Plan Consistency Review

1. The limit of disturbance for the project is within areas of previous development and no wetland study was completed. All watercourses are located within the PennDOT Right-of-Way portion of the property and are not subject to any disturbance or improvements.
2. The Applicant will provide any wayfinding signage as an operational item with the ultimate tenants of the property.
3. The Applicant is providing sufficient on-site pedestrian circulation networks to connect the users of the property to all surrounding transit points, including the existing sidewalk on the west side of King of Prussia Road along the High School frontage. The SALDO code does not require sidewalk along King of Prussia Road and we do not believe it is necessary here due to the proposed on-site pedestrian pathways. The inclusion of the frontage sidewalk would be of limited benefit and would require the removal of a number of large existing trees that the Shade Tree Commission has requested we attempt to preserve.
4. The Applicant will provide any carpooling incentives as an operational item with the ultimate tenants of the property.
5. Refer to response letter prepared by McMahon Associates.
6. Refer to response letter prepared by McMahon Associates.

Draft Radnor Greenways & Open Space Network Plan Consistency Review

1. The Applicant is providing sufficient on-site pedestrian circulation networks to connect the users of the property to all surrounding transit points, including the existing sidewalk

Steve Norcini, Radnor Township
Nave Newell No. 2007-011.03
January 30, 2015
Page 5

on the west side of King of Prussia Road along the High School frontage. The SALDO code does not require sidewalk along King of Prussia Road and we do not believe it is necessary here due to the proposed on-site pedestrian pathways. The inclusion of the frontage sidewalk would be of limited benefit and would require the removal of a number of large existing trees that the Shade Tree Commission has requested we attempt to preserve.

General Planning Review

1. The narrative noted in the comment is from the 2009 Land Development submission to PaDEP. This narrative was for reference to the previous applications to PaDEP is in not relevant to this submission.
2. We have revised the date of Sheet C7.4
3. Refer to response to Comment #1 above.
4. We will provide the necessary infiltration test results, as requested by the Township Engineer, during Final Land Development.
5. The Applicant will coordinate any accessory uses similar to those noted as an operational item with the ultimate tenants of the property.
6. The Applicant will provide any necessary walkway lighting as an operational item coordinated with the building lighting and with the ultimate tenants of the property.

Fire Code Official Memo (September 26, 2014)

1. The garage will be sprinklered as required by code.
2. We have provided the requested Underground Parking Facility layout design by Timothy Haahs Associates.
3. The plans have been designed to permit the central courtyard's usage as a fire access.
4. The sizing of internal plumbing lines is a building permit issue and not reviewed during land development.

Please feel free to contact me at (610)265-8323 or via email at atweedie@navenewell.net if you should have any questions or need additional information.

Respectfully submitted,



D. Alexander Tweedie, PE

DAT/jjh
Enclosures

K:\07Proj_BioMed-Only\07011.03\RevResp\Township\Norcini_Ltr_15-01-30.doc

January 30, 2015 (*revised*)

Mr. Stephen Norcini, P.E.
Director of Public Works
Radnor Township
301 Iven Avenue
Wayne, PA 19087

RE: Response to Comments
Land Development Transportation Review
145 King of Prussia Road
Radnor Township, Delaware County, PA
McMahon Project No. 807678.14

Dear Mr. Norcini:

McMahon Associates, Inc. is in receipt of the Land Development Transportation Review Memorandum, dated September 29, 2014, authored by Gilmore & Associates, Inc., with regard to the above referenced project. This letter outlines our responses to the comments contained in the above-referenced letter, and is an update to the previously-issued response letter by McMahon dated January 7, 2015. In addition, updated land development plans and Transportation Impact Study (TIS) accompany this submission. The original comment is provided in *italics*, and our response follows:

I. Project Overview Comments

Comment #1: *Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 570,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.*

Response: It should be noted that the forthcoming Transportation Impact Study will be revised to reflect the currently-proposed office space square footage of 551,000 square feet of new office space.

PRINCIPALS

Joseph W. McMahon, P.E.
Joseph J. DeSantis, P.E., PTOE
John S. DePalma
William T. Steffens
Casey A. Moore, P.E.
Gary R. McNaughton, P.E., PTOE

ASSOCIATES

John J. Mitchell, P.E.
Christopher J. Williams, P.E.
R. Trent Ebersole, P.E.
Matthew M. Kozsuch, P.E.

II. Submission Comments

(No response required).

III. Identified Improvements Comments

(No response required).

IV. SALDO Comments

Comment #1: *§255-27.G – Provide profiles for each street and intersection to verify that adequate street grades are achievable.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #2: *§255-27.C(1) – Include sidewalks along the site frontage for King of Prussia Road.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #3: *§255-27.H – No street shall intersect another at an angle of less than 70 degrees. Revise the intersection of the SEPTA access and Site Access to intersect as nearly as possible to 90 degrees.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #4: *§255-28.B – Provide clear sight distance triangles for the intersections of the Southern Access Road and the underground tunnel accesses.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #5: *§255-29.A.16 – Provide sidewalk connections, with appropriate ADA elements, at each raised pedestrian crosswalk. The plans should include details for the proposed raised pedestrian crosswalks.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #6: *§255-37.D – Revise the diagonal curb ramp at the southeast corner of proposed Building 4 to provide two separate curb ramps for each crossing direction. Diagonal curb ramps for new construction are not acceptable.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

V. Plan Review Comments

Comment #1: *We do not support the proposed traffic signal at the intersection of King of Prussia Road and the southern access as it is located less than 500' from Lancaster Avenue and provides no benefit accept to the site traffic. We recommend the applicant improve the existing access opposite Raider Road and signalize this intersection as it provides a benefit to motorists on Raider Road and is located greater than 500' from the traffic signal at Lancaster Avenue and King of Prussia Road.*

Response: Based on follow-up coordination with Township Staff, it was noted that the Applicant is agreeable to provide a traffic signal at both the King of Prussia Road/Raider Road and King of Prussia Road/Southern Site Access intersections. These two intersections will be coordinated along the King of Prussia Road corridor, as well as the intersection of Lancaster Avenue (Route 30) and King of Prussia Road. Based on the analysis contained in the Transportation Impact Study, this traffic signal configuration will accommodate adequate levels of service and will accommodate anticipated queues along the King of Prussia Road corridor.

Comment #2: *The Applicant should coordinate with the Township to determine if any of the recommendations from the Radnor Greenways & Open Space Network Plan should be incorporated into this project. We note that the plan currently proposes a multi-use trail along the King of Prussia Road frontage.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #3: *The heavy duty pavement section should be extended to each proposed dumpster pad and loading zone.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #4: *Construction plans, showing spot elevations, dimensions and slopes, shall be provided for each proposed curb ramp.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #5: *An ADA compliant curb ramp should be provided on the northeast corner of the intersection of King of Prussia Road and the SEPTA/Northern Site Access.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #6: *A crosswalk should be provided across the southbound approach of King of Prussia Road at the SEPTA/Northern Site Access.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #7: *Provide truck turning templates for a garbage truck, fire truck and the largest truck anticipated to service the site.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #8: *Provide R3-8 series lane use control signs in lieu of the R3-7 series signs.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #9: *Submit a traffic signal construction plan for any proposed traffic signals. A revised system plan for Lancaster Avenue must also be submitted for review.*

Response: Will comply. McMahon will provide traffic signal construction plans for the two proposed traffic signals along King of Prussia Road. In addition, a revised system plan for Lancaster Avenue will be submitted.

VI. Transportation Impact Study Comments

Comment #1: *§255-20.b(5)(d)[4] – This section requires the vehicular trip generation rates to be calculated utilizing SALDO Attachment 4, Township of Radnor Trip Generation Rates. The Applicant has utilized the Institute of*

Transportation Engineers Trip Generation Version 9 rates which we believe are more appropriate in this case. We support a waiver of this requirement.

Response: So noted.

Comment #2: *The background regional traffic growth factor of 1.0% utilized in the report should be revised to the most recent PennDOT Bureau of Planning and Research rate. The inclusion of additional background traffic growth can skew the results of the analysis. Any nearby development should be identified individually by location and vehicular trip generation. A separate figure should be provided for each nearby development showing the trip distribution on the roadway network.*

Response: Will comply. An annual traffic growth rate of 0.51% per year has been utilized in the revised TIS. A figure showing the trip distribution through the study area is provided for any additional nearby developments. McMahon and Gilmore & Associates, Inc. have coordinated regarding the specific nearby developments to include in the TIS.

Comment #3: *The TIS should be revised to include the background traffic from the Villanova Commons Shopping Center on Lancaster Avenue. Contact the township to obtain trip generation data for this project.*

Response: Will comply. Background traffic from the Villanova Commons Shopping Center Redevelopment has been included in the revised TIS.

Comment #4: *The trip generation for the existing vacant office space in Table 3 must be revised to include a transit reduction as these trips were calculated using the ITE Trip Generation Manual.*

Response: Will comply. Table 3 has been revised to reflect a transit reduction to the existing vacant office space trip generation in the revised TIS. As noted in Gilmore's Transit Reduction Review Memorandum, dated November 19, 2014, McMahon will utilize a transit reduction of 7% for all existing and future conditions in lieu of a previously-utilized transit reduction of 15% for future conditions.

Comment #5: *The trip generation for the existing site with full utilization in Table 4 must be revised to include a transit reduction as these trips were calculated using the ITE Trip Generation Manual.*

Response: Will comply. Table 4 has been revised to reflect a transit reduction of 7% to the existing site with full utilization trip generation in the revised TIS. As noted in Gilmore's Transit Reduction Review Memorandum, dated November 19, 2014, McMahan will utilize a transit reduction of 7% for all existing and future conditions in lieu of a previously-utilized transit reduction of 15% for future conditions.

Comment #6: *Reduction of Trip Generation data for Transit Ridership:*

1. The Applicant is claiming a transit reduction of 15 percent due to the proximity of the Radnor Regional Rail Station (1/2 mile), Radnor High Speed Line Station (adjacent to site) and SEPTA bus service on Lancaster Avenue.

2. In accordance with the information provided in Table B.3 of the ITE publication Trip Generation Handbook, this project's Floor Area Ratio (FAR) of 0.48 does not meet the required development intensity to utilize a fifteen (15) percent transit reduction. Table B.3 requires a FAR of 2.0 for a 15% trip reduction credit or a FAR of 1.0 for a 5% trip reduction credit.

3. A maximum trip reduction credit of 2.5% is reasonable based on the FAR currently proposed for this project; revise the study accordingly.

Response: As noted above, a transit reduction of 7% has been applied to the site trip generation as indicated in the *Transit Reduction Review Memorandum* from Gilmore & Associates, Inc. and dated November 19, 2014.

Comment #7: *Figures 3 and 4 show additional traffic volumes for the eastbound approach of the Radnor Corporate Center Access which are not shown on the manual turning movement count. Traffic volumes should be verified or justification provided for the additional volumes.*

Response: Will comply. Figures 3 and 4 have been revised to reflect the traffic volumes from the manual turning movement counts.

Comment #8: *A figure should be provided documenting the reassignment of traffic from the center site access to the northern and southern accesses.*

Response: Will comply. This figure has been provided within the revised TIS.

Comment #9: *It appears that some of the trip distribution percentages for the new site are inconsistent with the existing traffic patterns (to/from Matsonford Rd, Lancaster Ave, & I-476 off-ramp). Verify the trip distribution or provide additional justification for the percentages shown on Figures 7A & 7B.*

Response: Upon further review, McMahon has confirmed that the trip distribution and assignment percentages are consistent with existing traffic patterns in the area. McMahon is agreeable to coordinating further with Gilmore & Associates should specific revisions in the distribution be requested.

Comment #10: *We do not support the proposed signalization of King of Prussia Road and the Southern Access Driveway. We recommend that a signalized intersection be provided opposite Raider Road. The southern access driveway is approximately 500 feet from the signalized intersection of Lancaster Avenue and King of Prussia Road. The Synchro analysis provided indicates that the southbound queue on King of Prussia Road will back up through this intersection for several analysis periods and the Applicant is not proposing any improvements to the intersection to alleviate the traffic queues.*

Response: As noted above, and as based on follow-up coordination with Township Staff, it was noted that the Applicant is agreeable to provide a traffic signal at both the King of Prussia Road/Raider Road and King of Prussia Road/Southern Site Access intersections. These two intersections will be coordinated along the King of Prussia Road corridor, as well as the intersection of Lancaster Avenue (Route 30) and King of Prussia Road. Based on the analysis contained in the Transportation Impact Study, this traffic signal configuration will accommodate adequate levels of service and will accommodate anticipated queues along the King of Prussia Road corridor.

Comment #11: *Although a northbound King of Prussia Road right-turn deceleration lane is warranted based on PennDOT guidelines, the applicant has indicated that based on the capacity analyses, acceptable levels of service at the intersection can be achieved without the northbound right-turn lane. We recommend the applicant provide the necessary deceleration lane. The need or absence of a deceleration lane is not entirely dependent on the level of service or capacity of the roadway but provides an area for turning vehicles to slow down after departing from the mainstream traffic.*

Response: The Applicant does not control the required right-of-way necessary for the construction of this additional lane. In addition, providing a right-turn deceleration lane at the Southern Access presents challenges from a constructability perspective and may negatively impact an existing waterway in this area.

Comment #12: *The study indicates that left-turn and right-turn deceleration lanes are warranted along King of Prussia Road the site accesses. The turn lane warrant analyses must be provided for review.*

Response: Will comply. Turn lane warrant analysis worksheets have been provided within the revised TIS.

Comment #13: *It appears that several of the intersections studied require mitigation measures as noted below:*

1. King of Prussia Rd/Radnor-Chester Rd – A second eastbound left-turn lane is necessary for Radnor-Chester Rd.

2. Lancaster Ave/King of Prussia Rd/I-476 Northbound Off Ramp – The development traffic can be mitigated by providing a second right-turn lane southbound on King of Prussia Rd and a second through lane northbound from the off-ramp.

Conceptual plans and cost estimates should be prepared for each of these improvements. We recommend the Applicant and Township staff explore an alternative transportation plan to offset any infeasible mitigation measures identified in the report. Note: Outside of the improvements listed above, no offsite improvements are proposed in connection with this development.

Response: As discussed in follow-up coordination with Township Staff, McMahon will provide preliminary concept plans and cost estimates for the above-referenced improvements in compliance with the SALDO.

Comment #14: *Update Tables 5-15 to provide separate columns for the 2017 design year without development, 2017 design year with development and 2017 design year with development and improvements.*

Response: Will comply. Tables 5-15 have been revised within the revised TIS.

Comment #15: *Update Table 13, Level-of-Service Matrix I-476 NB On-Ramps & U.S. Route 30 to include the level-of-service results for Hillside Circle.*

Response: Will comply. Table 13 have been revised to include the level-of-service results for Hillside Circle within the revised TIS.

Comment #16: *There is an existing coordinated signal system along King of Prussia Road that includes Radnor-Chester Road and Matsonford Road. Any traffic signals proposed along the site frontage should be included in the overall coordinated system. The Applicant should also investigate coordinating the Matson Ford Road/King of Prussia Road signal system with the Lancaster Avenue system.*

Mr. Stephen Norcini, P.E.

January 30, 2015

Page 9

Response: Coordination between any proposed traffic signal and the existing coordinated signal systems along King of Prussia Road and Lancaster Avenue will be explored and provided if feasible. Please note that any signal upgrades are subject to review and approval of PennDOT.

Comment #17: *Due to the proximity of the site to transit lines and bus routes, it should be noted that ADA compliant pedestrian facilities should be provided along the frontage of the site.*

Response: This comment is being addressed by Nave Newell in their Response Letter and revised Land Development submission.

Comment #18: *The roadway labels and cardinal directions of the traffic count provided in Appendix A should be revised for the intersection of King of Prussia Road and Matson Ford Road.*

Response: Will comply. The traffic count for the intersection of King of Prussia Road and Matson Ford Road have been revised.

Comment #19: *Additional comments may be forthcoming pending the resubmission of the Transportation Impact Study.*

Response: So noted.

Please feel free to contact me with any questions at (610) 594-9995 or jwichner@mcmahonassociates.com.

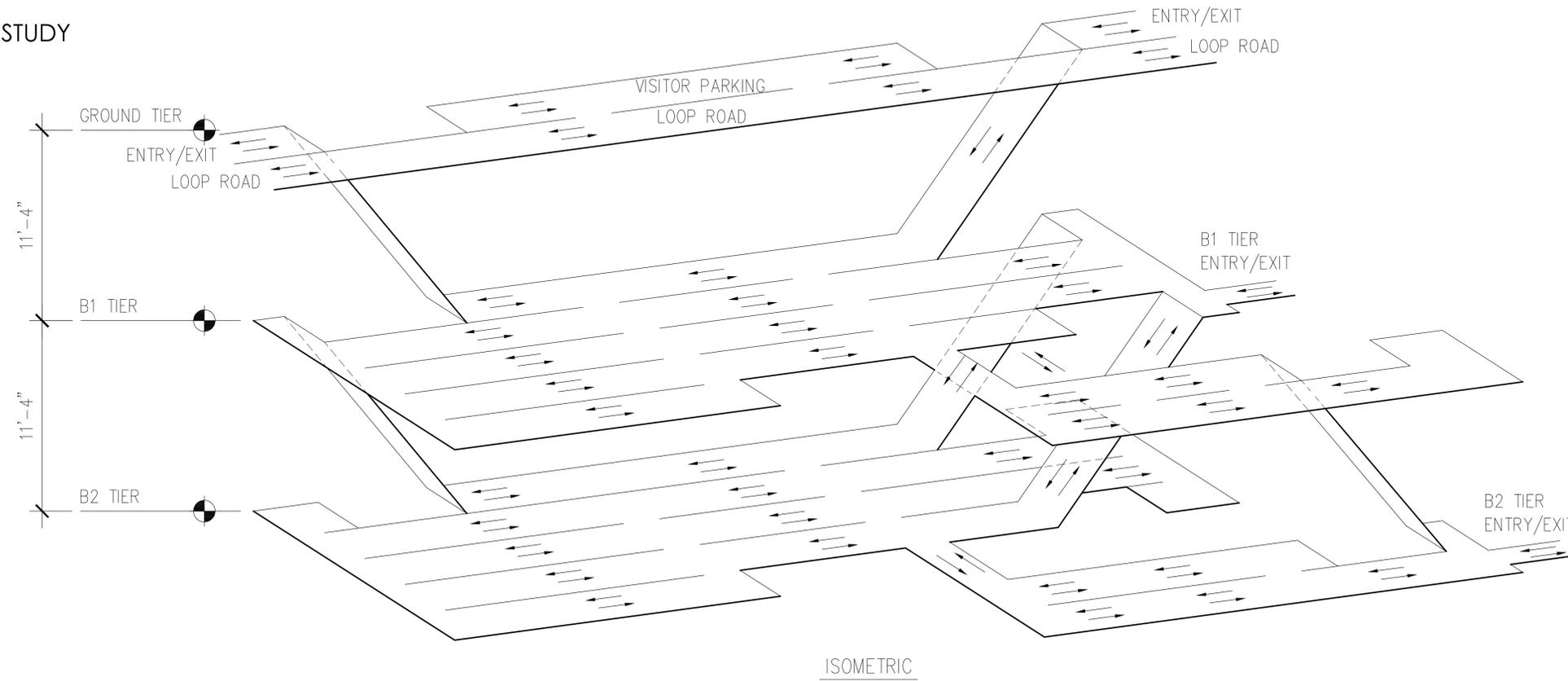
Sincerely,



John R. Wichner, P.E., PTOE
Senior Project Manager

JRW/jdg

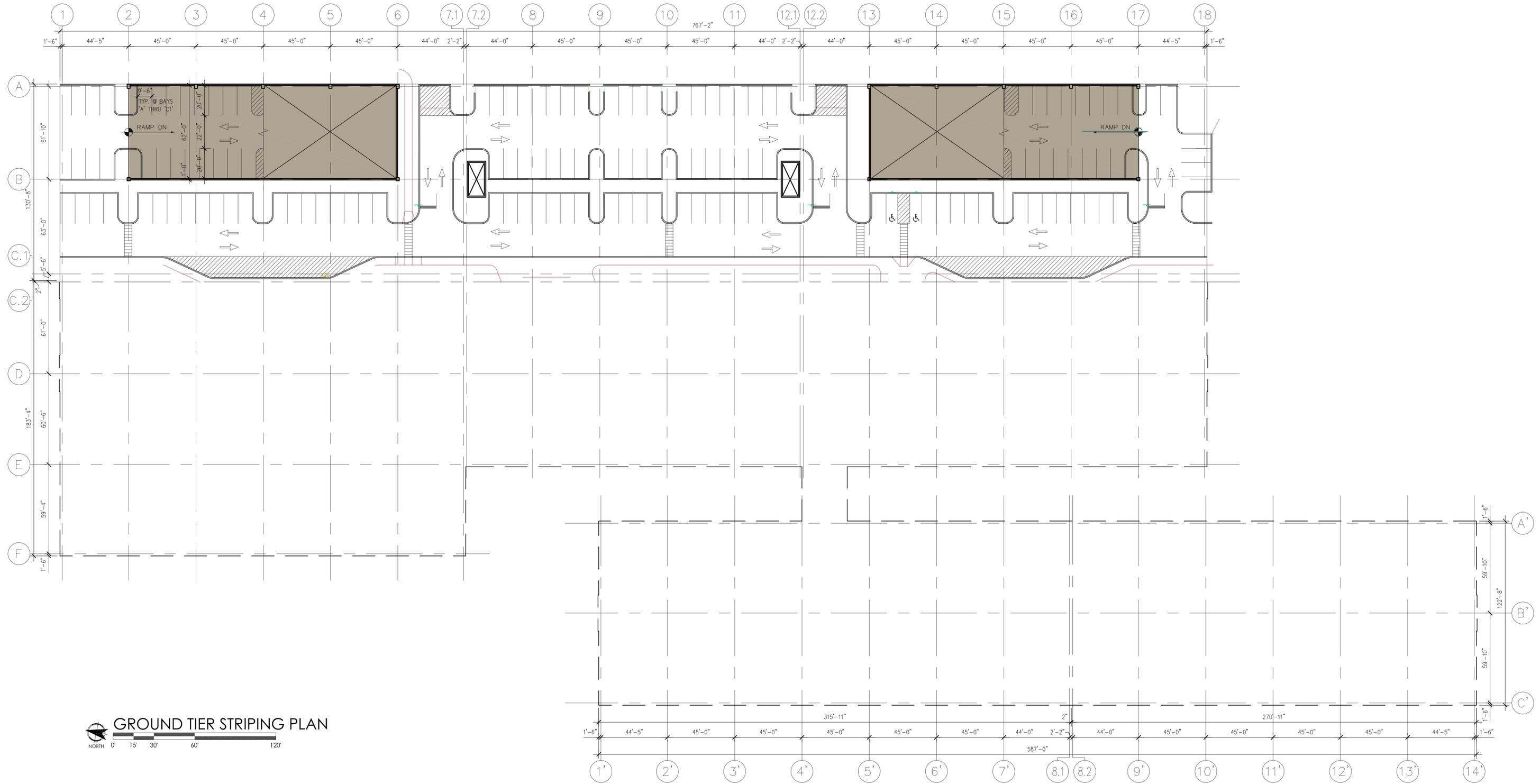
cc: Michael Devine, BioMed Realty
Nicholas Caniglia, Esq.
Alex Tweedie, P.E., Nave Newell

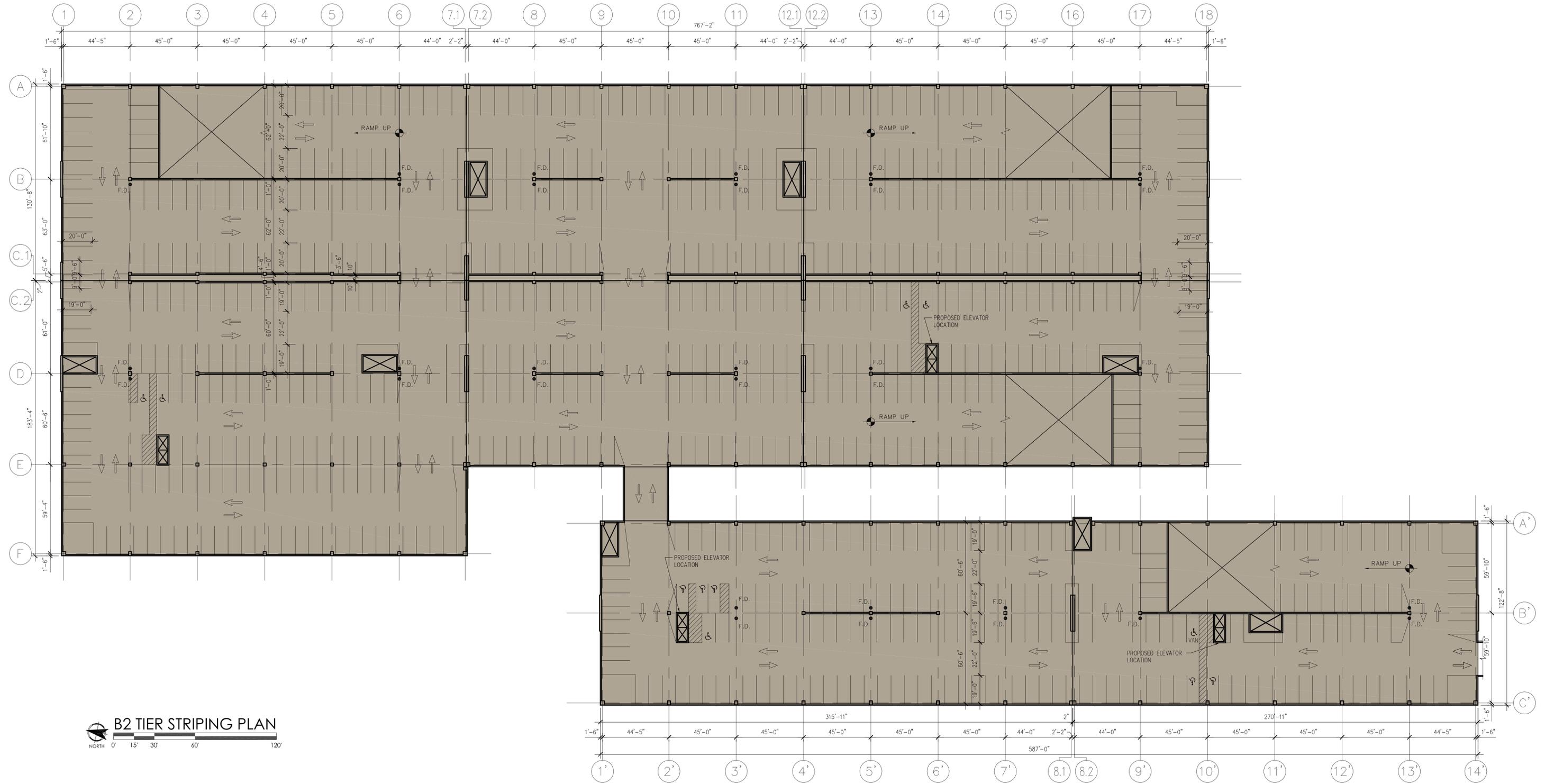


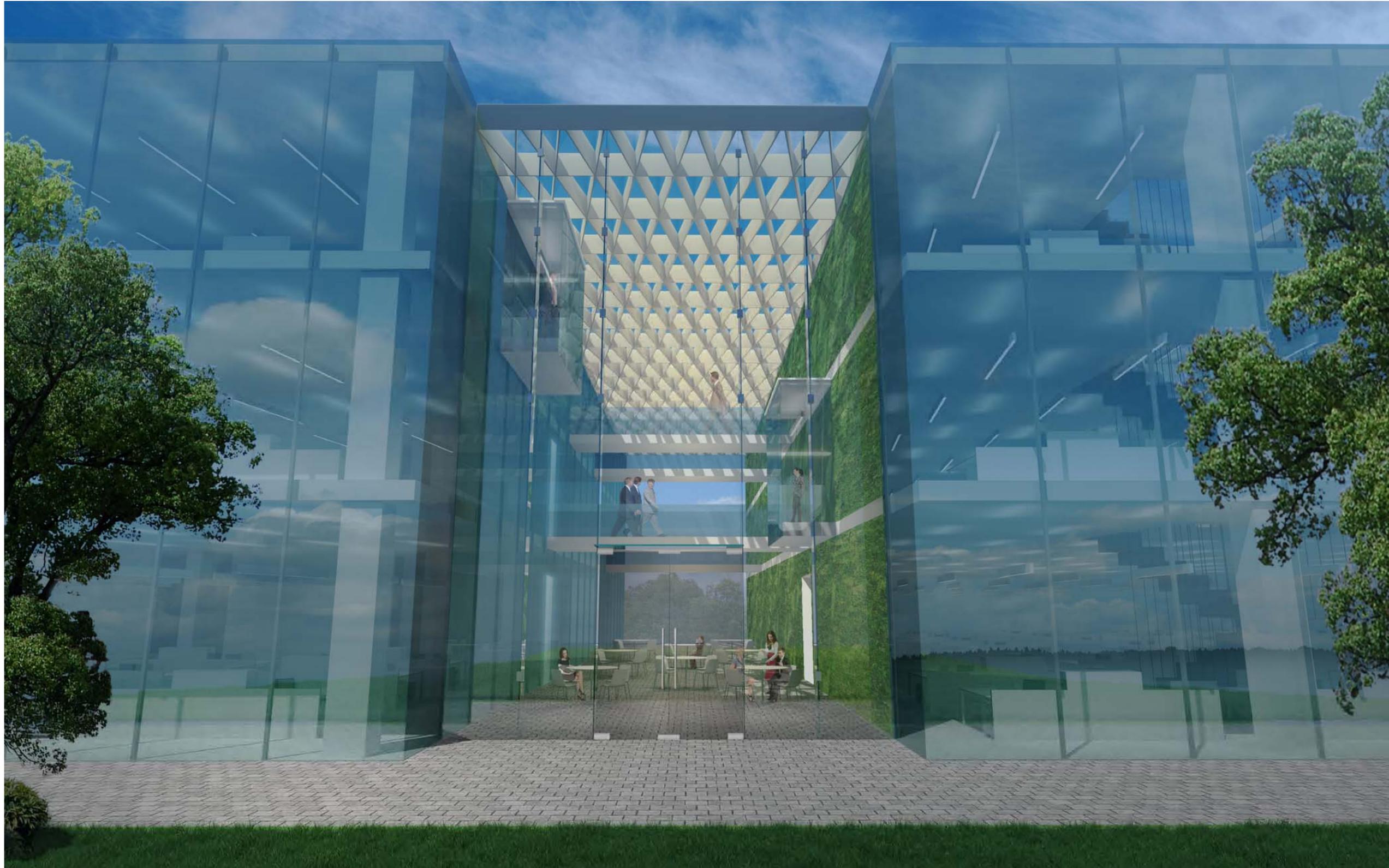
ISOMETRIC

CAR TABULATION – OPTION 1C ONE SUPPORTED TIER				
TIER	STALLS	ACCESSIBLE	VAN ACCESSIBLE	TOTAL
GROUND	32	0	0	32
B1	772	10	5	787
B2	750	11	0	761
SUBTOTAL	1554	21	5	1580
Site	369	8	8	385
TOTAL	1923	29	13	1965
STALLS: 9'-0" x 19'-0"				
STALLS @ SITE, BAYS 'A' THRU 'C' (ALL TIERS) 9'-6" x 20'-0"				

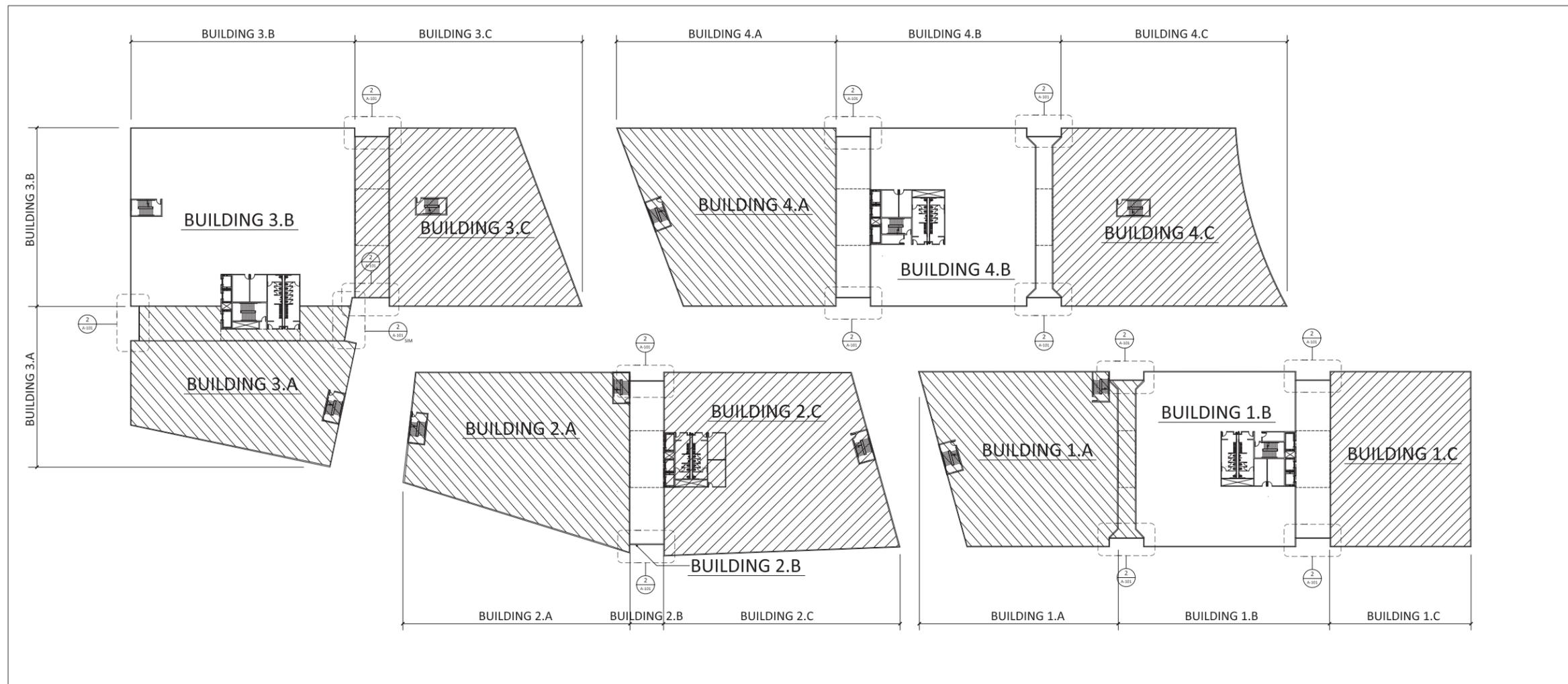
OPTION 1C -ISOMETRIC & CAR TAB
 N.T.S.



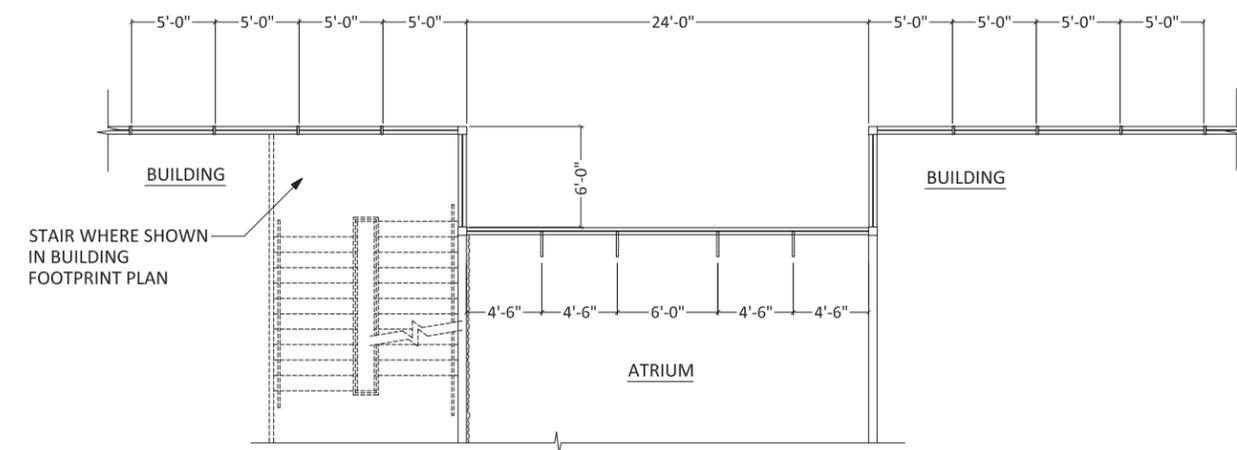




Atrium View



1 BUILDING FOOTPRINT PLAN
 SCALE: NOT TO SCALE



2 TYPICAL NICHE DETAIL
 SCALE: 3/4"=1'-0"

NOT FOR CONSTRUCTION

copyright date: 10.01.15

No.	Date	Description
01	01.30.2015	TOWN

No.	Date	Description
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ARCHITECTURAL
 BUILDING FOOTPRINT
 PLAN

A-101.00

PIERCE, CANIGLIA & TAYLOR

ATTORNEYS AT LAW

125 STRAFFORD AVENUE - SUITE 110

P. O. Box 313

WAYNE, PENNSYLVANIA 19087

JAMES M. PIERCE
NICHOLAS J. CANIGLIA
KENNETH C. TAYLOR

TELEPHONE
(610) 688-2626
FAX
(610) 688-5761

February 4, 2015

Susan Jones
Engineering Department
Township of Radnor
301 Iven Avenue
Wayne, Pa. 19087

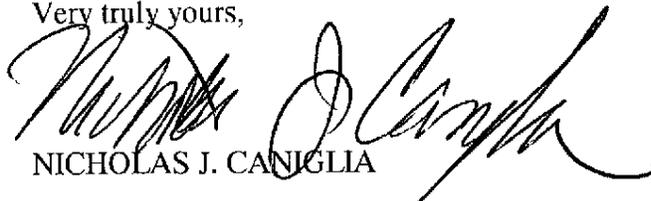
RE: BMR – 145 King of Prussia Road, LP
Number: 2014-D-02
Preliminary Plan

Dear Sue:

As you know I represent the above applicant. This letter grants the Board of Commissioners until February 24, 2015 to act on this Plan.

Thank you for your time and consideration.

Very truly yours,



NICHOLAS J. CANIGLIA

c. John B. Rice, Esquire
Steve Norcini, P.E.
Roger Phillips, P.E.



*Excellence Delivered **As Promised***

Date: January 2, 2015

To: Radnor Township Board of Commissioners

From: Roger Phillips, PE

cc: Robert Zienkowski – Township Manager
Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
John Rice, Esq – Grim, Biehn, and Thatcher
Amy Kaminski, PE – Gilmore and Assoc.
Steve Gabriel - Rettew

RE: 145 King of Prussia Road – Preliminary Land Development Plan
Biomed Realty Trust, Inc. – Applicant

Date Accepted: October 6, 2014

90 Day Review: January 4, 2015 Extended to February 1, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct four office buildings at 550,451 gross square footage and four buildings. This project is located in the PLO district of the Township.

The applicant appeared before the Planning Commission on November 3, 2014. The Planning Commission recommended denial of the plan based on discussion during the meeting.

Plans Prepared By: Nave Newell

Dated: 09/03/2014

I Zoning

1. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 15.6% and the minimum landscape area is 45.1%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code.



2. §280-64.D.(1) – The greatest dimension in length or depth of a building shall not exceed 160 feet, and no more than three buildings may be attached to each other, provided further that the façade of any building attached to another building be visibly offset from the adjoining building at an angle of approximately 90°. The plan shall clearly indicate the break point of buildings, with dimensions, along with the locations of entrances to each specific building being adjoined.
3. §280-103 – The parking requirement table provided on Sheet C-3.1 of the plan is incorrect for Building 4. Building 4 requires 477 spaces, not the 227 shown. The total parking required for the project should be revised to indicate 1,801 spaces required.
4. §280-132.B. – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts.

II Subdivision and Land Development

1. §255-20.A.(3) – Each plan sheet shall be numbered and shall show its relationship to the total number of sheets.
2. §255-43.1.E.(2) – The applicant has indicated on sheet C3.1 that a fee in lieu of \$456,366 will be provided for the Park and Recreation Land Requirement.
3. §255-27.C.(1) – King of Prussia Road is designated as a major collector, required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements.
4. §255-29.A.(13) – Tire bumpers shall be installed as to prevent vehicle overhand on any sidewalk area. There is a section of five parking spaces located behind proposed Building 4 that require tire bumpers since they are against a side walk.
5. §255-29.A.(15) – All dead-end parking areas shall be designated to provide sufficient backup area for the end stalls of a parking area. The parking area behind proposed Building 3 has two spaces that do not provide a sufficient backup area.
6. Sheet C7.1 of the plans indicate that “the design and layout of the underground parking structure facility shown is strictly conceptual. Refer to the plans designed by Tim Haas for finalized layout and structural design specifications.” The referenced plans must be provided for review.

7. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every ten parking spaces in double bay.
8. If the proposed sewer systems are to be dedicated to the Township, a 20 foot easement must be provided.
9. §255-38.B – Sheet C9.1 of the plans indicate that one tree should be planted for every 30 LF of an existing street. The plan indicates that there is 1,250 L.F. along Radnor Chester Road and 592 L.F. of a private Road. This should be revised to indicate King of Prussia Road. The 42 trees required on the plan are for King of Prussia Road, street trees should be provided for the private roadway as well.
10. §255-54.A – The utility plan must indicate water service to each of the proposed buildings.
11. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.
12. §255-56 – The utility plan indicates sanitary sewer service to proposed Building 1 and proposed Building 2. Sanitary sewer service to all buildings must be shown on the plans.

III Stormwater Management

1. §245-22.A.1 Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests.
2. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be submitted and approved prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

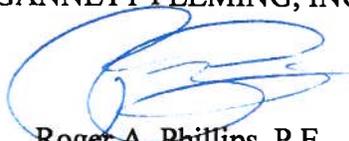
In addition to the above comments, attached and included by reference is a letter from Amy Kaminski, Township Traffic Engineer, Gilmore and Associates. We suggest that consideration of approval be conditioned upon adequately addressing the comments referenced above and in the attached letter.

Gannett Fleming

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

MEMORANDUM

Date: November 19, 2014

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE

Reference: Transit Reduction Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

At the request of Radnor Township, Gilmore & Associates, Inc. (G&A) has completed a review of the memorandum prepared for 145 King of Prussia Road, prepared by McMahon, dated October 21, 2014 regarding the proposed transit reduction to be utilized in the SALDO required traffic impact study for the re-development at 145 King of Prussia Road site, also known as the Bio-Med Site. We offer the following comments for your consideration.

Summary

The memorandum recommended a 15% transit reduction applied to the vehicle trip generation for the proposed 570,000 sf office space at the redevelopment of the Bio-Med site based on information included in the recently published Institute of Transportation Engineers (ITE) *Trip Generation Handbook, 3rd Edition*. However, based on additional information and further research, the 15% transit reduction is not realistic for the proposed site expansion and the reduction should be a limited to a maximum 7% reduction.

The proposed percentage for the transit reduction was determined by the applicant referencing the Institute of Transportation Engineers publication *Trip Generation Handbook, 3rd Edition* Table E.3, which bases its values on the Washington Metropolitan Area Transit Authority (MWATA) for the DC Metro area. While these values may be accurate for the Washington Metropolitan Area, the Radnor area is serviced by Southeastern Pennsylvania Transportation Authority (SEPTA) and there are some considerable differences between the two systems, ridership and roadway congestion. The greatest differences are related to a comparison between passenger ridership and the frequency of trains during peak and off-peak times, at the studied DC locations, compared to the Radnor Stations as indicated in Table 1 *Station Characteristics* as discussed below.

Discussion

The submitted memorandum discussed several Washington DC site locations that were utilized to develop the percent transit reduction as indicated in the ITE *Trip Generation Handbook 3rd Edition* and noted in Table E.3 *Transit Mode Shares at Non-CBD Office TOD*. The Washington DC site

location information was originally obtained from Table S-1 *Final Distribution of Survey Sites by Land Use Type and Station Location* (Source: Washington Metropolitan Area Transit Authority. "WMATA Development-Related Ridership Survey." Washington, DC:WMATA, 2006. The ITE Trip Generation Handbook Table E.3 identifies the sites by Site A-O, while the WMATA Publication references the site specifically by location name in Table S-1. We have modified Table S-1 from the WMATA publication to include the ITE Site naming convention (Site A-O).

Table 1- Station Characteristics		
Variable	Radnor SEPTA Stations	DC Metro
Ridership (PAX: persons/day)	1,240 PAX Paoli/Thorndale Line ¹	12,594 PAX Crystal City Station
	886 PAX Norristown High Speed Line ²	13,057 PAX Silver Spring Station
Peak Hour Frequency of trains (in minutes)	24-28 min Paoli/Thorndale Line	6-12 min Crystal City Station
	8-11 min Norristown High Speed Line	3-10 min Silver Spring Station
Off-Peak Frequency of trains (in minutes)	30 min Paoli/Thorndale Line	6-12 min Crystal City Station
	30 min Norristown High Speed Line	3-10 min Silver Spring Station

PAX= passengers; Site N: Crystal City Station (Blue/Yellow Line); Site K: Silver Spring Station (Red Line)

¹Source

²Source: King of Prussia Rail Purpose and Need Table 1 *NHSL Average Weekday Passenger Load, Draft July 2, 2014*

The land use types identified for most of the WMATA sites (Table S-1 below) indicate that the WMATA stations were located in predominantly mixed-use developments and would be considered a traditional transit-oriented development. From Table S-1, Sites J, G, O, P, and Q are the only sites with homogenous office use; however, ITE Sites P and Q are located within the central business district and should not be included in the comparison with the Bio-Med site as the area types are significantly different. The memorandum specifically references Site N as similar in size and distance from the transit station; however, as indicated in Table S-1, Site N includes only residential land use and should not be considered as a comparative site. Considering the previous discussion, the only remaining sites for comparison discussion are Sites J, G, and O. Table 2 *Comparison of ITE WMATA Sites to Radnor Township Parking* below indicates WMATA sites J and G offer less than half the parking spaces required by Radnor Township Ordinance. WMATA Site O is the only remaining site that could be considered comparative to the BioMed site and WMATA Table S-3 indicates that office Site O has an average transit ridership of 8%.

Table 2: Comparison of ITE WMATA Sites to Radnor Township Parking

Site	Size SF	WMATA Available Parking	Radnor Township Required Parking
J	153,000	280	593
G	784,000	1,159	2,697
O	149,000	503	580

Another consideration is that a comparison of passenger ridership for the DC Metro line is 10+ times greater than the number of passengers utilizing the SEPTA lines. In addition, the DC Metro trains run more frequently than SEPTA trains allowing for a more convenient schedule for patron arrivals and departures on the DC Metro lines. The DC Metro line runs every 12 minutes or less throughout the day (during both the peak and off-peak times) while the SEPTA Paoli/Thorndale Line runs every

24-28 minutes during the peak hour, the Norristown High Speed Line (NHSL) runs 8-11 minutes during the peak hour; and both lines run every 30 minutes during the off-peak time. Obviously, a shorter headway (more frequent trains) could influence more patrons into utilizing transit over vehicular driving.

**WMATA Table S-1
Final Distribution of Survey Sites by Land Use Type and Station Location**

Station Area	ITE SITE	Classification ¹	Office	Residence	Retail	Hotel	Enter.	Total
Ballston		I	2	2	1	1	1	7
Court House	ML	I	2	2	--	--	--	4
Crystal City	AD	I	2	2	2	2	--	8
Dunn-Loring	NH	O	--	1	--	--	--	1
Eisenhower Avenue		I	--	--	--	--	1	1
Farragut West	PQ	C	2	--	--	--	--	2
Friendship Heights	BF	I	2	2	--	1	--	5
Gallery Place		C	--	2	--	--	--	2
Grosvenor		O	--	4	--	--	--	4
King Street	JG	I	2	--	--	--	--	2
New Carrollton	O	O	1	--	--	--	--	1
Silver Spring	EKC	I	3	2	1	1	2	9
U Street/African-Amer Civil War Memorial/Cardozo	U	I	1	1	1	--	--	4
Total			17	18	5	5	4	49

¹ C = CBD; I=Inside Beltway; O=Outside Beltway

Source: Washington Metropolitan Area Transit Authority. "WMATA Development-Related Ridership Survey." Washington, DC:WMATA, 2006

**WMATA Table S-3
Office Commute and Residential Mode Share
by Concentric Location Typology**

Mode Share	CBD	Inside the Beltway	Outside the Beltway
Office Site Commute			
Metro rail	63%	21%	8%
Metrobus & Other Transit	12%	9%	3%
Auto	21%	66%	89%
Walk & Other	5%	6%	0%
Residential Sites			
Metro rail	50%	43%	31%
Metrobus & Other Transit	6%	6%	1%
Auto	18%	39%	62%
Walk & Other	26%	14%	6%

**WMATA Table 2
Characteristics of Surveyed Office Sites**

Office Site	ITE SITE	Number of Surveys Distributed	Distance from Station (feet)	Square Footage (1,000s)	Occupancy Rate (%)	Parking Spaces	Estimated Response Rate (%)	Number of Interviews
Ballston Station Area								
3 Ballston Plaza	M L	932	2,000	303	87	753	15	10
Ballston One		267	1,900	230	--	450	5	N/A
Court House Station Area								
2100-2200 Clarendon Blvd.	A D	850	0	584	--	1681 ⁴	47	61
Courthouse Tower		500	450	165 ²	--	430	4	15
Crystal City Station Area								
Crystal Park IV	N H	1227	2,600 ¹	484	89	1,122	6	35
Crystal Square 2		851	850	412	--	1,899 ²	15	60
Farragut West Station Area								
1634 I Street	P Q	138	0	69	100	0	51	53
1701 Pennsylvania Avenue		275	1,000	190	90	N/A ⁶	32	18
Friendship Heights Station Area								
2 Wisconsin Circle	B F	800	100	235	90	301	11	32
Chevy Chase Plaza		400	700	163	--	225	6	N/A
King Street Station Area								
333 John Carlyle	J G	250	1,400	153	95	280	17	N/A
King Street Station		250	700	784	75	1,159	13	N/A
New Carrollton Station Area								
8400 Corporate Drive	O	550	3,000	149	--	503	7	17
Silver Spring Station Area								
8380 Colesville Road	E K C	228	600	74	93	400	26	51
8720 Georgia Avenue		400	1,600	87	--	129	19	36
Metro Plaza 1		364	200	619	90	442	7	5
U Street/African American Civil War Memorial/Cardozo Station Area								
Reeves Center	U	1550	950	512 ³	--	255	7	106

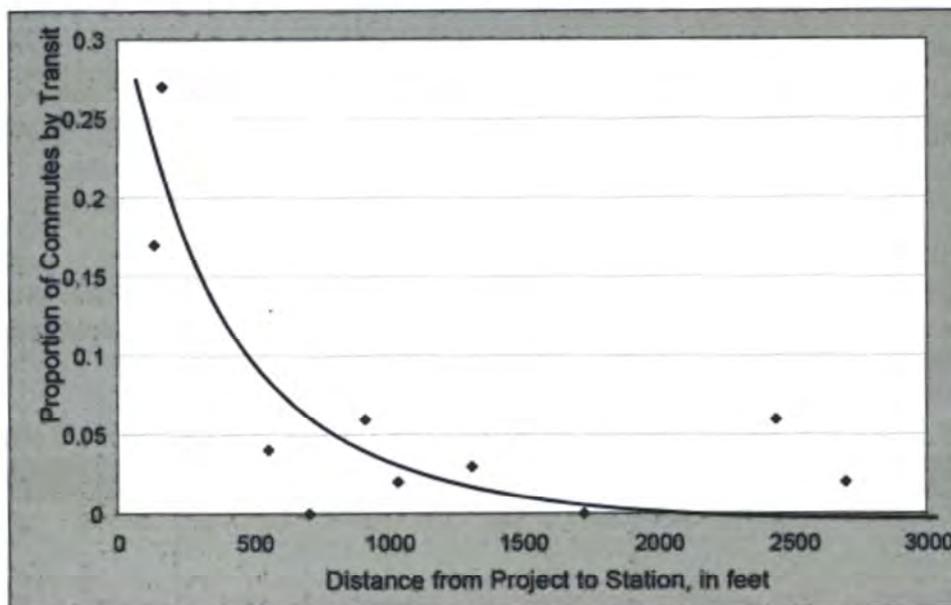
- Notes: ¹ Distance was measured via an indoor route, in this case, via underground corridors. The walking distance may be less if measured partially outdoor.
² This figure does not include 84,000 square feet occupied by one tenant that did not participate in the survey. Total square footage for Court House Tower is 249,000.
³ Includes first floor lobby.
⁴ Parking for the 2100-2200 Clarendon Blvd. is shared with other Court House Plaza users and includes 197 spaces for 2200 Clarendon.
⁵ Parking for Crystal Square 2 is shared with other buildings in Crystal Square.
⁶ Only valet parking is available, and cars valet parked are stacked.
"--": Unknown or unavailable; NA: Not Applicable.

Source: Washington Metropolitan Area Transit Authority. "WMATA Development-Related Ridership Survey." Washington, DC:WMATA, 2006

As discussed in ITE Trip Generation Handbook Section 8.4.2, the national database of person trips by mode for the Transit Friendly Development (TFD) is limited. Therefore, the preferred method for estimating a transit mode share for external trips at a TFD would be through development of surveys at proxy sites. In this case and by analyzing existing data supplied by the applicant, in 2012 the applicant prepared a survey at the existing site for patrons walking from the NHSL to and from the BioMed Facility and limited information was provided for comparison purposes.

The Radnor station for the Thorndale/Paoli line and the NHSL line are located approximately 550 feet and 1,600 feet, respectively, from the existing BioMed site. Based on Figure E1 from the ITE Trip Generation Handbook, 3rd Edition, the data points indicate the transit shared use is less than 7.5% for sites located 500 to 1,750 feet from the transit station.

Figure E.1 Transit Share as a Function of Distance of Office Site to Nearest Station



Source: Data in plots are from: Lund, H., R. Cervero, and R. Willson. *Travel Characteristics of Transit-Oriented Development in California*, California State Polytechnic University, University of California at Berkeley, 2004, p. 101.

From Figure E.1, ITE Trip Generation Handbook, 3rd Edition, August, 2014.

Based on the 2012 survey information provided in the memorandum, two (2) transit riders of the 86 total passengers alighting from the NHSL were observed walking from the station to the existing BioMed site during the AM peak hour. During the PM peak hour, six (6) of the 102 boarding passengers originated from the existing BioMed site. Information for the Paoli/Thorndale Line Station was not provided as a part of the original 2012 study; however, it was assumed the transit trips from BioMed to the Paoli/Thorndale Line Station would be directly proportional to the SEPTA NHSL. Assuming the Norristown and Paoli/Thorndale transit lines were statistically similar, the existing data presented by the applicant would indicate the BioMed transit trips are between 2% and 6% for the AM and PM peak hour respectively. These percentages are well within the range as indicated in Figure E1.

The existing percentages presented in Tables 3A and 3B below indicate the transit trip percent reduction that should be applied to the future site trips are appropriate based on the characteristics of the existing site. Table 4 below represents the existing site traffic percentage utilizing the Transit and this same percentage can be applied as a transit reduction for the future site traffic.

In addition, a 15% transit reduction was also examined. As shown in Table 5, the 15% Transit use was applied to the existing trips to compare the actual trips. The result indicate the estimated trips using the 15% are approximate 471% and 254% higher than the actual SEPTA trips during the AM and PM peak hour respectively. The BioMed future Transit passengers current represent approximately 3.5% and 6.8% of the total traffic at the two stations. In the future, the BioMed transit passenger percentage will represent 25% and 27% of the total passengers at the two studied Radnor Stations if the 15% transit usage is used during the AM and PM peak hour.

Based on these findings, the 15% transit reduction is too high and does not adequately represent the characteristics for the BioMed site. The existing transit percentages should be used to best represent the anticipated transit reduction for the BioMED Site and the maximum percent transit reduction should be based on the 2012 local data value of 7%.

Table 3A AM Peak Hour Passenger Comparison							
AM Peak Hour	Site Size	Norristown High Speed Line			Paoli/Thorndale*		
		Boarding	Alighting	Total	Boarding	Alighting	Total
Existing SEPTA Passengers (total)		12	86	96	166	111	227
Existing SEPTA Passengers for BioMed Site	249,876 (SF)		2	2		5	5
Percent of BioMed SEPTA Ridership @ Radnor Stations			2.3%	2.1%		4.5%	2.2%
Future BioMED SEPTA Trips based on Square Proportion	570,000 (SF)		5			11	
Projected New SEPTA Trips			3			6	

*Assumes Paoli/Thorndale Line passengers using the BioMed site are proportionally similar to passengers at Norristown High Speed Line.

Table 3B PM Peak Hour Passenger Comparison							
PM Peak Hour	Site Size	Norristown High Speed Line			Paoli/Thorndale*		
		Boarding	Alighting	Total	Boarding	Alighting	Total
Existing TOTAL Ridership	N.A.	74	28	102	143	76	219
Existing BioMed Site	249,876 (SF)	6		6	13		13
Percent of SEPTA Ridership @ Radnor	N.A.	8.1%		5.9%	9.1%		5.9%
Future BioMED SEPTA Trips based on Square Proportion	570,000 (SF)	14			30		
Projected New SEPTA Riders		8			17		

*Assumes Paoli/Thorndale Line passengers using the BioMed site are proportionally similar to passengers at Norristown High Speed Line.

Table 4 Future Vehicle Trips with Transit Reduction based on existing data							
	Site Size	AM PEAK HOUR			PM PEAK OUR		
PM Peak Hour		Alighting	Boarding	Total	Alighting	Boarding	Total
Existing Vehicle Trips	N.A.	184	8	192	18	169	187
Existing W/SEPTA Passengers to/from Bio Med	249,876 (SF)	7		7		13	13
Existing Site Trips (Vehicles+ Peds)		191	8	199	23	169	192
Percent of Site Trips using SEPTA		3.7%	0.0%	3.5%	0.0%	7.7%	6.8%
Total Trip Generation Based on Memorandum		678	62	770	122	595	717
Total SEPTA Trips using existing percentage	570,000 (SF)	25	0	25	0	46	46
Total Proposed Site trips with TFD¹ reduction		654	62	746	122	552	674

¹TFD=Transit Friendly Development as indicated in ITE; this is commonly referred to as a Transit Oriented Development (TOD)



MEMORANDUM

Date: September 29, 2014

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE
Michael Shinton, P.E.

Reference: Land Development Transportation Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the Transportation Impact Study (TIS) prepared by McMahon Associates Inc., dated August 2014, and Preliminary Land Development Plans prepared by Nave Newell, Inc., dated September 3, 2014, submitted to Radnor Township on September 3, 2014.

I. Project Overview:

Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 570,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. Submission

- A. Transportation Impact Study, prepared by McMahon Associates, Inc., dated August 2014.
- B. Preliminary Land Development Plans, prepared by Nave Newell, Inc., dated September 3, 2014.

III. Identified Improvements

- A. The applicant intends to eliminate the existing driveway access to King of Prussia Road, opposite the Radnor High School access (Raider Road).
- B. The applicant proposes the following improvements at King of Prussia Road and Southern Site Access:
 - 1. One ingress lane and two egress lanes
 - 2. Install a traffic signal, which is warranted during the weekday afternoon peak hour. This traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
 - 3. Provide a minimum 45-foot curb radii, or larger if necessary for anticipated truck traffic.
- C. The applicant proposes the following improvements at King of Prussia Road and SEPTA Access/Northern Site Access
 - 1. Provide one ingress lane and two egress lanes. A northbound King of Prussia Road right-turn deceleration lane is warranted based on PennDOT guidelines.
 - 2. A southbound King of Prussia Road left-turn lane is warranted based on PennDOT guidelines.
- D. The applicant proposes a four-lane cross section along the property's site frontage on King of Prussia Road (between the southern site access and the shared SEPTA/Site Access).
- E. No offsite improvements are proposed in conjunction with this project.

IV. SALDO Comments

- A. §255-27.G – Provide profiles for each street and intersection to verify that adequate street grades are achievable.
- B. §255-27.C(1) – Include sidewalks along the site frontage for King of Prussia Road.
- C. §255-27.H – No street shall intersect another at an angle of less than 70 degrees. Revise the intersection of the SEPTA access and Site Access to intersect as nearly as possible to 90 degrees.
- D. §255-28.B – Provide clear sight distance triangles for the intersections of the Southern Access Road and the underground tunnel accesses.
- E. §255-29.A.16 – Provide sidewalk connections, with appropriate ADA elements, at each raised pedestrian crosswalk. The plans should include details for the proposed raised pedestrian crosswalks.
- F. §255-37.D – Revise the diagonal curb ramp at the southeast corner of proposed Building 4 to provide two separate curb ramps for each crossing direction. Diagonal curb ramps for new construction are not acceptable.

V. Plan Review

- A. We do not support the proposed traffic signal at the intersection of King of Prussia Road and the southern access as it is located less than 500' from Lancaster Avenue and provides no benefit except to the site traffic. We recommend the applicant improve the existing access opposite Raider Road and signalize this intersection as it provides a benefit to motorists on Raider Road and is located greater than 500' from the traffic signal at Lancaster Avenue and King of Prussia Road.
- B. The Applicant should coordinate with the Township to determine if any of the recommendations from the Radnor Greenways & Open Space Network Plan should be incorporated into this project. We note that the plan currently proposes a multi-use trail along the King of Prussia Road frontage.
- C. The heavy duty pavement section should be extended to each proposed dumpster pad and loading zone.
- D. Construction plans, showing spot elevations, dimensions and slopes, shall be provided for each proposed curb ramp.
- E. An ADA compliant curb ramp should be provided on the northeast corner of the intersection of King of Prussia Road and the SEPTA/Northern Site Access.
- F. A crosswalk should be provided across the southbound approach of King of Prussia Road at the SEPTA/Northern Site Access.
- G. Provide truck turning templates for a garbage truck, fire truck and the largest truck anticipated to service the site.
- H. Provide R3-8 series lane use control signs in lieu of the R3-7 series signs.
- I. Submit a traffic signal construction plan for any proposed traffic signals. A revised system plan for Lancaster Avenue must also be submitted for review.

VI. Transportation Impact Study Review

- A. §255-20.b(5)(d)[4] – This section requires the vehicular trip generation rates to be calculated utilizing SALDO Attachment 4, Township of Radnor Trip Generation Rates. The Applicant has utilized the Institute of Transportation Engineers Trip Generation Version 9 rates which we believe are more appropriate in this case. We support a waiver of this requirement.
- B. The background regional traffic growth factor of 1.0% utilized in the report should be revised to the most recent PennDOT Bureau of Planning and Research rate. The inclusion of additional background traffic growth can skew the results of the analysis. Any nearby development should be identified individually by location and vehicular trip generation. A separate figure should be provided for each nearby development showing the trip distribution on the roadway network.
- C. The TIS should be revised to include the background traffic from the Villanova Commons Shopping Center on Lancaster Avenue. Contact the township to obtain trip generation data for this project.
- D. The trip generation for the existing vacant office space in Table 3 must be revised to include a transit reduction as these trips were calculated using the ITE Trip Generation Manual.

- E. The trip generation for the existing site with full utilization in Table 4 must be revised to include a transit reduction as these trips were calculated using the ITE Trip Generation Manual.
- F. Reduction of Trip Generation data for Transit Ridership:
 - 1. The Applicant is claiming a transit reduction of 15 percent due to the proximity of the Radnor Regional Rail Station (1/2 mile), Radnor High Speed Line Station (adjacent to site) and SEPTA bus service on Lancaster Avenue.
 - 2. In accordance with the information provided in Table B.3 of the ITE publication *Trip Generation Handbook*, this project's Floor Area Ratio (FAR) of 0.48 does not meet the required development intensity to utilize a fifteen (15) percent transit reduction. Table B.3 requires a FAR of 2.0 for a 15% trip reduction credit or a FAR of 1.0 for a 5% trip reduction credit.
 - 3. A maximum trip reduction credit of 2.5% is reasonable based on the FAR currently proposed for this project; revise the study accordingly.
- G. Figures 3 and 4 show additional traffic volumes for the eastbound approach of the Radnor Corporate Center Access which are not shown on the manual turning movement count. Traffic volumes should be verified or justification provided for the additional volumes.
- H. A figure should be provided documenting the reassignment of traffic from the center site access to the northern and southern accesses.
- I. It appears that some of the trip distribution percentages for the new site are inconsistent with the existing traffic patterns (to/from Matsonford Rd, Lancaster Ave, & I-476 off-ramp). Verify the trip distribution or provide additional justification for the percentages shown on Figures 7A & 7B.
- J. We do not support the proposed signalization of King of Prussia Road and the Southern Access Driveway. We recommend that a signalized intersection be provided opposite Raider Road. The southern access driveway is approximately 500 feet from the signalized intersection of Lancaster Avenue and King of Prussia Road. The Synchro analysis provided indicates that the southbound queue on King of Prussia Road will back up through this intersection for several analysis periods and the Applicant is not proposing any improvements to the intersection to alleviate the traffic queues.
- K. Although a northbound King of Prussia Road right-turn deceleration lane is warranted based on PennDOT guidelines, the applicant has indicated that based on the capacity analyses, acceptable levels of service at the intersection can be achieved without the northbound right-turn lane. We recommend the applicant provide the necessary deceleration lane. The need or absence of a deceleration lane is not entirely dependent on the level of service or capacity of the roadway but provides an area for turning vehicles to slow down after departing from the mainstream traffic.
- L. The study indicates that left-turn and right-turn deceleration lanes are warranted along King of Prussia Road the site accesses. The turn lane warrant analyses must be provided for review.

M. It appears that several of the intersections studied require mitigation measures as noted below:

1. **King of Prussia Rd/Radnor-Chester Rd** – A second eastbound left-turn lane is necessary for Radnor-Chester Rd.
2. **Lancaster Ave/King of Prussia Rd/I-476 Northbound Off Ramp** – The development traffic can be mitigated by providing a second right-turn lane southbound on King of Prussia Rd and a second through lane northbound from the off-ramp.

Conceptual plans and cost estimates should be prepared for each of these improvements. We recommend the Applicant and Township staff explore an alternative transportation plan to offset any infeasible mitigation measures identified in the report. Note: Outside of the improvements listed above, no offsite improvements are proposed in connection with this development.

- N. Update Tables 5-15 to provide separate columns for the 2017 design year without development, 2017 design year with development and 2017 design year with development and improvements.
- O. Update Table 13, Level-of-Service Matrix I-476 NB On-Ramps & U.S. Route 30 to include the level-of-service results for Hillside Circle.
- P. There is an existing coordinated signal system along King of Prussia Road that includes Radnor-Chester Road and Matsonford Road. Any traffic signals proposed along the site frontage should be included in the overall coordinated system. The Applicant should also investigate coordinating the Matson Ford Road/King of Prussia Road signal system with the Lancaster Avenue system.
- Q. Due to the proximity of the site to transit lines and bus routes, it should be noted that ADA compliant pedestrian facilities should be provided along the frontage of the site.
- R. The roadway labels and cardinal directions of the traffic count provided in Appendix A should be revised for the intersection of King of Prussia Road and Matson Ford Road.
- S. Additional comments may be forthcoming pending the resubmission of the Transportation Impact Study.

December 10, 2014

BioMed
145 King of Prussia Road
Land Development #2014-D-02

I hereby grant on behalf of the applicant Bio Med Realty an extension of time until February 1, 2015 within which the Township has to make a decision under section 508 of the MPC on my plan.

12/10/14

Richard J. Conklin



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

December 10, 2014

Ms. Maria Goman
Nave Newell
900 West Valley Road, Suite 1100
Wayne, PA 19087

Re: Planning Waiver
145 King of Prussia Road
DEP Code No. 1-23013-241-X
Radnor Township
Delaware County

Dear Ms. Goman:

This letter is in reference to your application for Sewage Facilities Planning Modules for the demolition of all existing buildings on the current Biomed site and their replacement with 4 new office buildings that will total of 551,000 ft². The project is located at 145 King of Prussia Road in Radnor Township, Delaware County.

The gravity sewerage facilities within the office complex will be shared among the 4 buildings and the complex will remain under single ownership.

This project does not meet the definition of a subdivision under the Pennsylvania Sewage Facilities Act. Therefore, no planning modules are required to be submitted to the Department of Environmental Protection (DEP).

This determination is based upon the submitted water records and documentation that the sewage flows from the proposed office buildings will not exceed 55,100 gpd, which is less than the 86,777 gpd average daily flow the site generated from January 2001 to December 2013.

If you have any questions or concerns, please contact Ms. Stefanie Rittenhouse at 484.250.5186.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Dudley". The signature is fluid and cursive, with a long horizontal stroke at the end.

Keith Dudley, P.E.
Environmental Engineer Manager
Municipal Planning and Finance Section
Clean Water

cc: Delaware County Planning Department
Delaware County Conservation District
BMR-145 King of Prussia Road, LP
Mr. Zienkowski - Radnor Township
RHM
Mr. Fulton - Springfield Township
Upper Darby Township
DCJA
DELCORA
Mr. Ponert - City of Philadelphia Water Department
Planning Section
Re 30 (GJE14CLW)344-24

Marc B. Kaplin
Direct Dial: (610) 941-2666
Direct Fax: (610) 684-2000
Email: mkaplin@kaplaw.com
www.kaplaw.com

November 21, 2014

VIA E-MAIL

Elaine P. Schaefer, President
Board of Commissioners of Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

Re: Biomed Property

Dear Ms. Schaefer:

I understand that Biomed's Preliminary Land Development Plans dated September 3, 2014 ("Biomed Plans") are on the agenda for Monday's Board of Commissioners meeting for caucus. As I am sure you know, both the Delaware County Planning Commission and the Township Planning Commission recommended rejection of the Biomed Plans based upon their failure to comply with requirements of both the Zoning Ordinance and the Subdivision and Land Development Ordinance ("SALDO"). Township consultant review letters have also raised significant issues with the Biomed Plans, including various instances of violations of applicable ordinances.

Brandywine Realty has asked its planners to review the Biomed Plans for compliance with applicable ordinances. Based on numerous zoning deficiencies, Brandywine did not find it necessary to analyze the Biomed Plans for compliance with the SALDO¹. This letter summarizes some of the areas of non-compliance with the Zoning Ordinance.

A. Maximum Building Length

Code § 280-64.D of the Zoning Ordinance governs the maximum length of buildings in PLO District and provides that:

¹ A stormwater management ordinance review has not been undertaken either. It is noted, however, that infiltration tests on the site have not been completed or submitted, so it is unknown whether it is feasible to provide the required stormwater management facilities. *Township Engineer's September 29, 2014 review; comment III.1.*

D. Building size and spacing.

(1) The greatest dimension in length or depth of a building shall not exceed 160 feet, and no more than three buildings may be attached to each other, provided further that the facade of any building attached to another building be visibly offset from the adjoining building at an angle of approximately 90° one building façade from another.

The Biomed Plans depict four buildings, each of which substantially exceeds 160 feet in length. In each building there is a barely perceptible “notch” which Biomed asserts visibly offsets by 90 degrees other parts of the building. At the November 3, 2014 Radnor Township Planning Commission meeting, Biomed also asserted that the use of “firewalls” with several openings would convert each of the four buildings shown on the Biomed Plans into three separate, attached buildings for a total of 12 buildings on the site. Biomed contends that each of the allegedly separate, attached buildings would not exceed 160 feet in length and would comply with Code § 280-64.D. However, the plans contradict Biomed’s statement that there are 12 separate buildings, in that:

1. The Biomed Plans show four proposed buildings; and
2. The required parking calculations shown on the Biomed Plans are based on four proposed buildings.

The only exception to the 160 feet building length requirement of Code § 280-64.D(1) is when there are up to three attached buildings whose facades are visibly off set from the adjoining building(s) by approximately 90 degrees.

Assuming for the sake of argument that each of the four buildings are somehow three attached buildings (which they are not), they do not qualify for the limited exception to the 160 feet building length rule of Code § 280-64.D(1) for several reasons. First, Code § 280-64.D(1) requires that the building façade be visibly offset from the adjoining building by approximately 90 degrees. The facades of each of the allegedly separate buildings are not offset by 90 degrees. In fact, in almost all cases (with the exception of one smaller portion of proposed building 3), the facades of the allegedly separate buildings are not offset at all.

Second, based on Biomed’s description of the alleged 12 buildings, they would not fall within the Zoning Ordinance’s definition of an “attached building”, which is required by Code § 280-64.D(1). The Zoning Ordinance defines an “attached building” as:

A building in a group of more than two buildings wherein there are two or more *party walls* in common with the adjoining buildings, provided that there are no more than eight such buildings in a group.

Code § 280-4.B. (emphasis added).

The Zoning Ordinance does not define the term “party wall”. The definition of “party wall” is found in the 2009 International Building Code (“IBC 2009”) that governs design and construction of the buildings on the Biomed site. IBC 2009 section 702 defines a “party wall” as:

Any wall located on a lot line between adjacent buildings, which is used or adapted for joint service between two buildings, shall be constructed as a fire wall in accordance with Section 706. **Party walls shall be constructed without openings and shall create separate buildings.**

(emphasis added).

In order to be considered as “party walls”, there can be no openings in the walls. Biomed has stated that there will be doors and other openings between the allegedly separate buildings into a common atrium. Therefore, the buildings are not separate, attached buildings. Rather they are four very large buildings that violate the 160 feet length limit of Code § 280-64.D(1). **Since the Biomed Plans violate Code § 280-64.D, they must be denied.**

The maximum length of the building is one of the primary drivers of the amount of square footage depicted on the Biomed Plans. Since the buildings depicted on the Biomed Plans are not smaller “attached buildings” that comply with Code § 280-64.D, they exceed the maximum 160 foot building length limitations of the Zoning Ordinance. In order to be brought into compliance, the size of the buildings would have to be drastically reduced, and the amount of square footage able to be developed on the Biomed Property would be substantially less than that depicted on the Biomed Plans².

B. Parking

1. Number of Required Spaces.

Code § 280-103(11) requires that office buildings be parked at a rate of one space for each 200 square feet of floor area for the first 50,000 square feet, plus one space for each 300 square feet of floor area over 50,000 square feet. As depicted on the Biomed Plans, Biomed has calculated parking requirements for each of the four office buildings separately. Therefore, the Biomed Plans show that one space is required per 200 square feet of the first 50,000 square feet of each of the four proposed office buildings; and that one space is required for each 300 square feet of space over 50,000 s.f. in each building.

Although Biomed has submitted no plans for a 12-building layout, if the 550,451 square feet of proposed building space depicted on the Biomed Plans are divided equally into 12 buildings (rather than the 4 larger buildings shown on the current plans), it would equate to approximately 45,871 square feet per building. Under the definition of floor area of Code § 280-4.B, each building would be deemed to have a floor area of 80% of the area. Thus, each building would be deemed to have a floor area of approximately 36,697 s.f., so that each office building would require 184 parking spaces for a total of 2,208 parking spaces. The Biomed

² Code § 280-64.D(2) requires a 45 feet building separation distance, which would impact any redevelopment.

Plans claim and show 1,914 proposed parking spaces, resulting in a deficit of 294 parking spaces. **Since the Biomed Plans fail to provide the required parking, in violation of Code § 280-103(11), they must be denied.**

In addition to the fact that the Biomed Plans do not provide the Code required parking for 12 separate buildings, the Biomed Plan also notes:

THE DESIGN AND LAYOUT OF EACH LEVEL OF THE UNDERGROUND PARKING FACILITIES SHOWN HEREON IS STRICTLY CONCEPTUAL. REFER TO THE PLANS DESIGNED BY TIM HAAHS FOR FINALIZED LAYOUT AND STRUCTURAL DESIGN SPECIFICATIONS.

Biomed Plans; Sheet C7.1.³(emphasis added).

The Biomed Plans do not show an actual Code compliant parking design⁴. The Township cannot approve a “conceptual” parking plan. **Since it is incumbent upon Biomed as the applicant to demonstrate that its plan satisfies Code parking requirements, the Biomed Plans must be denied.**

2. Parking Structures Not Permitted.

Another critical issue with regard to parking is the ability to provide parking within a structure. Code § 280-63.C(5), governing accessory uses permitted in the PLO District, allows a parking structure “when constructed as an accessory structure *for the purpose of eliminating allowable surface parking.*” (*emphasis added*).

The vast majority of the proposed parking is located in the proposed sub-surface parking structure (i.e. 1,461 of the 1,914 parking spaces). The 1,461 parking spaces within the proposed parking structure cannot be constructed on the surface in conformity with the Zoning Ordinance’s requirements⁵. For example, the 453 surface parking spaces shown on the Biomed Plans are already at the limits of the permissible parking setbacks; and the landscape area shown is only 45.1% where 45% is required. *Code § § 280-64.B & C.* Therefore, the proposed sub-surface parking structure is not a permitted accessory use on the Biomed Property. **Since the proposed parking structure is not a permitted use, the Biomed Plan must be denied.**

The number of parking spaces required to be provided, and the location of those parking spaces, are also critical drivers of the amount of square footage permitted to be developed on the Biomed Property. If Biomed cannot provide the required parking as “allowable” surface

³ Despite a request in the Township Engineer’s September 29, 2014 review, the Tim Haahs plans have not been provided.

⁴ Numerous details including but not limited to building column location, required fire separation, ingress and egress requirements etc. which would have an impact on the ability to provide the required number of Code compliant spaces are missing.

⁵ As noted above, the Biomed Plans are deficient by 294 parking spaces which would also need to be accounted for in any redevelopment plan.

spaces, the amount of square footage able to be developed on the Biomed site would be substantially less than that depicted on the Biomed Plans.

3. Other Parking Structure Issues

In addition to the fact the parking structure is not a permitted use, there are a number of unresolved issues with regard to the proposed "conceptual" parking structure. Biomed has not provided the Township with any plans which would demonstrate that the proposed conceptual parking structure is capable of being constructed, would satisfy the requirements of the Township's ordinances, or would operate in a safe and efficient manner.

Moreover, if the proposed "attached buildings" constitute attached buildings under IBC 2009, (notwithstanding that they don't satisfy the Zoning Ordinance's requirement for "party walls") individual "fire walls" would have to be constructed through each building extending all the way through to the bottom of each section of the parking structure that is within that "building."

IBC 2009 Section 706.6 requires that where fire walls are utilized to separate adjoining buildings:

Fire walls must extend from the foundation to a termination point at least 30 inches above each adjacent roof. Fire walls may, however, terminate at the underside of a noncombustible roof system and there are no roof openings within 4 feet of the fire wall.

Fire walls cannot be provided in the horizontal plane to create separate buildings. (IBC 2009 Commentary to Section 706). In other words, the fire wall must be continuous from foundation to roof and cannot be used to separate stories of a building into individual buildings.

The IBC 2009 requirement that each building have its own "fire walls" extending from the foundation would prevent the proposed parking structure from functioning as a single parking structure. Rather, it appears that each building would have to have its own parking structure, with its own entrances, exits and circulation pattern. That is certainly not what is depicted on the Biomed Plans. Moreover, the construction of 12 separate below-grade parking structures would seem to present a host of operational and safety concerns.

C. Conclusion

There are many areas in which the Biomed Plans violate the Township Zoning Ordinance. Accordingly, the Biomed Plans must be denied.

The failure of the Biomed plans to comply with the Zoning Ordinance also illustrate that the redevelopment now being proposed which would feature over 550,000 square feet of office

November 21, 2014

Page 6

space is not a by-right development for the site that is capable of being constructed. Such a plan (if buildable) would also degrade traffic conditions on the surrounding roadway network.

It would appear that the substantial revisions to the Biomed Plans that would be required to bring the plans into compliance with the Zoning Ordinance would significantly decrease the amount of square footage that is permitted to be developed on the Biomed Property.

Sincerely,



Marc B. Kaplin 19

cc (via e-mail): Members of the Board of Commissioners
 Robert A. Zienkowski, Township Manager
 John B. Rice, Esquire, Township Solicitor
 Nicholas Caniglia, Esquire



DELAWARE COUNTY PLANNING COMMISSION

COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

PLANNING COMMISSION

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October 16, 2014

Mr. Robert A. Zienkowski
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Name of Dev't: 145 King of Prussia Road
DCPD File No.: 34-845-78-92-08-14
Developer: BMR - 145 King of Prussia Road, LP
Location: Radnor Township
Recv'd in DCPD: September 11, 2014

Dear Mr. Zienkowski:

In accordance with the provisions of Section 502 of the Pennsylvania Municipalities Planning Code, the above described proposal has been sent to the Delaware County Planning Commission for review. At a meeting held on October 16, 2014, the Commission took action as shown in the recommendation of the attached review.

Please refer to the DCPD file number shown above in any future communications related to this application.

Very truly yours,

Linda F. Hill
Director

LFH/pmg

cc: BMR - 145 King of Prussia Road, LP
Nave Newell, Inc.



DELAWARE COUNTY PLANNING DEPARTMENT

DCPD

Court House/ Government Center , 201 W. Front St., Media, PA 19063
Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

Date: October 16, 2014
File No.: 34-845-78-92-08-14

PLAN TITLE: 145 King of Prussia Road
DATE OF PLAN: September 3, 2014
OWNER OR AGENT: BMR - 145 King of Prussia Road, LP
LOCATION: East side of King of Prussia Road,
approximately 400' north of
Lancaster Avenue
MUNICIPALITY: Radnor Township
TYPE OF REVIEW: Preliminary Land Development
ZONING DISTRICT: PLO-Planned Laboratory Office
SUBDIVISION ORDINANCE: Local
PROPOSAL: Develop 26.96 acres with 4 office
buildings totaling 550,451 sq. ft.
UTILITIES: All Public
RECOMMENDATIONS: Revise and resubmit preliminary
plans incorporating the following
remarks
STAFF REVIEW BY: Dennis DeRosa

REMARKS:

PREVIOUS ACTION

On March 27, 2014, the Delaware County Planning Department furnished a staff review for this site. At that time, the applicant proposed to develop 26.96 acres with 5 buildings



Date: October 16, 2014
File No.: 34-845-78-92-08-14

REMARKS continued:

totaling 572,640 sq. ft. The Planning Department recommended that the applicant proceed to the preparation of preliminary plans incorporating staff remarks.

CURRENT PROPOSAL

Currently, the proposal is to develop 26.96 acres with four office buildings totaling 550,451 sq. ft.

EXISTING SITE DATA/LOT AREA

The submitted plan indicates the gross site is 26.96 acres; however, Delaware County Board of Assessment Appeals records indicate the site (Tax Folio # 36-02-01234-00) is comprised of 18.924 acres, a difference of 8.036 acres. Much of this acreage is attributed to lands condemned by PennDOT associated with the construction of I-476. If this is the case, the plan notes are incorrect, as the calculations for building area and impervious surface area are based on 26.96 acres.

Comment/Recommendation: The Township should verify the accuracy of the submitted plan data shown on sheet C3.1.

The plan shows three large buildings, two of which are comprised of attached structures. Additionally, a number of smaller, accessory structures are shown. The plan notes indicate the site is comprised of Buildings 1, 2, 3, and the research building (not numbered), totaling 427,109 sq. ft.

EXISTING NONCONFORMING

The plan shows two existing buildings with linear dimensions of approximately 480' and 330', which are existing nonconforming with regard to Section 280-64.D.(1), which establishes a maximum

Date: October 16, 2014
File No.: 34-845-78-92-08-14

REMARKS continued:

building length of 160'. However, the existing nonconforming building length will be eliminated, as the plan indicates these structures are to be removed.

The plan shows four proposed buildings along with underground parking. Surface parking is also proposed.

The plan does not appear to comply with Section 280-64.D.(1) of the Township zoning ordinance which states the following with regard to building and spacing:

The greatest dimension in length or depth of a building shall not exceed 160 feet, and no more than three buildings may be attached to each other, provided further that the façade of any building attached to another building be visibly offset from the adjoining building at an angle of approximately 90 degrees.

The plan shows proposed building lengths of 360' (Bldg. 1), 185' (Bldg. 2), 197' (Bldg. 3), and 420' (Bldg. 4).

PARK AND RECREATIONAL LAND

As the plan notes indicate, the applicant is paying a fee-in-lieu of providing recreational lands in accordance with Section 255-43.1.E.(2), which requires \$3,307 per 4,000 sq. ft. of building area. The fee is calculated as follows:

$$\begin{aligned} 550,451 \text{ sq. ft.} \div 4,000 \text{ sq. ft.} &= 138 \\ 138 \times \$3,307 &= \$456,366 \end{aligned}$$

Date: October 16, 2014
File No.: 34-845-78-92-08-14

REMARKS continued:

PARKING REQUIREMENTS

The Township zoning ordinance requires 1 parking space per 200 sq. ft. of floor area for the first 50,000 sq. ft., and 1 space per 300 sq. ft. for the remaining square footage. Net floor area is calculated at 80% as per the Township SALDO's definition.

Therefore, a total floor area of 440,361 sq. ft. (550,451 sq. ft. X 80%=440,361 sq. ft.) requires a total of 1,552 parking spaces.

The plan notes indicate a total of 1,914 parking spaces are provided, 1,461 of which are located in the underground parking area; the remaining 453 parking spaces are provided via surface parking.

With regard to the underground parking areas, the plan notes indicate the following: "The design and layout of each level of the underground parking facility shown hereon is strictly conceptual. Refer to plans designed by Tim Haas for finalized layout and structural design specifications."

Due to the finalized underground parking plans not being included in the submitted proposal, the Township Engineer should ensure the proposed underground parking area is in compliance with Section 255-29 of the Township SALDO.

The applicant should construct no more than the required 1,551 parking spaces required by the Township ordinance; 1,914 are proposed. This site is served by four SEPTA routes: the Norristown High Speed Line (NHSL), bus routes 105 and 106, and the Paoli-Thorndale regional rail line. These SEPTA routes could carry some employees and visitors to the site and reduce the need for as many parking spaces. The applicant is proposing to construct a direct sidewalk connection to the Radnor NHSL

Date: October 16, 2014
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REMARKS continued:

station. The Township should consider allowing the applicant to provide fewer spaces than required because of the excellent public transit access. Employer/developer incentives to employees to take transit to work would likely cost less than constructing parking spaces.

The applicant should provide bicycle parking for employees and visitors since the site is near the Radnor trail, which could be used to access the site; a study is under way to extend the Radnor Trail closer to the site. Bicycle parking should secure bicycles by their frames rather than just their wheels; inverted "U" bike docks provide this type of secure parking.

The applicant and the township should request that SEPTA (John Calnan 215-580-7947) locate bus stops on both sides of King of Prussia Road at the southern end of the development site, near one of the two proposed sidewalks leading to the office buildings. A short section of sidewalk should be provided to connect with the bus stop location. The Township or applicant should provide a passenger shelter at this bus stop to provide security and weather protection for riders and advertising revenue for the Township.

STORMWATER MANAGEMENT FACILITIES

To control stormwater runoff, the plan shows a series of underground stormwater detention/infiltration areas underneath the proposed surface parking areas, with stormwater inlets and storm pipe trenching, and green roofs. Accordingly, the Township Engineer should verify the adequacy of all proposed stormwater management facilities.

Date: October 16, 2014
File No.: 34-845-78-92-08-14

REMARKS continued:

SEWAGE FACILITIES

The site currently contains existing water and sanitary sewer facilities. Additionally, the plan notes indicate the following: "Any utilities, to remain, damaged during demolition and/or construction shall be repaired and/or replaced in kind by the contractor at his own expense."

The developer should contact the Pennsylvania Department of Environmental Protection for a determination as to whether or not the proposed development requires a revision to the municipality's Act 537 Sewage Facilities Plan.

CONCLUSION

The plan does not comply with the Township zoning ordinance with regard to maximum building length. Also, the plan may not comply with maximum building and impervious coverages if it is determined the site is comprised of 18.924 acres, as county records indicate. Therefore, it is recommended the applicant not proceed to final plans until the proposed buildings are revised to comply with maximum building length, and the lot area issue resolved.

September 30, 2014

Mr. Stephen F. Norcini, PE
Public Works Director
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: 145 King of Prussia Road
Preliminary Land Development Plan
Review No. 1
RETTEW Project No. 101442004

Dear Steve:

We have completed our review of the above referenced plan as prepared by Nave Newell. Our review was of the following information received on September 8, 2014:

1. Thirty-two (32) plan sheets entitled "Preliminary Land Development Plan for 145 King of Prussia Road," dated September 3, 2014;
2. A plan transmittal letter dated September 3, 2014; and,
3. Miscellaneous plan application materials.

Project Overview:

<u>Applicant:</u>	BMR – 145 King of Prussia Road, L.P.
<u>Requested Action/Use:</u>	Preliminary Land Development Plan Review
<u>Zoning District:</u>	Planned Laboratory-Office District
<u>Location and Size:</u>	Property near the intersection of the Blue Route (SR 0476) and Lancaster Avenue (SR 0030), and is accessed off of King of Prussia Road. It has a combined gross area of 26.96 acres and a combined net site area at the proposed right-of-way lines of 18.28 acres.
<u>Proposed Use:</u>	Office

This preliminary land development plan for 145 King of Prussia Road proposes the redevelopment of the site referred to as the BioMed site. The applicant is proposing two access drives, four office buildings, surface and underground parking, storm water management to include green roofs, rain gardens, and subsurface detention facilities, and pedestrian sidewalk connections.



We have performed a general compliance review of the Township of Radnor Code of Ordinance, Chapter 280 Zoning Code; Radnor Township Comprehensive Land Use Plan (2003); the June 2014 draft of the Radnor Greenways & Open Space Network Plan; and general planning principles as it pertains to this plan. We have the following comments for your consideration:

ZONING

1. A key issue for the site plan as proposed is the length of the proposed buildings. The ordinance requires that “the greatest dimension in length or depth of a building shall not exceed 160 feet. No more than three buildings may be attached to each other, provided further that the facade of any building attached to another building be visibly offset from the adjoining building at an angle of approximately 90 degrees.” Each of the four proposed buildings range in length from 300 to 400 feet in length and exceed the maximum allowed. The small notches in the facades of each proposed building do not meet the requirement of having the façade of one building be offset from an adjoining building at an angle of approximately 90 degrees when buildings are proposed to be attached to one another. As proposed, the facades of each “attached” building are parallel to each other and not at 90 degrees (perpendicular) to each other (§ 280-64.D).
2. The plan needs to show that the expected height at maturity of all evergreen vegetation shall not be less than 15 feet (§ 280-65.1.C).
3. The applicant needs to verify the total number of parking spaces required for Building 4 (§ 280-103.B.11). It appears that the calculation of the number of spaces required for the floor area in excess of 50,000 square feet is incorrect.
4. The plan needs to identify any existing natural areas with a grade or slope of 14% or more (§ 280-112.B).
5. Three (3) off-street loading spaces need to be shown on the plan (§ 280-104.C).

COMPREHENSIVE PLAN CONSISTENCY REVIEW

1. The Environmental & Natural Resources goal is to “Protect the Township’s vital environmental values, including water resources, wetlands, floodplains, and riparian areas, woodlands and important habitat areas, balancing the needs of development with environmental value.” As discussed in the following section, the Draft Radnor Greenways & Open Space Network Plan proposes a trail in the area of Browns Run; a portion of this proposed trail is shown as requiring boardwalks in wetland areas. It appears that wetlands are located in proximity to the site. The applicant needs to verify the date of the wetlands study and confirm that there will be no impact to wetlands caused by the proposed improvements.
2. The Open Space and Recreation section of the comprehensive plan contains an objective to “create a Township-wide trail marking” or “wayfinding” system for trail and pedestrian facilities. It does not appear that the proposed plan incorporates wayfinding signage. However, this type of signage could be beneficial to encourage increased use of public transit adjacent to and up

King of Prussia Road from the site, which is identified as a goal in the Transportation and Circulation Section of the Comprehensive Plan.

3. The Transportation and Circulation Plan also supports improved pedestrian circulation through the implementation of pedestrian facilities, and specifically supports adequate sidewalks along the roadways surrounding public transportation facilities. The plan does not propose sidewalk along the site's frontage on King of Prussia Road. Given the site's proximity to the R-100 High Speed Line, the Radnor Racquet Club, and Radnor High School, the plan needs to show pedestrian facilities along the site's frontage. Potential coordination of such facilities with the draft June 2014 Radnor Greenways Trail is discussed below.
4. The Transportation and Circulation Plan also contains a goal to support ride sharing or carpooling, as well as other trip reduction strategies to reduce single occupancy, private vehicle commuting by employees of major businesses. It does not appear that the plan provides any type of incentive for employees that are carpooling or using a ride-share program.
5. The Transportation and Circulation Plan identified the Lancaster Avenue and King of Prussia Road/Radnor-Chester Road intersections as having operating deficiencies and an overall poor level of service for multiple movements during peak hours. The Transportation and Circulation Plan calls for, as a short term improvement, optimizing signal timings to reduce delay and improve progression along Lancaster Avenue. As part of its proposed development plan, the applicant needs to evaluate its proposed King of Prussia Road signalized intersection's impact on the roadway network in that area and address any signal coordination that may be required.
6. Two other traffic items need to be addressed for Comprehensive Plan consistency: First, the proposed signalization of the southern entrance/exit to the site places the signal less than 500 feet from the signalized Lancaster Avenue/King of Prussia Road intersection. The applicant needs to compare the level of impact on traffic flow the signal will have at the proposed location versus its impact were it located at an entrance/exit opposite Raider Road or the shared with SEPTA driveway. Second, a fifteen percent (15%) trip generation reduction factor was applied in the Traffic Impact Study to reflect transit use by employees of the office complex. The applicant needs to provide local, hands-on data to document that the 15% factor is appropriate to this site and development plan.

DRAFT RADNOR GREENWAYS & OPEN SPACE NETWORK PLAN CONSISTENCY REVIEW

1. The Draft Greenways Plan proposes multiuse trails along the west and north boundaries of the property (along King of Prussia Road and connecting to the train station) and also along Browns Run south of the property. The proposed site plan is not consistent with the Draft Radnor Greenways & Open Space Network Plan as it does not show multi-use trail connections in these areas.

The Draft Greenways Plan identifies these trails as the Multiuse Trail along King of Prussia Road (Route 12, designated as section 12D along the road and section 12C connecting to the Radnor Station for the NHSL), and section 9B of the Multiuse Trail from Radnor High School to Harford Park (Route 9). Regarding Route 12, the plan states, "King of Prussia Road as it currently exists is

quite wide with approximately 36' of pavement width. This width allows enough space to construct a multiuse trail on the north side of the road. A multiuse trail in this location will link Lancaster Avenue, the Radnor Financial Center, and Radnor High School to the Radnor Regional Rail station and Radnor NHSL station...This multiuse trail is proposed within the right of way adjacent to the potential BioMed development. If the BioMed development moves forward to construction, this trail should be included as part of the land development plans along with proposed segment 9B." Additionally, the plan notes the following regarding Section 9B, "Segment 9B is proposed adjacent to the potential BioMed development. If the BioMed development moves forward to land development, this trail should be included as part of the land development plans along with proposed segment 12D."

Further, the implementation section of the plan identifies Routes 9B and Routes 12C and 12D as Priority 2A, stating that "Routes 9 and 12 provide the best opportunity in the township to utilize existing open space for a multi-use recreational trail and extension of the Radnor Trail. The first phase should establish a connection to the Radnor Station (Regional Rail), Radnor Station (NHSL), and the Chew Tract from Radnor Chester Road".

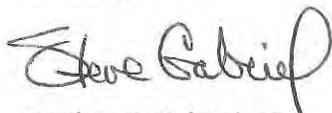
GENERAL PLANNING REVIEW

1. The plan needs to identify the proposed use(s) of the property (SLD § 255-20.B.1). There appears to be a conflict with the four buildings shown on the plan as proposed and the 'nature of development' described in the Project Narrative of the sewage planning module submitted to PADEP.
2. Applicant needs to verify the date of Sheet C7.4.
3. The applicant needs to indicate the date on which the wetlands report was prepared as noted above in Comment #1 under Comprehensive Plan Consistency.
4. The applicant needs to verify that the proposed storm water management facilities are feasible and will be sufficient to manage storm water on the site. Should some of the subsurface detention facilities not be feasible, then the necessary replacement storm water management facilities may significantly impact site design and layout, a circumstance best resolved prior to action on the preliminary plan.
5. To help mitigate the development's traffic generation, and to encourage the use of public transit by building occupants, the plan should incorporate elements that would discourage employees from feeling a need to drive away from the site on their breaks or over lunch. Within the PLO zoning district, such elements may include a landscaped courtyard, small recreational area, cafeteria complex, and outdoor seating and dining area.
6. The plan should also encourage people to feel safe walking from the office complex to the various public transit options. Such improvements would include appropriate pedestrian-scaled lighting along pedestrian routes to transit stops. The Subdivision Ordinance specifies that sidewalks and pedestrian paths should be adequately lighted, if required by the Board of Commissioners (§255-37.E).

Page 5 of 5
Radnor Township
September 30, 2014
RETTEW Project No. 101442004
Preliminary Land Development Plan for 145 King of Prussia Road

Should you have any questions or require any additional information, please do not hesitate to contact us at any time.

Sincerely,



Stephen R. Gabriel, PP
Township Planning Consultant

copy: Suzan Jones – sjones@radnor.org
Jennifer DeStefano – jdestefano@radnor.org
Roger Phillips, PE – rphillips@gfnet.com
Amy Kaminski, PE – akaminski@gilmore-assoc.com

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*Excellence Delivered **As Promised***

Date: September 29, 2014

To: Radnor Township Planning Commission

From: Roger Phillips, P.E.

cc: Stephen Norcini, P.E. – Director of Public Works
Kevin W. Kochanski, RLA, CZO – Director of Community Development
Peter Nelson, Esq. – Grim, Biehn, and Thatcher
Amy B. Kaminski, P.E. – Gilmore & Associates, Inc.
Steve Gabriel - Rettew
Suzan Jones – Radnor Township Engineering Department
William Miller – Radnor Township Codes Official
Ray Daly – Radnor Township Codes Official

RE: 145 King of Prussia Road
Biomed Realty Trust, Inc. – Applicant

Date Accepted: October 6, 2014
60 Day Review: January 4, 2015

Gannett Fleming, Inc. has completed a review of the 145 King of Prussia Road Preliminary Plan for compliance with the Radnor Township Code. This Preliminary Plan was reviewed for conformance with Zoning, Subdivision and Land Development, Stormwater Management, and other applicable codes of the Township of Radnor.

The applicant is proposing to redevelop the property at 145 King of Prussia Road to construct four office buildings at 550,451 gross square footage and four buildings. This project is located in the PLO district of the Township.

Plans Prepared By: Nave Newell
Dated: 09/03/2014

I Zoning

1. §280-64.B – Not more than 30% of the area of any lot may be occupied by buildings and structures, and not less than 45% of the total lot area, exclusive of those areas within the public right-of-way, shall be devoted to landscaping and planted in accordance to Chapter 255. The zoning data on sheet C3.1 indicates that the maximum building coverage is 15.6% and the minimum landscape area is 45.1%. The building coverage of each building and the landscape areas should be clearly identified in a table on the plans to determine conformance with the Radnor Township Zoning Code.



2. §280-64.D.(1) – The greatest dimension in length or depth of a building shall not exceed 160 feet, and no more than three buildings may be attached to each other, provided further that the façade of any building attached to another building be visibly offset from the adjoining building at an angle of approximately 90°. The plan shall clearly indicate the break point of buildings, with dimensions, along with the locations of entrances to each specific building being adjoined.
3. §280-103 – The parking requirement table provided on Sheet C-3.1 of the plan is incorrect for Building 4. Building 4 requires 477 spaces, not the 227 shown. The total parking required for the project should be revised to indicate 1,801 spaces required.
4. §280-132.B. – An itemized breakdown of areas with an accompanying plan must be provided clearly indicating conformance with the maximum building coverage and minimum landscape area requirements as required by the special regulations for planned laboratory office districts.

II Subdivision and Land Development

1. §255-20.A.(3) – Each plan sheet shall be numbered and shall show its relationship to the total number of sheets.
2. §255-43.1.E.(2) – The applicant has indicated on sheet C3.1 that a fee in lieu of \$456,366 will be provided for the Park and Recreation Land Requirement.
3. §255-27.C.(1) – King of Prussia Road is designated as a major collector, required Right-of-Way 80 feet, cartway 48 feet. Consideration may be given to requiring additional right of way along the frontage of King of Prussia Road due to the extent of the proposed roadway improvements.
4. §255-29.A.(13) – Tire bumpers shall be installed as to prevent vehicle overhand on any sidewalk area. There is a section of five parking spaces located behind proposed Building 4 that require tire bumpers since they are against a side walk.
5. §255-29.A.(15) – All dead-end parking areas shall be designated to provide sufficient backup area for the end stalls of a parking area. The parking area behind proposed Building 3 has two spaces that do not provide a sufficient backup area.
6. Sheet C7.1 of the plans indicate that “the design and layout of the underground parking structure facility shown is strictly conceptual. Refer to the plans designed by Tim Haas for finalized layout and structural design specifications.” The referenced plans must be provided for review.

7. §255-29.B.(2) – All parking areas shall have at least one tree 2 ½ inches, minimum caliper for every five parking spaces in single bays and one tree 2 ½ inches minimum in caliper for every ten parking spaces in double bay.
8. If the proposed sewer systems are to be dedicated to the Township, a 20 foot easement must be provided.
9. §255-38.B – Sheet C9.1 of the plans indicate that one tree should be planted for every 30 LF of an existing street. The plan indicates that there is 1,250 L.F. along Radnor Chester Road and 592 L.F. of a private Road. This should be revised to indicate King of Prussia Road. The 42 trees required on the plan are for King of Prussia Road, street trees should be provided for the private roadway as well.
10. §255-54.A – The utility plan must indicate water service to each of the proposed buildings.
11. §255-54.B – The central water system should be designed with adequate capacity and appropriately spaced fire hydrants for fire-fighting purposes pursuant to the specification of the National Fire Protection Association. Review and approval by the Township Engineer and the Township Fire Marshall shall be required in order to ensure that adequate fire protection is provided.
12. §255-56 – The utility plan indicates sanitary sewer service to proposed Building 1 and proposed Building 2. Sanitary sewer service to all buildings must be shown on the plans.

III Stormwater Management

1. §245-22.A.1 Infiltration tests have not been completed or submitted at this time. Percolation tests must be provided to indicate that the stormwater facility will be able to drain within 96 hours. Final design and sizing of the stormwater facility must be based on the results of the percolation tests.
2. A general note shall be added to the plans indicating that a grading plan and erosion sediment and control plans will be submitted and approved prior to issuing any building permits. Any revisions to the size or location of the individual structures or other features will be addressed at that time, and a final approval of the stormwater management plan will be required as part of the Grading Permit process.

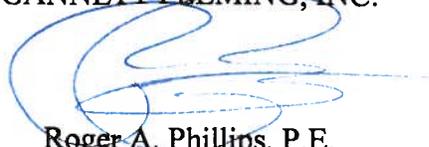
We recommend that the plans be revised to address the comments stated above along with comments provided in the review memo from Gilmore and Associates dated September 29, 2014 prior to consideration for approval by the Planning Commission.

Gannett Fleming

If you have any questions or require any additional information, please contact me.

Very truly yours,

GANNETT FLEMING, INC.



Roger A. Phillips, P.E.
Senior Project Manager



MEMORANDUM

Date: September 29, 2014

To: Steve Norcini, P.E.

From: Amy Kaminski, P.E., PTOE.

cc: Roger Phillips, P.E., Gannett Fleming, Inc.
Steve Gabriel, P.P, Rettew
Damon Drummond, P.E., PTOE
Michael Shinton, P.E.

Reference: Land Development Transportation Review
145 King of Prussia Road
Radnor Township, Delaware County
G&A 12-06069

Gilmore & Associates, Inc. has completed a transportation review of the Transportation Impact Study (TIS) prepared by McMahon Associates Inc., dated August 2014, and Preliminary Land Development Plans prepared by Nave Newell, Inc., dated September 3, 2014, submitted to Radnor Township on September 3, 2014.

I. Project Overview:

Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing space to provide 570,000 square feet of new office space. Access to the proposed site will be provided via the existing southern site access and the existing northern shared access with SEPTA.

II. Submission

- A. Transportation Impact Study, prepared by McMahon Associates, Inc., dated August 2014.
- B. Preliminary Land Development Plans, prepared by Nave Newell, Inc., dated September 3, 2014.

III. Identified Improvements

- A. The applicant intends to eliminate the existing driveway access to King of Prussia Road, opposite the Radnor High School access (Raider Road).
- B. The applicant proposes the following improvements at King of Prussia Road and Southern Site Access:
 - 1. One ingress lane and two egress lanes
 - 2. Install a traffic signal, which is warranted during the weekday afternoon peak hour. This traffic signal will be interconnected with the existing U.S. Route 30 traffic signal system.
 - 3. Provide a minimum 45-foot curb radii, or larger if necessary for anticipated truck traffic.
- C. The applicant proposes the following improvements at King of Prussia Road and SEPTA Access/Northern Site Access
 - 1. Provide one ingress lane and two egress lanes. A northbound King of Prussia Road right-turn deceleration lane is warranted based on PennDOT guidelines.
 - 2. A southbound King of Prussia Road left-turn lane is warranted based on PennDOT guidelines.
- D. The applicant proposes a four-lane cross section along the property's site frontage on King of Prussia Road (between the southern site access and the shared SEPTA/Site Access).
- E. No offsite improvements are proposed in conjunction with this project.

IV. SALDO Comments

- A. §255-27.G – Provide profiles for each street and intersection to verify that adequate street grades are achievable.
- B. §255-27.C(1) – Include sidewalks along the site frontage for King of Prussia Road.
- C. §255-27.H – No street shall intersect another at an angle of less than 70 degrees. Revise the intersection of the SEPTA access and Site Access to intersect as nearly as possible to 90 degrees.
- D. §255-28.B – Provide clear sight distance triangles for the intersections of the Southern Access Road and the underground tunnel accesses.
- E. §255-29.A.16 – Provide sidewalk connections, with appropriate ADA elements, at each raised pedestrian crosswalk. The plans should include details for the proposed raised pedestrian crosswalks.
- F. §255-37.D – Revise the diagonal curb ramp at the southeast corner of proposed Building 4 to provide two separate curb ramps for each crossing direction. Diagonal curb ramps for new construction are not acceptable.

V. Plan Review

- A. We do not support the proposed traffic signal at the intersection of King of Prussia Road and the southern access as it is located less than 500' from Lancaster Avenue and provides no benefit except to the site traffic. We recommend the applicant improve the existing access opposite Raider Road and signalize this intersection as it provides a benefit to motorists on Raider Road and is located greater than 500' from the traffic signal at Lancaster Avenue and King of Prussia Road.
- B. The Applicant should coordinate with the Township to determine if any of the recommendations from the Radnor Greenways & Open Space Network Plan should be incorporated into this project. We note that the plan currently proposes a multi-use trail along the King of Prussia Road frontage.
- C. The heavy duty pavement section should be extended to each proposed dumpster pad and loading zone.
- D. Construction plans, showing spot elevations, dimensions and slopes, shall be provided for each proposed curb ramp.
- E. An ADA compliant curb ramp should be provided on the northeast corner of the intersection of King of Prussia Road and the SEPTA/Northern Site Access.
- F. A crosswalk should be provided across the southbound approach of King of Prussia Road at the SEPTA/Northern Site Access.
- G. Provide truck turning templates for a garbage truck, fire truck and the largest truck anticipated to service the site.
- H. Provide R3-8 series lane use control signs in lieu of the R3-7 series signs.
- I. Submit a traffic signal construction plan for any proposed traffic signals. A revised system plan for Lancaster Avenue must also be submitted for review.

VI. Transportation Impact Study Review

- A. §255-20.b(5)(d)[4] – This section requires the vehicular trip generation rates to be calculated utilizing SALDO Attachment 4, Township of Radnor Trip Generation Rates. The Applicant has utilized the Institute of Transportation Engineers Trip Generation Version 9 rates which we believe are more appropriate in this case. We support a waiver of this requirement.
- B. The background regional traffic growth factor of 1.0% utilized in the report should be revised to the most recent PennDOT Bureau of Planning and Research rate. The inclusion of additional background traffic growth can skew the results of the analysis. Any nearby development should be identified individually by location and vehicular trip generation. A separate figure should be provided for each nearby development showing the trip distribution on the roadway network.
- C. The TIS should be revised to include the background traffic from the Villanova Commons Shopping Center on Lancaster Avenue. Contact the township to obtain trip generation data for this project.
- D. The trip generation for the existing vacant office space in Table 3 must be revised to include a transit reduction as these trips were calculated using the ITE Trip Generation Manual.

- E. The trip generation for the existing site with full utilization in Table 4 must be revised to include a transit reduction as these trips were calculated using the ITE Trip Generation Manual.
- F. Reduction of Trip Generation data for Transit Ridership:
 - 1. The Applicant is claiming a transit reduction of 15 percent due to the proximity of the Radnor Regional Rail Station (1/2 mile), Radnor High Speed Line Station (adjacent to site) and SEPTA bus service on Lancaster Avenue.
 - 2. In accordance with the information provided in Table B.3 of the ITE publication *Trip Generation Handbook*, this project's Floor Area Ratio (FAR) of 0.48 does not meet the required development intensity to utilize a fifteen (15) percent transit reduction. Table B.3 requires a FAR of 2.0 for a 15% trip reduction credit or a FAR of 1.0 for a 5% trip reduction credit.
 - 3. A maximum trip reduction credit of 2.5% is reasonable based on the FAR currently proposed for this project; revise the study accordingly.
- G. Figures 3 and 4 show additional traffic volumes for the eastbound approach of the Radnor Corporate Center Access which are not shown on the manual turning movement count. Traffic volumes should be verified or justification provided for the additional volumes.
- H. A figure should be provided documenting the reassignment of traffic from the center site access to the northern and southern accesses.
- I. It appears that some of the trip distribution percentages for the new site are inconsistent with the existing traffic patterns (to/from Matsonford Rd, Lancaster Ave, & I-476 off-ramp). Verify the trip distribution or provide additional justification for the percentages shown on Figures 7A & 7B.
- J. We do not support the proposed signalization of King of Prussia Road and the Southern Access Driveway. We recommend that a signalized intersection be provided opposite Raider Road. The southern access driveway is approximately 500 feet from the signalized intersection of Lancaster Avenue and King of Prussia Road. The Synchro analysis provided indicates that the southbound queue on King of Prussia Road will back up through this intersection for several analysis periods and the Applicant is not proposing any improvements to the intersection to alleviate the traffic queues.
- K. Although a northbound King of Prussia Road right-turn deceleration lane is warranted based on PennDOT guidelines, the applicant has indicated that based on the capacity analyses, acceptable levels of service at the intersection can be achieved without the northbound right-turn lane. We recommend the applicant provide the necessary deceleration lane. The need or absence of a deceleration lane is not entirely dependent on the level of service or capacity of the roadway but provides an area for turning vehicles to slow down after departing from the mainstream traffic.
- L. The study indicates that left-turn and right-turn deceleration lanes are warranted along King of Prussia Road the site accesses. The turn lane warrant analyses must be provided for review.

M. It appears that several of the intersections studied require mitigation measures as noted below:

1. **King of Prussia Rd/Radnor-Chester Rd** – A second eastbound left-turn lane is necessary for Radnor-Chester Rd.
2. **Lancaster Ave/King of Prussia Rd/I-476 Northbound Off Ramp** – The development traffic can be mitigated by providing a second right-turn lane southbound on King of Prussia Rd and a second through lane northbound from the off-ramp.

Conceptual plans and cost estimates should be prepared for each of these improvements. We recommend the Applicant and Township staff explore an alternative transportation plan to offset any infeasible mitigation measures identified in the report. Note: Outside of the improvements listed above, no offsite improvements are proposed in connection with this development.

- N. Update Tables 5-15 to provide separate columns for the 2017 design year without development, 2017 design year with development and 2017 design year with development and improvements.
- O. Update Table 13, Level-of-Service Matrix I-476 NB On-Ramps & U.S. Route 30 to include the level-of-service results for Hillside Circle.
- P. There is an existing coordinated signal system along King of Prussia Road that includes Radnor-Chester Road and Matsonford Road. Any traffic signals proposed along the site frontage should be included in the overall coordinated system. The Applicant should also investigate coordinating the Matson Ford Road/King of Prussia Road signal system with the Lancaster Avenue system.
- Q. Due to the proximity of the site to transit lines and bus routes, it should be noted that ADA compliant pedestrian facilities should be provided along the frontage of the site.
- R. The roadway labels and cardinal directions of the traffic count provided in Appendix A should be revised for the intersection of King of Prussia Road and Matson Ford Road.
- S. Additional comments may be forthcoming pending the resubmission of the Transportation Impact Study.



RADNOR TOWNSHIP

MEMORANDUM

TO: MR. STEVE NORCINI
FROM: RAY DALY
SUBJECT: 145 KING OF PRUSSIA ROAD
DATE: 9/26/14
CC: MR. ROGER PHILLIPS

Steve

The "Preliminary Plan Submission" for the site is cluttered and very hard to follow for the Fire service details. The contour lines on the plans are included on the copies along with all the utilities and every other detail making it impossible to make comments on the plan.

I have concerns with the fire service lines to the underground garages, there are no details.

I am unable to concern the underground parking entrances, the heights of the garage deck, or how many decks will be in place.

I have concerns with the building perimeter coverage of the fire service. There seems not be enough frontage coverage for all the buildings. In other words, we may not be able to get close enough to the building for rescue and firefighting. I understand we can address this issue later however it may mean loosing parking spaces, that's always a concern.

I have a question on the sewer lines and their sizing and the DF²Us leading into them, there are no details.

Respectfully,

Ray Daly

Building Code Official/ Fire Code Official



DELAWARE COUNTY PLANNING COMMISSION

COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

PLANNING COMMISSION

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CHAIRMAN

THOMAS J. JUDGE
VICE CHAIRMAN

KENNETH J. ZITARELLI
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LINDA F. HILL
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DAVID J. WHITE

September 22, 2014

Mr. Robert A. Zienkowski
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

RE: Title: 145 King of Prussia Road
Applicant(s): BMR - 145 King of Prussia Road, LP
File Number: 34-845-78-92-08-14
Meeting Date: 10/16/2014
Municipality: Radnor Township
Location: East side of King of Prussia Road, approximately
400' north of Lancaster Avenue
Received: 09/11/2014

Dear Mr. Zienkowski,

This is to acknowledge receipt of the above referenced application for review and report. The Commission has tentatively scheduled consideration of the application for its public meeting on the date shown above at 4:00 p.m. in the Government Center Building, (Room 100), Court House Complex, Media, PA. Attendance is not required but is welcomed. If you have any questions concerning this matter, please contact Dennis DeRosa at (610) 891-5222.

NOTE: In order to avoid processing delays, the DCPD file number shown above MUST be provided in any transactions with the county regarding this or future applications related to this location.

Very truly yours,
Linda F. Hill/RA
Linda F. Hill
Director

LFH/CJD

cc: BMR - 145 King of Prussia Road, LP
Nave Newell, Inc.





pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHEAST REGIONAL OFFICE

September 17, 2014

Ms. Maria Goman
Nave Newell
900 West Valley Road, Suite 1100
Wayne, PA 19087

Re: Act 537, Application for Waiver from Planning
145 King of Prussia Road
DEP Code No. 1-23013-241-3J
Radnor Township
Delaware County

Dear Ms. Goman:

The Department of Environmental Protection (DEP) has completed a limited review of the above-referenced application and has determined that it does not qualify for a waiver from the requirement to revise Radnor Township's Act 537 Plan (Official Plan).

The waiver from planning request cannot be granted for the following reasons:

1. The documentation submitted with your application mailer implies that the sewage flow per square foot had previously been approved. On July 10, 2008, DEP assigned a Component 3 Planning Module to a similar project at the same site under DEP Code No. 1-23013-219-3J. It does not appear that DEP ever received the planning module, nor did we approve a flow per square-footage for that project.
2. The buildings that were used to derive the flow per square-footage do not appear to have a steady occupancy level, which may affect the calculation of projected flows.
3. The meter readings and correlating occupancy levels were not provided. Sewage Facilities Planning Module forms are available from our eLibrary as MS Word Form Fields files directly from DEP's website address located in the footer below. In the left-hand column, select the Water heading and then select Water Standards and Facility Regulation. In the right-hand column, select Wastewater Management and then select Act 537. Under Act 537, select Sewage Facilities Planning. Under Planning Forms, select the appropriate forms. The link will take you to the eLibrary location for the form.

Please select the following forms for this project and enter the above-referenced DEP Code Number on the first page of each form:

Sewage Facilities Planning Module Transmittal Letter, Form 3800-FM-BPNPSM0355

Sewage Facilities Planning Module Resolution, Form 3800-FM-BPNPSM0356

Sewage Facilities Planning Module Component 3, Form 3800-FM-BPNPSM0353

- Instructions
- Form

Sewage Facilities Planning Module Component 4

- 4A-Municipal Planning Agency Review, Form 3800-FM-BPNPSM0362A
- 4B-County Planning Agency Review, Form 3800-FM-BPNPSM0362B

Please submit the completed planning modules and supporting information to the municipality or municipalities in which the project is located. DEP must receive «Number» copies of the completed planning module. Please answer all questions within the planning module. Do not simply answer “N/A” or “Not Applicable.” If you feel a question does not apply, explain all reasons to support that answer. For this project, optional sections «OptionalPMLDSections» must be completed.

Please refer to the Standard Operating Procedures (SOP) that govern Act 537 sewage facilities planning module reviews. The SOPs can be found on the DEP website at http://www.portal.state.pa.us/portal/server.pt/community/Permit_Decision_Guarantee/21215/SOPs/1294992. Consistent with the SOP, DEP may disapprove an administratively incomplete planning module submission. Please use the checklist provided in this letter below to guide both you and the municipality in providing an administratively complete planning module submission to DEP for review.

A copy of this letter should be attached to the planning module when submitted through the municipality to DEP. This letter is to be used by the applicant (or the applicant’s authorized representative) as a checklist and guide to completing the planning modules and does not supersede the rules and regulations found in Chapter 71. The municipality must submit a complete module package. (See end of letter for applicant and municipal certification statements.)

In all cases, address the immediate and long range sewage disposal needs of the proposal and comply with 25 Pa. Code, Chapter 71, Subchapter C relating to New Land Development Plan Revisions.

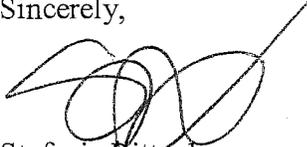
Ms. Maria Goman

- 3 -

September 17, 2014

If you have any questions concerning the information required, please contact me at 484.250.5186.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stefanie Rittenhouse', with a long, sweeping line extending upwards and to the right.

Stefanie Rittenhouse
Sewage Planning Specialist 2
Clean Water

cc: Delaware County Planning Department
Mr. Zienkowski - Radnor Township
BMR-145 King of Prussia Road, LP
Planning Section
Re 30 (GJE14CLW)260-2

Applicant Checklist (✓ or N/A)	Materials Required to be Included in the Planning Package	DEP Completeness Review
DEP Checklist Letter		
	DEP checklist letter is attached with items checked off by the applicant (or applicant's authorized representative) as included	
	DEP checklist letter certification statement completed and signed	
Transmittal Letter (Form 3800-FM-BPNPSM0355)		
	Transmittal Letter is attached, completed and the appropriate boxes in Section (i) are checked.	
	Transmittal Letter is signed by the municipal secretary	
Resolution of Adoption (Form 3800-FM-BPNPSM0356)		
	Resolution of Adoption is attached and completed	
	Resolution of Adoption is signed by the municipal secretary	
	Resolution of Adoption has a visible municipal seal	
Component 4A - Municipal Planning Agency Review (Form 3800-FM-BPNPSM0362A)		
	Component 4A is attached, completed and signed	
	Municipal Responses to Component 4A comments are included	
Component 4B - County Planning Agency Review (Form 3800-FM-BPNPSM0362B)		
	Component 4B is attached, completed and signed	
	Municipal Responses to Component 4B comments are included	
Component 4C - County or Joint Health Department Review (Form 3800-FM-BPNPSM0362C)		
	Component 4C is attached, completed and signed	
	Municipal Responses to Component 4C comments are included	
Component 3 Sewage Facilities Planning Module (Form 3800-FM-BPNPSM0353)		
<i>Section A: Project Information</i>		
	Section A.1. The Project Name is completed	
	Section A.2. The Brief Project Description is completed	
<i>Section B: Client Information</i>		
	Client Information is completed	
<i>Section C: Site Information</i>		
	Site Information is completed	
	A copy of the 7.5 minute USGS Topographic map is attached with the development site outlined, as required by the instructions and the checklist	
<i>Section D: Project Consultant Information</i>		
	Project Consultant Information is completed	

<i>Section E: Availability of Drinking Water Supply</i>		
	The appropriate box is checked in Section E	
	For existing public water supplies, the name of the company is provided	
	For public water supplies, the certification letter from the public water company is attached	
<i>Section F: Project Narrative</i>		
	The Project Narrative is attached	
	All information required in the module directions has been addressed	
<i>Section G: Proposed Wastewater Disposal Facilities</i>		
	Section G.1.a. The collection system boxes are checked	
	The Pennsylvania Clean Streams Law (CSL) permit number is provided for existing systems	
	Section G.1.b. The questions on the collection system are completed	
	Section G.2.a. The appropriate treatment facility box is checked	
	For existing treatment facilities, the name is provided	
	For existing treatment facilities, the NPDES permit number is provided	
	For existing treatment facilities, the CSL permit number is provided	
	For new treatment facilities, the discharge location is provided	
	Section G.2.b. The certification statement has been completed and signed by the wastewater treatment facility permittee or their representative	
	Section G.3. The plot plan is attached and contains all items in the module instructions under Section G.3	
	The plot plan will show the proposed sewer facilities, sewer extension and/or point of connection to the existing sewer line or point of discharge	
	Copies of easement(s) or right-of-way(s) are attached	
	Section G.4. The boxes are checked regarding Wetland Protection	
	Section G.5. The boxes are checked regarding Primary Agricultural Land	
	Section G.6. The boxes are checked confirming consistency with the Historic Preservation Act	
	The Cultural Resources Notice (CRN) (Form 0120-PM-PY0003) is attached	

<i>Section G: Proposed Wastewater Disposal Facilities</i>		
	A return receipt for its submission to the PHMC is attached	
	The PHMC review letter is attached	
	Section G.7. The boxes are checked regarding Pennsylvania Natural Diversity Inventory (PNDI)	
	PNDI Project Environmental Review Receipt is attached	
	PNDI Review Receipt, if no potential impacts identified, is not older than 2 years	
	All supporting resolution documentation from jurisdictional agencies (when necessary) is attached and not older than 2 years	
	A completed PNDI Large Project Form (PNDI Form) (Form 8100-FM-FR0161) is attached with all supplemental materials and DEP is requested to complete the search.	
<i>Section H: Alternative Sewage Facilities Analysis</i>		
	The Alternative Sewage Facilities Analysis is attached	
	All information required in the module directions has been addressed	
<i>Section I: Compliance with Water Quality Standards and Effluent Limitations</i>		
	The box is checked regarding Waters Designated for Special Protection	
	The Social or Economic Justification is attached	
	The box is checked regarding Pennsylvania Waters Designated As Impaired	
	The box is checked regarding Interstate and International Waters	
	The box is checked regarding Tributaries to the Chesapeake Bay and the required information is provided	
	The Name of Permittee Agency, Authority, Municipality and the Initials of Responsible Agent are provided	
	If discharge to an intermittent stream, dry swale or manmade ditch is proposed, provide evidence that a certified letter has been sent to each owner of property over which the discharge will flow until perennial conditions are met	
<i>Section J: Chapter 94 Consistency Determination</i>		
	A map showing the path of the sewage to the treatment facility and the location of the discharge is provided	
	Section J.1. The Project Flows are provided	
	Section J.2. The permitted, existing, and projected average and peak flows are provided in the table for collection, conveyance and treatment facilities	

<i>Section J: Chapter 94 Consistency Determination</i>		
	Section J.3.a. The appropriate box is checked indicating capacity in the Collection and Conveyance Facilities	
	Section J.3.b. The Collection System information is completed, signed and dated	
	Section J.3.b. The Conveyance System information is completed, signed and dated	
	Section J.4.a. The appropriate box is checked regarding projected overloads at the Treatment Facility	
	Section J.4.b. The Treatment Facility information is completed, signed and dated	
	The Permittee of the wastewater treatment facility has submitted a Chapter 94 Wasteload Management Report, which includes the information for the collection and conveyance system to serve this project	
	An acceptable Wasteload Management Report Corrective Action Plan (CAP) and schedule has been submitted, as well as a connection management plan	
	A letter from the permittee, which grants allocations to the project consistent with the CAP, and a copy of the connection management plan has been submitted	
	Letter indicating the treatment plant is an interim regional treatment facility is attached	
<i>Section K: Treatment and Disposal Options</i>		
	For proposed treatment facilities, the appropriate box is checked indicating the selected Treatment and Disposal Option	
<i>Section L: Permeability Testing</i>		
	The Permeability Testing information is attached	
<i>Section M: Preliminary Hydrogeologic Study</i>		
	The Preliminary Hydrogeologic Study is attached	
	The Preliminary Hydrogeologic Study is signed and sealed by a Professional Geologist	
<i>Section N: Detailed Hydrogeologic Study</i>		
	The Detailed Hydrogeologic Study is attached	
	The Detailed Hydrogeologic Study is signed and sealed by a Professional Geologist	
<i>Section O: Sewage Management</i>		
	Section O.1. The box is checked indicating municipal or private facilities	
	If municipal, the remainder of Section O is not applicable	
	If private, the required analysis and evaluation of sewage management options is attached	

<i>Section O: Sewage Management</i>		
	Section O.2. The appropriate box is checked regarding the use of nutrient credits or offsets	
	Section O.3. The Project Flows for the private facilities are provided	
	Section O.4.a. The appropriate box is checked indicating capacity in the existing private Collection and Conveyance Facilities	
	Section O.4.b. The private Collection System information is completed, signed and dated	
	Section O.4.c. The private Conveyance System information is completed, signed and dated	
	Section O.5.a. The appropriate box is checked regarding projected overloads at the private Treatment Facility	
	Section O.5.b. The private Treatment Facility information is completed, signed and dated	
	Section O.6. The box is checked indicating the municipality will assure proper operation and maintenance of the proposed private facilities	
	The required documentation of sewage management is attached	
<i>Section P: Public Notification Requirement</i>		
	All Public Notification boxes in this section are checked	
	The public notice is attached, if public notification is necessary	
	All comments received as a result of the notice are attached	
	The municipal responses to these comments are attached	
	The box is checked indicating that no comments were received, if valid	
<i>Section Q: False Swearing Statements</i>		
	The planning module preparer's false swearing statement is completed and signed	
<i>Section R: Planning Module Review Fee</i>		
	The correct fee has been calculated	
	The correct fee has been paid	
	The request for fee exemption has been checked	
	The deed reference information is provided to support the fee exemption	

<i>Completeness Checklist</i>		
	The module completeness checklist is included	
	All completeness items have been checked as included by the municipality, as appropriate	
	The Municipal Official has signed and dated the checklist	

CERTIFICATION STATEMENT

I certify that this submittal is complete and includes all requested items. I understand that failure to submit a complete module package may result in a denial of the application.

Signed: _____
Applicant (or Applicant's authorized representative)

Date: _____

Signed: _____
Municipal Secretary

Date: _____



DELAWARE COUNTY REGIONAL WATER QUALITY CONTROL AUTHORITY
P.O. Box 999 • Chester, PA 19016-0999

September 9, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Josephine Histan Martin
IES Engineers
1720 Walton Road
Blue Bell, PA 19422

RE: Extension: Industrial Discharge Permit No. 2DC-09-01

Dear Ms. Martin:

DELCORA has extended the current Industrial Wastewater Discharge Permit for BMR-145 King of Prussia Road LP (BMR) that expires on September 30, 2014. This is a three (3) month extension of the current permit conditions. The permit will now expire on December 31, 2014.

Enclosed are the executed original and a receipt acknowledgement page. Please sign and date the receipt acknowledgement page, and return it to DELCORA.

Your continued cooperation with DELCORA's Pretreatment Program is appreciated. Do not hesitate to me at (610) 876-5523, extension 213 if you have any questions.

Sincerely,

Irene Fitzgerald
Laboratory & Pretreatment Manager

IF:smf
Enclosure

cc: Ian Piro, via email
Radnor Township
J. Cerrone, PWD
File Copy

ADMINISTRATION

610-876-5523
 FAX: 610-876-2728

CUSTOMER SERVICE/BILLING

610-876-5526
 FAX: 610-876-1460

PURCHASING & STORES

610-876-5523
 FAX: 610-497-7959

PLANT & MAINTENANCE

610-876-5523
 FAX: 610-497-7950

**WASTEWATER DISCHARGE PERMIT
Extension**

Permit No. **2DC-09-01**

In accordance with the provisions of the DELCORA Standards, Rules, and Regulations of 1991, Resolution No. 91-03 and 91-04, or as amended,

**BMR-145 King of Prussia Road, LP (Permittee)
1205 Westlakes Drive, Suite 240
Radnor, Pennsylvania 19087**

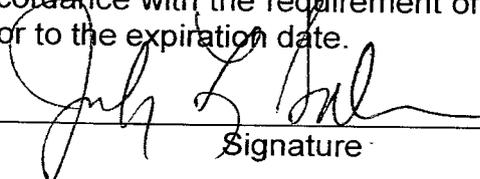
is hereby authorized to discharge industrial wastewater from the above identified facility into the DELCORA sewer system in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit will be reopened and modified by DELCORA to incorporate any new or revised Federal, State, or Local Pretreatment Standards or requirements. Modified permits will be reissued according to Section 321 of Resolution No. 91-03.

This permit shall become effective on **October 1, 2010** and shall expire at midnight on **December 31, 2014**.

The Permittee shall not discharge after the date of expiration. If the Permittee wishes to continue to discharge after this expiration date, an application must be filed for reissuing of this permit in accordance with the requirement of Section 319 of Resolution No. 91-03, a minimum of 180 days prior to the expiration date.



Signature

Executive Director
Title

Joseph L. Salvucci
Name (Typed)

9/10/2014
Date

DEFINITION OF TERMS AND ABBREVIATIONS

Accidental Discharge - Any unpermitted or non-routine discharge of pollutants into the sewer system, which may be intentional or unintentional in nature or cause problems to the POTW.

Authority - DELCORA, The Delaware County Regional Water Quality Control Authority, including agents or persons authorized to act on its behalf.

B.O.D.₅ - 5-Day Biochemical Oxygen Demand as outlined in 40 CFR 136.

B.O.D.₂₀ - 20-Day Biochemical Oxygen Demand with nitrogenous demand inhibited, also called First Stage Oxygen Demand (FSOD).

BTEX - Benzene, Toluene, Ethylbenzene and Xylenes.

Bypass - The intentional diversion of wastestreams from any portion of a Permittee's pretreatment facility.

City - City of Philadelphia Water Department

COD - Chemical Oxygen Demand as outlined in 40 CFR 136.

Composite Sample - A sample prepared by combining discrete samples collected from the wastestream either at periodic time intervals or in proportion to the wastestream flow. The frequency of discrete sample collection is variable.

24 HC - 24-hour composite sample, either time or flow proportional.

CTAS - Cobalt thiocyanate active substances, also called nonionic surfactants.

Daily Maximum - The maximum allowable discharge of a pollutant into the sewer system during a calendar day. Where expressed in units of mass, it is the total mass discharged in one day. Where expressed in concentration, it is the arithmetic average of that pollutant from all measurements taken that day.

F.O.G. - Fats, oils and greases, listed as oil and grease in 40 CFR 136 for purposes of analysis.

GPD - Gallons per day.

Grab Sample - An individual, discrete sample collected from a wastestream on a one-time basis, in 15 minutes or less, and with no regard to the volume of flow of the wastestream.

Industrial Wastewater - The liquid or water-borne wastes from industrial or manufacturing processes. Unless specifically stated otherwise, this term shall not include sanitary sewage or sanitary wastewater components.

Monthly Average - The arithmetic mean of the values for effluent samples collected over a calendar month. Sum of the values divided by the number of samples. In the case of flow, it is the total flow for the month divided by the number of days discharged.

MBAS - Methylene blue active substances, also called Anionic Surfactants.

MGD - Millions of gallons per day.

NAICS – North American Industry Classification System

Peak Daily Rate - The maximum allowable flow of wastewater to the sewer system in a calendar day.

Priority Pollutants - Metals, Base/Neutral Organics, Acid Organics, Volatile Organics, Pesticides/PCB's, Cyanide and Phenol as listed by the EPA.

- Metals -antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc.

- Acid/Base/Neutral Organics - organic compounds extractable.

- Volatile Organics – also called purgable organics.

Process Wastewater - Any water which during manufacturing or processing, comes into direct contact with or results from the production or use of: any raw material, intermediate product, finished product, by-product, or waste product. It can be discharged continuously, intermittently, or as a batch.

PWD – Philadelphia Water Department

Shall - Mandatory requirement.

SIC - Standard Industrial Classification as listed in the Standard Industrial Classification Manual issued by the U.S. Government Printing Office.

Slug Discharge - Any discharge of a non-routine, episodic nature including but not limited to an accidental spill or non-customary batch discharge, which could cause a violation of the prohibited discharge standards of Section 202 (A) (1) – (8) of DELCORA's Standards Rules.

TDS – Total dissolved solids, also listed as filterable residue.

TSS – Total suspended solids, also listed as nonfilterable residue. That which is retained during laboratory filtering per 40 CFR 136.

TKN – Total Kjeldahl Nitrogen.

TOX – Total halogenated organics as listed in Appendix A of 40 CFR 136.

TPH – Total petroleum hydrocarbons.

All terms used in this permit which are not defined in this section are taken to have the same meaning as that in the Delcora Standards, Rules, and Regulations of 1991, Delcora Resolution No. 91-03.

PART I - EFFLUENT LIMITATIONS

A. During the period of October 1, 2010 to December 31, 2014, the Permittee is authorized to discharge research laboratory wastewater and plant and equipment washdown wastewaters from pharmaceutical research, boiler blowdown, and sanitary to the DELCORA sewer system through the outfall(s) listed below:

OUTFALL

001

DESCRIPTION

Research Building connection at manhole along King of Prussia Road as noted in Site Plan, L-1-774 submitted with application.

B. During the period of October 1, 2010 to December 31, 2014 the process discharge(s) through Outfall **001** shall comply with all applicable Federal, State and Local Statutes, Ordinances and Regulations, including Resolution No. 91-04 and the following effluent limitations:

EFFLUENT LIMITATIONS

<u>PARAMETER</u>	<u>MONTHLY AVERAGE RATE (GPD)</u>	<u>PEAK DAILY RATE (GPD)</u>	<u>DAILY MAXIMUM (µCi/mL)</u>
Flow	100,000	120,000	(1)
pH			(2)
Radioactive Materials:			
Tritium (H ₃)			1x10 ⁻²
Carbon-14			3x10 ⁻⁴
Iodine-125			2x10 ⁻⁵
Chromium-51			5x10 ⁻³
Phosphorous-32			9x10 ⁻⁵
Sulfur-35			1x10 ⁻³
Indium-111			6x10 ⁻⁴

NOTES:

- (1) Laboratory wastewater is approximately 3350 GPD. Equipment and wash down flow is approximately 7000 GPD.
- (2) The pH shall not be less than 5.5 nor greater than 12.0 standard units (S.U.) at any time.

PART II - MONITORING REQUIREMENTS

- A. From the period of October 1, 2010 to December 31, 2014 the Permittee shall monitor Outfall 001 for the following:

<u>Parameter</u>	<u>Sample Location</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	---	Continuous	Meter (1)
pH	(2)	1x/Week	Grab
TSS	(3)	1x/Month	10 HC (4)
BOD ₅	(3)	1x/Month	10 HC (4)
Tritium (H ₃)	(3)	1x/Month	10 HC (4) (5)
Carbon-14	(3)	1x/Month	10 HC (4) (5)
Iodine-125	(3)	1x/Month	10 HC (4) (5)
Chromium-51	(3)	1x/Month	10 HC (4) (5)
Phosphorus-32	(3)	1x/Month	10 HC (4) (5)
Sulfur-35	(3)	1x/Month	10 HC (4) (5)
Indium - 111	(3)	1x/Month	10 HC (4) (5)

NOTES:

- (1) The meter shall be the incoming water meter for the entire facility. It shall be calibrated once per year and a certification of accuracy filed no later than January 28th for the previous year. The flow shall be read and recorded on a weekly basis.
- (2) The pH meter shall be calibrated before use. Calibration records shall be maintained on-site and shall include any information needed to recreate the event (including but not limited to, pH buffers used with lot numbers, expiration dates, resulting slopes, time performed, and technician performing calibration).
- (3) Samples shall be collected from a manhole outside the research building, which contains only the research building's discharge, before mixing with any other discharge.
- (4) A 10-hour (7:00 a.m. – 5:00 p.m.) sample shall be collected with an automatic sampling device capable of collecting at least one (1) sample per hour and maintaining sample temperature at $\leq 6^{\circ}\text{C}$ or manual sampling of at least one sample per hour, composited and maintained at $\leq 6^{\circ}\text{C}$ and should not be frozen unless data demonstrating that sample freezing does not adversely impact sample integrity.
- (5) In lieu of composite samplings for radioisotopes, BMR-145 King of Prussia LP may have Centocor, Inc. (tenant), report daily disposal limits and records of all radioactive isotopes discharged, measured against an internal standard that does not exceed 1/10 of the Nuclear Regulatory limit on a monthly basis to DELCORA. BMR-145 King of Prussia LP must be in compliance with the effluent limitations.

- B. All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with 40 CFR Part 136 and amendments thereto unless specified otherwise in the monitoring conditions of this permit.

PART III - OPERATION & MAINTENANCE OF POLLUTION CONTROLS

A. Pretreatment Facilities and Control Structure Provisions.

Where deemed necessary to comply with applicable regulations and the terms of this permit, Permittee shall provide suitable pretreatment facilities. They shall be planned, designed, constructed, owned, operated, and maintained by the Permittee at his expense and shall be located for ease of inspection and cleaning.

A summary of the pretreatment system(s) to be provided by Permittee follows:

Acid Neutralization Tank for research building (laboratory sink discharge).

It is Permittee's responsibility to effectively manage these facilities. Failure to do so constitutes a violation of DELCORA's regulations and is subject to enforcement as cited therein. The Permittee shall adhere to all Nuclear Regulatory Commission (NRC) regulations concerning radionuclide disposal in accordance with the permittee's NRC License.

The Permittee shall also provide a suitable control structure for the inspection, observation, sampling, and flow measurement of Permittee's industrial contribution. The control structure shall be safe, accessible at all times, secure from unauthorized tampering, and continuously operated and maintained at Permittee's expense. In addition to being compatible with all of Permittee's monitoring requirement, the control structure shall be of suitable capabilities so as to accommodate the installation of DELCORA's monitoring equipment.

In addition, the following monitoring and control equipment shall be provided:

1. The Permittee shall install and maintain at its expense suitable (totalizing) flow meter(s) of design and manufacture acceptable to DELCORA which will continuously monitor rates of flow and/or volumes of wastewater being discharged to the DELCORA Wastewater Management System.
2. The Permittee shall incorporate a lockable isolation device as a means to sever access to the system satisfactory to DELCORA.

B. Duty to Halt or Reduce Activity.

Upon reduction, loss or failure of the Permittee's pretreatment facility, the Permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until operation of the pretreatment facility is restored or an alternative

method of treatment is provided. This requirement applies, for example, when the primary source of power for the pretreatment facility fails or is reduced.

C. Bypass of Treatment Facilities.

1. Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury or severe property damage or no feasible alternatives exist.
2. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is also for essential maintenance or to assure efficient pretreatment facility operation.
3. Notification of bypass:
 - a. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior written notice, at least ten (10) days before the date of the bypass, to DELCORA and the Philadelphia Water Department.
 - b. Unanticipated bypass. The Permittee shall immediately notify DELCORA and the Philadelphia Water Department and submit a written notice to the POTW within 5 days. This report shall specify:
 - i. A description of the bypass, and its cause, including its duration;
 - ii. Whether the bypass has been corrected; and
 - iii. The steps being taken or to be taken to reduce, eliminate and prevent a reoccurrence of the bypass.

PART IV - REPORTING REQUIREMENTS

A. Self-Monitoring Reports

Monitoring results obtained shall be summarized and reported on a Permittee Monitoring Form on a **monthly** basis. The reports are due on the twenty-eighth (28th) of the month following the period covered by the report. The written report shall be certified and signed by an Authorized Representative of the Permittee. Contents of the report are defined under Part II, Section A of this permit.

1. Where the Permittee contracts sample analyses (in satisfaction of monitoring requirements), a copy of the laboratory report showing results, methods used, and signature(s) shall be included with the self-monitoring report. It is the Permittee's responsibility to ensure contract laboratory compliance with Part II, Section B of this permit.
2. Where the Permittee performs sample analyses in satisfaction of monitoring requirements, the Permittee shall ensure compliance with Part II, Section B of this permit.

3. The monthly monitoring report shall include a statement as to whether or not Permittee has achieved compliance with Federal and local pretreatment limits.
 4. If Permittee has not achieved compliance with all limits, the monthly monitoring report shall;
 - a. Provide an explanation for failure to achieve compliance; and
 - b. A proposed corrective plan, including milestone dates, shall be submitted to and approved by DELCORA and, should a compliance schedule be necessary, it shall be appended to this Permit as Part VI.
 5. If Permittee's manufacturing process ceases to involve a pollutant parameter listed in Part I a principal or executive officer of Permittee may so certify to this fact on an annual basis. Upon approval of this certification by DELCORA, testing and reporting for that parameter shall be limited to once per 6 months.
 6. Permittee shall notify the Authority of any changes in production which exceed twenty percent (20%) of the production units used in calculating production based limits, if applicable.
 7. Monitoring reports shall be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which is representative of conditions occurring during the reporting period.
- B. If the Permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of such monitoring shall be included in the calculation and results shall be reported in the report and submitted to DELCORA.

C. Automatic Resampling

If the results of the Permittee's wastewater analysis indicate a effluent limit exceedance has occurred, the Permittee must:

1. Inform DELCORA of the violation within 24 hours of awareness of result; and
2. Repeat the sampling and pollutant analysis and submit, in writing, the results of this second analysis within thirty (30) days of becoming aware of the first violation. The Permittee is not required to resample if:
 - a. The Control Authority performs sampling at the Permittee at a frequency of at least once per month.
 - b. The Control Authority performs sampling at the Permittee between the time when the user performs the initial sampling and the time when the user receives the results of this sampling.

D. Potential Problems for POTW (Accidental or Intentional Discharge)

1. The Permittee shall notify DELCORA immediately upon the occurrence of an intentional or uncontrolled discharge that may cause problems to the POTW or that does or may violate permit conditions. Notification shall be by telephone at (610)876-5523, extension 213 from 8:30 a.m. to 4:30 p.m., and (610)876-5523, extension 214, 24 hours a day, and to Philadelphia Water Department at (215)686-4514, 24 hours a day. The notification shall include location of discharge, date and time thereof, type of waste, including concentration and volume, and corrective action taken.

Within five (5) days following such a discharge, the Permittee shall submit to DELCORA a detailed written report. The report shall specify:

- a. Description and cause of the slug loading or unintentional discharge or problem discharge, and the impact on the Permittee's compliance status. The description should also include location of discharge, type, concentration and volume of waste.
- b. Duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance continues, the time by which compliance is reasonably expected to occur.
- c. All steps taken or to be taken to reduce, eliminate, and prevent recurrence of such a slug loading, intentional discharge, problem discharge or other conditions of noncompliance.

E. Facility Changes

The Permittee shall give notice to DELCORA 90 days prior to any facility expansion, production increase process modifications or other changes which result in new or substantially increased discharges or a change in the nature of the discharge.

F. Signatory Requirements

1. All applications, correspondence, reports and self-monitoring reports shall be signed and certified:
 - a. In the case of a corporation, a president, secretary, treasurer or vice president of the corporation in charge of a principle business function or any other person who performs similar policy-making or decision-making functions for the corporation; or the manager of one or more manufacturing, production or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures; or
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

- c. For a government entity: by the administrator, chairman, director, or principal executive responsible for operation at the facility.
2. All applications, correspondence, reports, and self-monitoring reports may be signed by a duly authorized representative of the person described above. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Section F (1), above;
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility, or having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
3. Certification. All applications and reports shall contain the following certification:

" I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

- G. All reports required by this permit shall be submitted to DELCORA and Philadelphia Water Department at the following addresses:

By Mail:
DELCORA
Post Office Box 999
Chester, Pennsylvania 19016

By Courier:
DELCORA
100 E. Fifth St.
Chester, PA 19016

Attention: Laboratory & Pretreatment Manager

and

Philadelphia Water Department
9001 State Road
Philadelphia, Pennsylvania 19136
Attention: Joseph Cerrone

PART V - GENERAL CONDITIONS

A. Re-opener Clause

This permit will be reopened and modified by DELCORA to incorporate any new or revised Federal, State, or Local Pretreatment Standards or requirements. Modified permits will be reissued according to Section 321 of Resolution No. 91-03.

B. Non-Transferability

A Wastewater Discharge Permit issued for industrial usage of the system shall not be reassigned or transferred or sold to a new owner, new user, or different premises without the express written consent of DELCORA. The Permittee must provide at least 30 days advance written notice to DELCORA.

C. Site Access

DELCORA personnel shall be admitted to any site which contributes wastewater to the DELCORA Wastewater Management System for the purpose of inspection, record examination, monitoring, sampling, enforcement or any other form of surveillance deemed necessary in determining a User's compliance with these Standards, Rules and Regulations, including securing copies of any relevant documents or other information.

DELCORA shall exert every effort to be reasonable in the exercise of this provision including, where feasible, scheduling such access during times when the site is normally occupied. However, this shall not preclude the Authority from securing entrance upon minimal notification at unusual times regardless of site occupancy if there is urgent cause for such admittance, or if reasons for access are not consistent with advance notice. In either case, whether scheduled or unannounced, site access shall not be unduly withheld; the presentation of suitable credentials shall entitle the bearer prompt site admittance. It shall be the User's responsibility to incorporate this requirement with any applicable security procedures employed so that prompt admittance for the performance of these specific responsibilities will not be impeded.

D. Retention of Records

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit as well as; 1) The date, exact place, method and time of sampling and the names of the person or persons taking the samples. 2) The dates analysis were performed, 3) Who performed the analysis 4) The analytical techniques / methods used and the results of such analysis and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of DELCORA at any time.

E. Severability

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

F. Duty to Comply

The Permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatelements.

G. Penalties for Violations of Permit Conditions

DELCORA's Resolution No. 91-03 provides that any person who violates a permit condition is subject to a civil penalty of up to \$25,000.00 per day, per violation, up to the maximum penalty or fine allowable by law. Any person who willfully or negligently violates permit conditions is subject to a fine of up to \$25,000.00 per day, per violation, or by imprisonment, or both.

DELCORA may further require Permittee to take corrective steps to achieve compliance. These penalties do not relieve Permittee from any other civil or criminal penalties which may be leveled under federal, state or local laws or DELCORA's Wastewater Control Regulations.

For any accidental or slug discharge, DELCORA may assess Permittee all costs incurred by DELCORA and/or PWD, including but not limited to remediation costs, legal fees, and penalties incurred by DELCORA and/or PWD under federal, state or local law. Additionally, all penalties under federal, state or local law incurred by DELCORA as a direct result of any violation of this Permit may be assessed against the Permittee.

Within fifteen (15) days from DELCORA's notice of failure to fulfill any condition of the Permit, Permittee shall provide both DELCORA and PWD with an explanation of the failure. Within thirty (30) days Permittee shall submit a proposed plan to achieve compliance with the condition, if necessary.

H. Spill Prevention Plan

Within three (3) months of the effective date of this Permit, Permittee shall submit to DELCORA for DELCORA's written approval an accidental spill prevention plan ("spill plan") specifying processes to eliminate or minimize any accidental or slug discharges. DELCORA's written approval of a spill plan shall not relieve Permittee of any liability under Federal, state or local law. The spill plan shall contain, at a minimum, the following elements:

- a. Description of discharge practices, including routine and non-routine batch discharges;
- b. Description of stored chemicals;

- c. Procedures for promptly notifying Delcora of slug discharges as defined under 40 CFR Section 403.5(b), with procedures for follow-up written notification within five (5) days;
- d. Any necessary procedures to prevent accidental spills, including maintenance of storage areas, handling and transfer of materials; loading and unloading operations, and control of plant site runoff;
- e. Any necessary measures for building containment structures or equipment;
- f. Any necessary measures to assure the integrity of storage vessels and piping;
- g. Any necessary measures for controlling toxic organic pollutants (including solvents);
- h. Any necessary procedures and equipment for emergency response;
- i. Any necessary follow-up practices to limit the damage suffered by the treatment plant or its environment.

I. Proper Disposal of Pretreatment Sludges and Spent Chemicals and Hazardous Waste

A Permittee must dispose of a hazardous sludge and spent chemicals in accordance with any applicable laws including but not limited to Section 405 of the Clean Water Act and Subtitles C and D of the Resources Conservation and Recovery Act ("RCRA"). The user must notify DELCORA in the event of a discharge of a substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR 261.

J. Confidentiality

A Permittee may assert confidentiality claims in accordance with 40 CFR Part 403.14 by designating business information as such. DELCORA and PWD will maintain reasonably designated information as confidential from third parties except for federal or state agencies. In the event of a third party request for access to confidential business information, the Permittee shall indemnify and defend DELCORA and PWD or the claim of confidentiality shall be deemed waived.

K. Dilution

The Permittee shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

L. Revocation of Permit

1. This Permit may be modified, revoked and reissued, or terminated for good cause including, but not limited to, the following:
 - a. To incorporate any new or revised federal, state, or local pretreatment standards or requirements;
 - b. Material or substantial alterations or additions to Permittee's operation which were not covered in the effective permit;

- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
 - d. Information indicating that the permitted discharge poses a threat to DELCORA's collection and treatment systems, plant personnel or the receiving waters;
 - e. Violation of any terms or conditions of this Permit;
 - f. Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or
 - g. Upon request of the Permittee, provided such request does not create a violation of any existing applicable requirements, standards, laws or rules and regulations.
2. The filing of a request by a Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

PART VI - COMPLIANCE SCHEDULE

None

ELAINE P. SCHAEFER
President

JAMES C. HIGGINS
Vice-President

WILLIAM A. SPINGLER

DONALD E. CURLEY

JOHN FISHER

JOHN NAGLE

RICHARD F. BOOKER



RADNOR TOWNSHIP
301 IVEN AVENUE
WAYNE, PENNSYLVANIA 19087-5297

Phone (610) 688-5600

Fax (610) 971-0450

www.radnor.com

ROBERT A. ZIENKOWSKI
Township Manager
Township Secretary

JOHN B. RICE, ESQ.
Solicitor

JOHN E. OSBORNE
Treasurer

September 8, 2014

BMR – 145 King of Prussia Road, LP
Michael Devine
1205 Westlakes Drive
Suite 240
Berwyn, PA 19087

**RE: Land Development Application #2014-D-02 Preliminary Plan Submission
145 King of Prussia Road**

Dear Mr. Devine:

In accordance with Section 255-14 of the Subdivision of Land Code of the Township of Radnor, we have reviewed your preliminary plan application to demolish existing office/research buildings and redevelop the property with office buildings and associated parking at the abovementioned location, and have found it complete. Therefore, I have accepted the application for preliminary plan for review by the Township Staff, Shade Tree Commission, Planning Commission, and Board of Commissioners.

These plans are available for public viewing in the Engineering Department. These plans will be reviewed by the Planning Commission at their meeting on **Monday, October 6, 2014**. Subsequent to the Planning Commission meeting, your plan will be reviewed by the Board of Commissioners. You or your representative should plan to attend all scheduled meetings.

If the Planning Commission takes action, your plan will then be reviewed by the Board of Commissioners at a future meeting. These dates will be provided to you once it is placed on the agenda.

Sincerely,

Roger Phillips, P.E.
Township Engineer

Cc: Nave Newell



September 3, 2014

VIA HAND DELIVERY (610)688-5600

Suzan Jones
Radnor Township
301 Iven Avenue
Wayne, PA 19087

**Reference: 145 King of Prussia Road
Preliminary Plan Submission
Nave Newell No. 2007-011.03**

Dear Ms. Jones:

On behalf of BMR-145 King of Prussia Road, LP we are submitting the following documents for Preliminary Plan review and respectfully request to be placed on the Planning Commission's October meeting agenda. The quantities enclosed are listed after each item:

1. Preliminary Plan Set (Sheets 1-11, 15-29, 31-32 of 32) dated September 3, 2014 (27);
2. Notarized Preliminary Plan Set (Sheets 1-11, 15-29, 31-32 of 32) dated September 3, 2014 (8);
3. Storm Water Management Report and Site Drainage Calculations dated September 3, 2014 (2);
4. Radnor Township Land Development Application (1);
5. Delaware County Application for Act 247 Review (1);
6. Check No. 8205 in the amount of \$15,000.00 and check No. 8206 in the amount of \$8,050.00 made payable to Radnor Township for the Land Development review fee (1 each);
7. Check No. 8207 in the amount of \$13,975.00 made payable to Treasurer of Delaware County for the Act 247 review fee (1);
8. Deed of Record for subject property, with name change record (1);
9. Title Report for Subject Property (1);
10. Traffic Impact Study prepared by McMahon Associates, dated 08/2014 (2).
11. Sewage Planning Module waiver request letter (1); and,
12. Aqua Pennsylvania Inc. will serve letter (1).



Suzan Jones, Radnor Township
Nave Newell No. 2007-011.03
September 3, 2014
Page 2

If you have any questions regarding this submission, please contact me at (610)265-8323 or via email at atweedie@navenewell.net.

Respectfully submitted,

A handwritten signature in black ink that reads "DATweedie". The signature is stylized with a large, sweeping "D" and a long, horizontal stroke at the end.

D. Alexander Tweedie, PE

DAT/jjh
Enclosures

cc via email: Michael Devine - BioMed Realty Trust, Inc.
Timothy Stoll - BioMed Realty Trust, Inc.
Nicholas Caniglia, Esq. - Pierce Caniglia & Taylor
Ross Cole, AIA, IFMA - BAM Studio
John Wichner, PE, PTOE - McMahon Assoc.

\\NNA-DATA1\Proj_Info\07Proj_BioMed-Only\07011.03\RevResp\Township\prelim-submission-ltr_14-09-03.doc

RADNOR TOWNSHIP
301 IVEN AVE
WAYNE PA 19087
P) 610 688-5600
F) 610 971-0450
WWW.RADNOR.COM

SUBDIVISION ~ LAND DEVELOPMENT

Location of Property 145 King of Prussia Road, Radnor, PA 19087

Zoning District PLO

Application No. _____
(Twp. Use)

Fee \$8,050.00

Ward No. 2-2

Is property in HARB District No

Applicant: (Choose one) Owner X Equitable Owner _____

Name BMR - 145 King of Prussia Road, LP

Address 1205 Westlakes Drive, Suite 240, Berwyn, PA 19312

Telephone 610-647-9590 Fax 610-647-9591 Cell _____

Email michael.devine@biomedrealty.com

Designer: (Choose one) Engineer X Surveyor _____

Name Nave Newell, Inc.

Address 900 West Valley Road, Suite 1100, Wayne, PA 19087

Telephone 610-265-8323 Fax 610-265-4299

Email atweedie@navenewell.net

Area of property 26.96 acres Area of disturbance 19.42 acres

Number of proposed buildings 11 Proposed use of property Office

Number of proposed lots 1

Plan Status: Sketch Plan _____ Preliminary X Final _____ Revised _____

Are there any requirements of Chapter 255 (SALDO) that are not in compliance with?

tw
Form 980
Rev. Aug 27 2014 01 A 21

Are there any requirements of Chapter 255 (SALDO) not being adhered to?
Explain the reason for noncompliance.

N/A

Are there any infringements of Chapter 280 (Zoning), and if so what and why?

N/A

Individual/Corporation/Partnership Name

BMR - 145 King of Prussia Road, LP

I do hereby certify that I am the owner, equitable owner or authorized representative of the property which is the subject of this application.

Signature Michael Devine

Print Name MICHAEL DEVINE

By filing this application, you are hereby granting permission to Township officials to visit the site for review purposes.

NOTE: All requirements of Chapter 255 (Subdivision of Lane) of the Code of the Township of Radnor must be complied with whether or not indicated in this application.

DELAWARE COUNTY PLANNING COMMISSION

APPLICATION FOR ACT 247 REVIEW

Incomplete applications will be returned and will not be considered "received" until all required information is provided.

Please type or print legibly

DEVELOPER/APPLICANT

Name BMR - 145 King of Prussia Road, LP E-mail michael.devine@biomedrealty.com

Address 1205 Westlakes Drive, Suite 240, Berwyn, PA 19312 Phone 610-647-9590

Name of Development 145 King of Prussia Road

Municipality Radnor Township

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm Nave Newell, Inc. Phone 610-285-8323

Address 900 West Valley Road, Suite 1100, Wayne, PA 19087

Contact D. Alexander Tweedie, P.E. E-mail atweedie@navenewell.net

Type of Review	Plan Status	Utilities		Environmental Characteristics
		Existing	Proposed	
<input type="checkbox"/> Zoning Change	<input type="checkbox"/> Sketch	<input checked="" type="checkbox"/> Public Sewerage	<input checked="" type="checkbox"/> Public Sewerage	
<input checked="" type="checkbox"/> Land Development	<input checked="" type="checkbox"/> Preliminary	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Private Sewerage	<input type="checkbox"/> Wetlands
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Final	<input checked="" type="checkbox"/> Public Water	<input checked="" type="checkbox"/> Public Water	<input type="checkbox"/> Floodplain
<input type="checkbox"/> PRD	<input type="checkbox"/> Tentative	<input type="checkbox"/> Private Water	<input type="checkbox"/> Private Water	<input type="checkbox"/> Steep Slopes

Zoning District PLO

Tax Map # 38 / 15 / 22

Tax Folio # 38 / 02 / 01234 / 00

**STATEMENT OF INTENT
WRITING "SEE ATTACHED PLAN" IS NOT ACCEPTABLE.**

Existing and/or Proposed Use of Site/Buildings:

Demolition of existing office/research buildings and redevelopment of property with proposed office buildings and associated parking.

Total Site Area 26.96 Acres
Size of All Existing Buildings 427,109 Square Feet
Size of All Proposed Buildings 552,271 Square Feet
Size of Buildings to be Demolished 427,109 Square Feet

MICHAEL DEVINE
Print Developer's Name

Michael Devine
Developer's Signature

**MUNICIPAL SECTION
ALL APPLICATIONS AND THEIR CONTENT ARE A MUNICIPAL RESPONSIBILITY.**

Local Planning Commission Regular Meeting

Local Governing Body Regular Meeting

Municipal request for DCPD staff comments prior to DCPC meeting, to meet municipal meeting date:

Actual Date Needed _____

IMPORTANT: If previously submitted, show assigned DCPD File # _____

Roger A. Phillips, Township Engineer
Print Name and Title of Designated Municipal Official

610-688-5600
Phone Number

[Signature]
Official's Signature

9/8/2014
Date

FOR DCPD USE ONLY

Review Fee: Check # _____ Amount \$ _____ Date Received _____

Applications with original signatures must be submitted to DCPD.

1. Development Information

Name of Development 145 King of Prussia Road
Developer Name BMR-145 King of Prussia Road, L.P.
Address 1205 Westlakes Drive, Suite 240
Berwyn, PA 19312
Telephone # 610-647-9590
Email michael.devine@biomedrealty.com

2. Location of Development

a. County Delaware
b. Municipality Radnor Township
c. Address or Coordinates 145 King of Prussia Road

d. Tax Parcel # 35-15-22
e. USGS Quad Name Norristown
inches up 40.039265 over -75.354982
from bottom right corner of map.
f. Located in a High Quality/Exceptional Value watershed?
 Yes No

3. Type of Development Proposed (check appropriate box)

Residential Multi-Residential
Describe _____

 Commercial Institutional
Describe Demolish an existing office/research campus and
construct 551,000 SF office complex

 Brownfield Site Redevelopment
 Other (specify) _____

4. Size

a. # of lots 1 # of EDUs 138 (all existing)
b. # of lots since 5/15/72 1
c. Development Acreage 18.28
d. Remaining Acreage 0

5. Sewage Flows 55,100 (no increase proposed) gpd

6. Proposed Sewage Disposal Method (check applicable boxes)

a. Sewerage System
 Existing (connection only) New (extension)
 Public Private
 Pump Station(s)/Force Main Gravity
Name of existing system being extended
Radnor Township
Interceptor Name Darby Creek
Treatment Facility Name City of Philadelphia SW WWTP

NPDES Permit # PA0026671
b. Construction of Treatment Facility
 With Stream Discharge
 With Land Application (not including IRSIS)
 Other
 Repair?
Name of waterbody where point of discharge is proposed
(if stream discharge)

c. Onlot Sewage Disposal Systems
(check appropriate box)
 Individual onlot system(s) (including IRSIS)
 Community onlot system
 Large-Volume onlot system
d. Retaining tanks
Number of Holding Tanks _____
Number of Privies _____

7. Request Sewage Facilities Planning Module forms in electronic format

8. Request for Planning Exemption

a. Protection of rare, endangered or threatened species
Check one:
 The "PNDI Project Environmental Review Receipt" is attached.
or
 A completed "PNDI Project Planning & Environmental Review Form," (PNDI Form) is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning exemption will be considered incomplete and that the DEP processing of my planning exemption request will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials _____

b. Plot Plan Attached Site Reports Attached

c. Onlot Disposal Systems

(1) I certify that the Official Plan shows this area as an onlot service area.

(Signature of Municipal Official) / Date

Name (Print) / Title

Municipality (must be same as in 2.b.)

Telephone # _____

(2) I certify that each lot in this subdivision has been tested and is suitable for both a primary and replacement sewage disposal system.

Signature of SEO / Date

Name (Print) / Certification #

Telephone # _____

(3) I certify that each lot in this subdivision is at least 1 acre in size

(Signature of Project Applicant/Agent) / Date

d. Public Sewerage Service (i.e., ownership by municipality or authority)

Based upon written documentation, I certify that the facilities proposed for use have capacity and that no overload exists or is projected within 5 years. (Attach documents.)

(Signature of Municipal Official) / Date

Name (Print) / Title

Municipality (must be same as in 2.b.)

Telephone # _____

1. PROJECT INFORMATION

Project Name: 145 King of Prussia Road

Date of review: 7/14/2014 1:07:02 PM

Project Category: Development, New commercial/industrial development (store, gas station, factory)

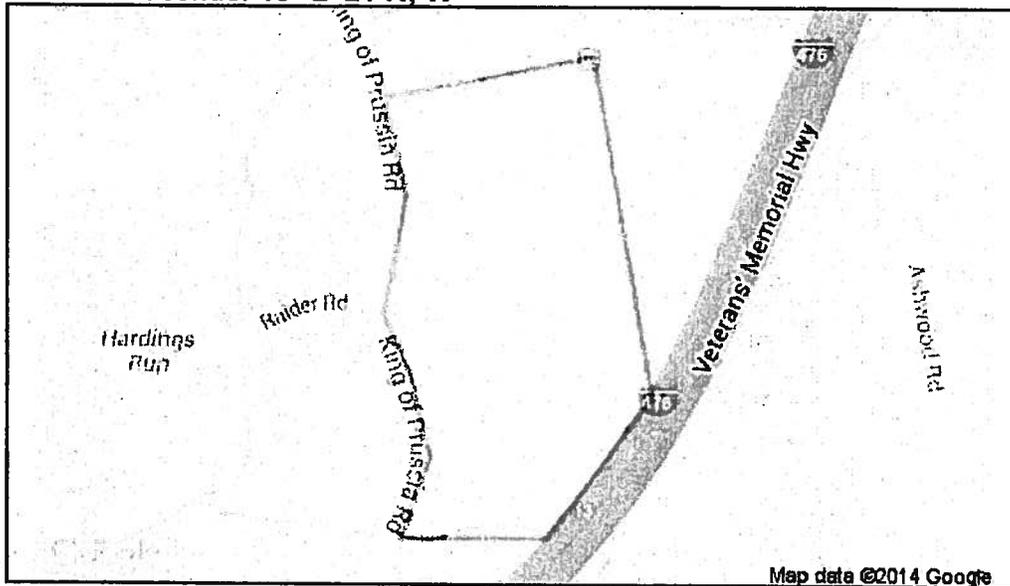
Project Area: 22.0 acres

County: Delaware Township/Municipality: Radnor

Quadrangle Name: NORRISTOWN ~ ZIP Code: 19085, 19087

Decimal Degrees: 40.039265 N, -75.354982 W

Degrees Minutes Seconds: 40° 2' 21 N, W



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special

concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

Project Narrative
BioMed Realty Trust – 145 King of Prussia Road Planning Modules
Radnor Township, Delaware County
DEP Code # 1-23013-219-3J

Pursuant to the requirements set forth in section F of the attached planning modules the following information is offered:

1. *Indicate the nature of the development:* BioMed Realty Trust plans to demolish a 54,066 square foot office building and ancillary structures on the existing campus located at 145 King of Prussia Road in Radnor Township, Delaware County. A 102,045 square foot office/laboratory building will be constructed in its place. The campus currently consists of 4 main buildings and associated landscape, lighting, parking and ancillary structures. The building to be demolished is 100% office space.
2. *Enter the number of lots or EDU's in the development project:* The anticipated sewage flow from the facility is calculated to be 12,451 gallons per day based on historical water usage at the facility. This can be defined as 32 EDU's based on DEP's calculation of 400 gallons per EDU. However, Radnor Township defines an EDU as 262.5 gallons per EDU; therefore in Radnor's system the project will generate 48 EDU's.
3. *Describe the proposed sewage disposal method:* The chosen sewage disposal method for this project is connection to the public sewerage system located within the existing BioMed Campus. The sewage will travel through the collection and conveyance system owned by Radnor Township into the conveyance systems owned by Radnor-Haverford-Marple Sewer Authority (RHM), Springfield Township, Darby Creek Joint Authority (DCJA), Delaware County Regional Authority (DELCORA) and the City of Philadelphia. Eventual treatment and disposal will be at the City of Philadelphia Southwest Wastewater Treatment Facility.
4. *Specify the projected population to be served and sewage flows in gpd and how these figures were calculated.* BioMed Realty Trust plans to demolish a 54,066 square foot office building and ancillary structures on the existing campus. A 102,045 square foot office/laboratory building will be constructed in its place. The new building will be 70% office space and 30% lab space. Sewage flows were calculated as follows:

EXISTING FLOW:	$54,066 \text{ ft}^2 \times 0.1 \text{ gal/ft}^2 = 5,407 \text{ gpd}$
PROPOSED FLOW:	
LAB USE	$30,613 \text{ ft}^2 \times 0.35 \text{ gal/ft}^2 = 10,715 \text{ gpd}$
OFFICE USE	$71,432 \text{ ft}^2 \times 0.1 \text{ gal/ft}^2 = 7,143 \text{ gpd}$
	TOTAL = 17,858 gpd
	NET INCREASE $17,858 - 5,407 = 12,451 \text{ gpd}$

Historical water data from the existing campus buildings was used to determine flows per square foot for the laboratory and office use.

5. *Describe the location of the discharge, disposal point or land application, if applicable:*
Not Applicable as the project proposes connection to an existing public system.

6. *List the total acreage of the proposed land development:* BioMed Realty Trust owns 26.6 acres; the existing campus occupies 19.1 acres of the parcel. The Blue Route (Route 476) bisects the parcel rendering 7.5 acres of the site on the eastern side of the property unusable. The demolition and construction project will disturb 4.9 acres of the parcel.

7. *Describe the use of any acreage or parcels under the same ownership and adjacent to the property:* Not Applicable, this lot is the only parcel BioMed Realty Trust owns in the immediate vicinity.

8. *Provide information on previous Act 537 planning:* The parcel is in an area planned for connection to the public sewerage system. The existing campus is connected into the existing public sewerage system.



SEWAGE FACILITIES PLANNING MODULE

COMPONENT 4A - MUNICIPAL PLANNING AGENCY REVIEW

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the existing local municipal planning agency for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name

BioMed Realty Trust - 145 King of Prussia Road

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by municipal planning agency. 2/2/09 7/2/08
2. Date review completed by agency. _____

SECTION C. AGENCY REVIEW (See Section C of instructions)

- | Yes | No | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, <i>et seq.</i>)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2. Is this proposal consistent with the comprehensive plan for land use?
If no, describe the inconsistencies _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Is this proposal consistent with the use, development, and protection of water resources?
If no, describe the inconsistencies _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. Does this project propose encroachments, obstructions, or dams that will affect wetlands?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 6. Will any known historical or archaeological resources be impacted by this project?
If yes, describe impacts _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7. Will any known endangered or threatened species of plant or animal be impacted by this project?
If yes, describe impacts _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 8. Is there a municipal zoning ordinance? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 9. Is this proposal consistent with the ordinance?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 11. Have all applicable zoning approvals been obtained? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Is there a municipal subdivision and land development ordinance? |

SECTION C. AGENCY REVIEW (continued)

- | Yes | No | |
|--|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 13. Is this proposal consistent with the ordinance?
If no, describe the inconsistencies _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 14. Is this plan consistent with the municipal Act 537 Official Sewage Facilities Plan?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
If yes, describe _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision? |
| <input type="checkbox"/> | <input type="checkbox"/> | If yes, is the proposed waiver consistent with applicable ordinances? |
| 17. Name, title and signature of planning agency staff member completing this section: | | |
| Name: <u>Daniel E Malloy</u> | | |
| Title: <u>Township Engineer</u> | | |
| Signature: <u>[Signature]</u> | | |
| Date: <u>6/9/09</u> | | |
| Name of Municipal Planning Agency: <u>Rahner Township Planning Comm.</u> | | |
| Address: <u>301 I Sen Ave, Wayne Pa 19087</u> | | |
| Telephone Number: <u>610 688 5600</u> | | |

SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)

This Component does not limit municipal planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are desired, attach additional sheets.

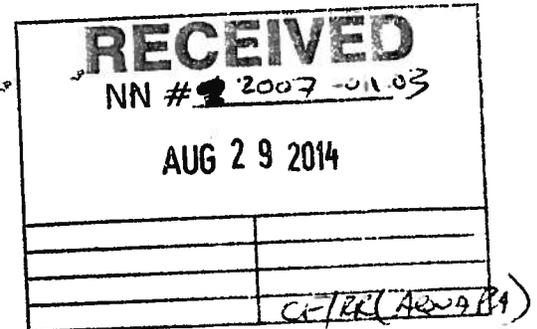
The planning agency must complete this Component within 60 days.

This component and any additional comments are to be returned to the project sponsor.



August 28, 2014

D. Alexander Tweedie, PE
Nave Newell
900 West Valley Road, Suite 1100
Wayne, PA 19087



Re: Water Availability
145 King of Prussia Road
Radnor Township, Delaware County, Pennsylvania

Dear Mr. Tweedie:

This letter will serve as confirmation that the above referenced property is situated within Aqua Pennsylvania Inc.'s service territory. Service would be provided in accordance with Aqua Pennsylvania Inc.'s Rules and Regulations.

Please contact Deanne L. Ciotti, Aqua Pennsylvania Inc.'s New Service Representative at 610-541-4160 for further information on service alternatives that will meet your domestic and fire service needs. Ms. Ciotti will provide you with the appropriate service applications.

Please note that if any additional hydrants are required, or any need to be relocated, for this project that it will be handled separately by me with the issuance of a Fire Hydrant Agreement or Relocation Agreement for execution. If required, please forward a drawing with the hydrant dimensioned in both directions showing any utilities that could be encountered by us in running the hydrant lead pipe. Similarly this also applies for existing mains on a parcel, except that your firm would be required to prepare a drawing for us.

Flow data information may be obtained from our Production Department so that you may determine the adequacy of our supply for your project needs. Please fax a written request to Lisa Thomas Oliva at 610-645-1162 containing the address, street, cross street and municipality and all pertinent contact information.

If I can be of further assistance, you may contact me at (610) 645-4230.

Sincerely,

Gary J. Horne
New Business Representative

COMMITMENT FOR TITLE INSURANCE

Issued by



Stewart Title Guaranty Company, a Texas Corporation ("Company"), for a valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedules A and B and to the Conditions of this Commitment.

This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

All liability and obligation under this Commitment shall cease and terminate six months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

This commitment shall not be valid or binding until countersigned by a validating officer or authorized signatory.

IN WITNESS WHEREOF, Stewart Title Guaranty Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A.

Countersigned by:

A handwritten signature in black ink, appearing to be "M. J. ...", written over a horizontal line.

Authorized Signatory
Stewart Title Guaranty Company - Wayne, PA

A handwritten signature in black ink, appearing to be "Stewart F. ...", written over a horizontal line.

Senior Chairman of the Board

A handwritten signature in black ink, appearing to be "Malcolm ...", written over a horizontal line.

Chairman of the Board

A handwritten signature in black ink, appearing to be "Michael ...", written over a horizontal line.

President

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at < <http://www.alta.org/>> .



All notices required to be given the Company and any statement in writing required to be furnished the Company shall be addressed to it at P.O. Box 2029, Houston, Texas 77252.

The Commonwealth of Pennsylvania Department of Insurance requires that we send the following notice to you, our applicant, prior to closing. They further require that you, the applicant, forward this notice to the consumer in advance of the day of closing:

NOTICE

Your title insurance fee covers the cost of closing on the insured real estate property IF it takes place during regular office hours and at the office of the Title Insurance Agent or Underwriter.

If your closing takes place at a location or time of your choosing, or that of your lender or realtor; the title insurance agent or underwriter may impose an additional charge for this special service. You may determine the amount of this additional charge, if any, by calling: (610) 687-0400

NOTICE

If this conveyance or refinance occurs within ten years of a previous insurance of the same property, you may be entitled to a reduced rate. You may determine eligibility for a reduced rate, if any, by calling: (610) 687-0400

NOTICE: ATTENTION IS DIRECTED TO THE PROVISIONS OF THE PENNSYLVANIA HUMAN RELATIONS ACT (Act of October 27, 1955, as amended (43 P.S. s 951 et seq.)) prohibiting discrimination because of race, color, religious creed, ancestry or national origin in the selling, leasing or financing of commercial housing. The said law pertains to all housing accommodations except (1) those situated in a single or two unit building in which one of the units is occupied by the owner thereof, and (2) those owned by religious, charitable, educational, private and fraternal organizations to promote the religious principles or the aims, purposes or fraternal principles for which such organizations were established. This notice does not in any way constitute an objection or defect in the title of the premises being conveyed, but is being given in accordance with 16 Pa. Code s. 43.13 (relating to giving of notice by title insurance companies) adopted by the Pennsylvania Human Relations Commission.

STEWART TITLE GUARANTY COMPANY

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

File Number: 20146883

Commitment Date: August 29, 2014

Last Revised Date:

ISSUED TO:

ALL INQUIRIES SHOULD BE DIRECTED TO:

Doug Goss
Stewart Title Guaranty Company
900 West Valley Road – Suite 400
Wayne, Pennsylvania 19087
Phone: (610) 687-0400
Fax: (610) 687-0464

1. Effective Date: August 4, 2014

2. Policy or Policies to be insured:

(a) ALTA Owner's Policy (6-17-06) modified by TIRBOP (4-1-07) TBD

Proposed Insured:

TBD

(b) ALTA Loan Policy (6-17-06) modified by TIRBOP (4-1-07) N/A

Proposed Insured:

N/A

3. The estate or interest in the land described or referred to in this Commitment and covered herein is:

Fee Simple

4. Title to the estate or interest in said land is at the effective date hereof vested in:

Radnor Properties-145 KOP, L.P., a Delaware limited partnership

5. The land referred to in this Commitment is

See attached Schedule A, Page 2: "Exhibit A – Legal Description"

For Informational Purposes Only:

Address: 145 King of Prussia Road, Radnor Township, Delaware County, Pennsylvania

STEWART TITLE GUARANTY COMPANY

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

Legal Description

File Number: 20146883

PREMISES A

ALL THAT CERTAIN tract of land (sometimes hereinafter called "the tract hereby conveyed") situate in the Township of Radnor, County of Delaware and Commonwealth of Pennsylvania and described as follows according to a survey and map prepared by M.R. and J.B. Yerkes, Civil Engineers. of Bryn Mawr, Pennsylvania. under date of 5/6/1952. and revised under date of 1/13/1953:

BEGINNING at a point marking the intersection of the middle lines of Lancaster Avenue (being also known as Lincoln Highway (Route 30) and being 80 feet wide) and proposed road (50 feet wide) leading Northwestwardly from Lancaster Avenue through the Estate of Benjamin Chew, said point being at the distance of 3501.89 feet measured Southeastwardly along the middle of Lancaster Avenue from its intersection with the middle of Radnor and Chester Road; thence along the middle of said proposed road (50 feet wide) the twelve following courses and distances: (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet, the chord of said curved line extending North 4 degrees 39 minutes 05 seconds West, 120.76 feet to a point of tangency; (2) North 26 degrees 36 minutes 10 seconds West, 181.79 feet to a point of curve; (3) on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet, the chord of said curved line extending North 18 degrees 29 minutes 35 seconds West, 197.50 feet to a point of tangency; (4) North 10 degrees 23 minutes West, 39.35 feet to a point of curve; (5) on a line curving to the left with a radius of 200.0 feet the arc distance of 121.46 feet the chord of said curved line extending North 27 degrees 46 minutes 50 seconds West, 119.60 feet to a point of tangency; (6) North 45 degrees 10 minutes 40 seconds West, 83.08 feet to a point of curve; (7) on a line curving to the right with a radius of 350.0 feet the arc distance of 193.24 feet, the chord of said curved line extending North 29 degrees 21 minutes 40 seconds West, 190.79 feet to a point of tangency; (8) North 13 degrees 32 minutes 40 seconds West, 246.94 feet to a point of curve; (9) on a line curving to the right with a radius of 400.0 feet the arc distance of 194.18 feet, the chord of said curved line extending North 00 degrees 21 minutes 45 seconds East 192.28 feet to a point of tangency; (10) North 14 degrees 16 minutes 10 seconds East, 258.06 feet to a point of curve; (11) on a line curving to the left with a radius of 400.0 feet the arc distance of 124.29 feet, the chord of said curved line extending North 5 degrees 22 minutes 05 seconds East, 123.79 feet to a point of tangency; (12) North 3 degrees 32 minutes West, 228.16 feet to a point; thence leaving said proposed road and extending along other land of the Estate of Benjamin Chew North 84 degrees 29 minutes 30 seconds East 631.61 feet to an iron pin in line of land of the Philadelphia and Western Railway Co.; thence along the same the three following courses and distances: (1) South 2 degrees 55 minute East, 1675.84 feet to a point; (2) South 87 degrees 05 minutes West, 10.0 feet to a point; (3) South 2 degrees 55 minutes East, 390.96 feet to a point in the middle of Lancaster Avenue aforesaid; and thence along the middle of Lancaster Avenue North 69 degrees 58 minutes West, 382.45 feet to the place of beginning.

CONTAINING 26.6 acres, more or less.

PREMISES B

STEWART TITLE GUARANTY COMPANY

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

ALL THAT CERTAIN tract of land (sometimes hereinafter called the premises hereby conveyed) Situate in the Township of Radnor, County of Delaware, and Commonwealth of Pennsylvania, and described as follows: According to a map - with a sub-plan of the premises hereby conveyed incorporated in it - of property of the Estate of Benjamin Chew prepared by M.R. and J.B. Yerkes, Civil Engineers, of Bryn Mawr, Pennsylvania, under date of 5/6/1952, and last revised under date of 4/24/1954:

BEGINNING at a point in the Westerly boundary of the other land now belonging to the said Grantee at the distance of 627.89 feet measured Northwestwardly along said boundary from its intersection with the middle line of Lincoln Highway (said point of beginning being more exactly located by starting at the point of intersection of the middle line of Lincoln Highway (80 feet wide) with the middle line of Hillside Circle (which leads Southeastwardly from Lincoln Highway); thence running South 72 degrees 42 minutes East. 727.72 feet along the middle of Lincoln Highway to a point, being the Southwestly corner of said other land now belonging to the said Grantee, and thence running along the Westerly boundary of said other land the five following courses and distances: (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet (the chord of said curved line extending North 4 degrees 39 minutes 5 seconds West, 120.76 feet) to a point; (2) thence North 26 degrees 36 minutes 10 seconds West, 181.79 feet to a point; (3) thence on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet (the chord of said curved line extending North 18 degrees 29 minutes 35 seconds West, 197.50 feet) to a point; (4) thence North 10 degrees 23 minutes West. 39.35 feet to a point, and (5) thence on a line curving to the left with a radius of 200.0 feet the arc distance of 84.83 feet to a point, being the first mentioned point and place of beginning; thence from said point and place of beginning, along other land of the said Grantor of which this was originally a part, North 70 degrees 32 minutes 40 seconds West, 226.29 feet to a point in the middle line of a proposed road (50 feet wide) extending from Lincoln Highway in a Northeastwardly and Northwestwardly direction to Radnor and Chester Road; thence along the middle line of said proposed road on a line curving to the left with a radius of 395.18 feet the arc distance of 252.62 feet (the chord of said curved line extending North 4 degrees 46 minutes 11 seconds East, 248.34 feet) to a point in the Westerly boundary of said other land now belonging to the said Grantee; thence along said boundary South 13 degrees 32 minutes 40 seconds East, 72.0 feet to a point; thence along said boundary on a line curving to the left with a radius of 350.0 feet the arc distance of 193.24 feet (the chord of said curved line extending South 29 degrees 21 minutes 40 second East, 190.79 feet) to a point; thence along said boundary South 45 degrees 10 minutes 40 seconds East, 83.08 feet to a point; and thence along said boundary on a line curving to the right with a radius of 200.0 feet the arc distance of 36.63 feet (the chord of said curved line extending South 39 degrees 55 minutes 52 seconds East, 36.58 feet) to the first mentioned point and place of beginning.

CONTAINING 0.360 of an acre. more or less.

BEING Folio No. 36-02-01234-00

ALSO BEING DESCRIBED AS FOLLOWS:

PREMISES "A"

ALL THAT CERTAIN tract of land, Hereditaments and Appurtenances, SITUATE in Radnor Township, Delaware County, Commonwealth of Pennsylvania and described according to an ALTA/ACSM Land Title Survey prepared

STEWART TITLE GUARANTY COMPANY

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

for The Rubenstein Company, LP., by Bock & Clark's National Surveyors Network as #4200400832, dated July 14, 2004 as more fully described as follows, to wit:

BEGINNING at a point on the title line in Lancaster Avenue (being also known as Lincoln Highway (Route 30), width varies), said point being at the distance of 3501.89 feet measured Southeasterly along the title line in Lancaster Avenue from its intersection with the title line in Radnor - Chester Road, thence from said point of beginning along lands now or formerly of PA. D.O.T. the 5 following courses and distances: (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet, the chord of said curved line extending North 4 degrees 39 minutes 05 seconds West 120.76 feet to a point of tangency, (2) North 26 degrees 36 minutes 10 seconds West 181.79 feet to a point of curve, (3) on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet, the chord of said curved line extending North 18 degrees 29 minutes 35 seconds West 197.50 feet to a point of tangency, (4) North 10 degrees 23 minutes West 39.35 feet to a point of curve, (5) on a line curving to the left with a radius of 200.0 feet the arc distance of 121.46 feet, the chord of said curved line extending North 27 degrees 46 minutes 50 seconds West 119.60 feet to a point of tangency; thence North 45 degrees 10 minutes 40 seconds West 83.08 feet to a point of curve; thence on a line curving to the right with a radius of 350.0 feet the arc distance of 193.24 feet; the chord of said curved line extending North 29 degrees 21 minutes 40 seconds West 190.79 feet to a point of tangency in the bed of King of Prussia Road; thence North 13 degrees 32 minutes 40 seconds West 246.94 feet to a point of curve in the centerline of King of Prussia Road (50 feet wide); thence along said line the 4 following courses and distances; (1) on a line curving to the right with a radius of 400.0 feet the arc distance of 194.18 feet, the chord of said curved line extending North 00 degrees 21 minutes 45 seconds East 192.28 feet to a point of tangency, (2) North 14 degrees 16 minutes 10 seconds East 258.06 feet to a point of curve, (3) on a line curving to the left with a radius of 400.0 feet the arc distance of 124.29 feet, the chord of said curved line extending North 5 degrees 22 minutes 05 seconds East 123.79 feet to a point of tangency, (4) North 3 degrees 32 minutes West 228.16 feet to a spike; thence leaving King of Prussia Road and extending along lands now or formerly of Radnor Racquet Club, North 84 degrees 29 minutes 30 seconds East 631.651 feet to an iron pin in line of lands now or formerly of S.E.P.T.A.; thence along said lands the 3 following courses and distances, (1) South 2 degrees 55 minutes East. 1675.84 feet to a point (2) South 87 degrees 05 minutes West 10.0 feet to a point, (3) South 2 degrees 55 minutes East 390.96 feet to a point in the title line In Lancaster Avenue aforesaid; and thence along the title line In Lancaster Avenue North 69 degrees 58 minutes West 382.45 feet to the place of beginning.

PREMISES "B"

ALL THAT CERTAIN tract of land, Hereditaments and Appurtenances, SITUATE in Radnor Township, Delaware County, Commonwealth of Pennsylvania, and described according to an ALTA/ACSM land Title Survey Plan prepared for The Rubenstein Company, LP., by Yerkes Associates Inc., Consulting Engineers and Surveyors dated 11/8/2000. as follows, to wit

BEGINNING at an Iron pin at an Interior corner of lands now or formerly of PA D.O.T. said point being located the 5 following courses and distances along said lands of PA D.O.T. from a point on the title line in Lancaster Avenue (the point of beginning of Premises "A": (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet the chord of said curved line extending North 4 degrees 39 minutes 05 seconds West 120.786 feet to a point, (2) thence North 26 degrees 36 minutes 10 seconds West 181.79 feet to a point, (3) thence on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet the chord of said curved line

STEWART TITLE GUARANTY COMPANY

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

extending North 18 degrees 29 minutes 35 seconds West 197.50 feet to a point. (4) thence North 10 degrees 23 minutes West 39.35 feet to a point, and (5) thence on a line curving to the left with a radius of 200.0 feet the arc distance of 84.83 feet the chord of said curved line extending North 22 degrees 32 minutes 03 seconds West 84.20 feet to the point and place of beginning, thence from said point and place of beginning, along lands of said PA D.O. T. North 70 degrees 32 minutes 40 seconds West 226.29 feet to a spike in the middle line of King of Prussia Road (50 feet wide); thence along the middle line of said King of Prussia Road on a line curving to the left with a radius of 395.18 feet the arc distance of 252.62 feet the chord of said curved line extending North 4 degrees 46 minute 11 seconds East 248.34 feet to a point on the Southwesterly line of Premises "A"; thence along said line South 13 degrees 32 minutes 40 seconds East 72.0 feet to a point, thence along the same, on a line curving to the left with a radius of 350.0 feet the arc distance of 193.24 feet the chord of said curved line extending South 29 degrees 21 minutes 40 seconds East 190.79 feet to a point, thence along the same South 45 degrees 10 minutes 40 seconds East 83.08 feet to a point; thence along the same, on a line curving to the right with a radius of 200.0 feet the arc distance of 36.63 feet the chord of said curved line extending South 39 degrees 55 minutes 52 seconds East 36.58 feet to the first mentioned point and place of beginning.

PARCEL "C" (Easement Parcel)

TOGETHER with all the rights and benefits set forth in those certain Agreements each dated January 20, 1956 and recorded in the Delaware County Recorder of Deeds Office in Deed Book 2137 page 548 and in Deed Book 2137 page 551 as modified by that certain Agreement dated December 10, 1965 and recorded In the Delaware County Recorder of Deeds Office in Deed Book 2227 page 592.

PARCEL "D" (Easement Parcel)

ALSO TOGETHER WITH all the rights and benefits conferred in the certain Indenture dated June 24, 1946 and recorded in the Delaware County Recorder of Deeds Office in Deed Book 1278 page 499.

PARCEL "E" (Easement Parcel)

ALSO TOGETHER WITH all the rights and benefits conferred in that certain Indenture dated April 7, 1953 and recorded in the Delaware County Recorder of Deeds Office in Deed Book 1573 page 567.

BEING PARCEL #36-02-01234-00

BEING the same premises which WYETH-AYERST PHARMACEUTICALS, INC., A NEW YORK CORPORATION, by Indenture bearing date 4/6/2001 and recorded 4/11/2001 in the Office of the Recorder of Deeds, in and for the County of DELAWARE in Volume 2155 page 378 etc." granted and conveyed unto RADNOR PROPERTIES-145 KOP, L.P., A DELAWARE LIMITED PARTNERSHIP, in fee.

COMMITMENT FOR TITLE INSURANCE

SCHEDULE B

Part I

File Number: 20146883

The following are the requirements to be complied with:

1. Payment of the full consideration to or for the account of the grantors or mortgagors.
2. Payment of all taxes, charges or assessments levied and assessed against the subject premises, which are due and payable.
3. Payment of the premiums, fees and charges for the policy.
4. Satisfactory evidence should be provided that improvements and/or repairs or alterations thereto are completed; that contractors, sub-contractors, labor and materialmen are all paid and/or have released of record all liens or notices of intent to perfect a lien for labor or materials.
5. Disclosure of any unrecorded leases or rights of parties in possession.
6. Provide Municipal/Township, County and School TAX RECEIPTS for the current and prior three years.

Parcel Identification Number: 36-02-01234-00
Assessed Value: \$41,637,720.00
7. Proof that any special district assessment taxes have been paid in full.
8. Provide WATER AND SEWER RENTS RECEIPTS for the current and prior three years.
9. LIEN LETTER must be furnished from the Municipality and/or Municipal Authority showing that there are no unfiled municipal liens or claims or tap-in fees.
10. OWNER'S AND/OR BUYER'S AFFIDAVIT on this Company's form to be executed and submitted to this Company.
11. SOCIAL SECURITY NUMBER or Tax Identification Numbers, along with future address of seller to be furnished to comply with reporting requirements of the IRS. (Conveyances only, except Corporate grantors)
12. NEW CONSTRUCTION of all commercial properties or residential properties the value of which will be \$1 million or over: Proof by affidavit that any mortgage will be (1) either a purchase money mortgage as defined by 42 PaC.S. §8141(a) or a construction loan as defined by 42 PaC.S. §8143(f) the proceeds of either must be used only to pay for the purchase of the insured property or to pay for the cost of construction of the improvement on the insured property and nothing else or (2) the mortgage is recorded prior to the first visible commencement of work.
13. Please be advised that a CONTINUATION SEARCH must, and will be made by the closing agent at the time of closing to update the effective date of the commitment and that the earlier effective date shown at the beginning of this commitment will not affect the date of coverage of the policy. The date of the policy will be the date of recording of the insured instrument.

Schedule B, Part I - Page 1 of 3

File Number: 20146883



ALTA Commitment (6-17-06) - TIRBOP & STG modifications (4-1-07)

COMMITMENT FOR TITLE INSURANCE

SCHEDULE B

Part I

14. Satisfaction, release or subordination of the following

A) MORTGAGES:

i. NONE

B) FINANCING STATEMENTS:

i. NONE

C) JUDGMENTS:

i. NONE

D) FEDERAL LIENS:

i. NONE

E) MECHANICS AND MUNICIPAL CLAIMS:

i. NONE

F) RECORDED NOTICE OF BANKRUPTCIES:

i. NONE

15. Instrument(s), in insurable form, creating the estate or interest to be insured must be executed, delivered and filed for record:

A. **DEED**

FROM: Radnor Properties-145 KOP, L.P., a Delaware Limited Partnership
TO: TBD

B. **MORTGAGE**

FROM: TBD
TO:

Corporate deeds/mortgages must be executed pursuant to proper corporate authority, and the Company must be furnished with copies of Board resolutions authorizing the execution of such documents.

16. TO BE PRODUCED AND EXAMINED— Radnor Properties – 145 KOP, L.P., a Delaware limited partnership:

- a) Names of all General Partners—possible additional searches, exceptions and requirements to be added
- b) Partnership Agreement and all amendments
- c) Certificate of Limited Partnership and all amendments
- d) Proof of Good Standing from state of registration
- e) Proof by affidavit that the partnership has not filed an election under Title 15 Chapter 87 of the

COMMITMENT FOR TITLE INSURANCE

SCHEDULE B

Part I

Pennsylvania statutes.

f) Instrument to be executed by a Limited Partnership must be executed by all the general partners in the name of the Limited Partnership. Unless the transaction is in the ordinary course of business, there must be approval of all the limited partners (unless agreement eliminates the need for such approval)

THE COMPANY MAY MAKE OTHER REQUIREMENTS OR EXCEPTIONS UPON ITS REVIEW OF THE DOCUMENTS CREATING THE ESTATE OR INTEREST TO BE INSURED OR OTHERWISE ASCERTAINING DETAILS OF THE TRANSACTION.

COMMITMENT FOR TITLE INSURANCE

SCHEDULE B

Part II

File No.: 20146883

Schedule B of the policy or policies to be insured will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company:

1. Discrepancies or conflicts in boundary lines, easements, encroachments, or area content which a satisfactory survey would disclose.
2. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public record or attaching subsequent to the effective date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage hereon covered by the commitment.
3. Any lien, or right to a lien for services, labor or materials heretofore or hereafter furnished, imposed by law and not shown by public records.
4. Rights or claims of parties in possession or under agreements of sale not shown by public records.
5. Taxes or special assessments which are not shown on the public record.
6. Possible additional tax assessments for new construction and or major improvements.
7. Any reservation, restriction, limitations, conditions or agreements set forth in the instrument by which title is vested in the insured.
8. Subject to all coal and mining rights and all rights relating thereto: THIS DOCUMENT DOES NOT INCLUDE OR INSURE THE TITLE TO THE COAL AND THE RIGHT OF SUPPORT UNDERNEATH THE SURFACE OF THE LAND DESCRIBED OR REFERRED TO HEREIN AND THE OWNER OR OWNERS OF SUCH COAL MAY HAVE THE COMPLETE AND LEGAL RIGHT TO REMOVE ALL SUCH COAL AND, IN THAT CONNECTION, DAMAGE MAY RESULT TO THE SURFACE OF THE LAND AND ANY HOUSE, BUILDING OR OTHER STRUCTURE ON OR IN SUCH LAND. THE INCLUSION OF THIS NOTICE DOES NOT ENLARGE, RESTRICT OR MODIFY ANY LEGAL RIGHTS OR ESTATES OTHERWISE CREATED, TRANSFERRED, EXCEPTED OR RESERVED BY THIS INSTRUMENT. Policy does not insure against subsidence.
9. Excepting and reserving that portion of the premises lying in and along the roadbed(s); subject to public and private rights thereon.
10. Subject to any line right of ways including electric line, telephone line, cable lines, water and sewer line right of ways in use and existing in, on, or under the ground and all rights in relation thereto.
11. Amount and computation of area or acreage is not insured

Schedule B, Part II - Page 1 of 2

File No. 20146883



ALTA Commitment (6-17-06) - TIRBOP & STG modifications (4-1-07)

COMMITMENT FOR TITLE INSURANCE

SCHEDULE B

Part II

12. Easement of 22 feet wide service road and 50 feet wide road.
13. Reservations and Easements as in Deed Book 1684 page 613.
14. Right of Way Agreement as in Deed Book 1153 page 33.
15. Quit Claim Deed by Commonwealth of Pennsylvania Department of Transportation to Wyeth Laboratories, Inc., as recorded in Volume 992 page 1617 (vacated right of way for driveway relocation).
16. Rights granted to Philadelphia Electric Company as set forth in Deed Book 1721 page 265 and Deed Book 1867 page 611.
17. Agreement as in Deed Book 2137 page 548.
18. Agreement as in Deed Book 2137 page 551.
19. Agreement as in Deed Book 2227 page 592.
20. Deed Extinguishing Easement as in Deed Book 1864 page 464.
21. Pennsylvania Public Utility Commission Application Docket No. 94888 as set forth in Deed Book 2358 page 411.
22. Easement of Roadway and use of same as in Deed Book 1278 page 499.
23. Reservations and Easements as in Deed Book 1573 page 567.
24. Notes, conditions, setback lines, easements, reservations and restrictions as shown and set forth and recorded in Map Plan/Book No. 28 page 447.

THE COMPANY MAY MAKE OTHER REQUIREMENTS OR EXCEPTIONS UPON ITS REVIEW OF THE DOCUMENTS CREATING THE ESTATE OR INTEREST TO BE INSURED OR OTHERWISE ASCERTAINING DETAILS OF THE TRANSACTION.

RETURN TO:

8100 00402

CHICAGO TITLE INSURANCE COMPANY
1601 MARKET STREET
SUITE 2550
PHILADELPHIA, PA 19103

TA 44

Special Warranty Deed

THIS INDENTURE made the 6th day of April, in the year of our Lord two thousand one (2001),

BETWEEN WYETH-AYERST PHARMACEUTICALS INC., a New York corporation (hereinafter called the Grantor), of the one part, and RADNOR PROPERTIES-145 KOP, L.P., a Delaware limited partnership (hereinafter called the Grantee), of the other part,

WITNESSETH That the said Grantor for and in consideration of the sum of Eighty Million Dollars (\$80,000,000.00) lawful money of the United States of America, unto it well and truly paid by the said Grantee, at or before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, has granted, bargained and sold, released and confirmed, and by these presents does grant, bargain and sell, release and confirm unto the said Grantee, its successors and assigns, ALL THAT CERTAIN lot[s] or piece[s] of ground more particularly described on Exhibit "A" attached hereto and made a part hereof;

TOGETHER with all and singular the buildings and improvements, ways, streets, alleys, driveways, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances whatsoever unto the hereby granted premises belonging, or in any wise appertaining, and the reversions and remainders, rents, issues, and profits thereof and all the estate, right, title, interest, property, claim and demand whatsoever of it, the said Grantor, as well at law as in equity, of in, and to the same.

UNDER AND SUBJECT to all those matters referred to in Exhibit "B" attached hereto and made a part hereof.

TO HAVE AND TO HOLD the said lot[s] or piece[s] of ground above described, with the buildings and improvements thereon erected, the hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantee, its successors and assigns, to and for the only proper use and behoof of the said Grantee, its successors and assigns, forever, UNDER AND SUBJECT, as aforesaid;

AND the said Grantor, for itself its successors and assigns, does covenant, promise and agree, to and with the said Grantee, its successors and assigns, by these presents, that it, the said Grantor and its successors, all and singular the hereditaments and premises hereby granted or mentioned and intended so to be, with the appurtenances, unto the said Grantee, its successors and assigns, against it, the said Grantor and its successors, and against all and every person and persons whomsoever lawfully claiming or to claim the same or any part thereof by, from or under it or any of them, shall and will WARRANT and forever DEFEND, UNDER AND SUBJECT, as aforesaid; provided that the foregoing covenant, promise and agreement only relates to that portion of the lots or pieces of ground that is common to both descriptions attached hereto as Exhibit A.

IN WITNESS WHEREOF, Grantor has caused these presents to be duly executed by its

478052-1

162155 0376

authorized officers, with its corporate seal hereunto affixed, the day and year first above written.

**WYETH-AYERST
PHARMACEUTICALS INC.**

ATTEST:

William P. Kelly
William P. Kelly, Assistant Secretary
(Corporate Seal)

By: Steven A. Tasher
Steven A. Tasher, Vice-President

1,200,000.00
800,000.00

RADNOR TWP RTT	60000.00
RADNOR TWP RTT	60000.00
PA TRANS TAX	80000.00
TOTAL	200000.00
CHECK	80000.00

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF REVENUE
REALTY TRANSFER TAX
#2 CHECK 800000.00
33CL 3426 04-11-01 11:23AM
1200000.00

CHECK ITEM 3
04-11-01 WED #2 MARY 3426 11:23AM

EXHIBIT A

145 King of Prussia Road

Premises A:

ALL THAT CERTAIN tract of land [sometimes hereinafter called "the tract hereby conveyed"] situate in the Township of Radnor, County of Delaware, and Commonwealth of Pennsylvania and described as follows according to a survey and map prepared by M.R. and J.B. Yerkes, Civil Engineers, of Bryn Mawr, Pennsylvania, under date of May 6, 1952, and revised under date of January 13, 1953:

BEGINNING at a point marking the intersection of the middle lines of Lancaster Avenue [being also known as Lincoln Highway (Route 30) and being 80 feet wide] and proposed road [50 feet wide] leading northwestwardly from Lancaster Avenue through the Estate of Benjamin Chew, said point being at the distance of 3501.89 feet measured southeastwardly along the middle of Lancaster Avenue from its intersection with the middle of Radnor and Chester Road; thence along the middle of said proposed road [50 feet wide] the twelve following courses and distances: (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet, the chord of said curved line extending north 4 degrees 39 minutes 05 seconds west 120.76 feet to a point of tangency; (2) north 26 degrees 36 minutes 10 seconds west 181.79 feet to a point of curve; (3) on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet, the chord of said curved line extending north 18 degrees 29 minutes 35 seconds west 197.50 feet to a point of tangency; (4) north 10 degrees 23 minutes west 39.35 feet to a point of curve; (5) on a line curving to the left with a radius of 200.0 feet the arc distance of 121.46 feet, the chord of said curved line extending north 27 degrees 46 minutes 50 seconds west 119.60 feet to a point of tangency; (6) north 45 degrees 10 minutes 40 seconds west 83.08 feet to a point of curve; (7) on a line curving to the right with a radius of 350.0 feet the arc distance of 193.24 feet, the chord of said curved line extending north 29 degrees 21 minutes 40 seconds west 190.79 feet to a point of tangency; (8) north 13 degrees 32 minutes 40 seconds west 246.94 feet to a point of curve; (9) on a line curving to the right with a radius of 400.0 feet the arc distance of 194.18 feet, the chord of said curved line extending north 00 degrees 21 minutes 45 seconds east 192.28 feet to a point of tangency; (10) north 14 degrees 16 minutes 10 seconds east 258.06 feet to a point of curve; (11) on a line curving to the left with a radius of 400.0 feet the arc distance of 124.29 feet, the chord of said curved line extending north 5 degrees 22 minutes 05 seconds east 123.79 feet to a point of tangency; (12) north 3 degrees 32 minutes west 228.16 feet to a point; thence leaving said proposed road and extending along other land of the Estate of Benjamin Chew north 84 degrees 29 minutes 30 second east 631.61 feet to an iron pin in line of land of the Philadelphia and Western Railway Co.; thence along the same the three following courses and distances: (1) south 2 degrees 55 minutes east 1675.84 feet to a point; (2) south 87 degrees 05 minutes west 10.0 feet to a point; (3) south 2 degrees 55 minutes east 390.96 feet to a point in the middle of Lancaster Avenue aforesaid; and thence along the middle of Lancaster Avenue north 69 degrees 58 minutes west 382.45 feet to the place of beginning. CONTAINING 26.6 acres, more or less.

Being the same property having been conveyed to Wyeth Laboratories, Inc., a New York corporation from Girard Trust Corn Exchange Bank and John T. Chew, Trustees [Girard Trust Corn Exchange Bank being a surviving trustee and John T. Chew being a substituted trustee] under the Will of Benjamin Chew, Deceased and Benjamin Chew, Jr. by Deed dated April 7, 1953.

Premises B:

ALL THAT CERTAIN tract of land [sometimes hereinafter called the premises hereby conveyed] situate in the Township of Radnor, County of Delaware, and Commonwealth of Pennsylvania, and described as follows according to a map - with a sub-plan of the premises hereby conveyed incorporated in it - of property of the Estate of Benjamin Chew prepared by M.R. and J.B. Yerkes, Civil Engineers, of Bryn Mawr, Pennsylvania, under date of May 6, 1952, and last revised under date of April 24, 1954:

BEGINNING at a point in the westerly boundary of other land now belonging to the said Grantee at the distance of 627.89 feet measured northwestwardly along said boundary from its intersection with the middle line of Lincoln Highway [said point of beginning being more exactly located by starting at the point of intersection of the middle line of Lincoln Highway (80 feet wide) with the middle line of Hillside Circle (which leads southeastwardly from Lincoln Highway), thence running south 72°42' east 727.72 feet along the middle line of Lincoln Highway to a point, being the southwest corner of said other land now belonging to the said Grantee, and thence running along the westerly boundary of said other land the five following courses and distances: (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet (the chord of said curved line extending north 4°39'5" west 120.76 feet) to a point, (2) thence north 26°36'10" west 181.79 feet to a point, (3) thence on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet (the chord of said curved line extending north 18°29'35" west 197.50 feet) to a point, (4) thence north 10°23' west 39.35 feet to a point, and (5) thence on a line curving to the left with a radius of 200.0 feet the arc distance of 84.83 feet to a point, being the first mentioned point and place of beginning; thence from said point and place of beginning, along other land of the said Grantor of which this was originally a part, north 70°32'40" west 226.29 feet to a point in the middle line of a proposed road [50 feet wide] extending from Lincoln Highway in a northeastwardly and northwestwardly direction to Radnor & Chester Road; thence along the middle line of said proposed road on a line curving to the left with a radius 395.18 feet the arc distance of 252.62 feet [the chord of said curved line extending north 4°46'11" east 248.34 feet] to a point in the westerly boundary of said other land now belonging to the said Grantee; thence along said boundary south 13°32'40" east 72.0 feet to a point; thence along said boundary on a line curving to the left with a radius of 350.0 feet the arc distance of 193.24 feet [the chord of said curved line extending south 29°21'40" east 190.79 feet] to a point; thence along said boundary south 45°10'40" east 83.08 feet to a point; and thence along said boundary on a line curving to the right with a radius of 200.0 feet the arc distance of 36.63 feet [the chord of said curved line extending south 39°55'52" east 36.58 feet] to the first mentioned point and place of beginning. CONTAINING three hundred sixty one-thousandths [0.360] of an acre, more or less.

Being the same property having been conveyed to Wyeth Laboratories, Inc., a New York corporation from School District of the Township of Radnor, a Pennsylvania School District of the Third Class by Deed dated October 25, 1954.

Being also referred to as Folio No. 36-02-01234-00 and Map No. 36-15-022-000.

46445-1

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Exhibit A
Legal Description (145 King of Prussia Road)

ALL THAT CERTAIN tract or piece of land situate in Radnor Township, Delaware County, Pennsylvania described more particularly as follows:

Parcel A

BEGINNING at a point on the title line in Lancaster Avenue (being also known as Lincoln Highway (Route 30), width varies), said point being at the distance of 3501.89 feet measured Southeasterly along the title line in Lancaster Avenue from its intersection with the title line in Radnor - Chester Road, thence from said point of beginning along lands now or formerly of P.A.D.O.T. the five following courses and distances: (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet, the chord of said curved line extending North 4 degrees 39 minutes 05 seconds West 120.76 feet to a point of tangency, (2) North 26 degrees 36 minutes 10 seconds West 181.79 feet to a point of curve, (3) on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet, the chord of said curved line extending North 18 degrees 29 minutes 35 seconds West 197.50 feet to a point of tangency, (4) North 10 degrees 23 minutes West 39.35 feet to a point of curve, (5) on a line curving to the left with a radius of 200.0 feet the arc distance of 121.46 feet, the chord of said curved line extending North 27 degrees 46 minutes 50 seconds West 119.60 feet to a point of tangency; thence North 45 degrees 10 minutes 40 seconds West 83.08 feet to a point of curve; thence on a line curving to the right with a radius of 350.0 feet the arc distance of 193.24 feet, the chord of said curved line extending North 29 degrees 21 minutes 40 seconds West 190.79 feet to a point of tangency in the bed of King of Prussia Road; thence North 13 degrees 32 minutes 40 seconds West 246.94 feet to a point of curve in the centerline of King of Prussia Road (50 feet wide); thence along said line the four following courses and distances: (1) on a line curving to the right with a radius of 400.0 feet the arc distance of 194.18 feet, the chord of said curved line extending North 00 degrees 21 minutes 45 seconds East 192.28 feet to a point of tangency, (2) North 14 degrees 16 minutes 10 seconds East 258.06 feet to a point of curve, (3) on a line curving to the left with a radius of 400.0 feet the arc distance of 124.29 feet, the chord of said curved line extending North 5 degrees 22 minutes 05 seconds East 123.79 feet to a point of tangency, (4) North 3 degrees 32 minutes West 228.16 feet to a spike; thence leaving King of Prussia Road and extending along lands now or formerly of Radnor Racquet Club, North 84 degrees 29 minutes 30 seconds East 631.61 feet to an iron pin in line of lands now or formerly of S.E.P.T.A.; thence along said lands the three following courses and distances, (1) South 2 degrees 55 minutes East 1675.84 feet to a point, (2) South 87 degrees 05 minutes West 10.0 feet to a point, (3) South 2 degrees 55 minutes East 390.96 feet to a point in the title line in Lancaster Avenue aforesaid; and thence along the title line in Lancaster Avenue North 69 degrees 58 minutes West 382.45 feet to the place of BEGINNING.

Parcel B

BEGINNING at an iron pin at an interior corner of lands now or formerly of P.A.D.O.T., said point being located the five following courses and distances along said lands of P.A.D.O.T. from

EXHIBIT B

145 King of Prussia Road

1. Title to that portion of premises in the bed of Lancaster Avenue, also known as Lincoln Highway (Route30), is subject to public and private rights therein.
2. Reservations and Easements as in Deed Book 1684 page 613, as shown on survey by Yerkes Associates, Inc. dated 11/8/00 and issued 12/1/00.
3. Right Of Way Agreement between Girard Trust Company, Anne Chew, surviving trustees under the Will of Benjamin Chew, deceased, and The Township of Radnor dated 5/2/1941 and recorded 6/6/1941 in Deed Book 1153 page 33.
4. Quit Claim Deed by Commonwealth of Pennsylvania Department of Transportation to Wyeth Laboratories, Inc. dated 8/6/1991 and recorded in Volume 992 page 1617 (vacated right of way for driveway relocation.
5. Rights granted to Philadelphia Electric Company as in Deed Book 1721 page 265 and in Deed Book 1867 page 611.
6. Agreement between Wyeth Laboratories, Inc., a New York corporation, John T. Shaw and Girard Trust Corn Exchange Bank (formerly known as Girard Trust Company) surviving and substituted trustee under the Will of Benjamin Chew, deceased, and The Philadelphia Suburban Transportation Company dated 1/30/1958 recorded in Deed Book 2137 page 548.
7. Agreement between Wyeth Laboratories, Inc., a New York corporation, John T. Shaw and Girard Trust Corn Exchange Bank (formerly known as Girard Trust Company) surviving trustees under the Will of Benjamin Chew, deceased, and The Philadelphia Suburban Transportation Company dated 1/20/1956 recorded 7/5/1963 in Deed Book 2137 page 551.
8. Agreement between Wyeth Laboratories, Inc., a New York corporation, Philadelphia Suburban Transportation Company, a Pennsylvania corporation, and The United States of America, Department of Agriculture, Forest Service dated 12/10/1965 and recorded in Deed Book 2227 page 592.
9. Easement of Roadway and use of same as in Deed Book 1278 page 499 (50' right-of-way shown - not built).
10. Lease between Radnor Properties-145 KOP, L.P., a Delaware limited partnership, landlord, and American Home Products Corporation, a Delaware corporation, dated as of April ____, 2001.
11. Reservations and Easements as in Deed Book 1573 page 567.

a point on the title line in Lancaster Avenue (the point of beginning of Premises "A"): (1) on a line curving to the left with a radius of 161.52 feet the arc distance of 123.76 feet the chord of said curved line extending North 4 degrees 39 minutes 05 seconds West 120.76 feet to a point, (2) thence North 26 degrees 36 minutes 10 seconds West 181.79 feet to a point, (3) thence on a line curving to the right with a radius of 700.0 feet the arc distance of 198.16 feet the chord of said curved line extending North 18 degrees 29 minutes 35 seconds West 197.50 feet to a point, (4) thence North 10 degrees 23 minutes West 39.35 feet to a point, and (5) thence on a line curving to the left with a radius of 200.0 feet the arc distance of 84.83 feet the chord of said curved line extending North 22 degrees 32 minutes 03 seconds West 84.20 feet to the point and place of BEGINNING, thence from said point and place of BEGINNING, along lands of said P.A.D.O.T., North 70 degrees 32 minutes 40 seconds West 226.29 feet to a spike in the middle line of King of Prussia Road (50 feet wide); thence along the middle line of said King of Prussia Road on a line curving to the left with a radius of 395.18 feet the arc distance of 252.62 feet the chord of said curved line extending North 4 degrees 46 minutes 11 seconds East 248.34 feet to a point on the southwesterly line of Premises "A"; thence along said line South 13 degrees 32 minutes 40 seconds East 72.0 feet to a point, thence along the same, on a line curving to the left with a radius of 350.0 feet the arc distance of 193.24 feet the chord of said curved line extending South 29 degrees 21 minutes 40 seconds East 190.79 feet to a point, thence along the same South 45 degrees 10 minutes 40 seconds East 83.08 feet to a point; thence along the same, on a line curving to the right with a radius of 200.0 feet the arc distance of 36.63 feet the chord of said curved line extending South 39 degrees 55 minutes 52 seconds East 36.58 feet to the first mentioned point and place of BEGINNING.

Parcel/Folio No. = 36-02-01234-00

12. Facts disclosed in Survey by Yerkes Associates, Inc. dated 11/8/00 and issued 12/1/00.

478052-1

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VOL 2155 P0387

RECORDER OF DEEDS
DELAWARE CO. PA.

Handwritten signature

022166

DEED

2001 APR 11 PM 3:12

GRANTOR: Wyeth-Ayerst Pharmaceuticals Inc.,
a New York Corporation



GRANTEE: Radnor Properties-145 KOP, L.P.,
a Delaware limited partnership

FOLIO #: 36-02-01234-00

PREMISES: 145 King of Prussia Road
Radnor Township
Delaware County, Pennsylvania

MAIL TAX BILL TO: Radnor Properties-145 KOP, L.P.
The Rubenstein Company, L.P.
4100 One Commerce Square
2005 Market Street
Philadelphia, Pennsylvania 19103-7041

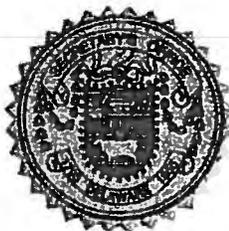
RETURN DOCUMENT TO: Chicago Title Insurance Company
1601 Market Street, Suite 2550
Philadelphia, PA 19103
#8100-00402

Delaware

PAGE 1

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "RADNOR PROPERTIES-145 KOP, L.P.", CHANGING ITS NAME FROM "RADNOR PROPERTIES-145 KOP, L.P." TO "BMR-145 KING OF PRUSSIA ROAD LP", FILED IN THIS OFFICE ON THE TWENTIETH DAY OF AUGUST, A.D. 2004, AT 7:55 O'CLOCK P.M.



3370563 8100

040612911

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 3310330

DATE: 08-23-04

**Radnor Township Planning Commission
Minutes of the Meeting of April 6, 2015
301 Iven Ave., Wayne, Pa**

Chairman Steve Cooper called the meeting to order with the following Commission members present: Kathy Bogosian, Charles Falcone, Skip Kunda, John Lord, Doug McCone, Elizabeth Springer, and Susan Stern. Attendance included: Roger Phillips, PE, Township Engineer; Amy Kaminski, PE, Township Traffic Engineer; Peter Nelson, Esq.; Kevin Kochanski, Director of Community Development; Stephen Norcini, PE, Director of Public Works; and Planner Stephen Gabriel. Regina Majercak was absent.

Minutes of the February 25, 2015 meeting

John Lord moved to approve the minutes. Seconded by Susan Stern, the motion carried.

Minutes of the March 2, 2015 meeting

Susan Stern moved to approve the minutes. Seconded by John Lord, the motion carried.

Minutes of the March 10, 2015 meeting

Susan Stern moved to approve the minutes. Seconded by John Lord, the motion carried.

Minutes of the March 26, 2015 meeting

Susan Stern moved to approve the minutes. Seconded by John Lord, the motion carried.

Subdivision and Land Development Applications

***SD # 2014-D-07 Villanova University 800 E. Lancaster Ave. (Preliminary Plan)
Construction of 1,135 bed student housing in six buildings with associated retail space
under CICD Use with Phase-in construction.***

Charlie Falcone recused himself. Alex Tweedie, PE appeared on behalf of the applicant and addressed the items from the engineer's comments. The applicant will comply with most of the comments. The remainder will require the request of waivers. The subject of the installation and necessity of sidewalks in the area of Church Walk was discussed. A barrier is proposed to be placed in the driveway to restrict vehicle access. This will be opened only during special occasions, such as funerals and some weddings. They are meeting with PennDOT and will comply with their recommendations. Susan Stern asked what the corner would look like if the Performing Arts Center was not constructed. It has been stated that the Center will be constructed if the funds permit it. She also asked about the stormwater management system requirements if the Center isn't built. This information will be researched and reported at a future meeting. She also questioned the possible disturbance of steep slopes in the area of the widening of the driveway.

Public Comment –

Toni Bailey of Rosemont questioned the reduction of the parking with respect to Sunday Church services and special events.

Rick Leonardi of Villanova stated that the nearest Pizza restaurant is on the North Side of Lancaster Avenue and the students will use the crosswalk to access the other side of the street. He also feels that the height of the bridge is a 20' gain not a 12' gain as previously stated.

Board Comment-

Susan Stern mentioned the waiver request on the 35' radius at South Ithan Avenue, the 22' vs 25' drive width behind the housing development, and the neighbors are having a meeting with PennDOT tomorrow evening and they still need to hear comments from that meeting. She also inquired on snow and ice removal will occur on the bridge.

Steve Norcini stated that any issues raised tomorrow night can be addressed at the Board of Commissioners Caucus meeting. Any recommendation this evening can reflect the statement that PennDOT's comments be considered, etc.

Elizabeth Springer mentioned the Aldwyn Triangle and it's maintenance as well as a previous comment about alternate parking.

Susan Stern moved to recommend approval of the Preliminary Plan with the following conditions: a denial of the waiver request for Section 255-27.H, to permit a 25' radius curb on the southwest corner of Ithan Avenue and Route 30, that the applicant meet all outstanding staff comments and review letters, or request waivers from comments, that the applicant install an enhanced stormwater management plan as detailed to the staff, the public, and the Planning Commission at the March 26th meeting. This enhanced stormwater management system is to include infiltration and improved water quality as outlined at the March 26 meeting and that the applicant seek any and all easements necessary for the construction, maintenance and access to the pedestrian bridge. Seconded by Doug McCone, the motion carried.

Susan Stern moved that Steve Norcini bring the following memo to the PennDOT meeting tomorrow night. *The Planning Commission strongly supports staff and neighbors recommendations of a right-turn lane at the southwest corner of Route 30 and Ithan Avenue.* Seconded by John Lord, the motion carried.

***SD # 2014-D-02 (Preliminary Plan) BioMed (BMR – 145 King of Prussia Road, LP)
Demolition of existing office/research buildings and redevelopment of property with proposed office
buildings and associated parking located at 145 King of Prussia Road***

George Kroclic, Esq. stated that the revised plan has additional vehicles being included in sub-surface parking that were once counted in surface parking. This plan now complies with Code and has been accepted by Peter Nelson. However, there was discussion regarding the ambiguity of this issue. Surface parking has been removed to increase more green space. Several buildings have been moved forward to the parking area and the square footage has been shared between the buildings now. A greenways trail plan has been incorporated throughout the development and a sidewalk has been added.

John Wichner, McMahon Assoc., stated that King of Prussia Road is proposed to be widened to 4 lanes in the area. All revised traffic improvements were detailed to the board including traffic adaptive

signals which will be part of a grant. The 2009 approved plan included no roadway improvements. The revised 2013 plan includes many roadway improvements.

Alex Tweedie, PE, on behalf of the applicant stated they will comply with many of the comments. He listed the items where they are requesting waivers. He went over all consultants memos and they will comply with all of Rettew's comments.

Susan Stern asked the applicant if they plan on construction the stormwater management system that will exceed what is required by Code.

Mr. Wichner responded to several of Amy Kaminski's comments on the TIS. Susan Stern asked if a dedicated left turn lane could be extended in the morning for vehicles entering the high school heading north from Route 30. Several proposed enhancements by the applicant, and working with PennDOT, should assist vehicle movement in the area. Examples of what the applicant is proposing to do include: restriping the exit ramp off Route 476, the additional turn lane at King of Prussia Road and Route 30, and the traffic signal adaptive program.

Steve Norcini mentioned happy to see the applicant doing off-site improvements on an application that doesn't necessarily require it. He is concerned with the adaptive program where it stops with respect to other traffic signals. The two signals at Raider Road and Radnor Chester Road are not included in this loop. The applicant will look into including the two signals that are not included.

There was a lot of discussion regarding the level of service now and after future development. The current level is an 'F'. In the future with the adaptive system, it is expected to become an 'F+'. Right-Of-Ways' need to be obtained from both PennDOT and the Radnor Township School District to widen King Of Prussia Road at Route 30.

Public Comment-

On behalf of Brandywine Entities, George Broseman addressed the Board. He questioned many issues including: was there a TIS study done for the 2009 TIS with regards to parking spaces, waiver to use ITE trip generation rather than the Code, if the waiver wasn't granted would trip generation be higher, the cartway width waiver, 65' shown on plan, are green roofs being included as landscape area, is the area on plan that green over the parking area considered 'green', and the waiver with regard to landscape area. Roger Phillips stated the numbers would change depending on the smaller right of way waiver request. Infiltration tests need to work before proposing large stormwater management systems. He wondered if the underground parking garage had been approved by the fire officials, what was the fire access and did this plan pass the public safety acceptance and approval. He doesn't feel the underground parking complies with the code for allowable underground parking. He asked the Board to recommend denial of the plan based on the unanswered questions.

Also from Brandywine, Jeff DeVuono, asked the Board to look at this plan from a practical observation. Radnor Financial Center has been compared to the BioMed site on numerous issues. He asked the Board to look at the plan from the practical side.

Skip Kunda has concerns with the process. At this point, these are the best plans that they've seen so far. Kathy Bogosian agrees. John Lord agrees, however, more parking should be put underground.

Elizabeth Springer sees a lot of positives, but feels this plan isn't quite there yet. Charlie Falcone has issues with traffic.

The applicant was asked if they would consider tabling the plan. They responded feeling that they've provided what has been expected and want to move forward.

Many items were discussed as to what this plan needs: stormwater issues, satisfaction of staff, compliance with the stormwater ordinance, right-of-ways on both sides of King of Prussia Road, removal of more surface parking, and safety and fire concerns of underground parking, to name a few.

Charles Falcone moved to recommend preliminary plan approval based on the points, that the applicant must secure the right of way necessary for the traffic construction proposed, stormwater issues particularly infiltration have to completely satisfy staff, that the underground parking structure meet code and is safe and fire safe, that traffic issues are primary concern of the commission and we hope that the board of commissioners address that when they vote to approve or deny and recommend that the applicant remove more surface parking. Seconded by John Lord, the motion carried 5-2. Kathy Bogosian and Elizabeth Springer opposed. Susan Stern had previously left the meeting.

APPEAL #2932 The applicant, David Semerjian Builders, LLC, property located at 415 and 501 Maplewood Avenue, 255 Highland Avenue – Lots 4 and 5, Central Avenue – Lot 15 and 16, and 253 Highland Avenue and zoned R5, seeks a variance, in order to construct 12 townhomes which is a permitted use, from Section 280-35(B)(9) regarding Impervious Coverage or contends that the relief is permitted as of right since it is not increasing the existing non-conformity on Impervious Coverage. Applicant further seeks any other zoning or alternative relief required pursuant to the Plans presented with this Application. A Special Exception pursuant to Section 280-101(A), or contends that the relief is permitted as of right since it is not increasing the existing non-conformity in order to construct townhomes on the premises. Applicant further seeks any other zoning or alternative relief required pursuant to the Plans presented with the Application.

Nick Caniglia, Esq. appeared on behalf of the applicant. The sites are proposed to be merged. The applicant is proposing to reduce the amount of impervious on site; however, the new impervious numbers are still slightly higher than the permitted amount. Kevin Kochanski stated that he is asking the solicitor's office to oppose this application with respect to the 'ownership' status of the paper street. Whether or not the Township has any rights to the paper street with respect to access to the Township Trail situated behind this site needs to be researched. Paperwork which has been submitted regarding ownership has not yet been seen by staff.

John Lord moved to reject the plan based on the impervious coverage, the open issue regarding Central Avenue and the ownership of that street and the belief that there are too many proposed structures on the property. Seconded by Kathy Bogosian, the motion carried.

APPEAL #2941 The applicants, Peter McKenna and Peter Flint, property located at 125 Bloomingdale Avenue and zoned CO, seeks Special Exceptions pursuant to Sections 280-101(A)(2) regarding expansions of a non-conforming use and 280-105(F) regarding parking in the front-yard setback to convert the existing 3 apartments to 3 condominium units. In the alternative applicant seeks a variance from 280-42. Applicant further seeks any other zoning or alternative relief required necessary for the conversion of the apartments to condominiums pursuant to the Plans presented with the Application.

Nick Caniglia, Esq. appeared on behalf of the applicant. He is meeting tomorrow with the Zoning Officer with the current property owners and will discuss the current usages thereof. Three small additions are proposed as well as some parking expansion. There should be no impervious coverage issues.

Public Comment-

Baron Gemmer lives across the street. He has questions regarding the impervious surface numbers and would like to see some of the parking spaces moved.

Doug McCone feels that the Bloomingdale entrance should be eliminated due to the impact on two large trees and the applicant should just use the two-way in and out off of West Wayne Avenue. He would like to see this plan denied due to the impervious issue and asks that the applicant reconfigure the plans. Kevin Kochanski reminded the board that the impervious issue is not part of the zoning hearing board issue, only the special exception for use and front yard setback. If impervious comes into play, then the applicant will have to either reappear for that relief or reconfigure the plans accordingly. Kathy Bogosian doesn't see anything wrong with the plans. Charles Falcone agreed.

John Lord moved to recommend approval of the plans. Seconded by Kathy Bogosian, the motion carried 4-2. Skip Kunda and Doug McCone opposed. The motion carried.

Old Business

New Business

Public Comment

Adjournment

Respectfully submitted,

MEMORANDUM

TO: Radnor Township Board of Commissioners
FROM: Steve Gabriel, PP, Township Planning Consultant 
CC: Robert Zienkowski, Township Manager
DATE: April 21, 2015
PROJECT NAME: PLO Zoning District Amendment **PROJECT NO.:** 101442010
SUBJECT: Draft Amendment Introduction

Following this memorandum, please find for your consideration a proposed draft amendment to the PLO zoning district as requested at your March 6, 2015 meeting. The intent of the proposed amendment is to incorporate mixed use development as an overlay applicable to all properties within the PLO zoning district. As you review the draft amendment, please keep in mind the following key aspects:

Amendment Principles

- Mixed Use Development use is offered as a **choice** to a property owner and is not mandated. Particular regulations that are attached specifically to the mixed use development use apply only if the property owner chooses to pursue mixed use development. Redevelopment may still take place under the current PLO regulations as well.
- Under the Mixed Use Development use, other permitted uses are added that have the potential to support and complement Office use and can help to create a neighborhood of interrelated uses that brings value to property owners and the Radnor community.
- Traffic conditions are addressed and design elements compatible with surrounding area development are promoted.

Mixed Use Development Regulations Highlights

- **To address traffic conditions**, a specific "Traffic Neutrality" standard is established and permitted gross floor area is tied to that standard.
- Further, a "capacity improvements fee" is established to be paid by an applicant into a dedicated fund for the improvement of designated nearby intersections and travel corridors whose improvement will directly benefit an applicant's project.
- Accessory uses, site amenities and various operational methods to get people out of single-occupancy vehicles and to use transit are offered or required as well.
- **To promote green space**, lot coverage is limited to 45% of the total site area, down from the current 55% permitted.
- In addition, a 100-foot front yard setback including buffer screen landscaping for buildings, structures, and surface parking is required that provides ample room to create a park-like setting with a variety of trees, bioswales, and pedestrian ways along the PLO travel corridors.



- To enable this increased green space, building heights of up to six (6) stories are permitted, comparable to the four-, five-, and six-story buildings that already exist in the PLO and other zoning districts nearby.
- Permitted **building lengths** are limited and include significant façade breaks intended to create design variability and interest including multi-level rooftops.
- **Adjoining residential districts or uses** are protected with 100-foot setbacks that include full buffer planting strips within the setback.

You will note that many of the proposed regulations are similar to those previously discussed at Township Planning Commission and Board of Commissioners meetings. In order to balance the interests of the Township and property owners, trade-offs are contained in the proposed regulations such that there is probably something in the regulations for everyone to like and dislike. We look forward to discussing the proposed regulations with you and the greater Radnor community and arriving at a final conclusion that best meets the Township's goals for the PLO.

We will present the proposed draft regulations at your April 27 meeting and will be prepared to discuss next steps. If you have any questions between now and then, please let me know.



We answer to you.

3020 Columbia Avenue, Lancaster, PA 17603 • Phone: (800) 738-8395
E-mail: rettew@rettew.com • Web site: rettew.com

Engineers
Planners
Surveyors
Landscape
Architects
Environmental
Consultants

REQUIRED STANDARDS FOR MIXED USE OVERLAY AMENDMENT TO THE PLANNED LABORATORY OFFICE (PLO) ZONING DISTRICT – RADNOR TOWNSHIP

The Radnor Township Zoning Ordinance is amended by adding the following Definitions:

BUSINESS DEVELOPMENT SIGN - an on-premises sign located along the road frontage which announces the nature, purpose, or name of the building/enterprise/complex.

BUSINESS DIRECTORY SIGN – a sign giving multiple names, logos or trademarks, and/or address of a building housing more than one business on the premises where it is located.

GROSS FLOOR AREA - The sum of the horizontal floor area(s) of a building or group of buildings on a site, measured from the exterior faces of the building(s). The calculation of Gross Floor Area shall not include parking structures.

INTERNAL ILLUMINATION: - A light source that is concealed or contained within the sign and becomes visible in darkness through a translucent surface. Message center signs, digital displays, and signs incorporating neon lighting shall not be considered as internally illuminated.

LANDSCAPE STRIP – a strip of required yard space adjacent to the boundary of a property or district, not less in depth than designated in this chapter, which is landscaped for the full depth and includes lawn grasses, ground cover vegetation, and a Buffer Screen equivalent to that described in the Radnor Township Subdivision Ordinance under Buffer Screen Class A, first option, all informally arranged.

LOT COVERAGE – A measure of the intensity of the use of a piece of land measured as that portion or percentage of the total site area covered with structures, buildings, driveways, parking areas, loading facilities, bicycle/pedestrian pathways, patios, decks, and other similar types of structures as well as improved surfaces. Includes the water surface area of swimming pools.

SITE – A parcel or parcels of adjoining land under common ownership on which a principal building or, when authorized, a unified group of buildings and any accessory buildings are or may be placed, together with the required open spaces and rights-of-way.

STREET LINE – The required right-of-way in accordance with the Subdivision and Land Development Ordinance (SALDO) of the Township of Radnor, as amended.

TOTAL SITE AREA – The gross area of a lot or lots as described in the deeds or from an actual survey included as part of an application excluding the area of any public streets or rights-of-way.

The PLO zoning district, Section 280-63, Use Regulations, is amended as follows:

By modifying subsection C(5) to read:

A parking structure. Parking structures may be constructed above or below ground, be located wholly or partly within the principal building(s), be attached to and made a part of the principal building(s), or constructed as a detached accessory structure. Parking spaces within structures may be reduced to not less than 9 feet in width by 19 feet in depth, exclusive of aisles, for each motor vehicle.

By adding a new subsection 280-63.D to read:

D. Mixed Use Overlay (to enable mixed use development as a permitted use in addition to the currently permitted uses in the PLO of office and laboratory) in accordance with and pursuant to the regulations and requirements set forth below:

1. **Location** - the overlay applies to all properties in the PLO.
2. **Uses** – a building(s), structure(s), or a combination thereof may be erected, used, or occupied for any one or more of the following purposes:
 - a. Any use or accessory use permitted in the PLO zoning district.
 - b. Medical Office.
 - c. Hotel including Extended Stay, which may contain restaurant and banquet space.
 - d. Restaurant.
 - e. Multiple Family Development, including Age Targeted Senior Living Housing, that may involve associated amenities including but not limited to an accessory community center, swimming pool, and/or self-serve laundry facilities, all of which are for the use of residents only.
 - f. Retail store(s) with individual gross floor area not to exceed 10,000 square feet.
 - g. Personal or retail service shop(s) with individual gross floor area not to exceed 10,000 square feet.
 - h. Health/Fitness/Recreation Center.
 - i. Motion Picture Theatres.
 - j. Bank or similar financial institution.
 - k. Skilled Nursing and/or Assisted Living Facility.
 - l. Out-Patient Surgical Center.
 - m. Accessory Uses and structures customarily incidental to the foregoing permitted uses.

No use shall include a drive-in/drive thru/drive up service.

Any change in use, expansion of a use, building, structure, or parking area, or the addition of a new use or building to an approved Mixed Use Development shall require a new zoning approval.

3. **Dimensional Regulations**
 - a. Front Yard Setback – Buildings, structures, surface parking areas, and service and/or interior vehicular access roadways shall be set back 100 feet from the street line of every public street they abut. Entrance driveways and sidewalks may cross through the front yard setback.

- b. Side and Rear Yard Setbacks – Buildings and structures shall be set back from every side and rear yard property line at least 50 feet. These requirements may be reduced according to the following:
 - 1) Side and rear yards for buildings and structures abutting railway rights-of-way, easements, or owned property shall not be less than 25 feet.
 - 2) Side yards for buildings and structures abutting uses in the PLO zoning district shall not be less than 25 feet.
- c. Surface Parking Areas shall be located at least 25 feet from a side or rear yard property line. Surface parking related driveways, and service and/or interior vehicular access roadways shall be located at least 15 feet from a side or rear yard property line.
- d. Accessory Structures, including parking structures, shall meet the required yard setback of a principal structure.
- e. Along any property line which adjoins an existing residential zoning district or use, buildings, structures, surface parking areas, and service and/or interior vehicular access roadways shall be set back at least 100 feet from the adjoining zoning district boundary, except where a property abuts railway rights-of-way, easements, or owned property, or a limited access highway in which case the setback shall be at least 25 feet.
- f. Maximum Building Area – no more than 30% of the Total Site Area may be covered by buildings and structures.
- g. Maximum Lot Coverage - 45% of the Total Site Area.
- h. Height requirements.
 - 1) No building shall exceed 85 feet or 6 stories in height.
 - 2) No stand-alone Parking Structure or other accessory structure shall exceed 45 feet in height.
 - 3) Building and structure height shall be measured from existing grade, not from improved or finished grade.
- i. Riparian Buffer Setback - 35 feet.
- j. Buffer and Landscaping
 - 1) Along each public street, except for a limited access highway, a landscape strip not less than 75 feet in depth shall be provided. Storm water management areas, entrance driveways, and sidewalks are permitted to cross the strip.
 - 2) Along any property line which adjoins an existing residential zoning district or use, a buffer planting strip of not less than 100 feet in depth shall be planted and maintained, except where a railway right-of-way, easement, or owned property, or a limited access highway intervenes between a PLO-zoned property and a residential zoning district or use in which case the planting buffer strip shall be equal in depth to that of the setback provided which shall be at least 25 feet. Storm water management areas, entrance driveways, and sidewalks are permitted to cross the strip.
- k. Building Spacing - The distance at the closest point between any two buildings shall not be less than 45 feet. There is no required minimum distance between a building and a parking structure.

- i. **Building Size** – no building shall exceed 175 feet in depth. The length of a building may extend up to 300 feet, provided that in the event that one or more of the facades exceed(s) 175 feet, at least one of those facades must contain: 1) one horizontal step back across the entire length of the façade of at least 40 feet that occurs such that at least 33⅓% of the building stories shall be located above the step back level; or, 2) one vertical step back along the entire height of the building of at least 40 feet in depth at an angle of approximately 90 degrees; or, 3) a turn in the front façade of at least 35 degrees at one point along that dimension.

4. Special Regulations.

a. **Floor Area Regulations.**

- 1) The Gross Floor Area permitted on the Site shall be that which achieves “traffic neutrality”. Traffic neutrality is defined as the square footage proposed under this Mixed Use Overlay regulation that generates total trips in the AM and PM peak hours according to the latest trip generation rate tables of the Institute of Transportation Engineers (ITE) that do not exceed the greater of either:
 - a) The total trips generated [by a strictly General Office use of the square footage of the building(s) existing on the subject site as of the effective date of this ordinance] in the AM and PM peak hours according to the latest trip generation rate tables of the Institute of Transportation Engineers (ITE).
 - b) The total trips generated by the existing buildings on the subject site in the AM and PM peak hours according to a traffic counts study of the subject site conducted at a point in time determined by the Township’s Traffic Engineer. No reduction factors shall be applied to trip generation rates as part of determining “traffic neutrality”.
- 2) For Sites less than 10 acres: There shall be no minimum number of the Uses established as part of the Mixed Use Development. For applications proposing more than one use, the maximum gross floor area of such Use(s) shall not exceed the following percentages:
 - a) A maximum of 75% of the permitted gross floor area may be designated for Office Uses.
 - b) A maximum of 75% of the permitted gross floor area may be designated for Hotel Use.
 - c) A maximum of 35% of the permitted gross floor area may be designated for Multiple Family Development Uses.
 - d) A maximum of 10% of the permitted gross floor area may be designated for Retail and/or Restaurant Uses.
 - e) A maximum of 35% of the permitted gross floor area may be designated for All Other Subordinate Uses.
- 3) For Sites 10 acres or larger: There shall be a minimum of three (3) Subordinate Uses established as part of the Mixed Use Development. The maximum gross floor area of such Subordinate Use shall not exceed the following percentages:
 - a) A maximum of 65% of the permitted gross floor area may be designated for Office Use.

- b) A maximum of 35% of the permitted gross floor area may be designated for Hotel Use.
 - c) A maximum of 35% of the permitted gross floor area may be designated for Multiple Family Development Use.
 - d) A maximum of 10% of the permitted gross floor area may be designated for Retail and/or Restaurant Uses.
 - e) A maximum of 35% of the permitted gross floor area may be designated for all other uses.
- b. Multiple Family Development Use - the minimum percentage of One-Bedroom dwellings units comprising any Multiple Family Development Use shall be sixty-five percent (65%).
 - c. All building mechanical systems such as air conditioning units, exhaust systems, satellite dishes, fire escapes, elevator housing, and other similar elements (including dumpsters) shall be integrated into the overall design and character of the building and screened from view. In addition, sound attenuation devices shall be installed on all equipment to minimize noise pollution at any adjacent residential property line.
 - d. Site Lighting - light fixtures shall be shielded to reduce light spillage beyond the extent of the property line; provided, however, that at no point shall any light trespass onto adjacent residential properties that exceeds 0.1 foot-candles at the residential property line. No light shall trespass onto adjacent non-residential properties that exceeds 1.0 foot-candles at the non-residential property line. All proposed exterior site and building-mounted lighting shall meet the International Dark-Sky Association (IDA) full cutoff requirements.
 - e. Site Amenities to Promote Transit Use
 - 1) Wayfinding signage shall be provided to clearly identify on-site pedestrian walks, trails, and other facilities and provide direction to and from nearby transit facilities
 - 2) Pedestrian scaled lighting shall be positioned along on-site pedestrian walks and trails such that lighting levels along them maintain a consistent 0.3 foot-candles.

5. Off-Street Parking and Loading Requirements.

- a. Motor Vehicle Parking. All parking space used for parking motor vehicles shall measure not less than 9 feet by 19 feet. Upon approval by the Board of Commissioners, up to 25% of the total number of parking spaces may be designated as compact, which shall measure no less than 8 feet by 16 feet.
- b. Required Number of Parking Spaces. Unless otherwise approved in accordance with provisions of this subsection, the following requirements shall be met:
 - 1) Residential Units – a minimum of 1.2 spaces per dwelling unit.
 - 2) All other permitted uses shall provide parking in accordance with § 280-103.B of the Zoning Code.
 - 3) A banquet facility which is part of a Hotel or Restaurant shall provide parking in accordance with § 280-103.B of the Zoning Code.
- c. Off street loading shall comply with § 280-104.
- d. The applicant shall designate at least one (1) space for carpooling for every fifty (50) automobile parking spaces. These spaces shall be those next closest in proximity to building entrances after those provided for ADA parking. The

applicant shall provide at least five (5) preferred carpooling parking spaces and shall not be required to provide more than twenty-five (25) preferred carpooling spaces. The applicant shall determine the minimum number of vehicle occupants that will constitute a car pool.

- e. The applicant shall provide bicycle facilities at a ratio of at least one (1) bicycle space/rack for every twenty (20) automobile parking spaces. These spaces/racks shall be located within a principal or accessory structure or in an area shielded from the weather no more than fifty (50) feet from the entrance of a principal building. Each space/rack shall include a metal anchor sufficient to secure the bicycle frame when used in conjunction with a user-supplied lock. The applicant shall provide at least three (3) spaces/racks and shall not be required to provide more than fifty (50) spaces/racks. The applicant shall also provide, as part of the bicycle facilities, lockers and showers within the office/mixed use buildings for use by tenants and their employees.
- f. The applicant shall implement a car share program on-site to provide an incentive not to drive to work and to utilize the mass transit system, by making a car available for business trips during the working day. The applicant shall provide a minimum of 1% of the total number of off-street parking spaces proposed on the site to be dedicated to the car share program. The applicant shall provide at least three (3) cars and spaces and shall not be required to provide more than fifteen (15) cars and spaces. The car share program shall be with a nationally recognized car share organization/operator, unless the applicant can demonstrate to the satisfaction of the Board of Commissioners, in their sole discretion, that a local operator has the capabilities to provide a sustainable car share program. Tenants/occupants may provide their own fleet vehicles to serve the same purpose in lieu of their proportion of a site's car share program.
- g. Reduction in Parking and/or Loading Requirements: Two or more Subordinate Uses in a development may provide for required parking/loading in a common parking lot or loading area so long as the total of the spaces provided is not less than the total number of the spaces required for each use individually except, the Board of Commissioners may permit a reduction in the sum total of the required parking and/or loading for all of the Subordinate Uses based on the following:
 - 1) Where there are efficiencies derived by shared parking and/or loading for uses which have complementary peak demands, the applicant shall submit parking/loading generation data, based upon standard methodology (such as that published by the Urban Land Institute or from actual studies within the region or regions with similar access to transit) sufficient for the Township to determine the appropriate reduction. The applicant shall adequately demonstrate to the Board that the hours or days of peak parking or loading needed by the individual uses are so different or the documented projected use of transit is significant enough that a lesser number of spaces or berths will still provide adequate parking/loading for all uses proposed as part of the application. The required number of off-street parking or loading spaces shall not be reduced by more than 25%.

6. **Signs.** In addition to the regulations set forth in Article XXI of this Chapter, the following provisions shall apply to all signs in the Mixed Use Overlay. Only the signs listed below and signs listed under Section 280-120, Exempt Signs, are permitted within the Mixed Use Overlay.

- a. Business Development Signs
 - 1) One (1) development sign shall be permitted for every 500 feet of road frontage or portion thereof. However, no more than two (2) such signs shall be permitted.
 - 2) Shall not exceed 50 square feet in sign area.
 - 3) Shall not exceed 6 feet in height.
 - 4) May be placed within any required front yard; but no closer to the street line than ten (10) feet.
- b. Business Directory Signs
 - 1) Directory signs shall be located within the site so as to allow motorists to pull out of the flow of traffic and safely read the directory, or, shall be placed at the main entrance to a building.
 - 2) No more than one (1) directory sign per entrance driveway or per main entrance to a building shall be allowed.
 - 3) Directory signs shall not exceed twelve (12) square feet in sign area.
 - 4) Freestanding directory signs shall not exceed five (5) feet in height.
- c. Corporate Identification Signs
 - 1) Each building shall be permitted one (1) Corporate Identification Wall Sign not to exceed 140 square feet in sign area. Such sign shall be in addition to one permitted wall sign.
 - 2) Where there is more than one building on a property, only one (1) building may have an illuminated Corporate Identification Sign. Such sign may be illuminated with internal lighting designed so that when illuminated, only the letters and logos of the sign are visible. No light shall emanate through the background, the borders, sides or any other surface of the sign or its supporting structure.
 - 3) A Corporate Identification Sign shall be placed no higher than or extend above any cornice, parapet wall, or building façade.
 - 4) A Corporate Identification Sign shall be limited to a single entity's name and/or business logo.
- d. Wall Sign
 - 1) Each building shall be permitted one (1) Wall Sign not to exceed one hundred (100) square feet. Such sign shall be in addition to one permitted Corporate Identification Sign.
 - 2) In no case shall a Wall Sign exceed a sign height of fifteen (15) feet or project above any cornice, roofline, parapet wall, or building façade.
- e. Instructional Signs
 - 1) Instructional Signs shall not exceed thirty (30) square feet in sign area or a sign height of six (6) feet.
 - 2) Instructional Signs may be illuminated but shall not blink, flash, or be animated.
- f. Directional Signs
 - 1) Shall not exceed four (4) square feet in sign area.
 - 2) Sign height shall not exceed three (3) feet.

- 3) Directional Signs may be illuminated but shall not blink, flash, or be animated.
- g. Real Estate Signs
- 1) Signs advertising the sale, rental or development of property or units shall not exceed twenty (20) square feet in area.
 - 2) Shall not exceed a sign height of six (6) feet.
 - 3) No more than one (1) real-estate sign shall be permitted on each street frontage.
 - 4) Shall be non-illuminated.
7. **Outdoor Dining** - shall be permitted as part of a restaurant, banquet facility, or an accessory dining facility, subject to the provisions of Section 280-115.3A of the Zoning Code.

Capacity Improvements Fee (to be incorporated into the Township's Subdivision Ordinance)

Current and future traffic to and from PLO zoned properties impacts traffic flow throughout the PLO zoning district area and beyond, ultimately affecting owners', employees', clients', and visitors' ease of access to PLO zoned properties. An applicant who chooses to develop under the Mixed Use Development option shall be obligated to pay a 'capacity improvements fee' of \$2.00 per square foot of gross floor area to be developed or occupied. Such fee will be deposited into a dedicated fund for capacity improvements within a travel area surrounding the PLO zoning district. Such travel area will include the following intersections as well as the roadways connecting them and any other intervening signalized intersections:

- Lancaster Avenue and the I-476 interchange
- Lancaster Avenue and King of Prussia Road
- Lancaster Avenue and Radnor-Chester Road
- King of Prussia Road and Radnor-Chester Road
- King of Prussia Road and Matsonford Road
- King of Prussia Road and Eagle Road

The funds deposited into the capacity improvements dedicated fund shall be used for traffic improvements at intersections and along roadways within the travel area delineated above as determined appropriate by Radnor Township.